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INTEC SBW Solid Sludge Surrogate Recipe and Validation

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Idaho Completion Project

Bechtel BWXT Idaho, LLC

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Idaho Falls, Idaho 83415

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ABSTRACT

A nonhazardous INTEC tank farm sludge surrogate that incorporated metathesis reactions to generate solids from solutions of known elements present in the radioactive INTEC tank farm sodium-bearing waste sludges was formulated. Elemental analyses, physical property analyses, and filtration testing were performed on waste surrogate and tank farm waste samples, and the results were compared. For testing physical systems associated with moving the tank farm solids, the surrogate described in this report is the best currently available choice. No other available surrogate exhibits the noted similarities in behavior to the sludges. The chemical morphology, particle size distribution, and settling and flow characteristics of the surrogate were similar to those exhibited by the waste sludges. Nonetheless, there is a difference in chemical makeup of the surrogate and the tank farm waste. If a chemical treatment process were to be evaluated for final treatment and disposition of the waste sludges, the surrogate synthesis process would likely require modification to yield a surrogate with a closer matching chemical composition.

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ACRONYMS

ACMM	Analytical Chemistry Methods Manual
BBWI	Bechtel BWXT Idaho, LLC
CH	contact-handled
CsIX	Cesium Ion Exchange
DOE	Department of Energy
EDF	Engineering Design File
FY	fiscal year
IHR	Independent Hazard Review
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
IRC	INEEL Research Center
LDUA	Light-Duty Utility Arm
NYC	North Yellowstone Complex
OD	outside diameter
PPS	polypropylene sulfide
PSD	particle size distribution
PVDF	polyvinylidene fluoride
RAL	Remote Analytical Laboratory
RCRA	Resource Conservation and Recovery Act
RH	remote-handled
S&CL	Standards and Calibration Laboratory
SBW	sodium-bearing waste
SRF	specific resistance off filtration
TDS	total dissolved solids
TRU	transuranic

UDS	undissolved solids
WIPP	Waste Isolation Pilot Plant

NOMENCLATURE

Physical Properties Nomenclature

a	acceleration
A	area
c	constant of proportionality, $cm^{-1}s^{-1}$
C	Corey shape factor
C_D	drag coefficient
D	diameter
D	shear rate, sec^{-1}
$\overline{D}$	mean value of the major and minor axis of particle
d	fall distance
D_a	major axis of particle
D_b	minor axis of particle
D_c	intermediate axis of particle
E	energy
F	force
F′	shear stress, $dynes/cm^2$
f′	yield value
F_D	drag force
g	acceleration due to gravity
I	immersed weight of particle
k	settling coefficient
m	mass
r	radius
Re	Reynold's number
U	fluid upthrust
V	Plate velocity

Cake Filtration Nomenclature

A	surface area of the filter medium (m^2)
C	mass of dry cake per unit volume of filtrate (kg/m^3)
k	cake permeability (m^2)
L	filter cake depth (m)
n	cake compressibility
p	pressure drop across the collected filter cake and filter medium (psi)
q	volumetric flow rate of the filtrate
q	instantaneous rate,d*v*/d*t* (m/sec)
q_{av}	average rate,*v/t* (m/sec)
R	total resistance in filtration (1/m)
R_c	cake resistance (1/m)
R_m	medium resistance (1/m)
t	the time since the start of filtration (sec)
v	filtrate volume collected at time *t* per unit area of filtration (m^3/m^2)
V	total liquid filtrate volume collected at time *t* (m^3)
w_c	total mass of dry cake solids per unit area of filter surface (kg/m^2)

Physical Property Greek Letters

τ	shear stress, Pa
μ	viscosity, poise
ρ_l	density of fluid (liquid)
ρ_s	density of particle (solid)
ω	fall velocity
ω_n	natural grains settling velocity
ω_s	disc settling velocity

Cake Filtration Greek Letters

α	specific resistance of filtration (m/kg)
α_0	initial specific resistance of filtration (m/kg)
α_{av}	average specific resistance of filtration (m/kg)
μ	liquid filtrate viscosity (kg/m·sec)

INTEC SBW Solid Sludge Surrogate Recipe and Validation

1. INTRODUCTION/BACKGROUND

As a consequence of reprocessing spent U.S. Government nuclear reactor fuel for over 40 years, The Department of Energy's (DOE's) Idaho National Engineering and Environmental Laboratory (INEEL) has generated a legacy of ~1,000,000 gallons of radioactive sodium-bearing waste (SBW). The waste is presently stored in three underground storage tanks at INEEL's Idaho Nuclear Technology and Engineering Center (INTEC). As a result of the tanks' noncompliance to the Environmental Protection Agency's Resource Conservation and Recovery Act (RCRA) requirements for compatible secondary containment, as well as the location of the tank waste above the Idaho Snake River Aquifer, various state and national regulatory bodies have negotiated with DOE to remove and successfully treat and dispose of this high profile waste inventory by 2012. Collectively, this milestone, as well as other critical legacy INEEL waste treatment and disposal milestones, is enforceable under a legally binding 1996 DOE/State of Idaho agreement.

Over the past ten years, DOE and its various contractors have investigated, tested, and evaluated a variety of treatment options (i.e., vitrification, calcination, direct solidification, actinide and fission product separation) for removing, immobilizing, and dispositioning the SBW. Current approaches include classifying this waste as "transuranic" (TRU) as opposed to "high level", and various legal and regulatory actions are ongoing by DOE to secure this TRU classification.

A determination that the SBW is transuranic would allow the waste to be disposed of at the DOE's Waste Isolation Pilot Plant (WIPP) site near Carlsbad, New Mexico. In anticipation of this classification, DOE's current contractor at the INEEL, Bechtel BWXT Idaho, LLC (BBWI), has conducted preliminary tests, systems engineering evaluations, and down-selection exercises to limit the pursued options to four treatment technologies. The final four technologies are presently as follows:

1. Use of an existing calciner to denitrite, volumetrically reduce, and solidify the waste, followed by the direct placement of the calcined solids in canisters for shipment to, and disposal at, WIPP as a remote-handled (RH)-TRU waste

2. Development, design, construction, and deployment of a new steam reformer to denitrite, volumetrically reduce, and solidify the waste, followed by the direct placement of the reformed solids in canisters for shipment to, and disposal at, WIPP as an RH-TRU waste

3. Development, design, construction, and deployment of a nonthermal, benign processing method using filtration and Cesium Ion Exchange (CsIX) to partition the SBW into a large volume of solidified, contact-handled (CH)-TRU waste and a small volume of RH-TRU waste. The large amount of CH waste and the smaller amount of RH waste would be packaged in canisters and shipped to WIPP for disposal.

4. Development, design, construction, and deployment of a direct evaporation method to substantially reduce the waste volume and inherently solidify, upon cooling, the evaporator residue for shipment to, and disposal at, WIPP as a RH-TRU waste.

To enable a final DOE decision, as well as support feasibility studies and conceptual design, BBWI developed a technology development plan outlining the risk-based issues associated with each of the four options as well as a development and testing strategy for addressing the risks.

All of the four candidate technologies will require an accurate and working knowledge of the SBW tank farm heel solids, since these solids make up approximately 2% of the total waste volume. The majority of the solids are concentrated in tank WM-187, where the solids volume percentage is approximately 5%. A high process failure risk has been associated with these solids, since they have been hard to simulate in the past and a precise and accurate solids surrogate is needed for development of many aspects of each of the four technologies.

This report describes collection of physical property data of an SBW tank farm waste sample and a metathesis-prepared SBW solids surrogate based on a formulation developed in fiscal year (FY)-03 (Janikowski 2003). Comparison of actual and simulated solids physical properties will provide a quantitative measure of how accurately the solids surrogate represents actual SBW tank waste. Following verification of similar surrogate and actual waste physical properties, the surrogate will be made available for use in associated heel solids transferring, mixing, and processing tests.

2. SURROGATE DEVELOPMENT AND PREPARATION

2.1 Rationale for Surrogate Development

The INTEC tank farm sludges are complex mixtures of unknowns. The sludges consist of small particles. The conditions under which the sludges were formed varied from tank to tank and there is a large variety of elements present in different concentrations between the tanks. Those conditions made duplicating the sludge a difficult and uncertain task. Early attempts to make surrogate sludges used the conventional method of mixing together commercially available solid chemicals and minerals so the final elemental composition would be similar to the waste sludges. The analytical results (elemental analysis, anion analysis, and particle size) from WM-182 and WM-183 were averaged to generate a target set of values for the surrogate. This “first generation” surrogate had a reasonably close elemental balance and particle size, but did not exhibit many of the other physical properties needed to adequately test control technologies that would be used later to move and treat the waste sludges.

A “second generation” surrogate was formulated that incorporated metathesis reactions to generate solids from solutions of known elements present in the waste sludges. Early analyses of the tank sludge did not identify any of the mineral matter, nor did they reveal the true nature of the particles. Subsequent analyses revealed some of the mineral matter and the nature of the particles, making it desirable to modify the solid surrogate formulation and method of preparation. At the time of this undertaking, only one sample of a waste sludge was available for analysis and comparison testing, that from WM-186. Analytical data collected from that sample was subsequently used to formulate a new surrogate.

One option for preparing a new surrogate was to use metathesis reactions in the laboratory, but under conditions similar to those in the tank farm tanks. Metathesis reactions in this scenario are those reactions that occur in aqueous solution between cations and anions, which result in the formation of solids (precipitates and suspended solids). The overall scheme was to (1) prepare an aqueous acidic solution of soluble compounds, and (2) to subsequently add solutions containing ions and compounds that when mixed with the first solution would cause solids to form. This approach was used to produce solid surrogate for several tests and was modified slightly between subsequent preparations.

Chemicals used in the preparation of the solid surrogate were chosen to:

1. Be representative of those present in the tank farm wastes

2. Contain no hazardous elements or compounds

3. Be nonhazardous in their final form

4. Be removed with rinsing prior to scale-up testing.

These conditions could not be met rigorously, since hazards are defined to minimal levels. However, the hazards were minimized as much as possible. As such, no hazardous metals were used, and the acids could be washed away after the solid surrogate was formed. There are hazards associated with some of the aluminum compounds formed, and the fine particle size of the surrogate presents a respiratory hazard when the material is dry. These hazards were unavoidable; the tank farm wastes have these chemicals/properties and they contribute significantly to the chemical and physical behavior of the wastes, as they similarly contribute to the chemical and physical properties of the surrogate.

2.2 Preparation of Solid Surrogate

The synthetic scheme to make a surrogate was based on the early analysis of a sample of WM-186 sludge and several assumptions, listed below.

1. WM-186 sludge would be representative of all the tank farm sludges. The analysis of the WM-186 sample would be representative of the entire contents of the tank and, thus, all the waste sludges from the tank farm tanks. Representative in this sense is a loosely defined term. The elemental composition of this sludge is not the same throughout the tank nor as any other sludge. Neither does it compare closely to a calculated average composition for all of the sludges. Rather, a surrogate made to approximate the composition of the WM-186 sludge using metathesis reactions would yield a product that would behave chemically and physically similar to any of the waste sludges under the performance tests that were to be conducted.

2. All of the major mineral components associated with the elements of interest (i.e., those contributing to the chemical and physical properties) in the waste sludges could be made by metathesis reactions in the lab; further, they would precipitate in a form comparable to the actual waste sludges. This is a very crude assumption in that the majority of elements present in the waste sludges were not incorporated into the surrogate, and the time of formation was short in comparison to the 30+ years the waste sludges were stored. Regardless, the assumption was that the major types of species would be made (e.g., silica in many of its hydrated forms would be made) and their behavior would be sufficiently similar to the waste sludges to allow for meaningful comparisons.

3. Most of the metals and non-nitrate anions would form insoluble mineral phases on a short time scale. Solubility products for the anticipated reactions were known in neutral aqueous solutions, but not in highly acidic solutions. This made the results quite tentative.

4. The resulting surrogate would have similar chemical formulation, chemical properties, and physical properties to the tank farm sludges. Despite the shortcomings of the assumptions, this approach offered a potentially better synthetic route to a surrogate than previous methods.

Technical and reagent grade chemicals were used to prepare the solid surrogate. They are shown in Table 2-1 with the approximate amount used to generate 2 kg of solid surrogate.

Three solutions were prepared with water added as necessary to dissolve the compounds. Solution 1 was mixed in a 12-L 3-neck round-bottom flask and heated to 50 ºC. Solutions 2 and 3 were simultaneously added to the round-bottom flask containing Solution 1, over a period ranging from 1/2 hour to 1 hour. The solution was stirred constantly using a magnetic stirrer while the additions were made.

Precipitates formed immediately, and stirring was discontinued upon complete addition of all chemicals to the round-bottom flask. The mixture was allowed to stand over night; after which, it was filtered under vacuum in a Buchner funnel using Whatman No. 42 filter paper. Portions of the solid surrogate were washed with a water rinse, or other solution, for subsequent analyses. The bulk of the material was not rinsed and was later used in the various physical tests reported herein.

Table 2-1. Solid surrogate makeup solutions.

	Chemical Added	Chemical Supplier	Amount added to make 2 kg solid surrogate (dry weight of surrogate basis)
Solution 1			
	$Al(NO_3)_3 \cdot 9H_2O$	Sigma-Aldrich 98+% ACS Reagent	1504 g
	$ZrO(NO_3)_2 \cdot H_2O$	Aldrich	243 g
	$Ca(NO_3)_2 \cdot 4H_2O$	Sigma-Aldrich 99% ACS Reagent	141 g
	$Fe(NO_3)_2 \cdot 9H_2O$	Aldrich 98+% ACS Reagent	141 g
	$Mn(NO_3)_2 \cdot H_2O$	Aldrich 98%	32 g
	$Mg(NO_3)_2 \cdot 6H_2O$	Aldrich 99% ACS Reagent	97 g
	$SnCl_2 \cdot 2H_2O$	Fisher Certified ACS	97 g
	NaF	C. P. Baker's Analyzed	10 g
	HNO_3 (70%)	Fisher ACS	825 mL
	Water	Tap water	up to ca. 3.5 L
Solution 2	27% SiO_2 in 14% NaOH	Aldrich	68 mL
Solution 3	H_2SO_4 (95 – 98 wt%)	Fisher Certified ACS Plus	2.4 mL
	H_3PO_4 (85 wt%)	Aldrich ACS Reagent	10.4 mL
	Water	Tap water	50 mL

2.3 Results and Discussion

The assumptions for making the surrogate described earlier were met to a limited degree individually, and to a greater degree overall. Table 2-2 shows the highest concentration element in the surrogate to be silicon. Further analyses revealed that it existed as silica. The washed sample from WM-186 had equal amounts of silicon and zirconium with an appreciable amount of aluminum. The WM-187 sample had primarily zirconium compounds with appreciable amounts of tin and titanium.

The metathesis reactions were largely incomplete under the acidic conditions. Silica was produced at a significantly higher concentration; the results of which are skewed due to the incomplete metathesis formation of other solids and, hence, less solid formation overall. Iron, tin, and to a lesser degree zirconium precipitated in relatively close concentration to the initial target. The aluminum, calcium, magnesium, and manganese precipitated in vastly lower concentrations than expected. These findings appear to exert little influence on the behavior of the surrogate and the formulation was not changed. However, there are several ways the surrogate synthesis could be changed to yield a surrogate with a chemical composition closer to the waste sludge, if a closer representation was required.

The composition of the surrogate could be changed by conducting the synthesis in slightly acidic or neutral solutions. Under these conditions, the metals would precipitate with behavior more characteristic of the known solubility products. The pH could be lowered later to influence mineral

Table 2-2. Analytical results for the surrogate and two samples of tank farm sludges.

Analyte	Solid Surrogate[a,b] (Water Washed, Dry)	WM-186[a] (Unwashed, Moisture as Received)	WM-186[a] (Water Washed, Dry)	WM-187[a] (Water Washed, Dry)
Aluminum	0.06 wt% ± 8%	2.24 wt%	5.7 wt%	0.3 wt%
Antimony		< 23 µg/g		
Arsenic		< 14 µg/g		
Barium		15 µg/g		299 µg/g
Beryllium		0.5µg/g		< 0.0171 µg/g
Cadmium		0.04 wt%		464 µg/g
Calcium	9.1(1) µg/g	0.47 wt%		< 35 µg/g
Cerium		< 27 µg/g		
Chromium		0.08 wt%		92.7 µg/g
Cobalt		< 4.9 µg/g		
Copper		0.02 wt%		4.66 µg/g
Gadolinium		14 µg/g		23.9 µg/g
Iron	0.10 wt% ± 4.3%	0.39 wt%	1.03 wt%	0.57 wt%
Lead		0.03 wt%		62.0 µg/g
Magnesium	3(1) µg/g	0.17 wt%		
Manganese	1.6(1) µg/g	0.19 wt%		35.6 µg/g
Molybdenum		0.01 wt%		0.366 wt%
Nickel		0.05 wt%		20.0 µg/g
Niobium		0.03 wt%		0.374 wt%
Oxygen			60 wt%	
Palladium		0.02 wt%		118 µg/g
Phosphorous		2.40 wt%	9.5 wt%	
Ruthenium		< 15 µg/g		

Table 2-2. (continued).

Analyte	Solid Surrogate[a,b] (Water Washed, Dry)	WM-186[a] (Unwashed, Moisture as Received)	WM-186[a] (Water Washed, Dry)	WM-187[a] (Water Washed, Dry)
Selenium		< 23 µg/g		
Silicon	29 wt% ± 10%	2.13 wt%	10.7 wt%	
Silver		0.04 wt%		3.51 µg/g
Strontium		13 µg/g		
Sulfur		0.5 wt%		
Thallium		< 19 µg/g		
Tin	0.27 wt% ± 7%	0.1 wt%		1.68 wt%
Titanium		0.05 wt%		2.41 wt%
Uranium		0.02 wt%		
Vanadium		< 5µg/g		
Zinc		0.01 wt%		35.6 µg/g
Zirconium	0.34 wt% ± 13%	1.92 wt%	10.8 wt%	26.1 wt%
Mercury		< 1.3µg/g		426 µg/g
Sodium	47(3) µg/g	5.28 wt%	0.64 wt%	910 µg/g
Potassium	35(1) µg/g	1.63 wt%	0.9 wt%	0.32 wt%
Cesium		< 1.1µg/g		6.95 µg/g
^{60}Co		85.6 ± 7.3 nC/g		
^{134}Cs		112 ± 10 nC/g		
^{137}Cs		90.9 ± 2.6 C/g		
^{154}Eu		228 ± 33 nC/g		
^{94}Nb		27.7 ± 2.1 nC/g		
^{125}Sb		297 ± 18 nC/g		
^{241}Am		4.04E+03 ± 4.0E+02 d/s/g		

Table 2-2. (continued).

Analyte	Solid Surrogate[a,b] (Water Washed, Dry)	WM-186[a] (Unwashed, Moisture as Received)	WM-186[a] (Water Washed, Dry)	WM-187[a] (Water Washed, Dry)
^{237}Np		32.1 ± 4.8 d/s/g		1.10 µg/g
TOTAL Sr		1.83E+05 ± 2.7E+04 d/s/g		
^{234}U		108 ± 2.91d/s/g		
^{235}U		10.4 ± 6.14 d/s/g		
^{236}U		12.3 ± 6.46 d/s/g		
^{238}U		5.59 ± 7.40 d/s/g		35.4 µg/g
^{238}Pu		1.62E+05 ± 1.5E+04 d/s/g		61.4 µg/g
^{239}Pu		2.71E+04 ± 2.6E+03 d/s/g		
^{242}Cm		3.19 ± 2.10 d/s/g		
^{244}Cm		34.5 ± 8.93 d/s/g		
^{3}H		171 ± 23 d/s/g		
B		0.02 wt%		0.14 wt%
Li		6 µg/g		< 25 µg/g
F		0.06 wt%	190 µg/g	0.110 wt%
Cl		0.16 wt%	0.06 µg/g	0.268 wt%
Phosphate		5.52 wt%	33 wt%	33.1 wt%
Nitrate		24.6 wt%	< 50 µg/g	0.186 wt%
Sulfate		1.4 wt%	2.43 wt%	1.12 wt%
Total mass %, not including anions	30 wt%	18 wt% (7% is Na & K)	30 wt%	33 wt%

a. Values of significance are listed in the center of the columns for ease of comparison, while those of less significance are listed to the right of the respective columns.

b. Uncertainties in wt% are expressed as relative errors. Uncertainties presented in parentheses indicate the absolute error in the last digit.

formation characteristic of the highly acidic waste sludges. This is a plausible synthesis scheme and reflects the actual historic conditions of the tanks. Many acidic solutions were discharged directly into the tanks, but other solutions of near-neutral pH were pumped into the tanks during cleanup activities, where large relative volumes of rinse water accompanied the contaminants. Subsequent evaporation/concentration of the supernatant resulted in the characteristic highly acidic solutions that the sludges sat in for years.

3. PHYSICAL PROPERTIES

3.1 Strategy

The objective of the testing described in this report is to provide measurement of physical properties of the metathesis-prepared SBW surrogate and the solid waste heel sample collected from INTEC tank WM-187 for purposes of comparison. In this document, slurry is defined as a mixture comprised of a solid and a liquid phase. The liquid phase may contain suspended or dissolved solids. Solid phase material with only interstitial liquid present (no free liquid) is referred to as sludge.

According to Heywood (Heywood 1999), the first stage in developing a slurry handling system is to measure the relevant physical properties of the slurry. Variables Heywood recommends measuring at the laboratory scale include:

- Flow curve (viscosity as function of shear rate)
- Slurry density
- Slurry solids content
- Particle size/size distribution
- Settling rates.

Heywood recommends performing these analyses on the best available representative sample of the slurry as well as on samples with varying formulations (higher than average solids concentration, shifts in particle size distribution, etc.) to provide data needed to design the slurry handling system (transfer, mixing, etc.) such that it can manage unexpected changes in process feed or process operating conditions.

Selected physical property measurements suggested by Heywood were performed on the waste surrogate and WM-187 waste samples. In addition to the slurry flow curve, flow curves for the liquid and sludge phases were obtained. The bulk density of the liquid, wet sludge (sludge with interstitial liquid), and dried sludge (interstitial liquid evaporated) was measured. The moisture percentage of the settled sludge phase was determined. Additionally, waste surrogate and waste sample pH analyses were performed. Methods and equipment used in these analyses are described in Section 3.2.

Only one rheometer was available for waste surrogate and WM-187 waste sample flow curve analysis. In order to collect WM-187 waste sample flow curve data, the viscometer had to be transferred to the INTEC Remote Analytical Laboratory (RAL). Since equipment placed in the RAL is immediately contaminated, all waste surrogate flow curve measurements had to be completed prior to performing the first WM-187 waste sample analysis in the RAL. In order to increase the probability of finding a waste surrogate with similar flow curve properties to the WM-187 waste sample, a range of differently prepared surrogates was tested prior to recording any WM-187 waste sample flow curve data. Waste surrogate and WM-187 waste sample flow curves with similar profiles are compared in Section 3.4.2.1. Flow curve measurements for each sample were repeated until the flow curve profile ceased changing to ensure data integrity and complete thixotropy measurement. Complete flow curve data is included in Appendix E of this report (grayed-out flow curve data in Appendix E represent data outside of the operating tolerances of the rheometer and are included for reference only).

3.2 Apparatus

3.2.1 Particle Size Distribution

3.2.1.1 SBW Surrogate. SBW solids surrogate sample particle size distribution analysis was performed using a Microtrac FRA particle size distribution (PSD) analyzer. Samples for select physical property analyses (flow curve, settling velocity, PSD) were sonicated with a Fisher Scientific Model 500 sonic dismembrator probe prior to analysis. The samples were circulated through the sonication chamber and an external cold water bath using a Cole Parmer Masterflex Model L/S peristaltic pump to prevent excessive sample heating during sonication.

Figure 3-1 is a photograph of the Fisher Scientific Model 500 sonic dismembrator. The sonication probe protrudes through the top of the soundproof enclosure. The stir plate and scissor lift in the bottom of the soundproof enclosure were used to stir the sample to ensure uniform particle sonication and elevate the sample to a level where it was in contact with the sonication probe, respectively.

Figure 3-2 is a photograph of the Microtrac FRA particle size distribution analyzer.

Figure 3-1. Fisher Scientific Model 500 sonic dismembrator, soundproof enclosure, stir plate, and scissor lift.

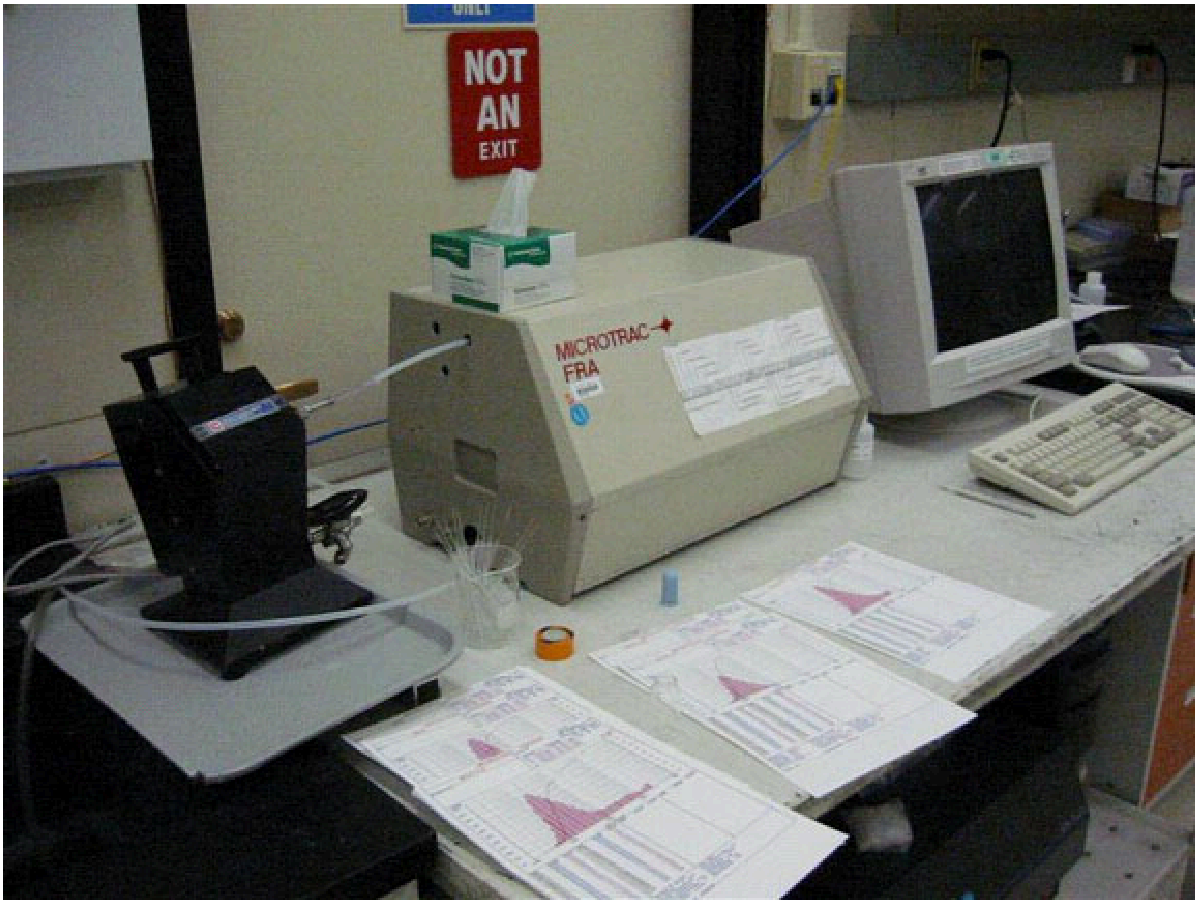


Figure 3-2. Microtrac FRA particle size distribution analyzer.

3.2.1.2 Tank Farm Sample. The first WM-187 sample (containing WM-182 and WM-183 solids) was analyzed with a Horiba LA-300 particle size analyzer. This was done in the RAL hot cell. Both nonsonicated and sonicated results were obtained.

3.2.2 Flow Curve

3.2.2.1 SBW Surrogate. A Brookfield Engineering R/S rheometer (INEEL Standards and Calibration Laboratory (S&CL) ID# 721776, expiration 01/20/05) with a Brookfield Engineering FTKY water jacket and PT-100 temperature probe was used to record sample flow curves. A Julabo F25 circulating constant temperature bath with a Julabo MD control unit was plumbed to the rheometer water jacket and used to control the sample temperature. The rheometer and circulating constant temperature bath were placed on one of the stainless steel workbenches located in the North Yellowstone Complex (NYC) Laboratory secondary containment area. A localized ventilation system air evacuation port was placed in close proximity to the rheometer sample measuring chamber to vent fumes emitted by the surrogate samples. A computer workstation with Brookfield RHEO 2000 control and data analysis software was positioned immediately outside the spill containment area. Communications between the R/S rheometer and computer workstation were transmitted via a vendor-supplied RS-232 data cable.

The R/S rheometer is depicted in Figure 3-3 with the FTKY water jacket, MB-45/48F measuring chamber, and CC-45 spindle installed. Note also the temperature probe and heat transfer fluid tubing (bottom port is heat transfer fluid inlet, top port is heat transfer fluid outlet) connected to the right-hand side of the water jacket.

Figure 3-3. R/S rheometer, FTKY water jacket, MB-45/48F measuring chamber, and CC-45 spindle.

Detailed views of the R/S rheometer hardware accessories are shown in Figure 3-4 through Figure 3-9. Figure 3-4 is a photograph of the CC-DG (“Double Gap”), CC-48 (48 mm spindle outside diameter [OD]), and CC-45 (45 mm spindle OD) spindles. The CC-DG spindle is hollow and open on the bottom end while the CC-48 and CC-45 spindles are solid. The CC-48 and CC-45 spindles are used with the MB-45/48F measuring chamber and the CC-DG spindle is used with the MB-DGF measuring chamber. The MB-45/48F and MB-DGF measuring chambers are shown in Figure 3-5. When using the MB-45/48F measuring chamber, the sample is placed into the chamber and the spindle is immersed in the sample. When using the MB-DGF measuring chamber, the sample is placed in the annular gap between the measuring chamber outer and inner concentric cylinders and the hollow, cylindrical CC-DG spindle is then inserted into the annular gap with the sample.

Figure 3-6 and Figure 3-7 are photographs of the MB-45/48F measuring cup and CC-45 spindle pairing, and MB-DGF and CC-DG spindle pairing, respectively. The two fittings at the base of the MB-DGF measuring chamber are ports through which heat transfer fluid can circulate (through the inner concentric cylinder of the measuring chamber to provide sample temperature control). Figure 3-8 and Figure 3-9 are top views showing the volume occupied by the sample in the MB-45/48F and MB-DGF measuring chambers, respectively. In the MB-45/48F measuring chamber, the sample occupies the full cylindrical volume inside the measuring chamber while in the MB-DGF measuring chamber, the sample occupies only the annular gap between the inner and outer concentric cylinders.

Figure 3-4. CC-DG, CC-48, and CC-45 spindles.

Figure 3-5. MB-45/48F and MB-DGF measuring chambers.

Figure 3-6. MB-45/48F measuring cup and CC-45 spindle.

Figure 3-7. MB-DGF measuring system and CC-DG spindle.

Figure 3-8. MB-45/48F measuring chamber, top view.

Figure 3-9. MB-DGF measuring chamber, top view.

Figure 3-10 through Figure 3-12 illustrate the steps required to properly assemble the water jacket, measuring chamber, and spindle onto the R/S rheometer base unit. In Figure 3-10, the spindle attachment fitting collar is raised to the "open" position to allow insertion of the spindle base (note the red painted ring around the rheometer hub). The measuring chamber is inserted into the base of the water jacket and secured with a threaded plastic support (step not shown). The required volume of the sample to be analyzed is then added to the measuring chamber (step not shown). Once the sample has been added to the measuring chamber, the spindle is carefully immersed in the sample (step not shown). The water jacket, measuring chamber, spindle, and sample assembly are secured to the R/S rheometer by threading the connecting collar on the water jacket to the threaded support structure on the rheometer base as shown in Figure 3-11. The spindle is secured by inserting the spindle base into the rheometer hub and sliding the spindle attachment fitting collar down into the "closed" position as shown in Figure 3-12.

3.2.2.2 Tank Farm SBW Sample. Prior to placing the Brookfield R/S rheometer into the INTEC RAL hot cell, several modifications to the rheometer hardware accessories were required to allow operating of the instrument with the hot cell mechanical manipulators. No circulating constant temperature bath is available in the hot cell, so inclusion of the FTKY water jacket in the experimental setup would have been superfluous. In addition, the FTKY water jacket was too large in diameter for the hot cell mechanical manipulators to grip. Modifications enabling direct connection of the MB-45/48F and MB-DGF measuring chambers to the R/S rheometer threaded support structure were completed. The modifications consisted of adding exterior support pins to the MB-45/48F and MB-DGF measuring chambers (see Figure 3-13 and Figure 3-14) and constructing an adapter (see Figure 3-15) to connect the measuring chambers to the rheometer threaded support structure. Additionally, fabrication of a spindle attachment collar tool (see Figure 3-16) was required to allow raising and lowering the collar using the mechanical manipulators. The R/S rheometer was connected to a computer workstation with the RHEO 2000 measuring/analysis software located outside of the hot cell using a RS-232 data cable that passed through the hot cell wall.

Figure 3-10. Assembly Step 1.

Figure 3-11. Assembly Step 2.

Figure 3-12. Assembly Step 3.

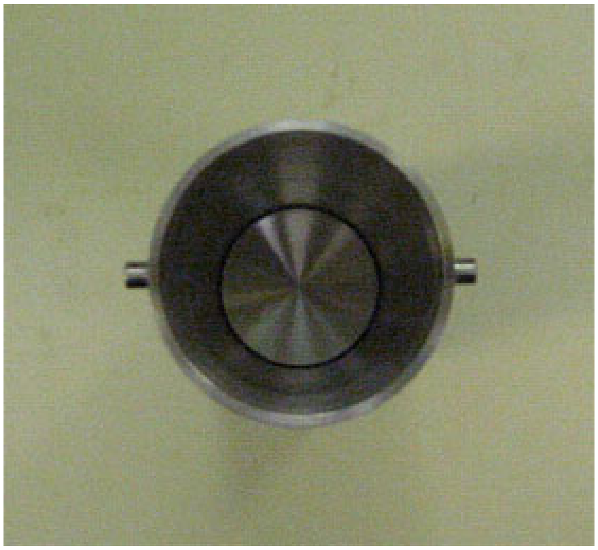


Figure 3-13. MB-45/48F machine shop hot cell modification top view.

Figure 3-14. MB-DGF machine shop hot cell modification top view.

Figure 3-15. Adapter collar machine shop hot cell modifications.

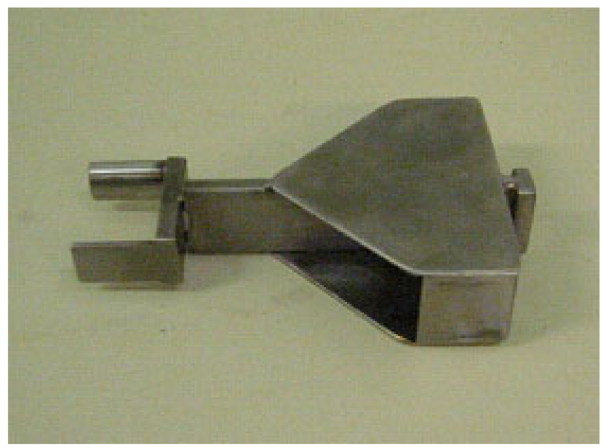


Figure 3-16. Manipulator spindle attachment tool.

Each rheometer measuring chamber and spindle pairing requires the adding of a specific volume of sample to the measuring chamber to bring the sample level to the measuring chamber fill line. Once the correct sample volume has been added to the measuring chamber, the spindle and measuring chamber were sequentially connected to the rheometer.

3.2.3 Settling Velocity

3.2.3.1 SBW Surrogate. Settling velocity was determined by measuring the solid-liquid interface position of a constant volume slurry sample in a glass settling chamber as a function of time. Glass settling chambers with two diameters were used. The first settling chamber was a 100-mL graduated glass burette with a 14.3-mm inner diameter modified by the INEEL glass shop to have a sealed, flat bottom rather than a stopcock. A stand capable of holding two of the 100-mL graduate glass burettes was constructed. The second settling chamber was a 250-mL glass graduated cylinder with a 31.8 mm inner diameter. Each of the settling chambers had a stopper that was used to seal the vessel during the experimental phase to prevent evaporation of the slurry sample.

Figure 3-17 is a photograph of the settling velocity apparatus. The settling chambers of the same volume contain different slurry samples in these photographs. Note the settled solids and liquid supernate interface in each settling chamber and the difference in interface position between the two 100-mL settling chambers and the two 250–mL settling chambers.

3.2.3.2 Tank Farm Sample. A small apparatus similar to that shown in Figure 3-17 was used to determine settling velocity for the WM-187 samples. A 250-mL graduated cylinder was also used to determine the settling velocity. An "as received" tank farm waste sample was mixed and poured into the settling apparatus and allowed to settle. Times were noted as settling occurred.

3.2.4 Solids Weight Percentage

3.2.4.1 SBW Surrogate. Surrogate solids weight percentage was determined by drying slurry surrogate samples to constant mass. 120-mL evaporating dishes were weighed using a Mettler Toledo AB204-S analytical balance (INEEL S&CL ID# 716971, expiration 01/26/05) with four-place decimal accuracy. Approximately 60 mL of sample was placed in a dry evaporating dish and weighed. The samples were then placed in a Fisher Scientific Isotemp 500 Series drying oven set at approximately 105°C and weighed on a daily basis. When the sample weight ceased changing between weight measurements, the drying operation was stopped and the results were recorded.

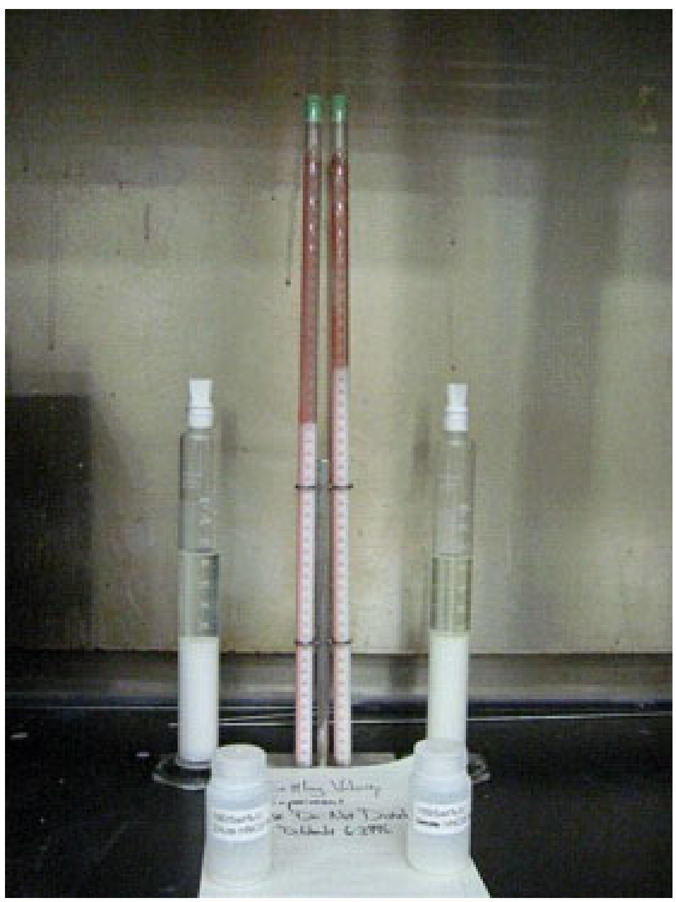


Figure 3-17. Settling Velocity Apparatus.

Tank Farm SBW Sample. Tank farm waste sample solids weight percentage was determined using the same sample drying method used for determining surrogate solids weight percentage. The tank farm sample weight percentage analysis was performed at the INTEC RAL hot cell. Evaporating dishes were fabricated by the INEEL glass shop by cutting the base off 125-mL glass Erlenmeyer flasks. The tare mass of each glass evaporating dish was recorded and written on each dish. The evaporating dishes were then placed in the RAL hot cell, filled with approximately 20 mL of sample, and the wet mass was recorded using a Mettler Toledo balance (INEEL S&CL ID# 714070, expiration 03/08/05). The samples were then placed in a drying oven set at approximately 100°C and dried for several days. When the sample mass stabilized between readings, the drying operation was stopped and the results were recorded.

3.2.5 Bulk Density

3.2.5.1 SBW Surrogate. Bulk density was determined by measuring the mass and volume of the various slurry samples. Sludge, liquid, and slurry samples were placed in a graduated cylinder of a known mass and the sample mass and volume were recorded. The graduated cylinders and samples were weighed using a Mettler Toledo AB204-S analytical balance (INEEL S&CL ID# 716971, expiration 01/26/05) with four place decimal accuracy. The graduated cylinders used in the analysis had 25 and 50 mL capacities.

3.2.5.2 Tank Farm SBW Sample. The sample used for bulk density was the third sample from the WM-187 tank. This is the first sample taken after solids from the following tanks were added to WM-187: WM-181, WM-182, WM-183, WM-184, WM-185, and WM-186. These sampled solids are dark gray to black in color. They suspend easily when stirred or shaken. Drying and then resuspending the sampled solids? in water took a significant amount of shaking and mixing. Bulk density was determined by measuring the mass and volume of a washed and dried slurry sample. The bulk density analysis was performed in the RAL hot cell. An “as received” sample was placed in a 40-mL centrifuge tube and allowed to settle over night. As much of the liquid as possible was removed with a plastic transfer pipette after a day of settling. The solids were then washed twice with water and centrifuged after each wash. The remaining solids were then air dried. A mass was obtained using a Mettler PM1200 balance in the hot cell. A volume was read off the centrifuge tube and the density was calculated.

3.3 Materials

3.3.1 SBW Solids Surrogate

The SBW solids surrogate was prepared by INEEL chemist S. K. Janikowski using a metathesis formulation procedure. Two separate batches of the SBW solids surrogate were used in physical properties testing. The first batch consisted of surrogate prepared in FY-03 for testing in the Fundabac filtration process. A significant mass of the FY-03 SBW solids surrogate remained following completion of Fundabac filtration process testing. The unused FY-03 SBW solids surrogate was acquired for physical property analysis. The second batch of SBW solids surrogate was prepared in FY-04 specifically for physical and chemical properties analysis. The two surrogate batches differed in preparation in that the FY-03 batch was dried and mixed with WM-187 liquid surrogate in a 10 solids wt % solution in preparation for Fundabac filtration testing. The FY-04 SBW solids surrogate batch was not dried and, following formulation, was retained in the metathesis mother liquor. Details of sample preparation activities are discussed in the following sections.

Metathesis-prepared SBW solids surrogate samples were given sample identity tags. The tags, which were placed on each sample bottle immediately after sample collection, specify the sample liquid surrogate, solids weight percentage, metathesis-prepared SBW solids origination batch, and sonication history. The tag format is as follows:

[liquid] / [solids wt %] / [solids batch] / [sonication].

Table 3-1 provides a complete listing of the sample composition/preparation classification categories in each unit of the sample identity tag.

Table 3-1. SBW solids surrogate identity tag format.

[Liquid]	[Solids Wt %]	[Solids Batch]	[Sonication]
180	0 wt%	D = dried	N = nonsonicated
187	5 wt%	U = undried	S = sonicated
189	10 wt%		
META	15 wt%		
	20 wt%		
	AR = as received		

3.3.1.1 Dried Metathesis-Prepared SBW Solid Surrogate Preparation. "Dried metathesis-prepared SBW solid surrogate" refers to the SBW solids surrogate initially used in FY-03 Fundabac filtration process testing. The FY-03 SBW solids surrogate was formulated using the metathesis preparation method of Janikowski. A 10 solids wt % SBW -surrogate slurry was required for Fundabac filtration process testing. The solids produced by the metathesis preparation procedure were blended with liquid to the required slurry solids weight percentage via vacuum filtration and oven drying of the solids, followed by mixing with the requisite mass of WM-187 liquid surrogate. Approximately 12 L of 10 solids wt % FY-03 SBW surrogate remained following completion of the Fundabac filtration process testing. The SBW surrogate slurry was allowed to settle for approximately six weeks before samples were collected for physical and chemical property analysis.

It was determined that Fundabac filtration testing may have altered the slurry solids wt % from the original 10 solids weight percentage mix. Additionally, physical property testing required slurries ranging from 5 to 20 solids wt %. Therefore, the FY-03 dried metathesis-prepared SBW solid surrogate slurry was separated into liquid and sludge fractions, each fraction was analyzed for solids weight percentage, and the fractions were recombined into 5 and 20-wt % slurries.

The liquid fraction of the residual, settled filtration surrogate was collected from the 20-L storage carboy via decanting the clear WM-187 liquid surrogate into 4-L Nalgene sample bottles. Approximately 8 L of WM-187 liquid surrogate were collected. The solids remaining in the bottom of the 20-L storage carboy had formed an agglomerated layer that would not pour from the carboy. Relatively vigorous shaking and pounding against the carboy walls was required to loosen the solids cake. After the solids were broken apart and freed from the carboy interior walls, they were scooped into a 4-L Nalgene sample bottle.

The wet solids were then filtered to remove any free liquid and stored in an airtight 4-L Nalgene bottle to prevent additional drying. During filtration, it was observed that the FY-03 SBW solids surrogate settled at a rapid rate and the solids were primarily in the form of coarse, brittle agglomerates. A sample of the wet solids was placed in a drying oven and allowed to dry at 110°C for several days until no further weight loss was recorded between sample weight measurements. The moisture content of the wet solids, determined by weight loss of the sample during the drying operation, was determined to be 43 wt % liquid (57 solids wt %).

The mass of WM-187 liquid surrogate and 57 solids wt % FY-03 SBW solids surrogate required to make 5 and 20 solids wt % slurries was determined. Seven 100-mL samples of 5 solids wt % slurry and five 100-mL samples of 20 solids wt % slurry were then prepared from the WM-187 liquid surrogate and wet FY-03 SBW solids surrogate. Additionally, three 120-mL samples of WM-187 liquid surrogate were collected.

Particle size distributions of the 187/5wt%/D/N and 187/20 wt%/D/N samples were measured. A PSD plot of the nonsonicated samples is presented in Figure 3-18. A summary of the dried metathesis-prepared SBW solids surrogate nonsonicated sample mean particle sizes is provided in Table 3-2.

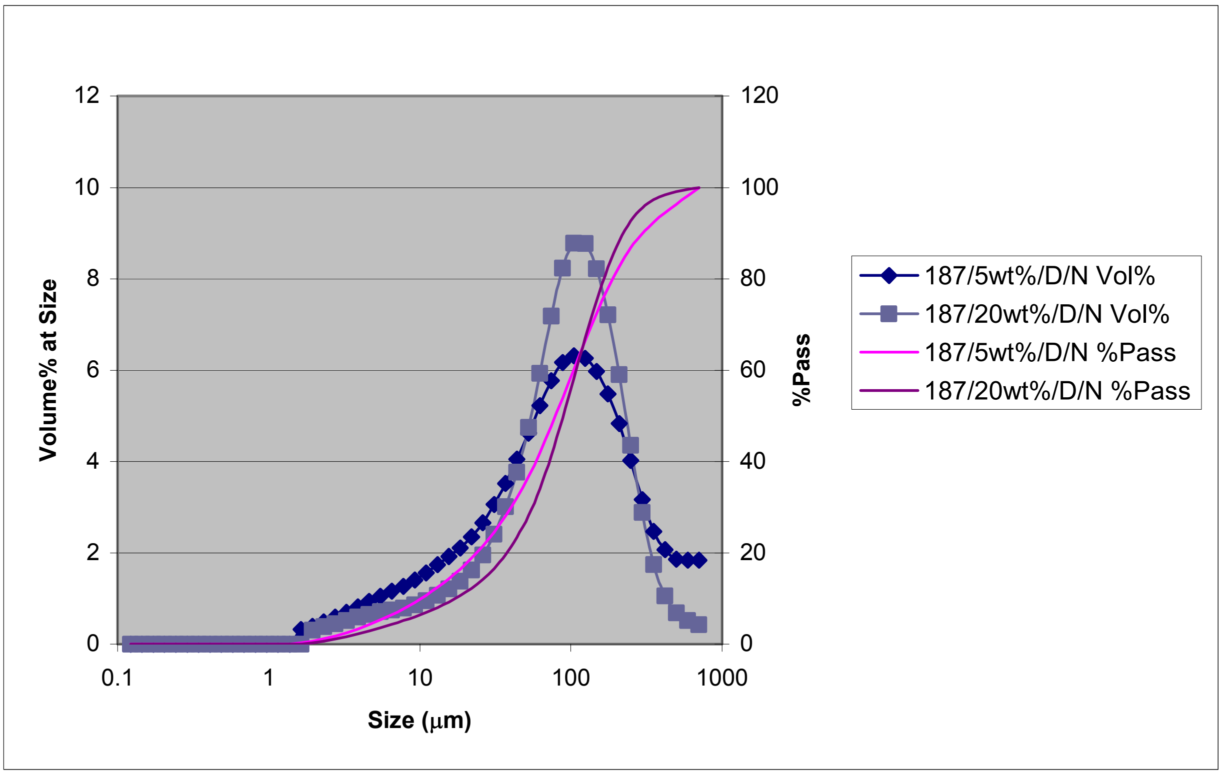


Figure 3-18. 187/5wt%/D/U and 187/20wt%/D/U particle size distributions.

Table 3-2. Dried metathesis-prepared SBW solids surrogate samples and associated mean particle size.

Sample Identity Tag	Nonsonicated Sample Mean Particle Size (μm)	Sonicated Sample Mean Particle Size (μm)
187 / 5wt% / D	123.8	21.5
187 / 20wt% / D	110.7	21.7

The dried metathesis-prepared SBW solids surrogate samples were sonicated to decrease the particle size distributions in the samples and make the sample PSDs more closely resemble the PSDs of the actual SBW tank farm waste samples. The particle size distribution data presented in "Feed Composition for the Sodium-Bearing Waste Treatment Process, Rev. 2" (Barnes and Millet 2003) indicates that previous tank farm samples have PSD peak values ranging from approximately 10 to 50 microns (see Figure 3-19). The metathesis-prepared SBW solids surrogate samples were sonicated until a particle size distribution with a mean value in the range of 15 to 20 microns was achieved. A plot of the sonicated sample PSDs is shown in Figure 3-20. A summary of the dried metathesis-prepared SBW solids surrogate sonicated sample mean particle sizes is provided in Table 3-2.

3.3.1.2 Undried Metathesis-Prepared SBW Solid Surrogate Preparation. "Undried metathesis-prepared SBW solid surrogate" refers to the SBW solids surrogate prepared for FY-04 surrogate physical properties analysis. The FY-04 SBW solids surrogate was formulated using the metathesis preparation method of INEEL chemist S. K. Janikowski. The quantity of chemicals used for synthesis of the FY-04 SBW solids surrogate was selected to yield a mass of two kilograms of SBW solids surrogate.

Following SBW solids surrogate formulation, the surrogate solids and mother liquor were transferred to a 20-L tank. A Cole-Parmer Stir Pak variable speed mixer with 3–in. propeller was used to suspend the precipitated SBW solids surrogate in the mother liquor so that the solids and liquid were evenly distributed throughout the tank. Seven "as received" surrogate samples, designated META/AR/U/N, were drawn from a spigot in the bottom of the 20-L tank.

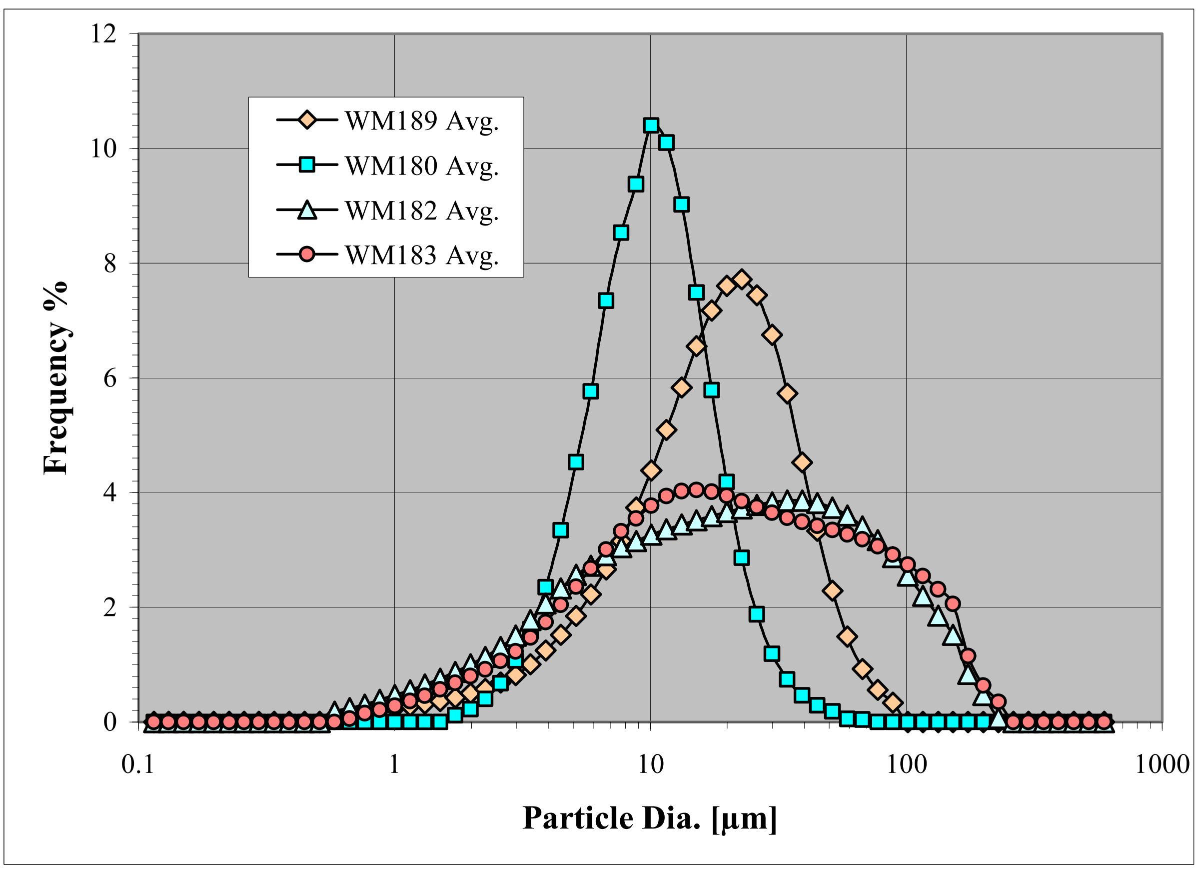


Figure 3-19. Comparison of WM-189, WM-180, WM-182, and WM-183 solids particle size distribution analysis under nonsonicated condition.

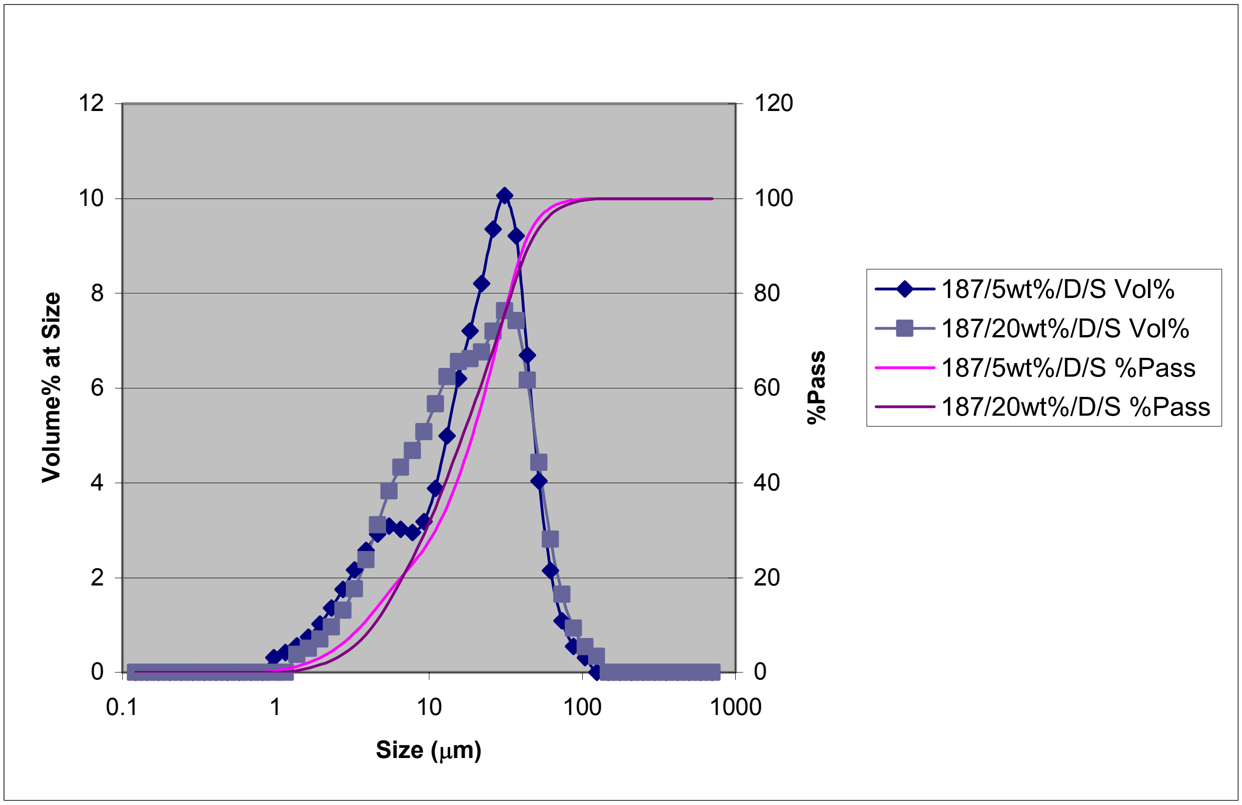


Figure 3-20. 187/5wt%/D/S and 187/20wt%/D/S particle size distributions.

Following collection of the "as received" SBW solids surrogate samples, the FY-04 solids were centrifuged to separate the solids from the mother liquor supernate. The centrifugation was performed at 5,000 RPM for 5 minutes per batch in a Du Pont Instruments Sorvall RC-5B centrifuge with a 3-L-capacity Sorvall SLA-3000 Super-lite rotor. Centrifugation yielded approximately 2 L of wet FY-04 SBW solids surrogate. The wet solids had a granular texture with a pasty consistency following centrifugation. The solids did not flow from the centrifuge tubes under the force of gravity. Samples of the liquid, designated META/0wt%, were collected for analysis. The remaining liquid was set aside for use in mixing various solids weight percentage slurries at a later point in time.

A sample of the wet FY-04 SBW solids was placed in a drying oven operating at approximately 110°C and allowed to dry for several days until no further weight loss was recorded between sample weight measurements. The moisture content of the wet solids, determined by weight loss of the sample during the drying operation, was determined to be 77 wt %, or 23 solids wt %.

Nonhazardous WM-180 and WM-189 liquid surrogates were prepared for use in mixing slurries with different solids weight percentages and liquid phase chemical compositions. The WM-180 and WM-189 liquid surrogates were prepared according to the "Procedure for Preparing NonHazardous Sodium-Bearing Waste Surrogates" included in Appendix C.

The mass of wet FY-04 SBW solids surrogate and the various liquid surrogates required to make 5, 10, 15, and 20 solids weight percentage slurries was determined. The metathesis mother liquor, WM-180, and WM-189 liquid surrogates were mixed with the mass of wet FY-04 SBW solids surrogate calculated to produce the 5 solids weight percent slurry samples META/5wt%/U/N, 180/5wt%/U/N, and 189/5wt%/U/N, respectively. The metathesis mother liquor was mixed with the mass of wet FY-04 SBW solids surrogate calculated to produce the 10 and 15 weight percentage slurry samples META/10wt%/U/N and META/15wt%/U/N, respectively. Samples of the wet (23 solids weight percentage) FY-04 SBW solids surrogate were collected without addition of any of the liquid surrogates to produce the META/20wt%/U/N samples.

Particle size distribution plots for the nonsonicated 5 solids weight percentage slurries are presented in Figure 3-21. Particle size distributions for the nonsonicated 5, 10, and 20 solids weight percentage metathesis mother liquor slurries are presented in Figure 3-22. A summary of the undried metathesis-prepared SBW solids surrogate nonsonicated sample mean particle sizes is provided in Table 3-3.

As in the case of the dried metathesis-prepared SBW solids surrogate samples, the undried metathesis-prepared SBW solids samples were sonicated to decrease the particle size distributions and make the sample PSDs more closely resemble the PSDs of the actual SBW tank farm waste samples. The metathesis-prepared SBW solids surrogate samples were sonicated until particle size distributions with mean values in the range of 15 to 20 microns were achieved. This particle size mean value range was established to emulate the tank farm SBW sample PSD data presented in Barnes and Millet, 2003 (see Figure 3-19).

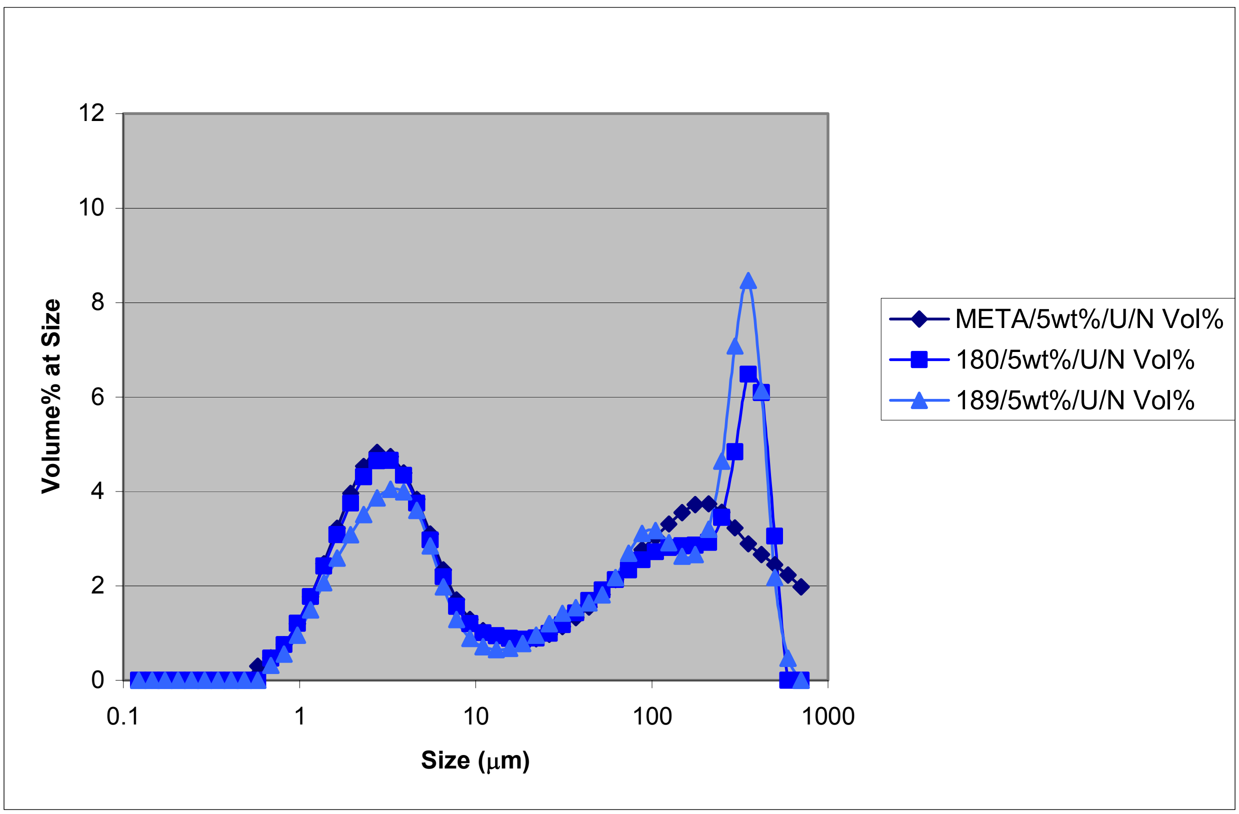


Figure 3-21. 180/5wt%/U/N, 189/5wt%/U/N, and META/5wt%/U/N sample particle size distributions.

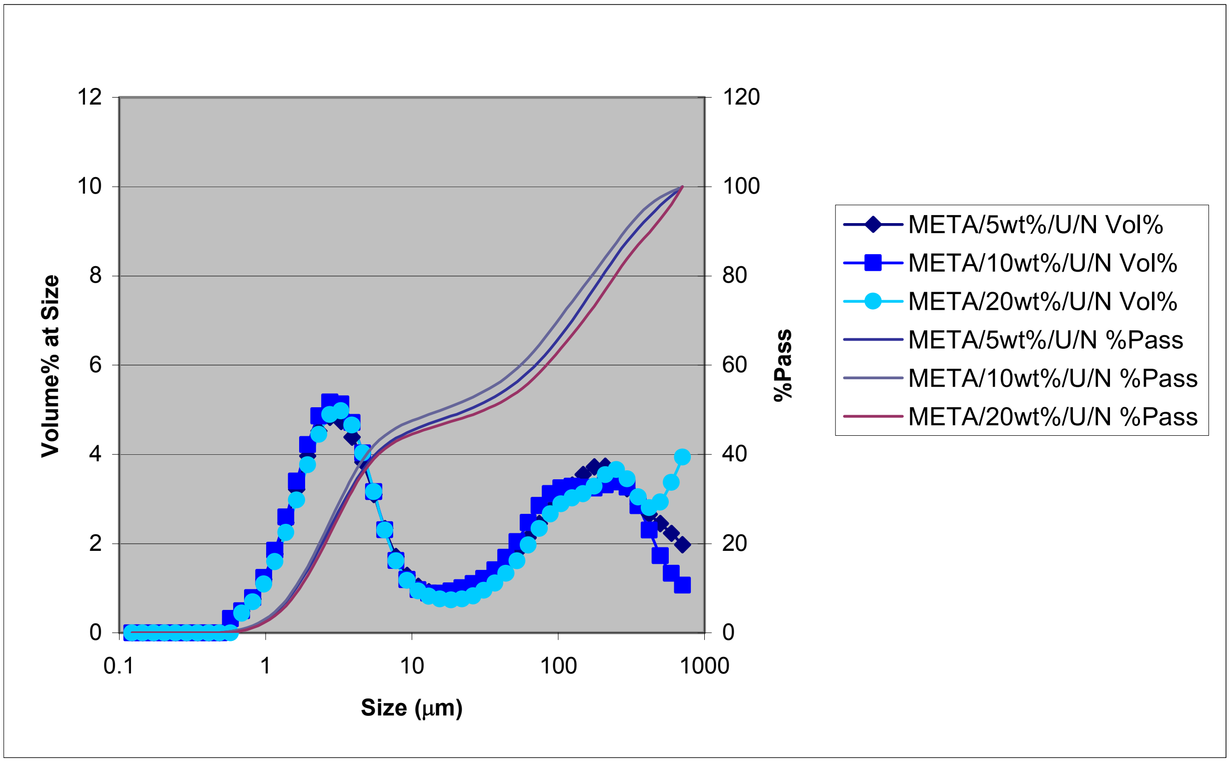


Figure 3-22. META/5wt%/U/N, META/10wt%/U/N, and META/20wt%/U/N sample particle size distributions

Table 3-3. Undried metathesis-prepared SBW solids surrogate samples and associated mean particle size.

Sample Identity Tag	Nonsonicated Sample Mean Particle Size (µm)	Sonicated Sample Mean Particle Size (µm)
META / AR / U	85.2	19.7
META / 5wt% / U	106.8	19.4
180 / 5wt% / U	108.6	15.0
189 / 5wt% / U	123.5	16.1
META / 10wt% / U	90.2	21.1
META / 15wt% / U	not available	19.5
META / 20wt% / U	127.0	21.0

Particle size distribution plots for the sonicated 5 solids weight percentage slurries are presented in Figure 3-23. Particle size distributions for the sonicated 5, 10, 15, and 20 solids weight percentage metathesis mother liquor slurries are presented in Figure 3-24. A summary of the undried metathesis-prepared SBW solids surrogate sonicated sample mean particle sizes is provided in Table 3-3.

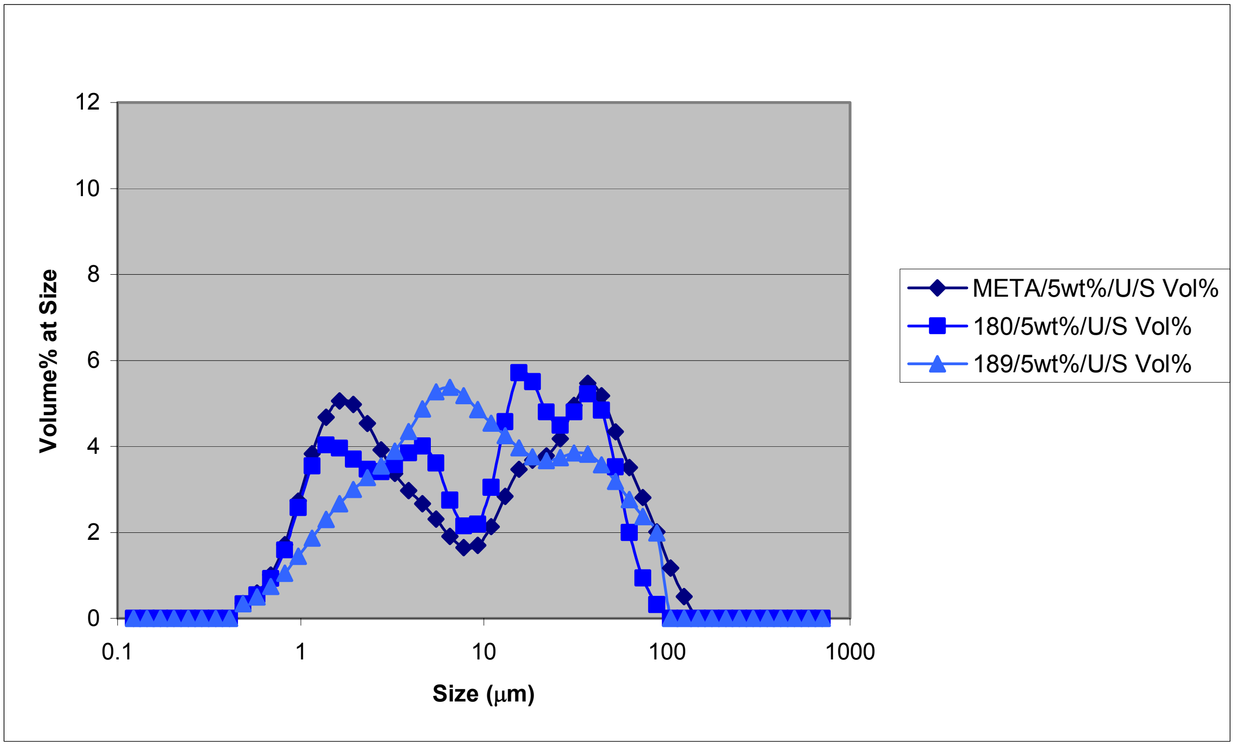


Figure 3-23. 180/5wt%/U/S, 189/5wt%/U/S, and META/5wt%/U/S sample particle size distributions.

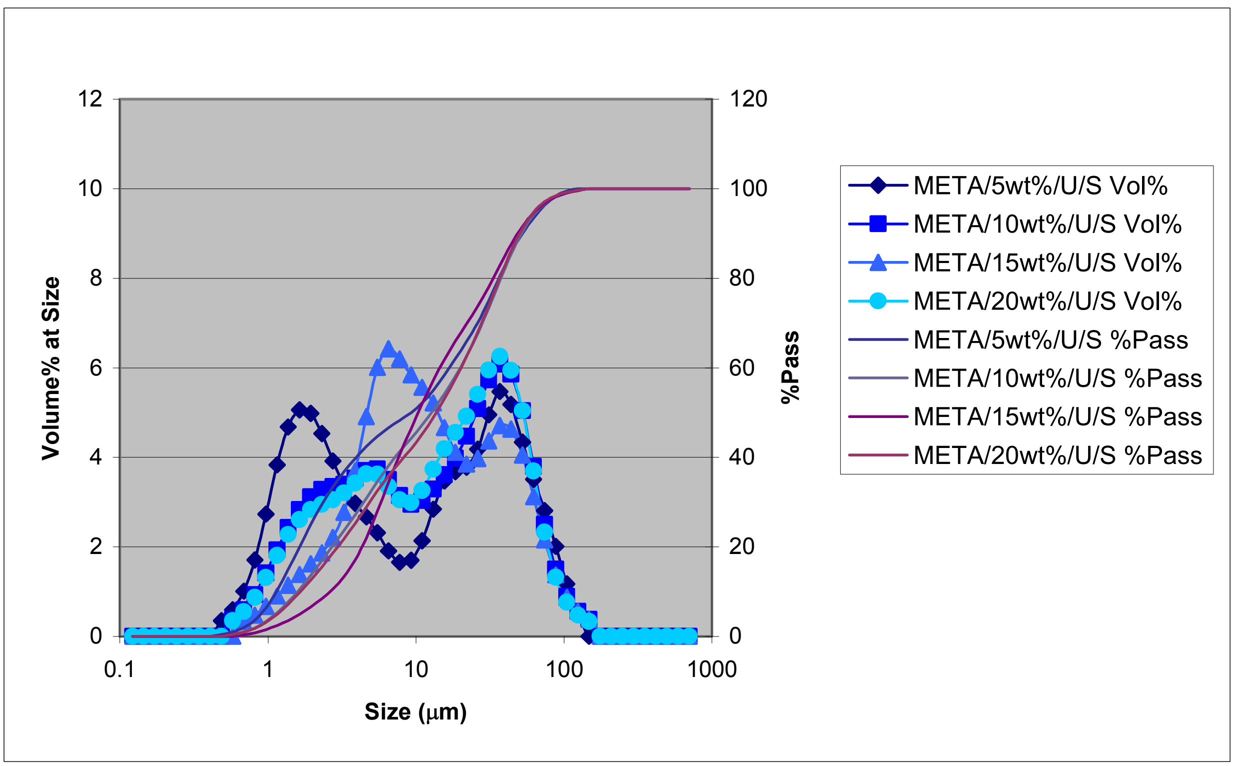


Figure 3-24. META/5wt%/U/S, META/10wt%/U/S, META/15wt%/U/S, and META/20wt%/U/S sample particle size distributions.

3.3.2 SBW Liquid Surrogate

Table 3-4 is a summary of the major components in the 180, 187, and 189 liquid surrogates. The complete compositions as well as preparation procedures can be found in Appendix C.

Table 3-4. Summary of important 180, 187, and 189 liquid surrogate components.

	180 liquid surrogate	187 liquid surrogate	189 liquid surrogate
H^+ concentration, mol/L	1.01E+00	2.29E-01	2.86E+00
Al^{3+} concentration, mol/L	6.63E-01	3.58E-02	7.11E-01
Na^+ concentration, mol/L	2.06E+00	1.13E-01	2.04E+00
NO_3^- concentration, mol/L	5.16E+00	4.54E-01	7.27E+00
total dissolved solids content	25.0%	4.7%	22.4%

3.3.3 SBW Tank Sample

In February 2004, approximately 2 L of WM-187 tank farm waste samples were obtained for flow curve analysis. At the time of sampling, tank WM-187 contained the waste previously in tanks WM-182, WM-183, WM-184, WM-185, WM-186, and part of WM-181. Solution including solids was pumped from WM-187 using a steam jet to tank NCC-102. Tank NCC-102 is continuously air sparged to obtain representative samples. Samples were obtained from NCC-102 in 50-mL glass bottles and transported to the RAL through the Pneumatic Transfer System . Three different samplings produced 60+ bottles for analytical log number 0402101. The tank farm waste sample was separated into four fractions representative of waste in various positions inside the waste tanks. These four fractions were the "as-received" sample, liquid supernate, gravity-settled solids, and centrifuged solids. The "as-received" sample was collected by agitating the full tank farm waste sample to suspend any settled particles and distribute the solids evenly throughout the sample volume. An aliquot of the "a- received" sample was then collected and set aside for flow curve analysis.

The liquid supernate and gravity settled solids fractions were obtained by allowing the tank farm sample to settle and decanting off the liquid supernate, leaving behind the gravity settled slurry with no free liquids. The liquid supernate and gravity-settled solids fractions were collected and set aside for flow curve analysis.

The centrifuged solids fraction, which was prepared to emulate settled and compacted solids at the bottom of the tank farm tanks, was prepared by centrifuging the gravity-settled solids fraction and collecting the concentrated solids phase. The centrifuged solids fraction was collected and set aside for flow curve analysis.

3.4 Results and Analysis

Physical properties of SBW surrogate and tank farm slurry samples were compared. In general, the surrogate provided a very good representation of the tank farm waste. The following sections provide the results and analyses of various quantitative physical property comparisons performed on the surrogate and tank farm waste. Prior to discussion of the quantitative physical property analyses, it should be noted that several qualitative differences between the SBW surrogate and tank farm waste were observed while handling the respective samples.

The first obvious difference between the samples was the color. The tank farm waste samples were very dark, with a color that could be described as blackish brown (when viewed through the thick radiation-absorbing windows of the INTEC RAL hot cell). The SBW surrogate solids samples were white in color, with some of the sonicated samples taking on a slightly grayish tone, presumably due to retaining fine metallic particles worn off the sonication probe during the sonication operation.

Another noticeable difference between the tank farm waste and surrogate samples was the difference in the consistency of slurry samples aged for a period of several hours. Surrogate samples with appreciable solids concentrations (approximately 10 solids wt % and greater) allowed to sit undisturbed overnight developed a coagulated solids phase. In many cases the coagulated solids phase would be cohesive enough that it would remain motionless in the bottom of an inverted sample bottle. The coagulated solids phase would break apart, suspend in the liquid phase, and revert to fluid-like slurry properties upon agitation. The amount of agitation required to break apart the coagulated solids depended on the solids concentration of the sample and the amount of time the sample had been undisturbed. In comparison with the surrogate, the tank farm solids displayed very little or no tendency to coagulate after a period with no disturbances. Settled solids in both tank farm waste and surrogate slurry sample bottles were suspended (via shaking) successfully after sitting undisturbed for periods of up to approximately two and six weeks, respectively.

The surrogate samples also displayed qualitative physical property differences between batches and samples prepared in different manners. SBW surrogate slurries prepared with the dried FY-03 solids surrogate were different in appearance from samples with the same solids weight percentage prepared with the undried FY-04 solids surrogate. Samples prepared with the dried FY-03 solids surrogate had a noticeably lower solids volume percentage than samples prepared with the undried FY-04 solids surrogate, indicating that the undried FY-04 SBW solids were relatively more dispersed than the dried FY-03 solids. The solids in the samples prepared using the dried FY-03 solids surrogate tended to have more granular, brittle characteristics and settle at a faster rate than the solids in samples prepared from the undried FY-04 solids surrogate. Sonication of the surrogate slurry samples prepared with the dried FY-03 solids and undried FY-04 solids decreased, but did not completely eliminate, the differences in physical properties of the solids. Sonication significantly increased the solids volume percentage of samples prepared with the dried FY-03 solids surrogate. Sonication also increased the solids volume percentage of samples prepared with the undried FY-04 solids surrogate, but not to the extent observed with the dried FY-03 solids surrogate. In addition to increasing the relative level of solids dispersion within the surrogate samples, sonication appeared to universally decrease the settling rate of solids particles in the surrogate samples. The differences between the surrogate batches and preparation methods provide information that may be used to prepare a surrogate with physical properties similar to those desired for representation of the tank farm waste.

The following sections describe the results of quantitative analyses performed on the SBW surrogate and tank farm waste samples. Although there were differences in the results of the surrogate and waste physical property analyses, the surrogate generally provided a good representation of the waste physical properties.

3.4.1 Particle Size Distribution

Particle size distribution analyses were performed on SBW surrogate samples as described in Section 3.2.1. Sample PSD analyses were performed on nonsonicated samples to determine the particle size distribution following sample formulation/weight percentage adjustment. Samples were then sonicated in preparation for flow curve, settling velocity, bulk density, solids weight percentage, etc., analyses. Samples were sonicated until the sample mean particle diameter was in the range of 15-20 microns. This particle size range was selected to produce surrogate samples with a PSD comparable to that reported for previous tank farm samples (see the comparison of WM-189, WM-180, WM-182, and WM-183 solids PSD analyses under nonsonicated conditions provided in Batcheller, Taylor, and Johnson 1999). The results of the particle size distribution analyses are presented below. Figure 3-25 is a plot of all nonsonicated SBW surrogate sample particle size distributions following sample synthesis and mixing with the various liquid surrogates to obtain slurries with the specified solids weight percentage loadings. Figure 3-26 is a particle size distribution plot of the SBW surrogate samples following sonication. The decrease in sample mean particle diameter following sonication is apparent upon comparison of Figure 3-25 and Figure 3-26. Figure 3-27 provides a comparison of the mean particle diameter for each of the SBW surrogate slurries before and after sonication.

Several distinct particle size distribution profiles can be identified in Figure 3-28, which is identical to Figure 3-25, the plot of the nonsonicated SBW surrogate sample PSDs. Figure 3-29 through Figure 3-31 are plots of the similar PSD profiles that can be extracted from Figure 3-28.

Figure 3-29 is a plot of the nonsonicated FY-03 SBW surrogate sample particle size distributions. These samples were formulated from the same batch of SBW solids surrogate (FY-03 batch) and were mixed with WM-187 liquid surrogate in 5 and 20 solids weight percentage quantities. Adjustment of the solids weight percentage did not have an appreciable affect on the sample mean particle diameter; the 187/5wt%/D/N sample had a mean particle diameter of 123.8 μm and the 187/20wt%/D/N sample had a mean particle diameter of 110.7 μm.

Figure 3-30 is a plot of the nonsonicated, as-received FY-04 SBW surrogate sample particle size distribution. The nonsonicated, as-received FY-04 SBW surrogate sample (META/AR/U/N) varies in particle size distribution profile and mean particle size diameter from the solids weight percentage adjusted, nonsonicated FY-04 samples shown in Figure 3-31. The solids weight percentage-adjusted sample preparation procedure altered the sample PSD properties. The solids weight percentage-adjusted samples were formulated from WM-180, WM-189, and metathesis mother liquor liquid surrogates and wet FY-04 SBW solids surrogate (free liquids removed via centrifugation) to form slurries with the specified solids weight percentages. The solids centrifugation step likely changed the sample PSDs by retaining the larger solids surrogate particles while allowing the smaller particle fines to be decanted from the concentrated wet solids. Figure 3-31 also illustrates that use of the WM-180 and WM-189 liquid surrogates resulted in a higher concentration of particles of approximately 350 microns in diameter. It is presumed that this is due to the WM-180 and WM-189 liquid surrogates changing the zeta potential (particle charge) of the SBW solids surrogate particles, increasing surrogate particle agglomeration, and skewing the particle size distribution upward.

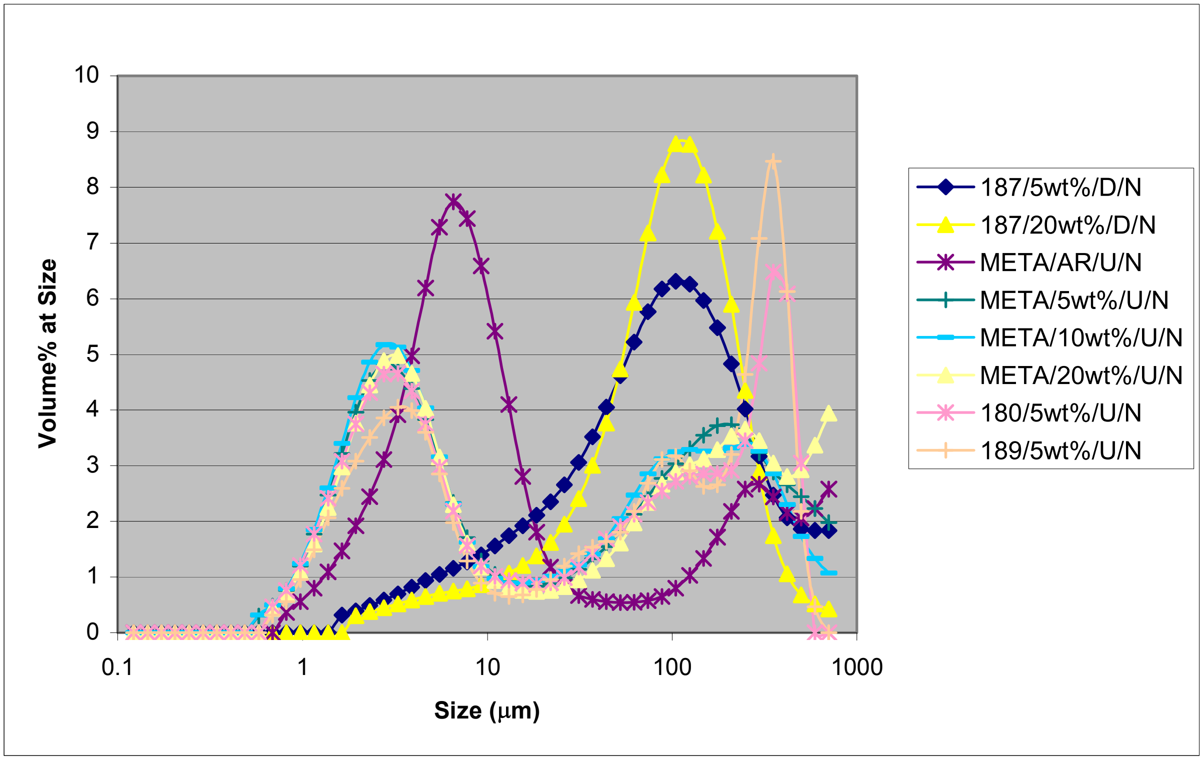


Figure 3-25. Nonsonicated SBW surrogate sample particle size distributions.

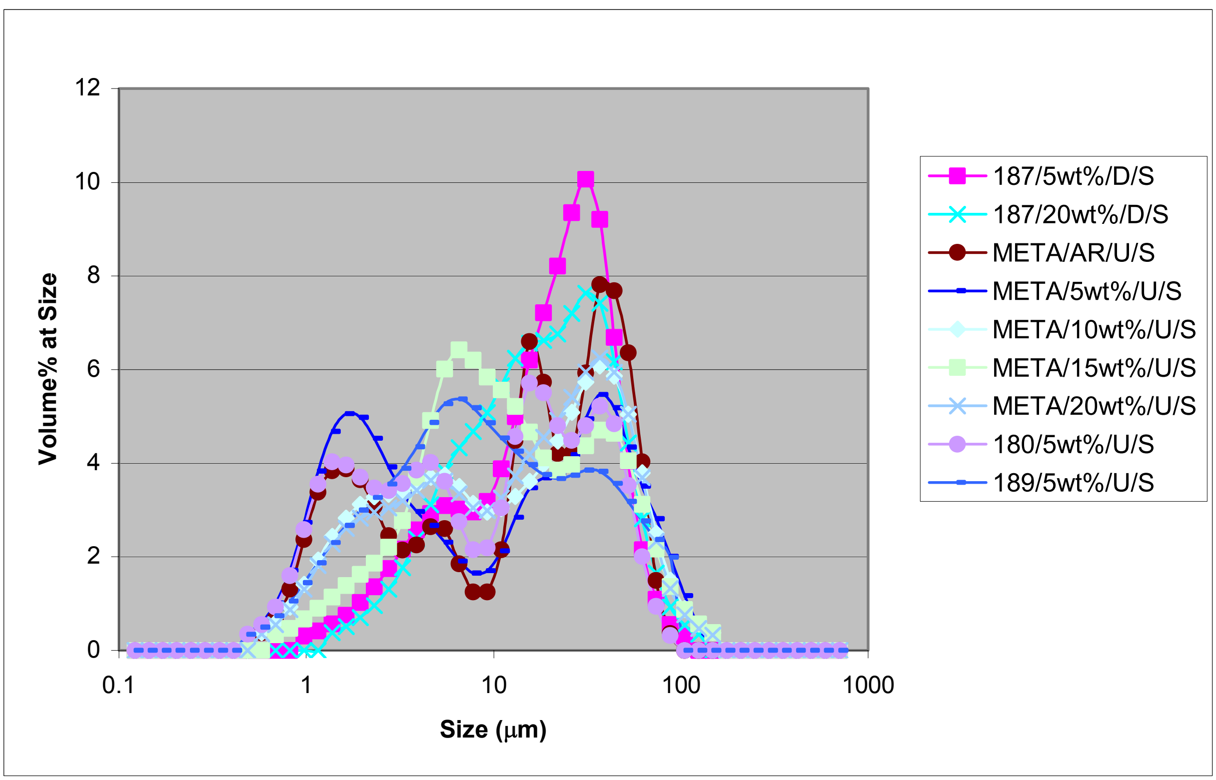


Figure 3-26. Sonicated SBW surrogate sample particle size distributions.

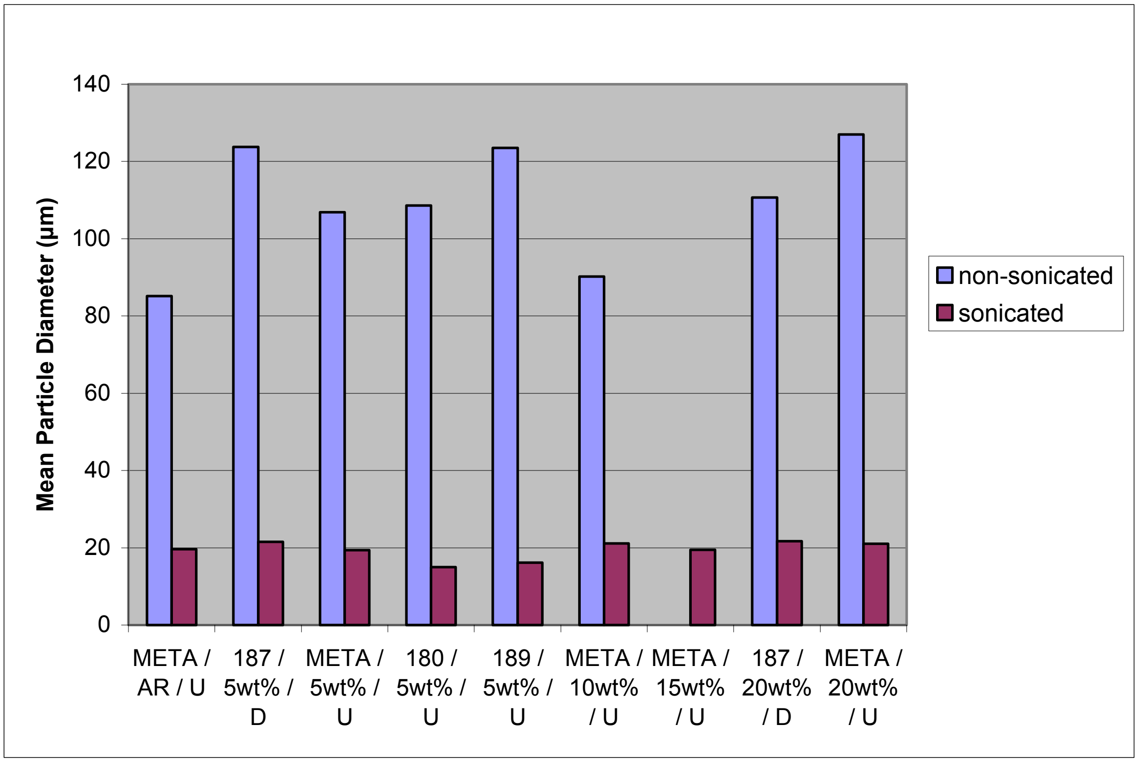


Figure 3-27. SBW surrogate sample mean particle diameter before and after sonication.

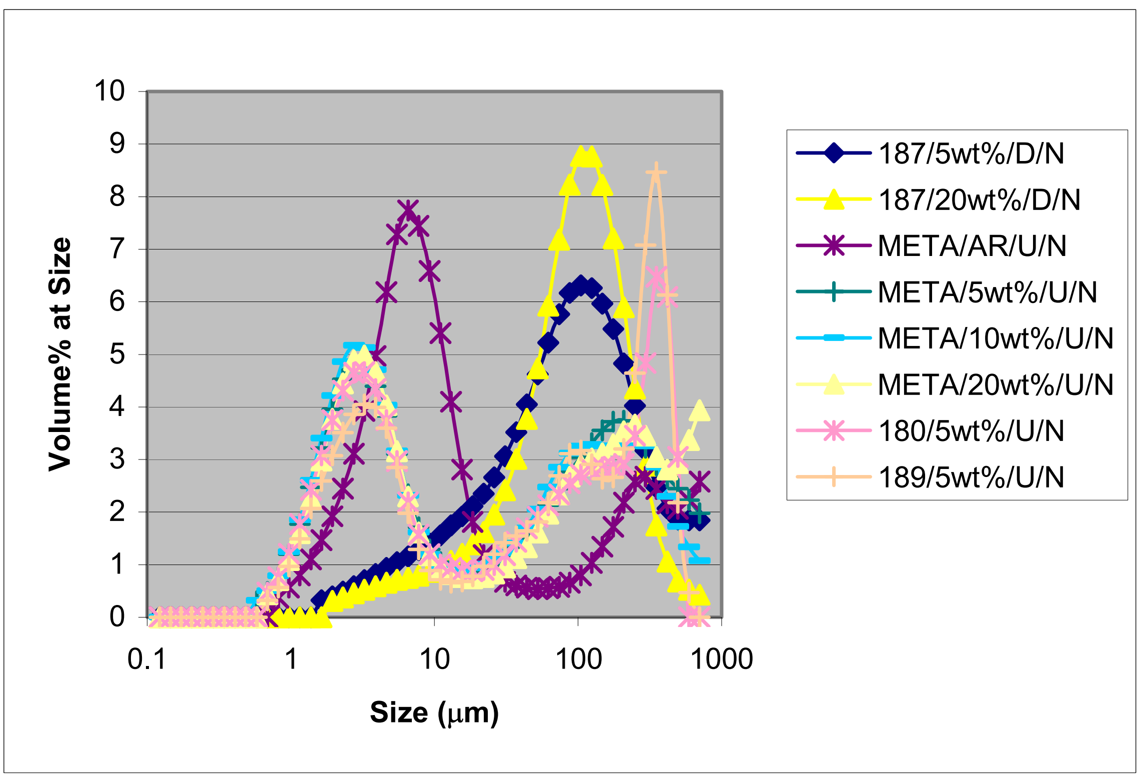


Figure 3-28. Nonsonicated SBW surrogate sample PSDs.

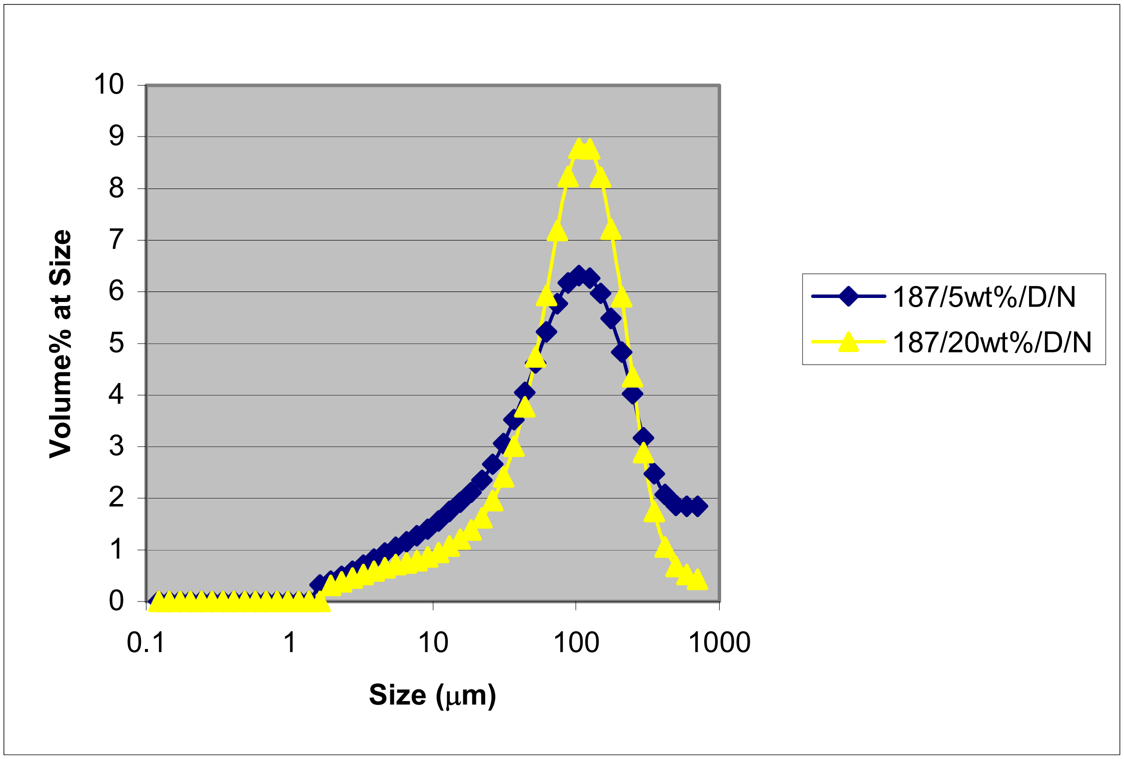


Figure 3-29. Nonsonicated FY-03 SBW surrogate sample PSDs.

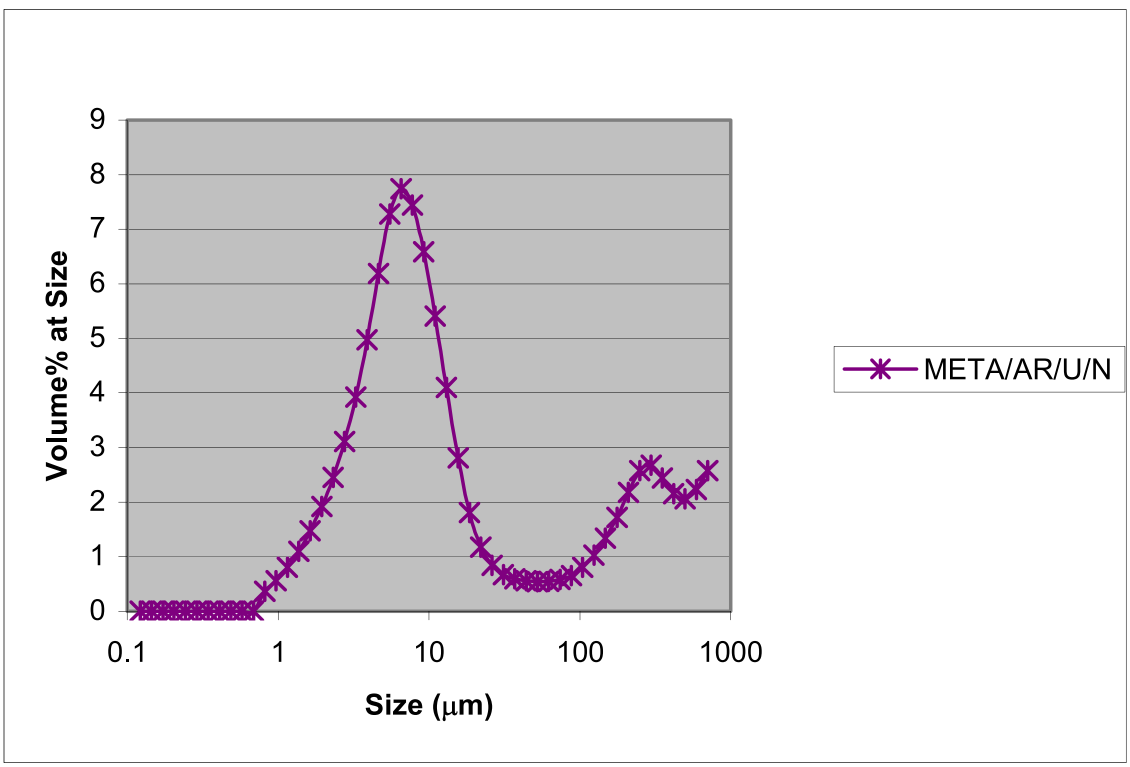


Figure 3-30. Nonsonicated, as-received FY-04 SBW surrogate sample PSD.

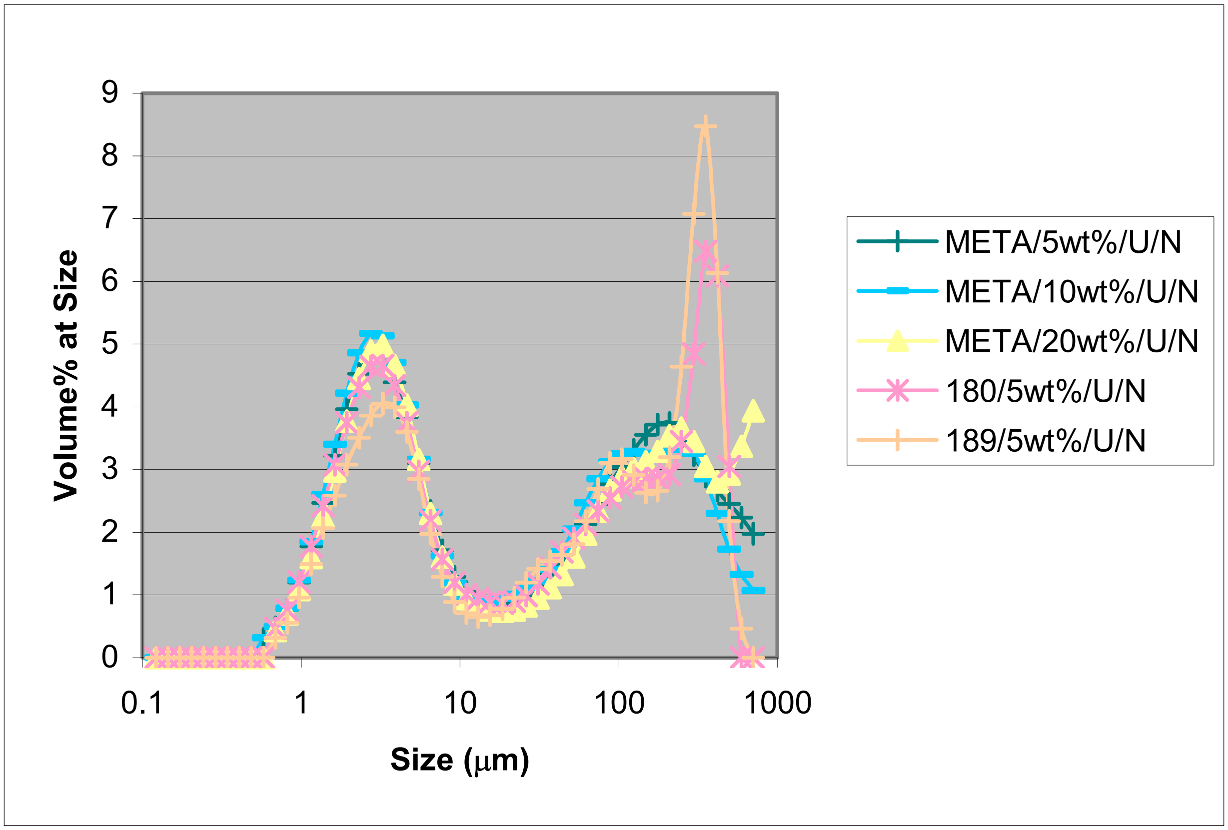


Figure 3-31. Solids weight percentage adjusted, nonsonicated FY-04 SBW surrogate sample PSDs.

Table 3-5 provides mean particle diameter data for nonsonicated and sonicated SBW surrogate slurry samples.

Table 3-5. Nonsonicated and sonicated SBW surrogate sample mean particle diameter (microns).

	(N)onsonicated	(S)onicated
META / AR / U	85.2	19.7
187 / 5 wt % / D	123.8	21.5
META / 5 w t % / U	106.8	19.4
180 / 5 wt % / U	108.6	15.0
189 / 5 wt % / U	123.5	16.1
META / 10 wt % / U	90.2	21.1
META / 15 wt % / U	N/A	19.5
187 / 20 wt % / D	110.7	21.7
META / 20 wt % / U	127.0	21.0

Three different aliquots of the first WM-187 SBW sample (analytical log number 0308181) were analyzed using the remote Horiba LA-300 particle size analyzer. Other samples were not analyzed as above because the remoted Horiba LA-300 instrument failed and is not repairable. The results are presented in Table 3-6 below. For the sonicated value in Table 8 the samples were sonicated for only about 10 seconds.

The WM-187 sample mean particle diameter was lower than the historical tank farm sample mean particle diameter. This comparison is shown in Figure 3-32. The WM-187 PSD is similar to that of the WM-188 sample, but higher in magnitude and the WM-187 doesn't have as big of a range. The WM-187 is very close to the WM-181, which were the last solids washed to the WM-187 tank. One hypothesized explanation is that the fine particulates from the WM-181, WM-182, WM-183, WM-184, WM-185, and WM-186 tank waste added to tank WM-187 migrated to the sample collection point prior to sampling, decreasing the mean particle size of the WM-187 sample.

Table 3-6. Nonsonicated and sonicated WM-187 sample mean particle diameter (microns).

	Nonsonicated	Sonicated
WM-187 aliquot #1	4.2	4.2
WM-187 aliquot #2	4.2	4.2
WM-187 aliquot #3	4.2	4.2
Average	4.2	4.2

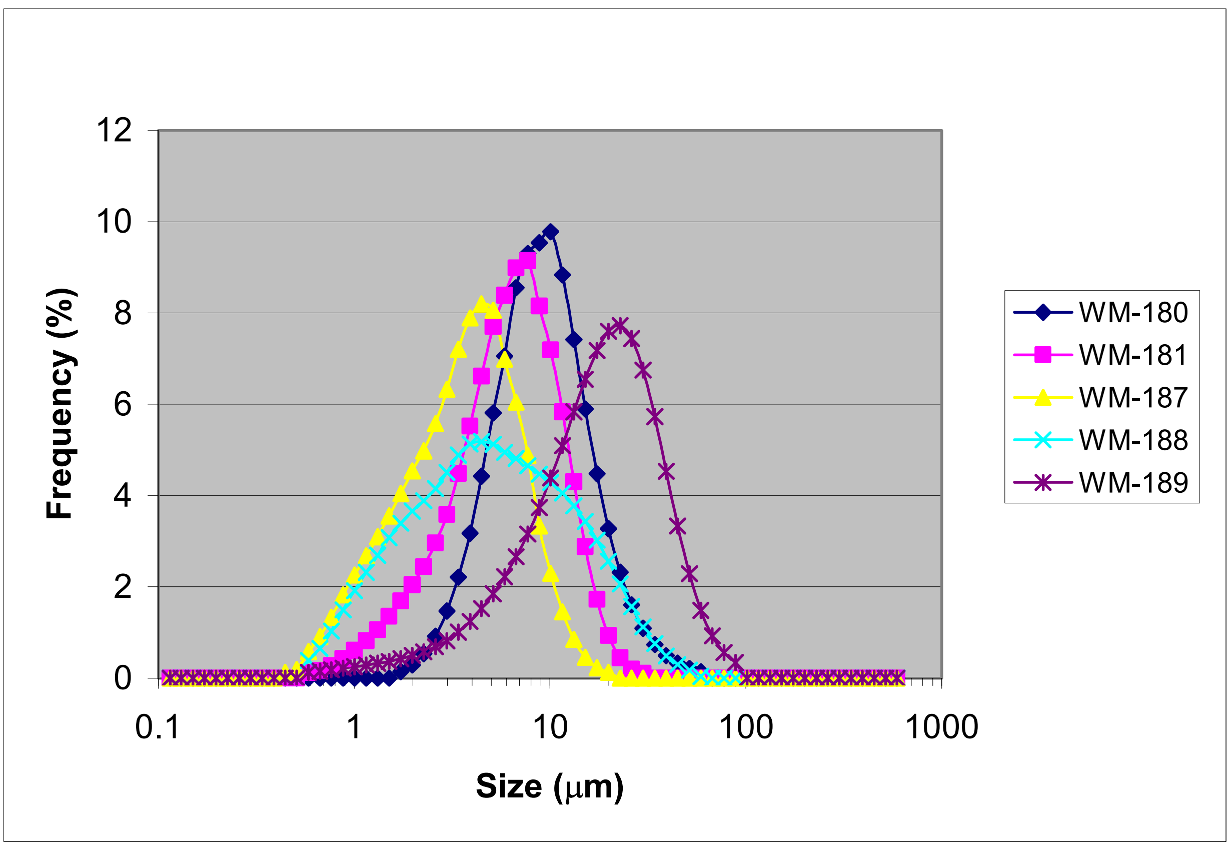


Figure 3-32. A comparison of the particle size distributions for various tank farm solid waste samples.

3.4.2 Flow Curve

Flow curve analyses were performed on SBW surrogate and tank farm waste samples as described in Section 3.2.2. Analysis of the SBW surrogate samples was completed prior to analysis of tank farm waste samples. The Brookfield R/S rheometer unit was used to record all flow curves. The SBW surrogate samples had to be analyzed before the rheometer was used to analyze the tank farm waste samples, since the tank farm waste samples would contaminate the rheometer and render it unsuitable for use outside of the INTEC RAL.

A wide range of SBW surrogate samples were tested prior to placing the Brookfield R/S rheometer in the INTEC RAL hot cell. SBW surrogate sample variables tested included liquid surrogate composition, sample solids weight percentage, sample solids surrogate batch, sample particle size distribution, and sample temperature.

The tank farm waste sample was divided into four fractions. A flow curve was recorded for each fraction of the tank farm sample using the Brookfield R/S rheometer in the INTEC RAL hot cell. The four sample fractions included the "as-received" tank farm waste sample, liquid supernate, gravity settled slurry, and centrifuged slurry.

Sample flow curves were recorded using controlled shear rate mode, with shear rates ranging from 0.1 s^{-1} to 4000 s^{-1}, depending on the sample viscosity. Lower viscosity sample flow curves were recorded over a shear rate range of 500 – 4000 s^{-1}. Higher viscosity sample flow curves were recorded over a shear rate range of 0.1 – 1000 s^{-1}.

Table 3-7 provides a summary of typical shear rates experienced by materials in a variety of applications. The shear rates at which the SBW surrogate and tank farm waste samples were tested correspond to processes ranging from draining under gravity (0.1 sec^{-1}) to mixing, stirring, and pipe flow (1000 sec^{-1}).

Table 3-7. Range of shear rates of some familiar materials and processes [Barnes et al., 1989].

Process	Range of Shear Rates (s^{-1})	Application
Sedimentation of fine powders in a suspending liquid	$10^{-6} – 10^{-4}$	Medicines, paints
Leveling due to surface tension	$10^{-2} – 10^{-1}$	Paints, printing inks
Draining under gravity	$10^{-1} – 10^{1}$	Painting, coating
Screw extruders	$10^{0} – 10^{2}$	Polymer melts, dough
Chewing and swallowing	$10^{1} – 10^{2}$	Foods
Dip coating	$10^{1} – 10^{2}$	Paints, confectionery
Mixing and stirring	$10^{1} – 10^{3}$	Manufacturing liquids
Pipe flow	$10^{0} – 10^{3}$	Pumping, blood flow
Spraying and brushing	$10^{3} – 10^{4}$	Fuel atomization, painting
Rubbing	$10^{4} – 10^{5}$	Application of creams and lotions to the skin
Injection mold gate	$10^{4} – 10^{5}$	Polymer melts
Milling pigments in fluid bases	$10^{3} – 10^{5}$	Paints, printing inks
Blade coating	$10^{5} – 10^{6}$	Paper
Lubrication	$10^{3} – 10^{7}$	Gasoline engines

Flow curve analyses included both increasing shear rate analysis steps as well as decreasing shear rate analysis steps. Comparison of the increasing and decreasing shear rate curves provided information about the sample thixotropy, or the property of various materials of becoming fluid when disturbed (as by shaking).

3.4.2.1 Surrogate Sample vs. Tank Farm Sample Flow Curves. SBW surrogate samples with similar physical properties (solids weight percentage, free liquid content, particle size distribution, etc.) to those of the four tank farm waste sample fractions were identified. Flow curves for these SBW surrogate samples were then compared with those of the tank farm waste samples. SBW surrogate samples were considered qualified to represent the tank farm samples if (a) the surrogate flow curve had the same general shape as the tank farm waste flow curve, (b) the surrogate flow curve data values were close in absolute value to the tank farm waste flow curve data values, and (c) the surrogate flow curve provided a conservative representation of the tank farm waste flow curve. A conservative representation requires the surrogate flow curve to have shear stress data values higher than tank farm waste flow curve shear stress data values throughout the majority of the shear rate range.

A SBW surrogate sample would not have been classified as the best representation of a tank farm sample if the surrogate had the closest flow curve data values but had other physical properties substantially different from those of the tank farm waste sample. The surrogate samples with the best flow curve characteristics had physical properties very similar to those of the tank farm waste samples.

The following sections contain SBW surrogate and tank farm waste sample flow curve plots and data regression correlations. All data included in this report were filtered by the Brookfield Engineering RHEO 2000 control and analysis software to eliminate data below the R/S rheometer torque threshold level required to ensure data accuracy.

The Brookfield Engineering RHEO 2000 software includes flow curve regression calculation capabilities. The RHEO 2000 software calculates Newton, Ostwald, Bingham, Casson, Steiger/Ory, and Herschel/Bulkley regressions for flow curve data (shear stress, τ [Pa] vs. shear rate, D[1/s]) recorded using the R/S rheometer. These six regression formulas are provided below. All six flow curve regression correlations were calculated for each step of each flow curve analysis. The regression correlation with the highest correlation coefficient was selected to represent the experimental flow curve data in the flow curve plots found in the following sections. The correlations may also be used for determining equipment and energy requirements in future SBW treatment process design studies.

Newton

$$\tau = k_1 D$$

k_1 = dynamic viscosity in Pa·s

Ostwald

$$\tau = k_2 D^{k_3}$$

k_2 = Ostwald consistence factor
k_3 = Ostwald flow exponent

Bingham

$$\tau = k_1 + k_2 D$$

k_1 = Bingham yielding point in Pa
k_2 = Bingham viscosity in Pa·s

Casson

$$\sqrt{\tau} = \sqrt{k_1} + \sqrt{k_2 D}$$

k_1 = Casson yielding point in Pa
k_2 = Casson viscosity in Pa·s

Steiger/Ory

$$D = k_1 \tau + k_2 \tau^3$$

Herschel/Bulkley

$$\tau = k_1 + k_2 D^{k_3}$$

k_1 = yielding point in Pa
k_2 = plastic viscosity in Pa·s
k_3 = flow exponent

3.4.2.1.1 Supernate—The metathesis mother liquor liquid surrogate provides a conservative representation of the tank farm waste sample supernate. The WM-187 liquid surrogate provides a flow curve essentially indistinguishable from that of the WM-187 tank farm waste supernate sample. Physical properties of the metathesis mother liquor surrogate (META/0wt%) and WM-187 liquid surrogate (187/0wt%) are similar to those of the tank farm waste sample supernate. Each liquid contained no visible undissolved solids. The tank farm waste supernate sample had a density of 1.029 g/mL and a dissolved solids weight percentage of 4.7%. The META/0wt% liquid surrogate had a density of 1.12 g/mL and a dissolved solids weight percentage of 8.7%. The 187/0 wt % liquid surrogate had a density of 1.05 g/mL and a dissolved solids weight percentage of 4.7%.

The WM-187 tank farm sample liquid supernate, SBW metathesis mother liquor supernate, and WM-187 liquid surrogate flow curves are presented in Figure 3-33. A plot of the viscosity vs. shear rate for these samples is presented in Figure 3-34. The tank farm waste shear stress was ≤15% less than the surrogate shear stress throughout the increasing and decreasing shear rate ranges tested. The WM-187 liquid surrogate flow curve shear stress data points overlap the tank farm waste supernate flow curve data points throughout the shear rate range tested. Tank farm waste and surrogate sample shear stress – shear rate data regression correlations were calculated for increasing shear rate over the interval 500 – 4000 sec^{-1} and decreasing shear rate over the interval 4000 – 500 sec^{-1}. The shear stress – shear rate data regression correlations are presented in Figure 3-33. The solid lines in Figure 3-33 represent the data regression expressions for each increasing and decreasing shear rate step presented in Table 3-8, while the marker symbols represent experimental flow curve data.

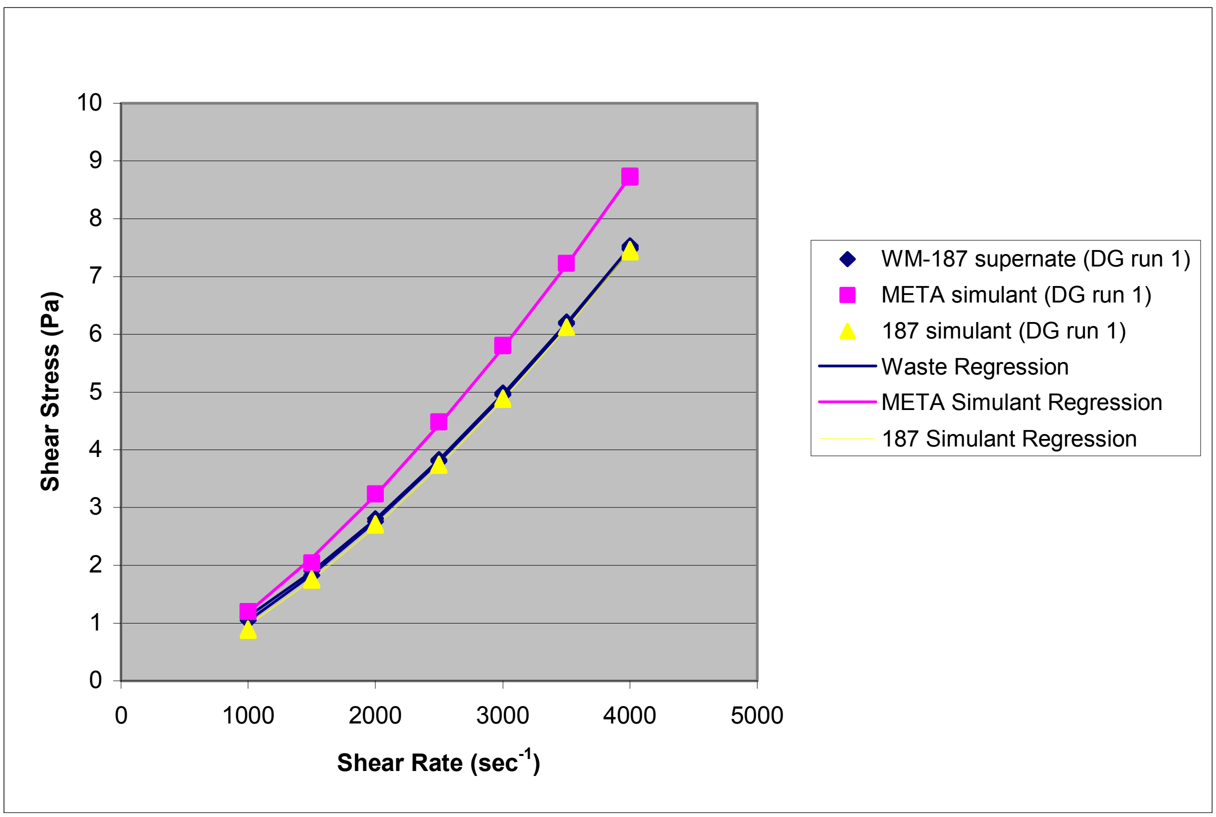


Figure 3-33. WM-187 supernate, metathesis mother liquor surrogate, and 187 liquid surrogate flow curve comparison.

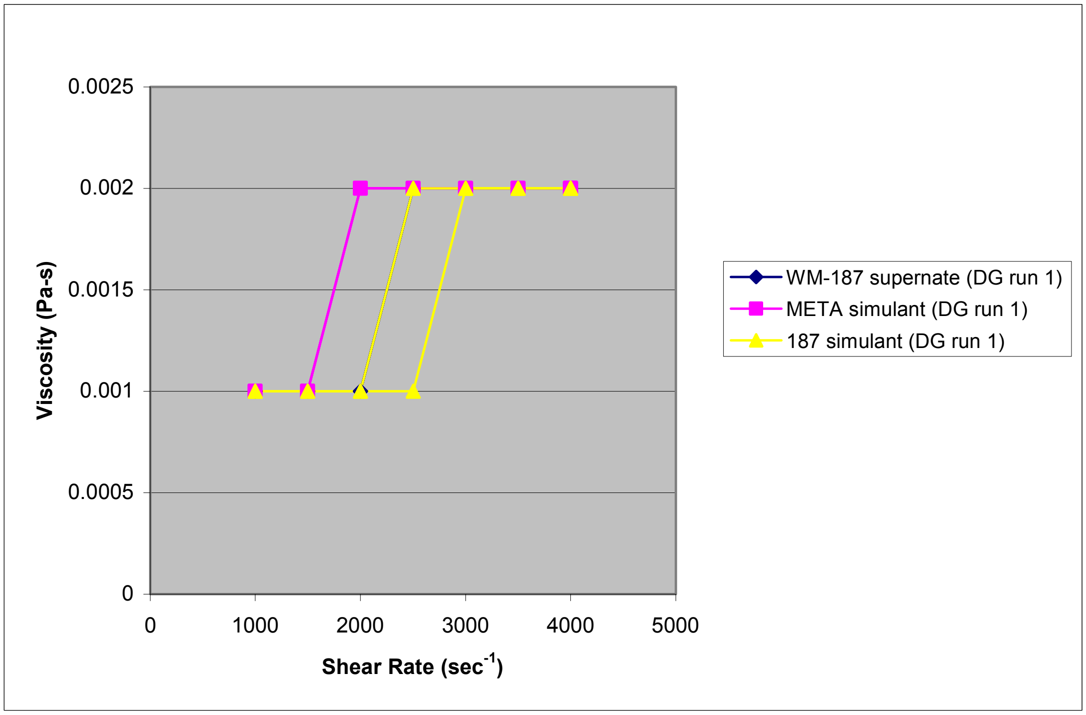


Figure 3-34. WM-187 supernate and metathesis surrogate mother liquor viscosity comparison.

3.4.2.1.2 Suspended Slurry ("As-Received")—The META/5wt%/U/S surrogate (5 wt % sonicated FY-04 undried SBW solids surrogate in metathesis mother liquor liquid surrogate) provides a conservative representation of the tank farm waste "as-received" slurry sample. Physical properties of the META/5wt%/U/S surrogate are similar to those of the tank farm waste "as-received" sample. Both samples contained approximately 90 volume percent visible undissolved solids, which were readily suspended when agitated. Following gravity settling, the "as-received" tank farm waste and META/5wt%/U/S SBW surrogate samples formed solids layers with sharp, distinct liquid interfaces. In each case, the liquid supernate contained no visible suspended solids. The tank farm waste "as-received" sample had a density of 1.066 g/mL and a solids weight percentage of 7.1%. The META/5wt%/U/S surrogate had a density of 1.13 g/mL and a solids weight percentage of 11.3%.

The WM-187 tank farm "as-received" slurry sample and META/5wt%/U/S SBW slurry surrogate flow curves are presented in Figure 3-35. A plot of the viscosity vs. shear rate for these samples is presented in Figure 3-36. The tank farm waste shear stress was ≤33% less than the surrogate shear stress throughout the increasing and decreasing shear rate ranges tested.

The thixotropy of the META/5 wt %/U/S SBW slurry surrogate exceeded that of the tank farm waste "as-received" sample. Multiple flow curve analysis runs were preformed to obtain a stabilized surrogate flow curve loop with minimal thixotropic hysteresis. Flow curve data for repeat analysis of the META/5 wt %/U/S slurry surrogate is included in Figure 3-35. The META/5 wt %/U/S flow curve did not change visibly in the additional analyses performed.

A number of surrogate formulation and conditioning measures could be taken to reduce the particle agglomeration and thixotropy of the surrogate slurries. The bulk of the SBW solids surrogate is composed of silica and alumina. The silica is largely in the form of silica gels, which contribute to the agglomeration and high thixotropy. Although the silica composition is similar to that of the tank farm waste, the tank

Table 3-8. Tank farm waste sample and SBW surrogate supernate flow curve data regression.

D [1/s]	WM-187 Supernate Waste Regression	META/0 wt % Surrogate Regression	187/0 wt % Surrogate Regression
500 – 4000	Herschel Bulkley: Tau=0.1674+3.4779e-05*D^1.4781 B=0.99999; S=0.00836	Herschel Bulkley: Tau=0+5.5061e-05*D^1.4437 B=0.99977; S=0.0458	Herschel Bulkley: Tau=0+3.6363e-05*D^1.4747 B=0.99981; S=0.036
4000 – 500	Herschel Bulkley: Tau=0.040926+4.4796e-05*D^1.449 B=0.99999; S=0.00922	Herschel Bulkley: Tau=0+5.6522e-05*D^1.4404 B=0.99977; S=0.046	Herschel Bulkley: Tau=0+3.3681e-05*D^1.4836 B=0.99975; S=0.0409

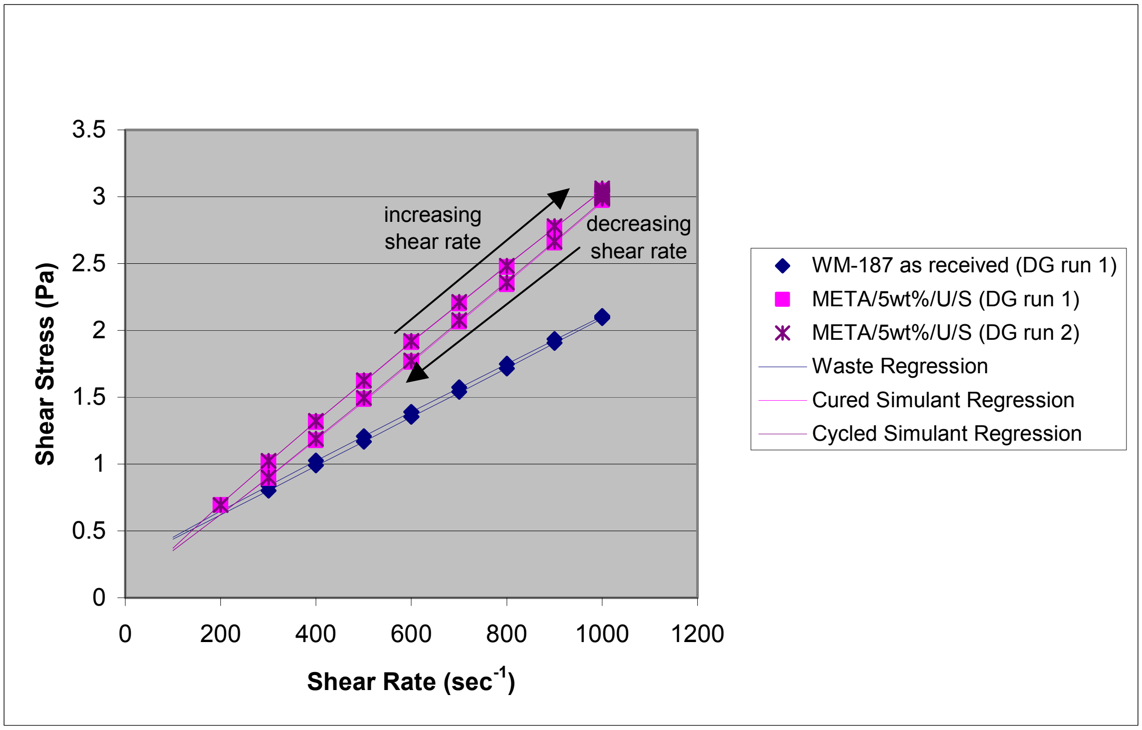


Figure 3-35. WM-187 as received and META/5wt%/U/S surrogate data regression.

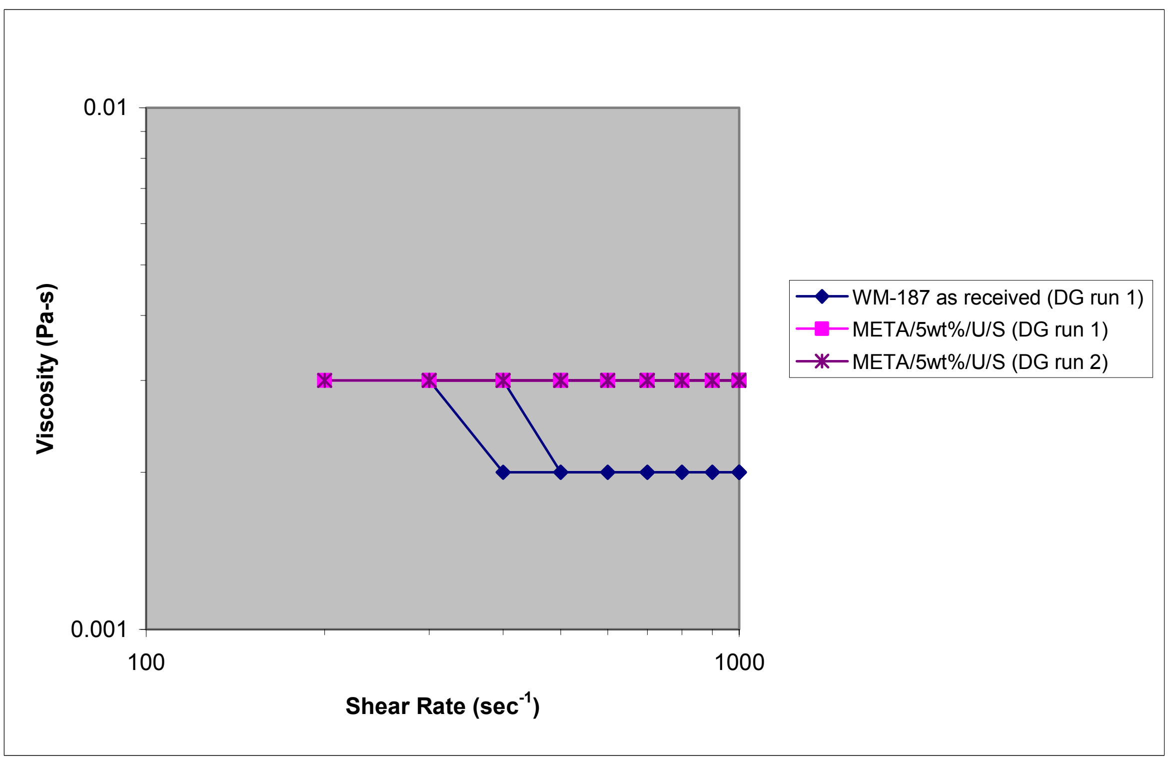


Figure 3-36. WM-187 as received and META/5wt%/U/S surrogate viscosity comparison.

farm waste has had years of aging in a highly radioactive environment that have propagated silica gel dewatering reactions. The surrogate could be artificially aged by thermal conditioning. Alternatively, the composition of the solids surrogate could be altered by precipitating a higher quantity of metal oxides from the metathesis mother liquor. It is expected that either modification would reduce the tendency of the SBW solids surrogate particles toward agglomeration, thereby reducing the surrogate thixotropy.

Tank farm waste and surrogate sample shear stress – shear rate data regression correlations were calculated for increasing shear rate over the interval 100 – 1000 sec^{-1} and decreasing shear rate over the interval 1000 – 100 sec^{-1}. The shear stress – shear rate data regression correlations are presented in Table 3-9. The solid lines in Figure 3-35 represent the data regression expressions for each increasing and decreasing shear rate step presented in Table 3-9, while the marker symbols represented experimental flow curve data.

3.4.2.1.3 Gravity-Settled Slurry—The META/10wt%/U/S surrogate (10 wt% sonicated FY-04 undried SBW solids surrogate in metathesis mother liquor liquid surrogate) provides a conservative representation of the tank farm waste gravity settled slurry sample. Physical properties of the META/10wt%/U/S surrogate are similar to those of the tank farm waste gravity-settled sample. Both samples contained approximately 95 volume percent visible undissolved solids, which were readily suspended when agitated. The tank farm waste gravity-settled sample had a density of 1.035 g/mL and a solids weight percentage of 10%. The META/10wt%/U/S surrogate had a density of 1.16 g/mL and a solids weight percentage of 15.1%.

The WM-187 tank farm gravity-settled slurry sample and META/10wt%/U/S SBW slurry surrogate flow curves are presented in Figure 3-37. A plot of the viscosity vs. shear rate for these samples is presented in Figure 3-38.

The Run #1 surrogate flow curve analysis (following overnight aging) shear stress was several times greater than the Run #1 tank farm waste shear stress for the increasing shear rate steps below 100 sec^{-1}. The tank farm waste shear stress was ≤40% less than the surrogate shear stress for the increasing shear rate steps in the range of 100 to 1000 sec^{-1}. The tank farm waste shear stress was ≤20% less than the surrogate shear stress for the decreasing shear rate steps in the range of 1000 to 500 sec^{-1}. The surrogate shear stress was less than the tank farm waste shear stress for the decreasing shear rate steps below 500 sec^{-1}.

The Run #8 surrogate flow curve analysis (stabilized surrogate flow curve) shear stress was less than the Run #2 tank farm waste shear stress for the increasing shear rate steps below 400 sec^{-1}. The tank farm waste shear stress was ≤10% less than the surrogate shear stress for the increasing shear rate steps in the range of 400 to 1000 sec^{-1}. The tank farm waste shear stress was ≤10% less than the surrogate shear stress for the decreasing shear rate steps in the range of 1000 to 900 sec^{-1}. The surrogate shear stress was less than the tank farm waste shear stress for the decreasing shear rate steps below 900 sec^{-1}.

The differences between the META/10 wt %/U/S Run #1 and Run #8 flow curves are indicative of the thixotropic nature of the surrogate. The tank farm waste gravity-settled sample displayed a much lower level of thixotropy than the META/10wt%/U/S SBW slurry surrogate sample. The META/10wt%/U/S SBW surrogate sample thixotropy may render the surrogate conservative for activities involving simulation of gravity-settled SBW handling operations. However, the META/10wt%/U/S surrogate thixotropy could result in a unconservative estimate of gravity-settled SBW slurry flow properties for extended pumping/agitation operations.

Table 3-9. Tank farm waste sample and SBW surrogate suspended slurry flow curve data regression.

D [1/s]	WM-187 “As Received” Waste Regression	Cured META/5wt%/U/S Surrogate Regression	Cycled META/5 wt %/U/S Surrogate Regression
100 - 1000	Herschel Bulkley: Tau=0.23954 + 0.0027445*D^0.94409 B=0.99998; S=0.00208	Herschel Bulkley: Tau=0 + 0.005487*D^0.91469 B=0.99997; S=0.00494	Herschel Bulkley: Tau=2.1651e-06 + 0.0055469*D^0.91333 B=0.99994; S=0.00652
1000 - 100	Herschel Bulkley Tau=0.25614 + 0.0017732*D^1.0046 B=0.99995; S=0.0033	Herschel Bulkley: Tau=0.11133 + 0.0017789*D^1.068 B=0.99983; S=0.01	Herschel Bulkley: Tau=0.098917 + 0.0019511*D^1.0558 B=0.99984; S=0.00985

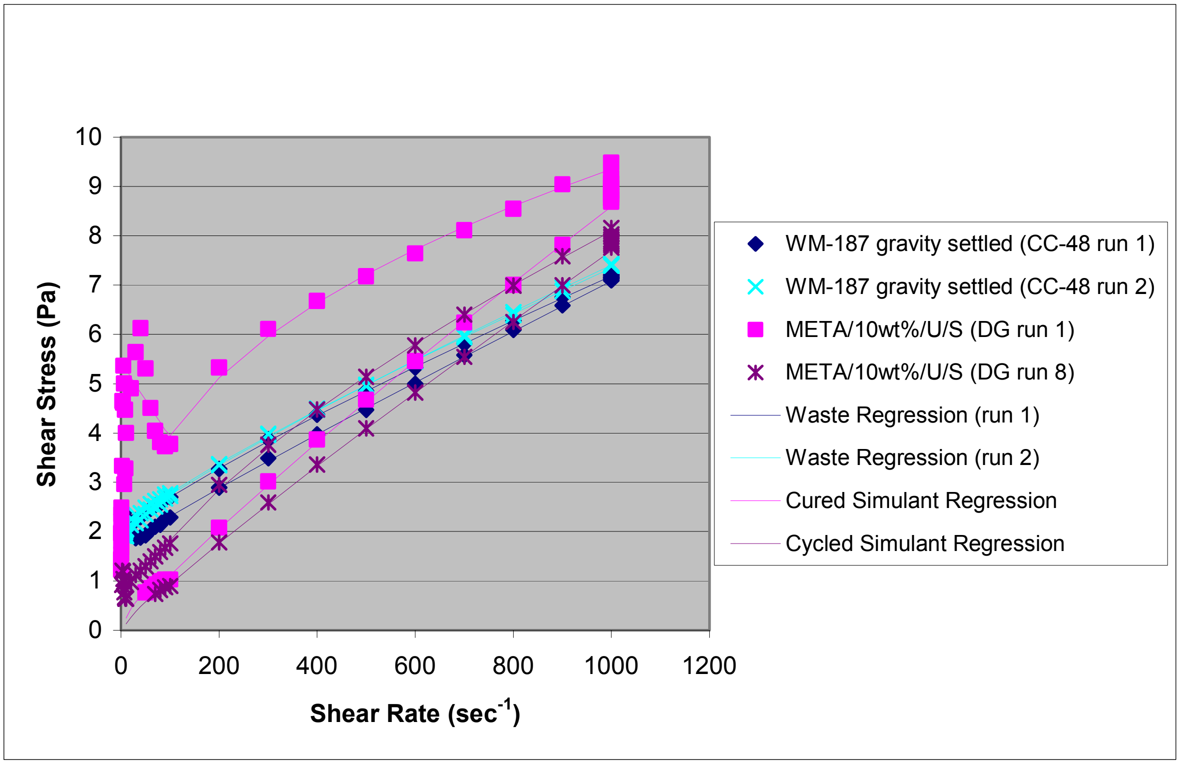


Figure 3-37. WM-187 gravity settled and META/10wt%/U/S surrogate data regression.

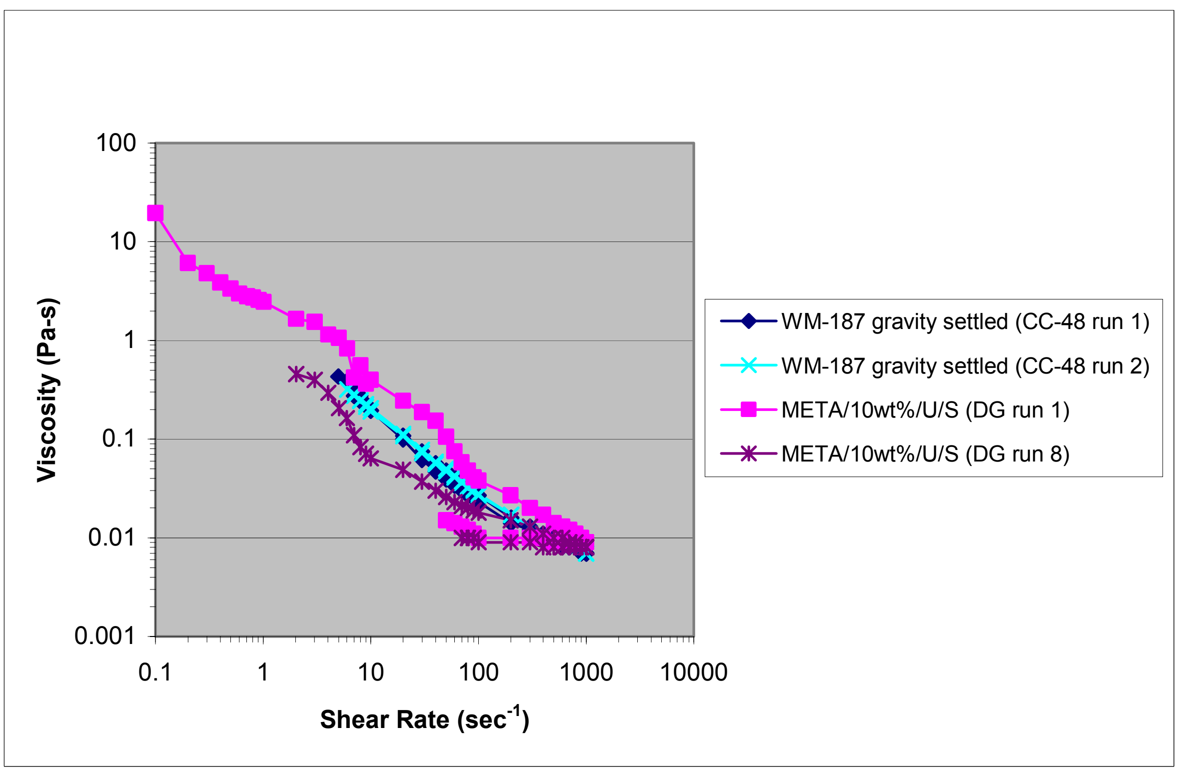


Figure 3-38. WM-187 gravity settled and META/10wt%/U/S surrogate viscosity comparison.

The META/10 wt %/U/S surrogate and gravity–settled tank farm waste are pseudoplastic fluids. Pseudoplastic fluids display a decreasing viscosity with an increasing shear rate, as shown in Figure 3-38. Pseudoplastic flow behavior is sometimes referred to as “shear thinning.”

A number of surrogate formulation and conditioning measures could be taken to reduce the particle agglomeration and thixotropy of the surrogate slurries. The bulk of the SBW solids surrogate is composed of silica and alumina. The silica is largely in the form of silica gels, which contribute to the agglomeration and high thixotropy. Although the silica composition is similar to that of the tank farm waste, the tank farm waste has had years of aging in a highly radioactive environment that have propagated silica gel dewatering reactions. The surrogate could be artificially aged by thermal conditioning. Alternatively, the composition of the solids surrogate could be altered by precipitating a higher quantity of metal oxides from the metathesis mother liquor. It is expected that either modification would reduce the tendency of the SBW solids surrogate particles toward agglomeration, thereby reducing the surrogate thixotropy.

Tank farm waste and surrogate sample shear stress – shear rate data regression correlations were calculated for increasing shear rate over the interval 100 – 1000 sec^{-1} and decreasing shear rate over the interval 1000 – 100 sec^{-1}. The shear stress – shear rate data regression correlations are presented in Table 3-10. The solid lines in Figure 3-37 represent the data regression expressions for each increasing and decreasing shear rate step presented in Table 3-10, while the marker symbols represent experimental flow curve data.

3.4.2.1.4 Centrifuged Slurry—The META/20wt%/U/S surrogate (20 wt % sonicated FY-04 undried SBW solids surrogate in metathesis mother liquor liquid surrogate) provides a conservative representation of the tank farm waste centrifuged slurry sample. Physical properties of the META/20 wt %/U/S surrogate are similar to those of the tank farm waste centrifuged sample. Neither sample included any appreciable quantity of free liquid. The tank farm waste centrifuged sample had a solids weight percentage of 11.5% while the META/20 wt %/U/S surrogate had a solids weight percentage of 26.5%.

The WM-187 tank farm centrifuged slurry sample and META/20wt%/U/S SBW slurry surrogate flow curves are presented in Figure 3-39. A plot of the viscosity vs. shear rate for these samples is presented in Figure 3-40.

The Run #1 surrogate flow curve analysis (following overnight aging) shear stress was several times greater than the Run #1 tank farm waste shear stress for the increasing shear rate steps below 100 sec^{-1}. The tank farm waste shear stress was ≤45% less than the surrogate shear stress for the increasing shear rate steps in the range of 100 to 1000 sec^{-1}. The tank farm waste shear stress was ≤30% less than the surrogate shear stress for the decreasing shear rate steps in the range of 1000 to 400 sec^{-1}. The surrogate shear stress was less than the tank farm waste shear stress for the decreasing shear rate steps below 400 sec^{-1}.

The Run #8 surrogate flow curve analysis (stabilized surrogate flow curve) shear stress was several times greater than the Run #2 tank farm waste shear stress for the increasing shear rate steps below 100 sec^{-1}. The tank farm waste shear stress was ≤60% less than the surrogate shear stress for the increasing shear rate steps in the range of 100 to 1000 sec^{-1}. The tank farm waste shear stress was ≤30% less than the surrogate shear stress for the decreasing shear rate steps in the range of 1000 to 500 sec^{-1}. The surrogate shear stress was less than the tank farm waste shear stress for the decreasing shear rate steps below 500 sec^{-1}.

Table 3-10. Tank farm waste sample and SBW surrogate gravity settled slurry flow curve data regression.

D [1/s]	WM-187 Gravity Settled Waste Regression (Run 1)	WM-187 Gravity Settled Waste Regression (Run 2)	Cured META/10wt%/U/S Surrogate Regression	Cycled META/10wt%/U/S Surrogate Regression
0.1 – 0.9	—	—	Herschel Bulkley: Tau=1.5329+1.1661*D^3.0156 B=0.70492; S=0.213	—
1.0 – 9.0	—	—	—	Bingham: Tau=1.219+-0.044847*D B=0.25576; S=0.159
10 – 90	Herschel Bulkley: Tau=1.953+6.9887e-09*D^3.8594 B=0.92628; S=0.0345	Casson: SQRT(Tau)=SQRT(1.6154) +SQRT(0.0013947*D) B=0.98352; S=0.0331	Bingham: Tau=5.4358+-0.015289*D B=0.23323; S=0.812	Herschel Bulkley: Tau=0.68765+0.028653*D^0.78516 B=0.99837; S=0.0103
100 – 1000	Herschel Bulkley: Tau=1.6833+0.0083313*D^0.93713 B=0.9997; S=0.0295	Herschel Bulkley: Tau=2.0017+0.013851*D^0.86377 B=0.99977; S=0.0251	Herschel Bulkley: Tau=0+0.70417*D^0.37439 B=0.99539; S=0.127	Herschel Bulkley: Tau=0.028137+0.089212*D^0.65198 B=0.99942; S=0.0529
1000 – 1000	—	—	—	—
1000 – 100	Herschel Bulkley: Tau=1.9707+0.014155*D^0.85535 B=0.99984; S=0.02	Herschel Bulkley: Tau=2.0537+0.014118*D^0.85791 B=0.99963; S=0.0312	Herschel Bulkley: Tau=0+0.018614*D^0.88806 B=0.99954; S=0.057	Herschel Bulkley: Tau=0+0.013719*D^0.91626 B=0.99983; S=0.0317
90 – 10	Herschel Bulkley: Tau=1.5957+0.13606*D^0.45215 B=0.99024; S=0.0233	Herschel Bulkley: Tau=1.6657+0.14891*D^0.43579 B=0.98773; S=0.026	Steiger Ory: D=37.952*Tau+45.324*Tau^3 B=0.99002; S=1.83	Steiger Ory: D=75.949*Tau+35.37*Tau^3 B=0.99198; S=1.27
9.0 – 1.0	Bingham: Tau=1.7633+0.022289*D B=0.91193; S=0.00985	Ostwald: Tau=1.5462*D^0.1247 B=0.78352; S=0.0275	—	—

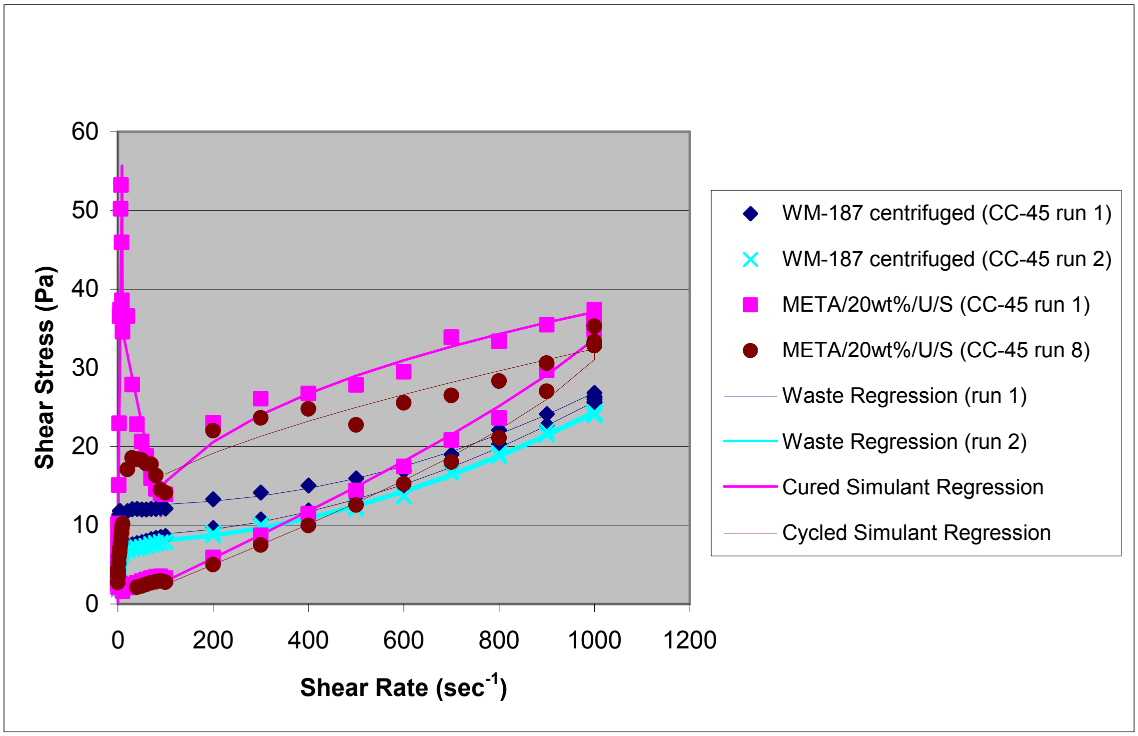


Figure 3-39. WM-187 centrifuged and META/20wt%/U/S surrogate data regression.

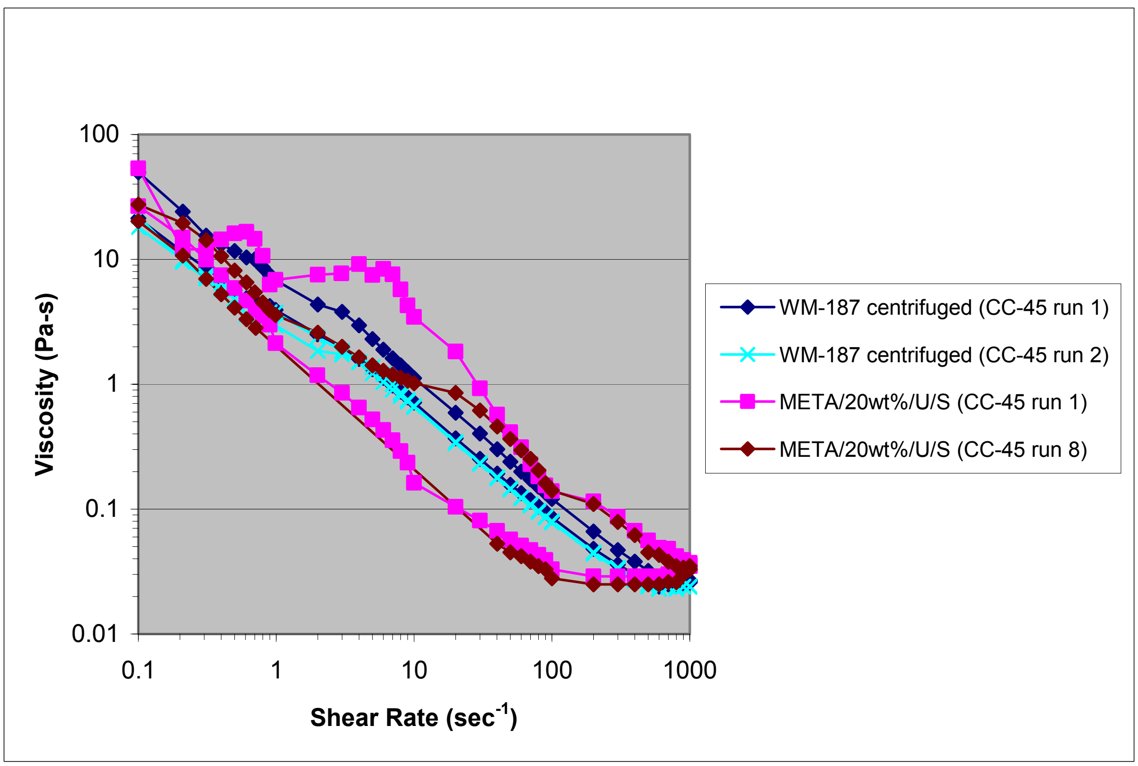


Figure 3-40. WM-187 centrifuged and META/20wt%/U/S surrogate viscosity comparison.

The differences between the META/20wt%/U/S Run #1 and Run #8 flow curves are indicative of the thixotropic nature of the surrogate. The tank farm waste centrifuged slurry sample displayed a much lower level of thixotropy than the META/20wt%/U/S SBW slurry surrogate sample. The META/20wt%/U/S SBW surrogate sample thixotropy may render the surrogate conservative for activities involving simulation of settled SBW sludge handling operations. However, the META/20wt%/U/S surrogate thixotropy could result in a unconservative estimate of SBW sludge flow properties for extended pumping/agitation operations.

The META/20wt%/U/S surrogate and tank farm waste centrifuged slurry are pseudoplastic fluids. Pseudoplastic fluids display a decreasing viscosity with an increasing shear rate, as shown in Figure 3-40. Pseudoplastic flow behavior is sometimes referred to as "shear thinning."

A number of surrogate formulation and conditioning measures could be taken to reduce the particle agglomeration and thixotropy of the surrogate slurries. The bulk of the SBW solids surrogate is composed of silica and alumina. The silica is largely in the form of silica gels, which contribute to the agglomeration and high thixotropy. Although the silica composition is similar to that of the tank farm waste, the tank farm waste has had years of aging in a highly radioactive environment that have propagated silica gel dewatering reactions. The surrogate could be artificially aged by thermal conditioning. Alternatively, the composition of the solids surrogate could be altered by precipitating a higher quantity of metal oxides from the metathesis mother liquor. It is expected that either modification would reduce the tendency of the SBW solids surrogate particles toward agglomeration, thereby reducing the surrogate thixotropy.

Tank farm waste and surrogate sample shear stress – shear rate data regression correlations were calculated for increasing shear rate over the intervals of 0.1 – 0.9, 1.0 – 9.0, 10 – 90, and 100 – 1000 sec^{-1} and decreasing shear rate over the intervals of 1000 – 100, 90 – 10, 9.0 – 1.0, and 0.9 – 0.1 sec^{-1}. The shear stress – shear rate data regression correlations are presented in Table 3-11. The solid lines in Figure 3-39 represent the data regression expressions for each increasing and decreasing shear rate step presented in Table 3-11, while the marker symbols represent experimental flow curve data.

Figure 3-41 indicates that the shape of the 187/20 wt %/D/S sample flow curve bears a significant resemblance to that of the centrifuged WM-187 tank farm waste sample flow curve. Although the 187/20 wt %/D/S flow curve shear stress is lower than that of the centrifuged WM-187 tank farm waste sample, the thixotropy of the 187/20 wt %/D/S sample is more similar to that of the centrifuged WM-187 tank farm waste sample than the META/20 wt %/U/S sample. One notable difference between the 187/20 wt %/D/S and centrifuged WM-187 tank farm waste sample was the solids volume percentage. The solids volume percentage of the 187/20 wt %/D/S sample (~95 solids volume percentage) was less than that of the centrifuged WM-187 tank farm waste sample (~100 solids volume percentage). If the solids volume percentage of the 187/20 wt %/D/S sample was increased to the level of the centrifuged WM-187 tank farm waste sample, or approximately 100 solids volume percent, there is a high probability that the 187/20 wt %/D/S surrogate sample could provide a conservative representation of the centrifuged tank farm solids. A comparison of the 187/20 wt %/D/S and centrifuged WM-187 tank farm waste viscosity versus shear rate plots is provided in Figure 3-42.

A WM-187 centrifuged tank farm waste sample was allowed to sit overnight and the flow curve analysis was repeated. The flow curve was essentially identical to the WM-187 centrifuged sample flow curve shown in Figure 3-39. The WM-187 centrifuged tank farm waste sample was then allowed to sit for an additional six days and the flow curve analysis was repeated with substantially different results. It is suspected that during the six day period the sample dried out to the extent that the flow curve was no longer representative of a wet tank farm sample. The six day sample is, therefore, not included in this report. The data and flow curve plot are, however, included in Appendix E.

Table 3-11. Tank farm waste sample and SBW surrogate centrifuged slurry flow curve data regression.

D [1/s]	WM-187 Centrifuged Waste Regression (Run 1)	WM-187 Centrifuged Waste Regression (Run 2)	Cured META/20wt%/U/S Surrogate Regression	Cycled META/20wt%/U/S Surrogate Regression
0.1 - 0.9	Herschel Bulkley: Tau=4.583+2.9093*D^1.2469 B=0.86775; S=0.342	Herschel Bulkley: Tau=2.1713+1.2324*D^3.7188 B=0.8584; S=0.125	Herschel Bulkley: Tau=1.6443+7.6736*D^0.5 B=0.39421; S=2.26	—
1.0 - 9.0	Ostwald: Tau=7.6034*D^0.22347 B=0.65522; S=1.07	Ostwald: Tau=3.0645*D^0.424 B=0.84244; S=0.661	Casson: SQRT(Tau)=SQRT(1.2035)+SQRT (4.5011*D) B=0.71235; S=9.14	Herschel Bulkley: Tau=1.0163+2.7192*D^0.51538 B=0.99145; S=0.191
10 - 90	Ostwald: Tau=10.665*D^0.03053 B=0.77539; S=0.147	Herschel Bulkley: Tau=6.5597+0.01868*D^0.94507 B=0.99528; S=0.0289	Bingham: Tau=37.533+-0.29326*D B=0.91244; S=2.66	—
100 - 1000	Herschel Bulkley: Tau=12.544+8.7234e-06*D^2.0714 B=0.99321; S=0.43	Herschel Bulkley: Tau=7.96+5.0022e-05*D^1.8401 B=0.9964; S=0.36	Steiger Ory: D=2.0508*Tau+0.018085*Tau^3 B=0.9651; S=60	Casson: SQRT(Tau)=SQRT(10.974) +SQRT(0.0056691*D) B=0.85757; S=2.25
1000 - 1000	—	—	—	—
1000 - 100	Herschel Bulkley: Tau=8.6648+3.8418e-05*D^1.8823 B=0.99733; S=0.32	Herschel Bulkley: Tau=7.7476+4.6611e-05*D^1.849 B=0.99768; S=0.286	Steiger Ory: D=34.487*Tau+-0.0042024*Tau^3 B=0.99372; S=25.5	Steiger Ory: D=40.275*Tau+-0.0083702*Tau^3 B=0.99616; S=19.9
90 - 10	Herschel Bulkley: Tau=6.9287+0.032217*D^0.8656 B=0.9976; S=0.0241	Herschel Bulkley: Tau=6.3752+0.026712*D^0.87378 B=0.99786; S=0.0196	Herschel Bulkley: Tau=0+0.72603*D^0.35352 B=0.99574; S=0.0359	Steiger Ory: D=7.2672*Tau+2.6852*Tau^3 B=0.99424; S=1.59
9.0 - 1.0	Ostwald: Tau=4.1535*D^0.26602 B=0.93349; S=0.294	Ostwald: Tau=3.9643*D^0.25019 B=0.93068; S=0.264	—	—
0.9 - 0.1	Herschel Bulkley: Tau=2.1596+1.759*D^1.377 B=0.96599; S=0.101	Herschel Bulkley: Tau=0.049261+3.4264*D^0.33948 B=0.98481; S=0.06	Steiger Ory: D=0.60195*Tau+-0.050896*Tau^3 B=0.21275; S=0.259	Bingham: Tau=2.1731+-0.21054*D B=0.25911; S=0.0849

Table 3-12. Tank farm waste sample and SBW surrogate centrifuged slurry flow curve data regression.

D [1/s]	WM-187 Centrifuged Waste Regression (Run 1)	WM-187 Centrifuged Waste Regression (Run 2)	Cured 187/20wt%/D/S Surrogate Regression	Cycled 187/20wt%/D/S Surrogate Regression
0.1 - 0.9	Herschel Bulkley: Tau=4.583+2.9093*D^1.2469 B=0.86775; S=0.342	Herschel Bulkley: Tau=2.1713+1.2324*D^3.7188 B=0.8584; S=0.125	Herschel Bulkley: Tau=2.9951+8.6585e-05*D^-4.9996 B=0.95201; S=0.689	Herschel Bulkley: Tau=0+4.9718*D^0.38147 B=0.90984; S=0.306
1.0 - 9.0	Ostwald: Tau=7.6034*D^0.22347 B=0.65522; S=1.07	Ostwald: Tau=3.0645*D^0.424 B=0.84244; S=0.661	Steiger Ory: D=0.72658*Tau+-0.001341*Tau^3 B=0.45474; S=2.16	—
10 - 90	Ostwald: Tau=10.665*D^0.03053 B=0.77539; S=0.147	Herschel Bulkley: Tau=6.5597+0.01868*D^0.94507 B=0.99528; S=0.0289	Bingham: Tau=11.484+-0.065744*D B=0.62691; S=1.48	Bingham: Tau=8.1142+-0.018352*D B=0.35874; S=0.718
100 - 1000	Herschel Bulkley: Tau=12.544+8.7234e-06*D^2.0714 B=0.99321; S=0.43	Herschel Bulkley: Tau=7.96+5.0022e-05*D^1.8401 B=0.9964; S=0.36	Herschel Bulkley: Tau=6.253+0.00027557*D^1.6198 B=0.98967; S=0.726	Herschel Bulkley: Tau=6.1113+2.0236e-05*D^1.9795 B=0.98434; S=0.805
1000 - 1000	—	—	—	—
1000 - 100	Herschel Bulkley: Tau=8.6648+3.8418e-05*D^1.8823 B=0.99733; S=0.32	Herschel Bulkley: Tau=7.7476+4.6611e-05*D^1.849 B=0.99768; S=0.286	Herschel Bulkley: Tau=2.5948+3.0738e-05*D^1.9485 B=0.99787; S=0.362	Herschel Bulkley: Tau=1.6252+0.00012163*D^1.7412 B=0.99738; S=0.374
90 - 10	Herschel Bulkley: Tau=6.9287+0.032217*D^0.8656 B=0.9976; S=0.0241	Herschel Bulkley: Tau=6.3752+0.026712*D^0.87378 B=0.99786; S=0.0196	Ostwald: Tau=3.0981*D^0.012975 B=0.66443; S=0.023	Herschel Bulkley: Tau=2.6703+2.2585e-10*D^4.3906 B=0.56554; S=0.0344
9.0 - 1.0	Ostwald: Tau=4.1535*D^0.26602 B=0.93349; S=0.294	Ostwald: Tau=3.9643*D^0.25019 B=0.93068; S=0.264	Herschel Bulkley: Tau=3.5151+0.19417*D^-4.9531 B=0.57521; S=0.0622	Herschel Bulkley: Tau=2.9722+0.233*D^-2.125 B=0.7022; S=0.0532
0.9 - 0.1	Herschel Bulkley: Tau=2.1596+1.759*D^1.377 B=0.96599; S=0.101	Herschel Bulkley: Tau=0.049261+3.4264*D^0.33948 B=0.98481; S=0.06	Ostwald: Tau=4.8167*D^0.35007 B=0.93106; S=0.228	Ostwald: Tau=3.9923*D^0.33725 B=0.97289; S=0.0914

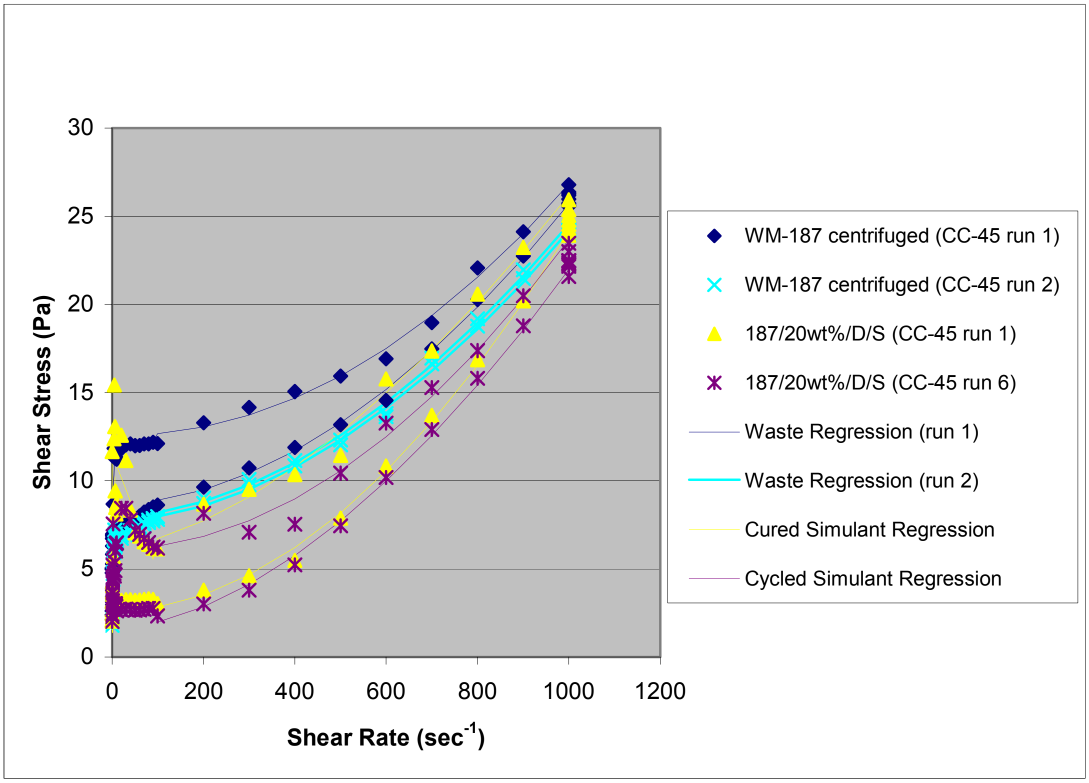


Figure 3-41. WM-187 centrifuged and 187/20wt%/D/S surrogate data comparison.

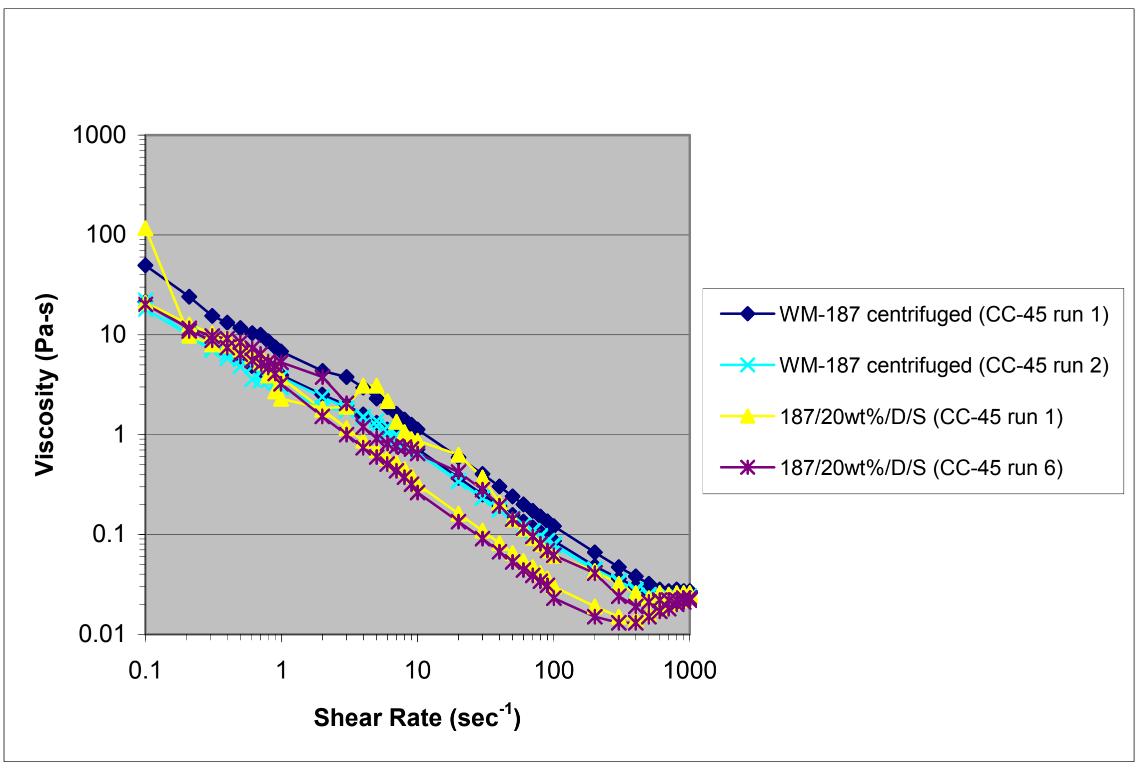


Figure 3-42. WM-187 centrifuged and 187/20wt%/D/S surrogate viscosity comparison.

3.4.2.2 Flow Curves for Various Surrogate Samples. Several SBW surrogate preparation parameters were varied to produce surrogates with a range of compositions and physical properties. The sample preparation parameters that were varied were solids weight percentage, liquid surrogate composition, solids surrogate batch (i.e., FY-03 or FY-04 solids), and particle size distribution. A flow curve analysis was performed on each of the differently prepared samples. The sample preparation parameters were varied to increase the probability of testing a range of surrogates with physical properties similar to the tank farm waste samples analyzed after the SBW surrogates. Analysis of the differently prepared samples provided insight into how the sample flow curve profile and rheological properties responded to changes in each of the sample preparation parameters. In addition to variation of sample preparation parameters, flow curve analyses were performed at different temperatures. These data are useful because they provide insight into how the tank farm waste may react to similar changes.

3.4.2.2.1 Solids Weight Percentage—Physical property analyses were performed on SBW surrogate samples with solids weight percentages ranging from 0 to 20 wt%. The analyses performed on each SBW surrogate sample included a shear stress versus shear rate flow curve.

The flow curves of samples prepared using 0 to 20 weight percentage sonicated FY-04 undried SBW solids surrogate in metathesis mother liquor liquid surrogate were compared. The lower viscosity limit of the Brookfield R/S rheometer prevented the zero solids weight percent surrogate from being tested in the CC-45 measuring system geometry in which the 5 – 20 solids weight percentage surrogates were analyzed at shear rates from 0.1 to 1000 sec^{-1}. Conversely, the 20 solids weight percent surrogate was not tested in the DG measuring system in which the 0 to 15 solids weight percentage surrogates were analyzed at shear rates from 500 – 4000 sec^{-1} due to solids loading concerns. Therefore, two flow curve comparison plots were constructed, the first with 5 to 20 solids weight percentage surrogates analyzed at shear rates ranging from 0.1 to 1000 sec^{-1}, and a second with 0 to 15 solids weight percentage surrogates analyzed at shear rates ranging from 500 to 4000 sec^{-1}. Both flow curve comparison plots illustrated a trend of increasing shear stress with increasing sample solids weight percentage for a given shear rate. Figure 3-43 is a plot of the 5 to 20 solids weight percentage sample flow curves with a shear rate range of 0.1 to 1000 sec^{-1}. The shear stress is greatest for the samples of the highest solids weight percentage, 20 wt% > 15 wt% > 10 wt% > 5 wt%. Figure 3-44 is a plot of the 0 to 15 solids weight percentage sample flow curves with a shear rate range of 500 to 4000 sec^{-1}. Again, the shear stress is greatest for the samples of the highest solids weight percentage, 15 wt% > 10 wt% > 5 wt% > 0 wt%.

3.4.2.2.2 Liquid Surrogate and Solids Surrogate Batch—Physical property analyses were performed on SBW surrogate samples formulated using different liquid surrogates. Liquid surrogates used in SBW surrogate sample formulation included WM-180, WM-187, and WM-189 liquid surrogates as well as the metathesis mother liquor. A shear rate versus shear stress flow curve analysis was performed on several samples formulated with each of the four liquid surrogates.

The flow curves of samples prepared using the various liquid surrogates were compared. Samples with 0, 5, and 20 solids weight percentage sonicated FY-04 undried SBW solids surrogate were compared. Flow curve comparison plots were constructed for samples that had identical solids weight percentages prepared using different liquid surrogates. The samples compared in these plots had similar particle size distributions and the solid surrogates were from the same batch where possible (the WM-187 liquid surrogate was only used with FY-03 solids surrogate, and the FY-03 solids surrogate was only used with the WM-187 liquid surrogate).

Figure 3-45 is a plot of the various 0 solids weight percent surrogate flow curves at shear stresses ranging from 500 to 4000 sec^{-1}. Figure 3-46 and Figure 3-47 are plots of the 5 and 20 weight percent surrogate flow curves, respectively, at shear stresses ranging from 0.1 to 1000 sec^{-1}. In each of the plots, the shear stress profiles for the four liquid surrogates follow the pattern WM-189 > WM-180 > META > WM-187.

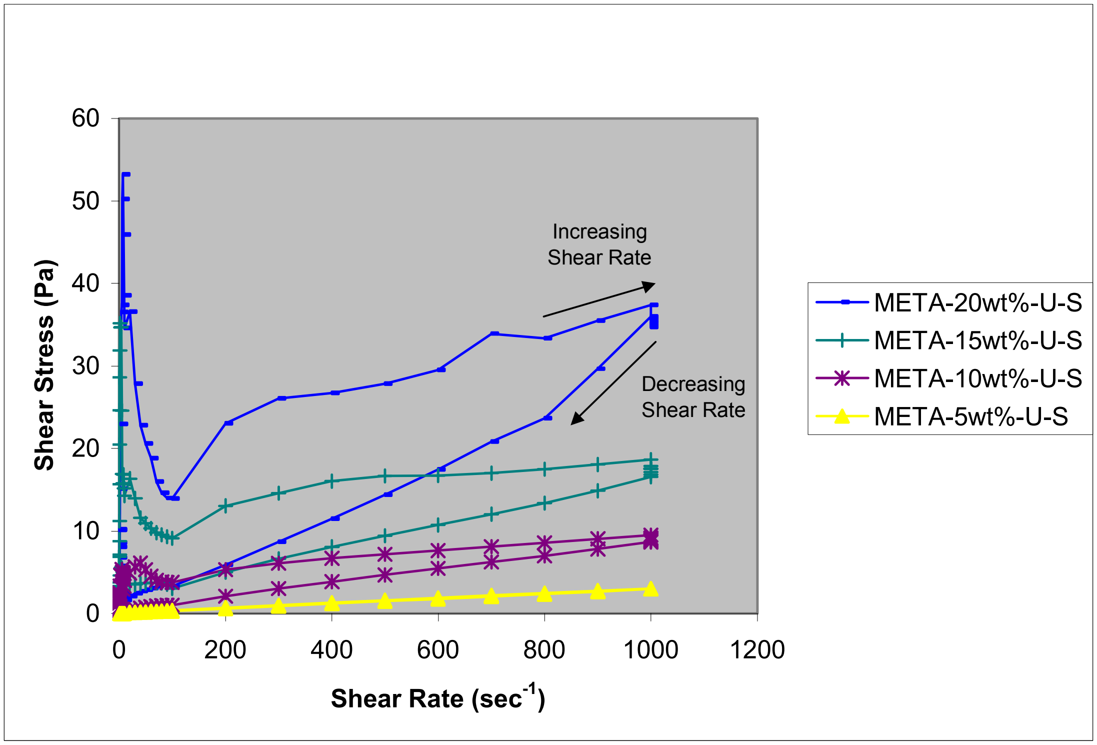


Figure 3-43. META/5/10/15/20 wt% comparison.

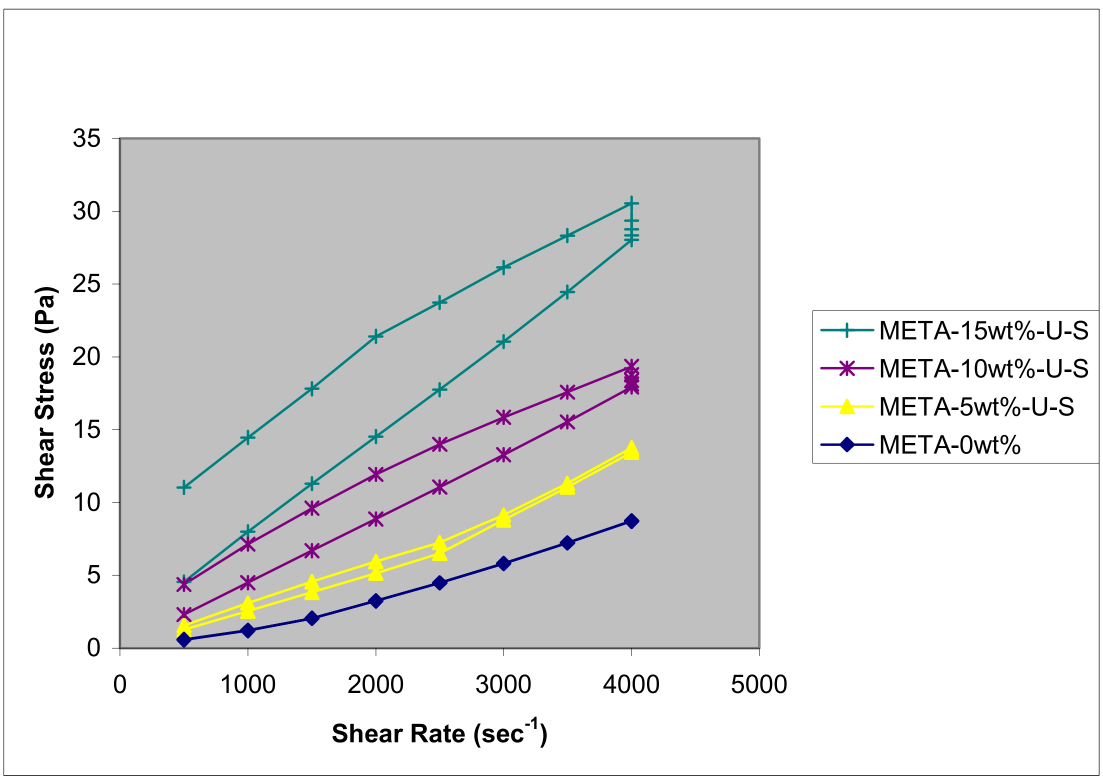


Figure 3-44. META 0/5/10/15 wt% comparison.

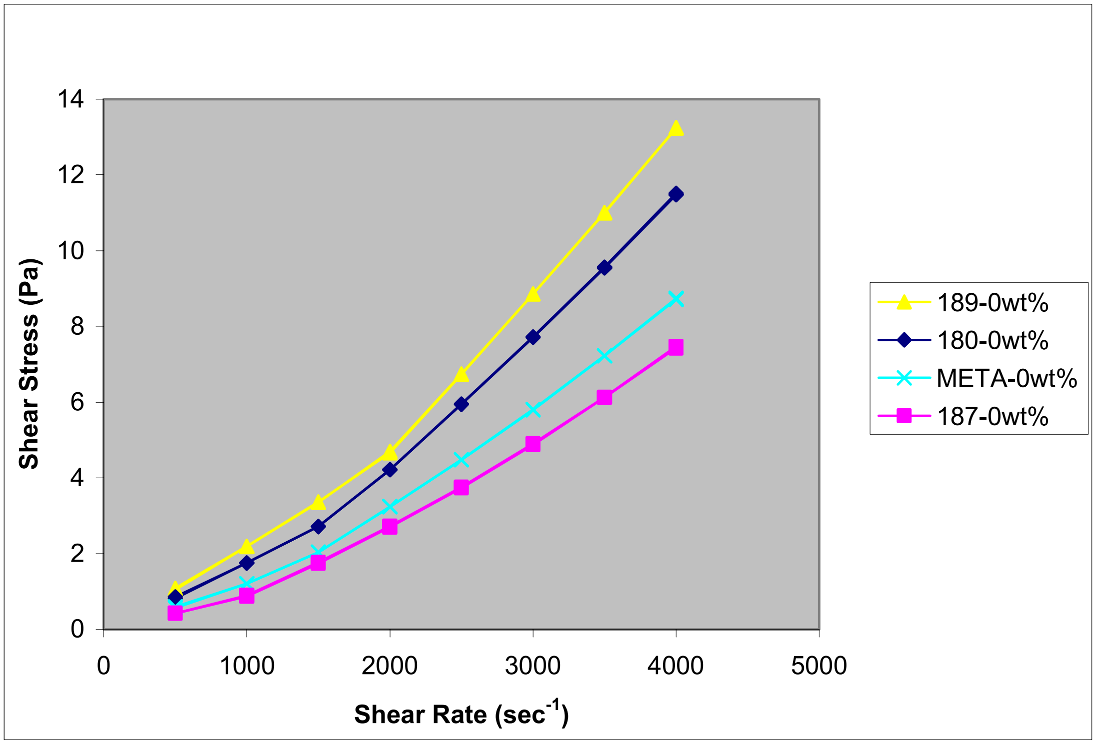


Figure 3-45. 0 wt% flow curve comparison.

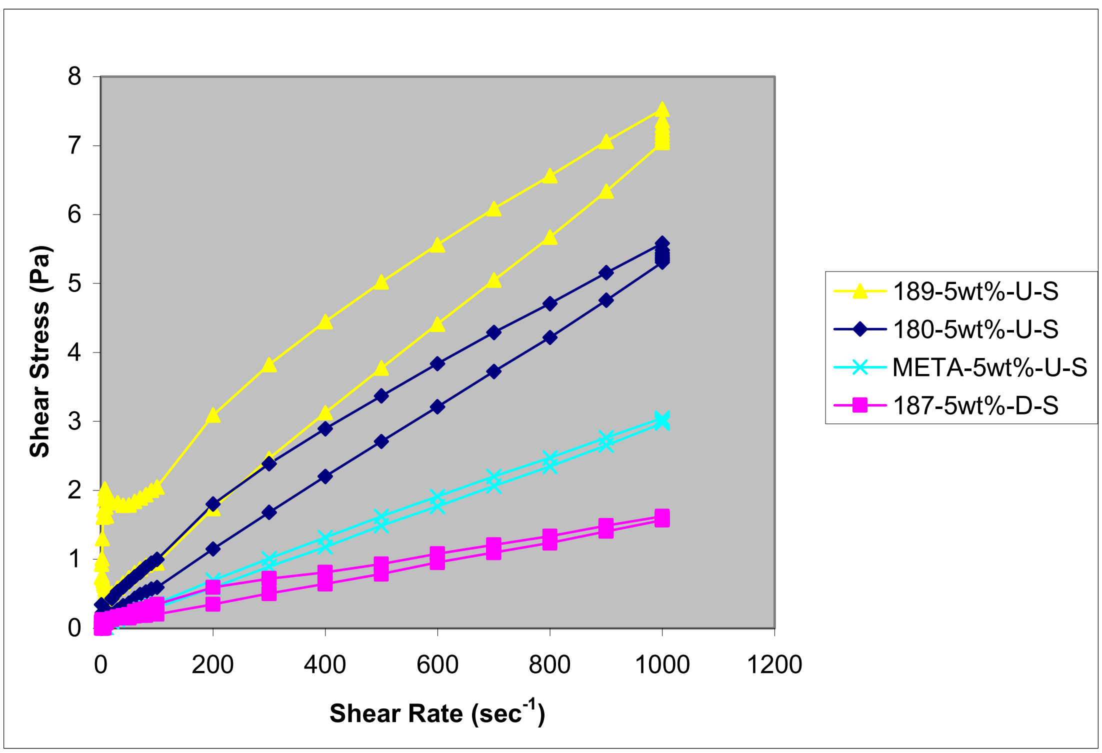


Figure 3-46. 5wt% comparison (1 – 1000 s^{-1}).

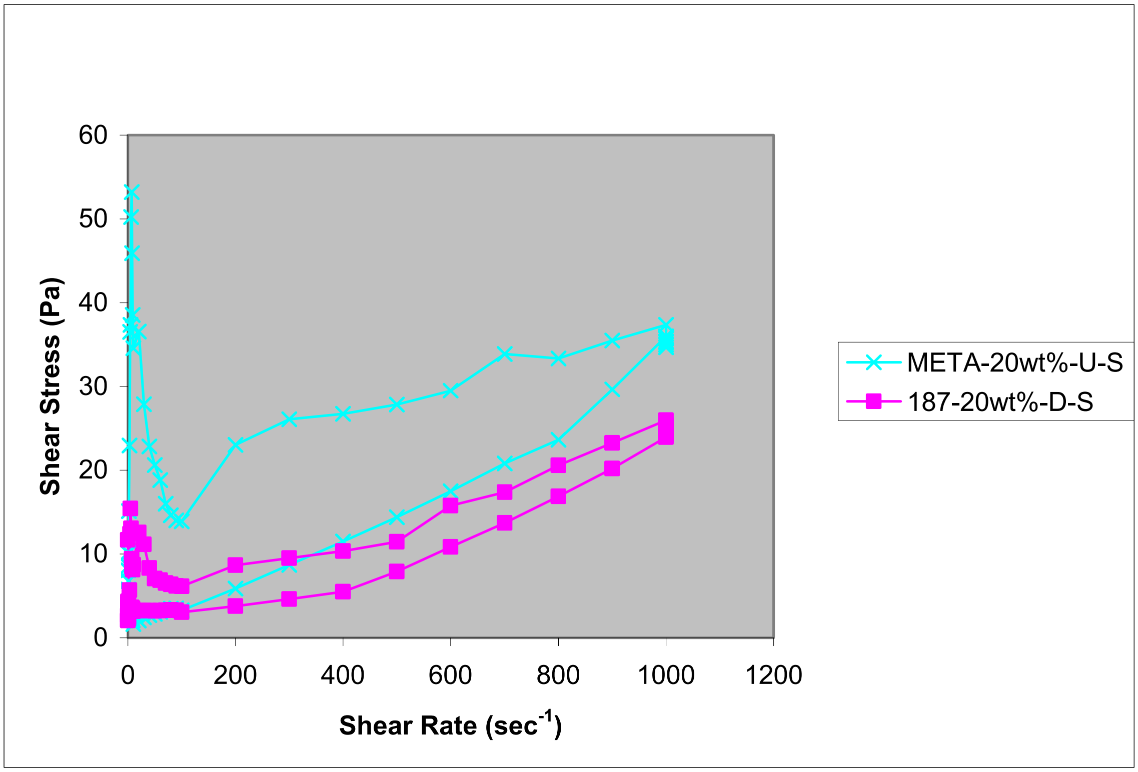


Figure 3-47. 20 wt % comparison.

3.4.2.2.3 Particle Size Distribution—Physical property analyses were performed on SBW surrogate samples with nonsonicated and sonicated SBW solids surrogate. Sonication of the SBW surrogate broke apart surrogate particle agglomerates and decreased the particle size distribution to result in a smaller mean particle diameter of the surrogate particles. A shear rate versus shear stress flow curve analysis was performed on several samples in each sonication state.

Flow curve comparison plots were constructed for samples that had identical surrogate compositions but different particle size distributions arising from the sample sonication state. The samples compared in these plots were formulated with the same solids weight percentage from the same solids and liquid surrogate batches. Each flow curve analysis was performed on a sample of the nonsonicated surrogate prior to sonicating the sample and repeating the flow curve analysis.

Figure 3-48 through Figure 3-55 are plots of flow curves for various nonsonicated versus sonicated SBW surrogates. All plots provide flow curve data at shear rates ranging from 0.1 to 1000 sec^{-1}.

For six of the eight samples compared, the sonicated sample flow curve had a higher shear stress profile than the nonsonicated sample. The remaining two samples, the META/20 wt %/U and 187/5 wt %/D samples, displayed the opposite trend and had a nonsonicated sample flow curve with a higher shear stress profile than the sonicated sample. It is unknown why this anomaly occurred, but is suspected that the FY-04 (undried) solids surrogate, which was in general more gelatinous than the FY-03 (dried) solids surrogate, used in the META/20wt%/U sample attained a higher shear stress when the nonsonicated solids loading was at the highest level. The sonicated samples may have flowed more readily at the higher solids loading. It is suspected that the FY-03 (dried) solids surrogate behaved in the opposite manner. More specifically, the granular FY-03 solids surrogate in the low solids loading 187/5wt%/D samples flowed less readily in nonsonicated form when the larger particles provided more

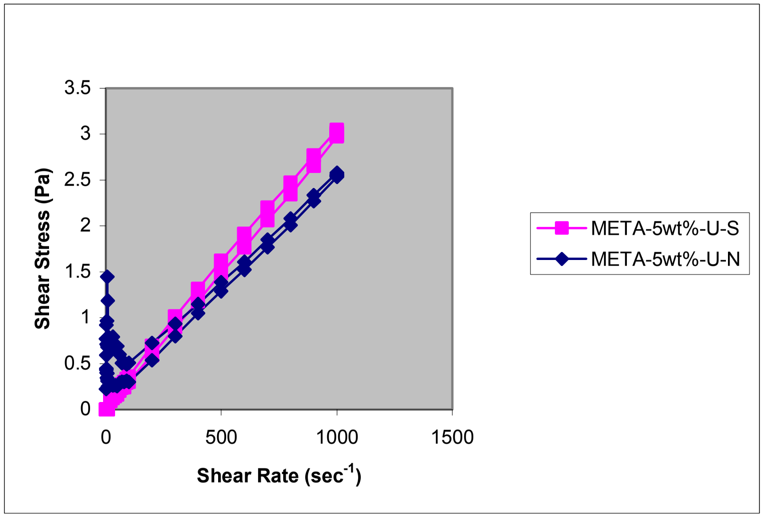


Figure 3-48. META/5wt%/U/S versus META/5wt%/U/N flow curve comparison.

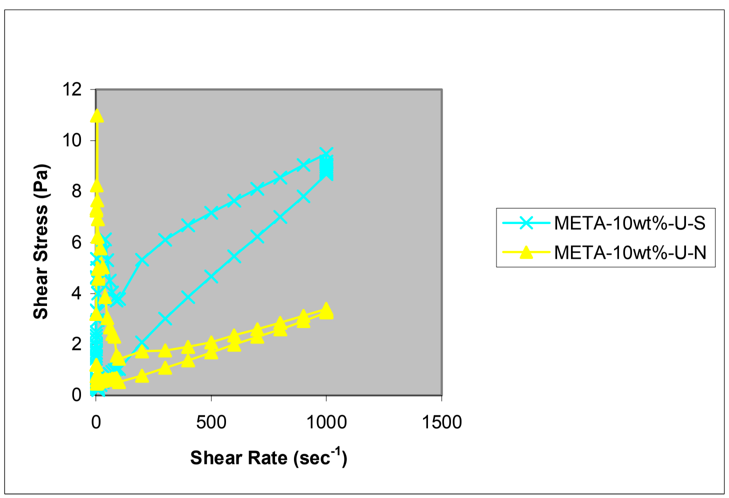


Figure 3-49. META/10wt%/U/S versus META/10wt%/U/N flow curve comparison.

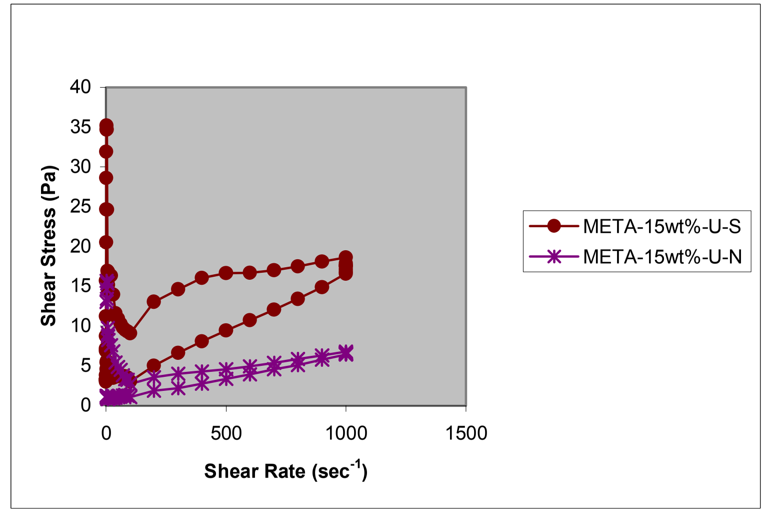


Figure 3-50. META/15wt%/U/S versus META/15wt%/U/N flow curve comparison.

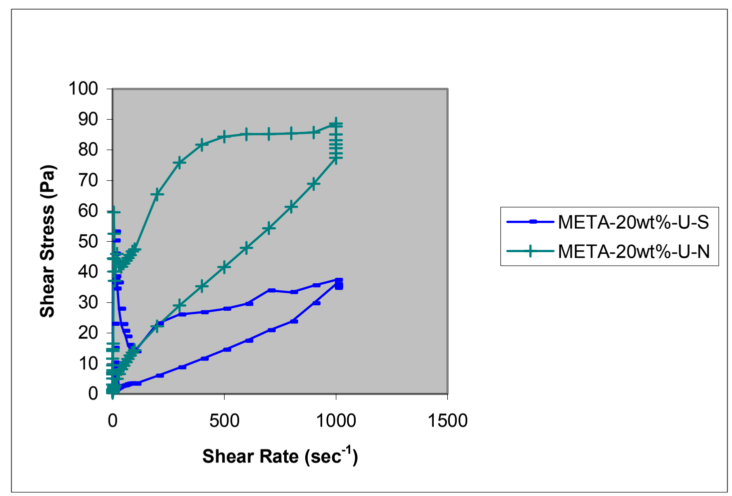


Figure 3-51. META/20wt%/U/S versus META/20wt%/U/N flow curve comparison.

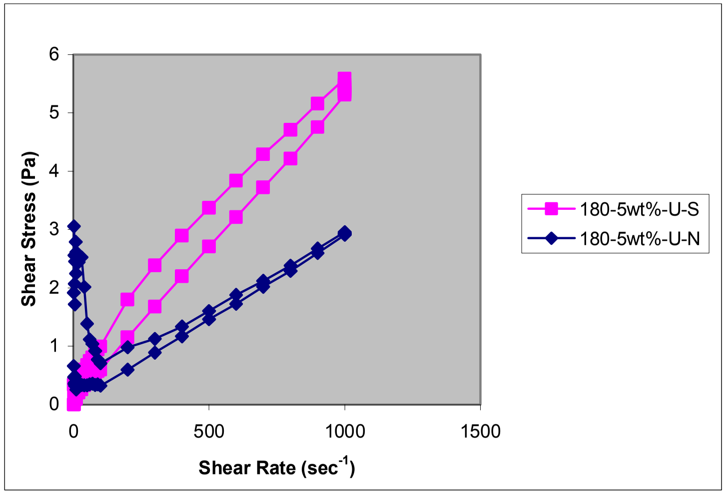


Figure 3-52. 180/5wt%/U/S versus 180/5wt%/U/N flow curve comparison.

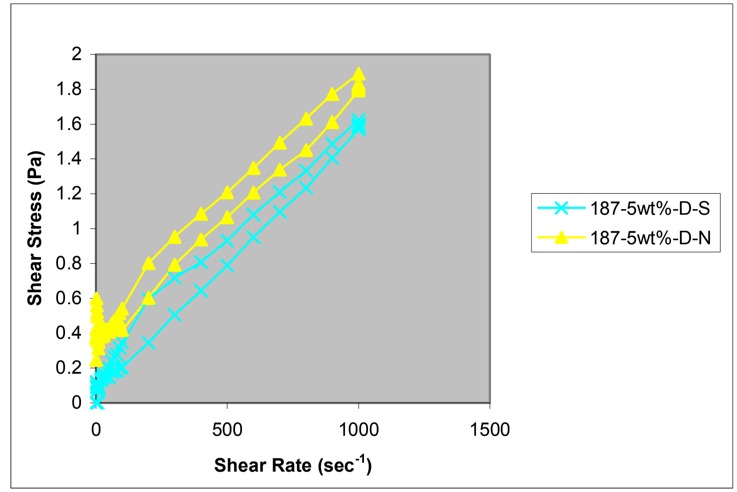


Figure 3-53. 187/5wt%/D/S versus 187/5wt%/D/N flow curve comparison.

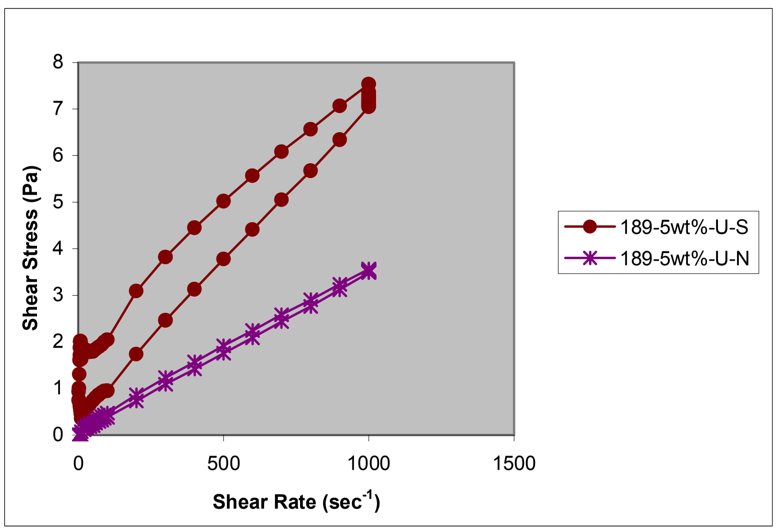


Figure 3-54. 189/5wt%/U/S versus 189/5wt%/U/N flow curve comparison.

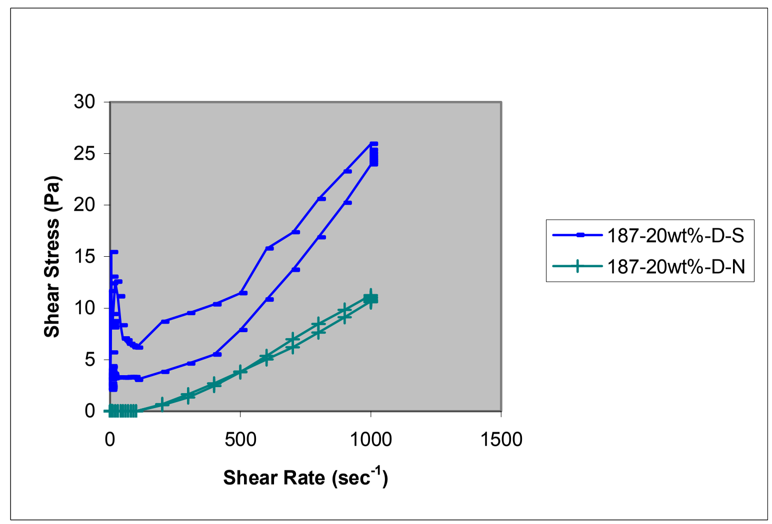


Figure 3-55. 187/20wt%/D/S versus 187/20wt%/D/N flow curve comparison.

"structural" flow resistance. Sonication of the 187/5 wt %/D samples allowed them to flow around each other more readily, thus decreasing the shear stress recorded in the flow curve analysis.

The flow curve analyses were repeated in the 500 – 4000 sec^{-1} shear rate range with the same general results found for the 0.1 to 1000 sec^{-1} shear rate plots. One exception was the 187/5 wt %/D/N and 187/5 wt %/D/S samples, where the sonicated sample shear stress surpassed the nonsonicated sample shear stress at a shear rate of approximately 2500 sec^{-1}.

3.4.2.2.4 Temperature—Flow curve analyses were performed on identically prepared SBW surrogate samples at two different temperatures. The two temperature ranges were selected to represent two temperatures at which waste analyses/processing operations would likely take place. The first temperature selected, 28°C, was selected to provide a close match to the INTEC RAL hot cell internal temperature so that SBW surrogate sample flow curves could be compared with as few discrepancies as possible. The second temperature selected, 10°C, was selected to provide information on how the sample flow properties would change at decreased temperatures, such as those likely to be encountered when working with SBW stored in the INTEC underground tank farm.

The flow curves of META/20wt%/U/S and META/20wt%/U/N samples at 10 and 28°C were compared at shear rates ranging from 0.1 to 1000 sec^{-1}. Figure 3-56 is a plot of the META/20 wt %/U/S samples and Figure 3-57 is a plot of the META/20wt%/U/N samples. In each plot, the shear stress profile of the 10°C sample exceeds that of the 28°C sample. Since viscosity is generally a decreasing function of temperature, this is as expected.

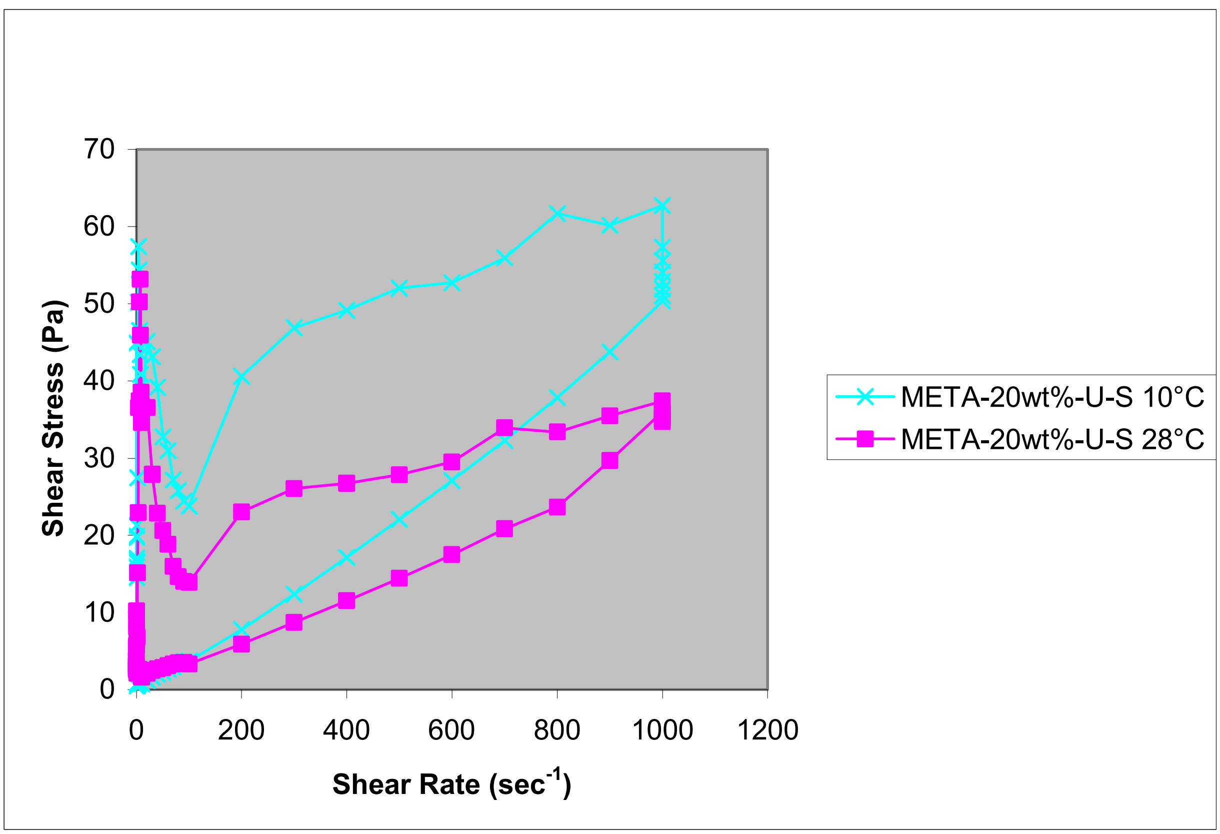


Figure 3-56. META/20wt%/U/S flow curve comparison, 10°C versus 28°C.

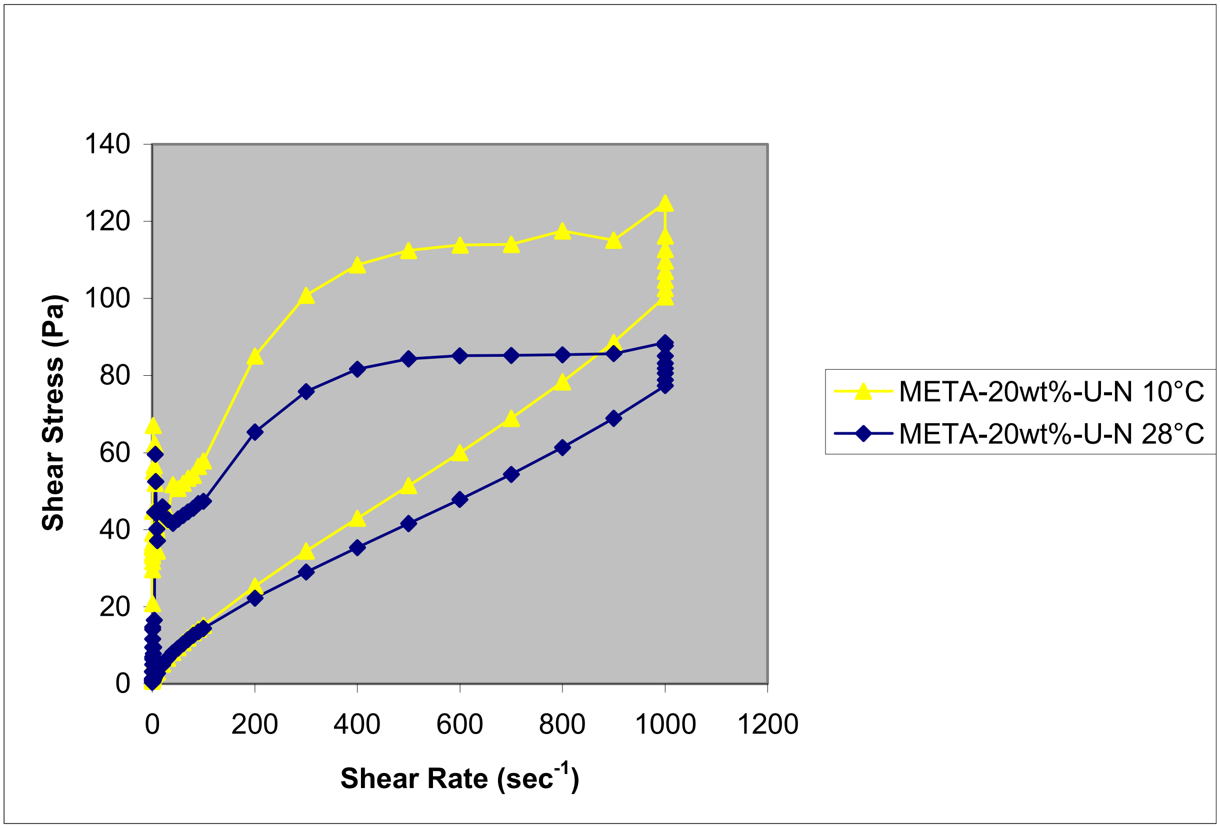


Figure 3-57. META/20wt%/U/N flow curve comparison, 10°C versus 28°C.

3.4.3 Settling Velocity

Settling velocity measurements were performed as described in Section 3.2.3. Stoke's terminal particle settling velocities were calculated using the physical properties of the SBW solids and liquid surrogates for comparison with the experimental settling velocity results. A derivation of Stoke's settling velocity equations is provided in Appendix A. The settling velocity experiments measured the settling velocity of the collection of particles in various SBW surrogate slurries, rather than the settling velocity of a single particle in a uniform liquid phase. Settling velocity calculations were, therefore, performed using the physical properties (density, viscosity) of the liquid surrogate and the surrogate slurry for comparison purposes. The expression for Stoke's terminal settling velocity is:

$$u_t = \frac{gD_p^2\left(\rho_p - \rho\right)}{18\mu}$$

where u_t = Stoke's terminal settling velocity

g = gravitational constant

D_p = particle diameter

ρ_p = particle density

ρ = fluid density

μ = fluid viscosity.

Physical properties of the solids surrogate for use in the Stoke's terminal settling velocity are:

SBW surrogate particle density, ρ_p, 2051 kg/m^3.

The metathesis mother liquor liquid supernate was the liquid surrogate used in the settling velocity experiments (liquid surrogates with flow curve profiles similar to those of the tank farm sample). The physical properties of the META/0 wt % liquid surrogate are:

liquid density, ρ, 1120 kg/m^3

liquid viscosity, μ, 0.001 Pa·s @ 28°C

Table 3-13 provides a comparison of the settling velocities calculated using the META/0 wt% liquid surrogate physical properties and the minimum, mean, and maximum particle diameters of the META/5 wt %/U/S and META/10wt%/U/S samples.

The META/5wt%/U/S and META/10wt%/U/S surrogates were used in the settling velocity experiments since the flow curve profiles were most similar to those of the tank farm "as-received" and "gravity-settled" samples. The META/0wt% and META/20wt%/U/S samples were not analyzed because no settling occurred in these samples. The META/0wt% samples had no undissolved solids and the META/20wt%/U/S sample had no free liquid. The physical properties of the META/5wt%/U/S and META/10wt%/U/S surrogate slurries are:

META/5 wt %/U/S slurry density, ρ, 1130 kg/m^3

META/5 wt %/U/S slurry viscosity, μ, 0.006 Pa·s @ 28°C

META/10 wt %/U/S slurry density, ρ, 1160 kg/m^3

META/10 wt %/U/S slurry viscosity, μ, 2.2 Pa·s @ 28°C.

The META/5 wt %/U/S and META/10 wt %/U/S slurry viscosity readings were taken after the flow curve analysis readings had stabilized and displayed no further thixotropic effects. This condition was selected to simulate the well-mixed conditions under which the settling velocity samples were loaded into the settling chambers. The viscosity readings were taken at the lowest shear rate the viscometer was able to record for each sample, 20 sec^{-1} for the META/5wt%/U/S sample and 0.1 sec^{-1} for the META/10wt%/U/S sample.

Table 3-13. Settling velocity for META/5wt%/U/S and META/10wt%/U/S samples (using liquid density and viscosity in settling velocity calculations).

Sample	Minimum Particle Diameter Settling Velocity [mm/hr]	Mean Particle Diameter Settling Velocity [mm/hr]	Maximum Particle Diameter Settling Velocity [mm/hr]
META/5wt%/U/S	0.4 mm/hr (0.49 µm)	690 mm/hr (19.4 µm)	28000 mm/hr (125 µm)
META/10wt%/U/S	0.6 mm/hr (0.58 µm)	810 mm/hr (21.1 µm)	40000 mm/hr (148 µm)

Table 3-14 provides a comparison of the settling velocities calculated using the META/5 wt %U/S and META/10 wt %/U/S slurry physical properties and the minimum, mean, and maximum particle diameters of the META/5 wt %/U/S and META/10wt%/U/S samples.

Table 3-14. Settling velocity for META/5wt%/U/S and META/10wt%/U/S samples (using slurry density and viscosity in settling velocity calculations).

Sample	Minimum Particle Diameter Settling velocity [mm/hr]	Mean Particle Diameter Settling Velocity [mm/hr]	MAXIMUM PARTICLE DIAMETER SETTLING VELOCITY [mm/hr]
META/5 wt %/U/S	0.07 mm/hr (0.49 µm)	110 mm/hr (19.4 µm)	4600 mm/hr (125 µm)
META/10 wt %/U/S	0.0003 mm/hr (0.58 µm)	0.35 mm/hr (21.1 µm)	17 mm/hr (148 µm)

Figure 3-58 is a plot of the META/5wt%/U/S and META/10 wt %/U/S settling velocity measurements. The settling type was identified as compression settling (see Appendix A for a discussion of compression settling versus particulate settling). The settling velocity readings for the META/5 wt %/U/S sample ranged from 0.04 to 0.25 mm/hr. The settling velocity readings for the META/10 wt %/U/S sample ranged from 0.01 to 0.12 mm/hr. The minimum observed settling velocity readings are comparable to the settling velocity values calculated using the slurry density and viscosity physical properties. The maximum observed settling velocity readings are comparable to the settling velocity values calculated using the liquid surrogate density and viscosity. In each case, the calculated settling velocity values are slightly greater than the observed values. This may be due to electrical charges on the individual slurry particles altering the settling velocity. Particle charges are not accounted for in Stoke's terminal velocity expression. An attempt was made to quantify the electrical charge, or zeta potential, of the SBW surrogate solid particles in the surrogate slurry samples, but the pH of the samples was below the pH range acceptable to the zeta potentiometer. Creation of a zeta potential versus dilution ratio curve to extrapolate the zeta potential at low pH was attempted unsuccessfully.

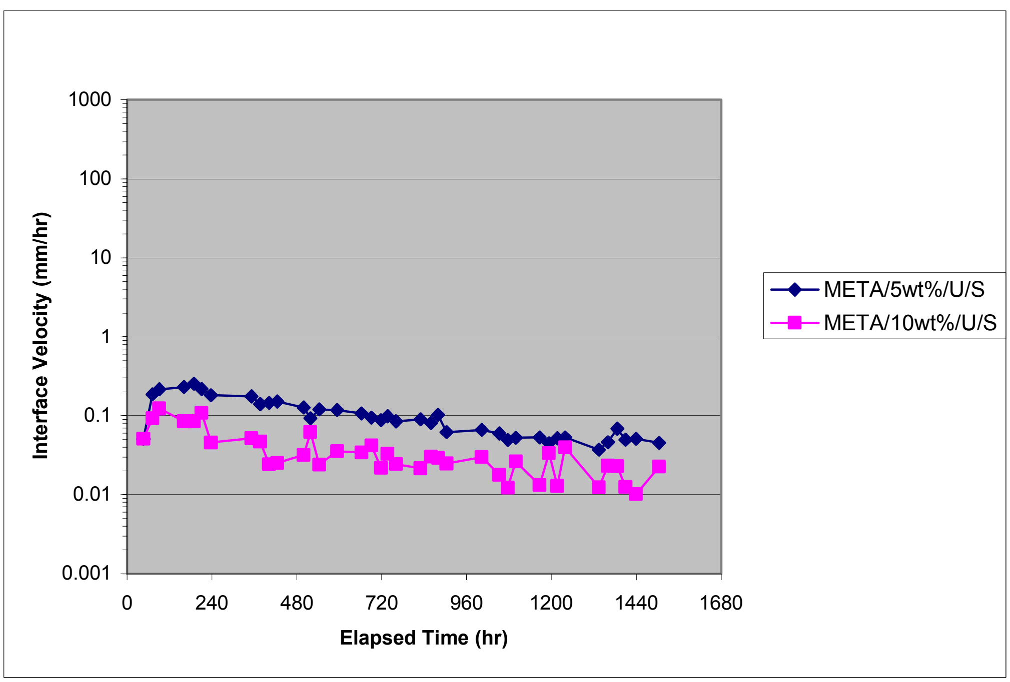


Figure 3-58. META/5wt%/U/S and META/10wt%/U/S interface velocity in 100 mL settling chamber.

Settling of the WM-187 in the 100-mL tubes resulted in a 74.4 mL of as-received sample volume settling to 45.2 mL of solids in the first tube in 15 days. The second tube resulted in a 90.6 mL of as-received sample volume settling to 53.0 mL of solids in 15 days. The 250-mL graduated cylinder started with 88 mL of as-received sample and settled to 55 mL in 8 days. Figure 3-59 is a comparison of the settling velocities of the three WM-187 samples allowed to settle in 100–mL settling chambers. Sample WM-187-1 had tank solids from WM-187, WM-182, and WM-183 in WM-187. Sample WM-187-2 had tank solids from WM-187, WM-182, WM-183, WM-184, WM-185, and WM-186 in WM-187. Sample WM-187-3 had tank solids from WM-187, WM-181, WM-182, WM-183, WM-184, WM-185, and WM-186 in WM-187.

3.4.4 Solids Weight Percentage

Solids weight percentage analysis was performed as described in Section 3.2.4. SBW surrogate and tank farm waste samples were analyzed for solids weight percentage.

Nonsonicated and sonicated surrogate samples displayed very different characteristics following drying. Nonsonicated samples displayed a tendency to wither and discolor upon drying. The dried nonsonicated surrogate samples tended to be crumbly and were readily broken apart. The sonicated samples displayed a tendency to crack upon drying, while continuing to conform to the general shape of the sample evaporating dish. The dried sonicated surrogate samples tended to be hard and brittle and were difficult to break into smaller pieces. Breaking the dried sonicated surrogate samples produced very fine dry particulates, which were difficult to prevent from becoming airborne upon disruption. Figure 3-60 is a photograph of nonsonicated and sonicated surrogate samples following drying.

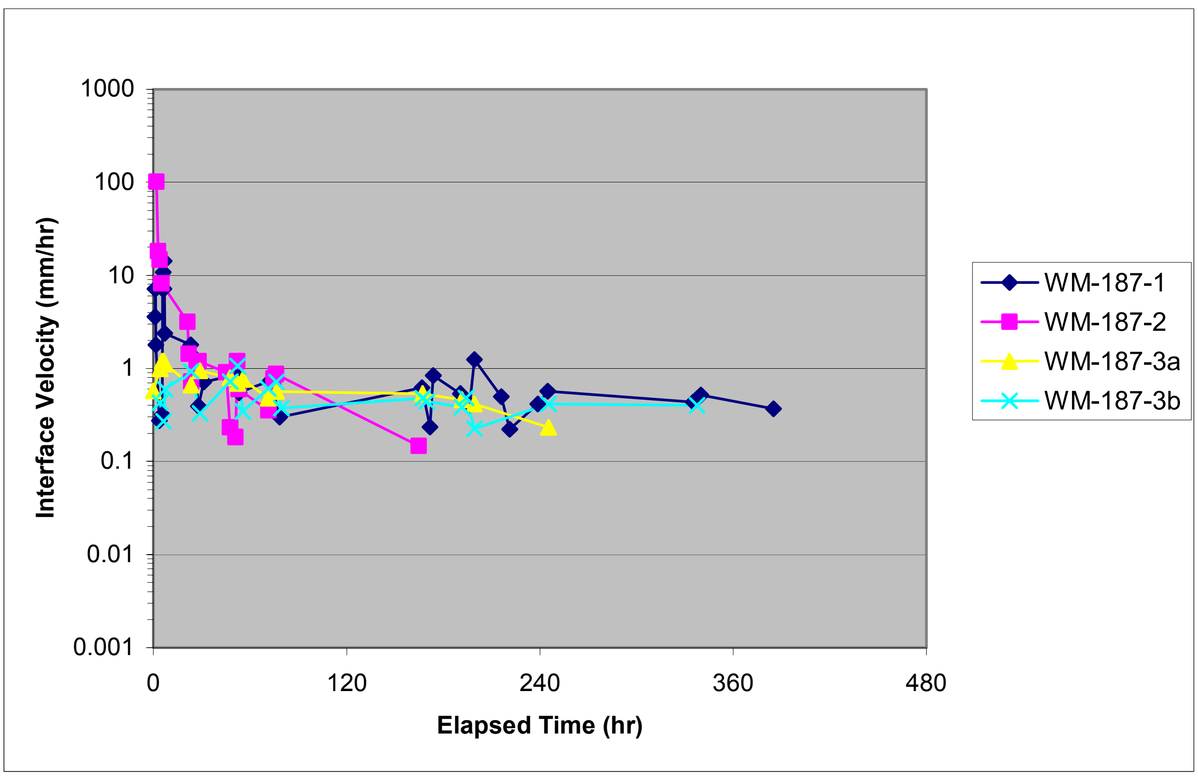


Figure 3-59. WM-187 sample interface velocity in 100-mL settling chamber.

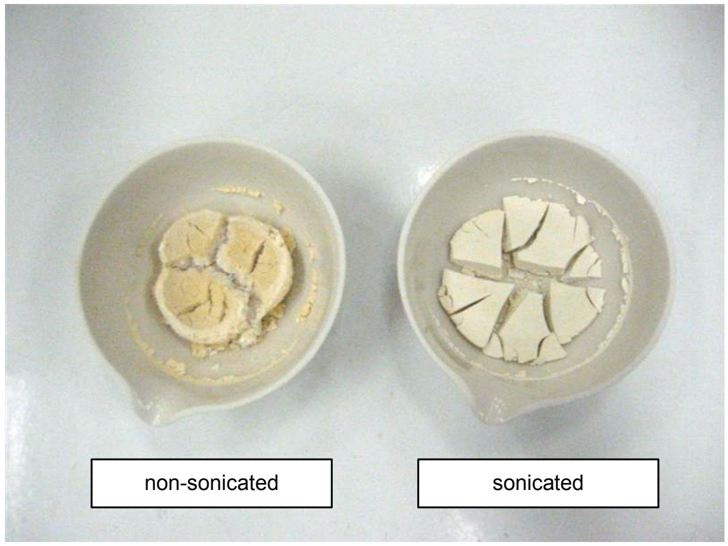


Figure 3-60. META/20wt%/U/N and META/20wt%/U/S Solids Weight Percent Analysis.

The solids weight percentages of the various WM-187 tank farm waste sample fractions are provided in Table 3-15. The SBW surrogate sample solids weight percentages are provided in Table 3-16. The solids weight percentage values reported include both dissolved and undissolved solids content. The 180, 189, and META liquid surrogates contain more dissolved solids than the WM-187 tank farm waste sample supernate. It should be noted that tank WM-187, when sampled, was dilute in dissolved solids in comparison with the other tanks. During surrogate slurry sample preparation, the quantity of dissolved solids in the liquid surrogate solutions was not accounted for, resulting in SBW surrogate slurries with higher solids weight percentages than targeted.

A comparison of the solids weight percentages for the four surrogate and tank farm waste sample fractions with similar rheological properties is provided in Figure 3-61. Surrogate samples with rheological properties similar to those of the tank farm waste were identified in Section 3.4.2.1. The SBW surrogate samples have consistently higher solids weight percentages than the tank farm waste samples for several reasons: (1) as described above, the metathesis mother liquor SBW liquid surrogate has a higher dissolved solids content than the WM-187 sample supernate; and (2) the tank farm waste solids are relatively more dispersed than the surrogate solids. In comparing the centrifuged waste and surrogate samples, which have very little free liquid and thus very similar solids volume percentages, it can be seen that the solids weight percentage of the surrogate exceeds that of the waste. Therefore, SBW surrogate samples with very similar solids volume percentages and flow curve properties have consistently higher solids weight percentages than the corresponding tank farm samples.

Table 3-15. WM-187 tank farm waste sample solids weight percentages.

Sample	Solids Weight Percentage
WM-187 supernate	4.7%
WM-187 as received	7.1%
WM-187 gravity settled sludge	10.0%
WM-187 centrifuged sludge	11.5%

Table 3-16. SBW surrogate sample solid weight percentages.

Sample	Solids Weight Percentage
180/0wt%	25.0%
187/0wt%	4.7%
187/5wt%/D/N	8.6%
187/5wt%/D/S	8.3%
187/20wt%/D/N	21.0%
187/20wt%/D/S	25.5%
189/0wt%	22.4%
META/0wt%	8.7%
META/AR/U/N	9.5%
META/5wt%/U/N	10.8%
META/5wt%/U/S	11.3%
META/10wt%/U/N	13.1%
META/10wt%/U/S	15.1%
META/15wt%/U/N	not available
META/15wt%/U/S	17.6%
META/20wt%/U/N	22.7%
META/20wt%/U/S	26.5%

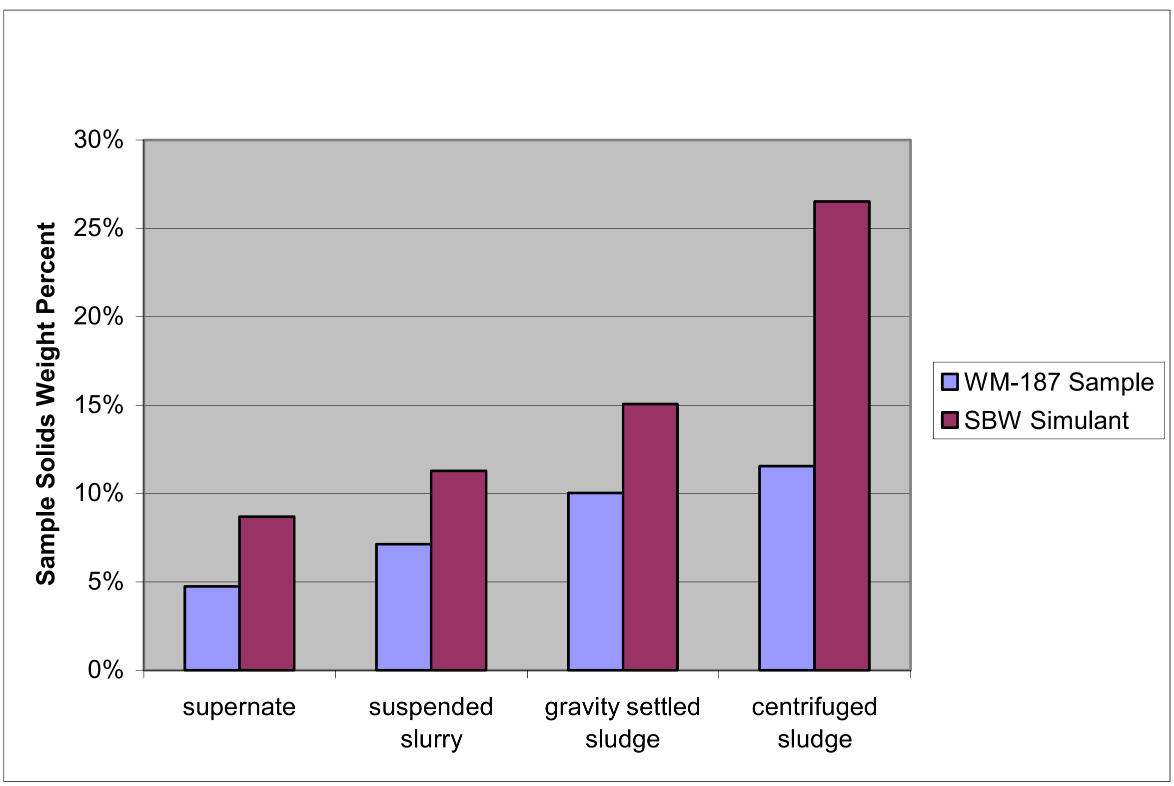


Figure 3-61. Sample solids weight percentages.

3.4.5 Bulk Density

Bulk density analyses were performed as described in Section 3.2.5. The bulk densities of the various SBW surrogate samples are provided in Table 3-17. Table 3-18 provides wet (FY-03 and FY-04 SBW solids surrogates saturated with WM-187 and metathesis mother liquor liquid surrogates, respectively) and dry (SBW solids surrogates dried to constant mass in drying oven) bulk densities of the FY-03 and FY-04 SBW solids surrogates.

Table 3-17. Sample bulk densities.

Sample	Bulk Density (g/mL)
META / AR / U / N	1.12
187 / 5wt% / D / N	1.07
187 / 5wt% / D / S	1.07
META / 5wt% / U / N	1.13
META / 5wt% / U / S	1.13
180 / 5wt% / U / N	1.23
189 / 5wt% / U / N	1.27
META / 10wt% / U / N	1.15
META / 10wt% / U / S	1.16
META / 15wt% / U / S	1.17
187 / 20wt% / D / N	1.17
187 / 20wt% / D / S	1.20
META / 20wt% / U / N	1.23
META / 20wt% / U / S	1.24
META / 0wt%	1.12
187 / 0wt%	1.05
180 / 0wt%	1.25
189 / 0wt%	1.31

Table 3-18. Wet and dried SBW surrogate solids bulk density.

	Wet Solids Bulk Density (g/mL)	Dried Solids Bulk Density (g/mL)
FY-03 filtered solids	1.08	0.70
FY-03 sonicated filtered solids	1.20	0.75
FY-04 centrifuged solids	1.18	1.08
FY-04 sonicated centrifuged solids	1.24	0.72

The dried solids bulk density for the third WM-187 sample (0402101) was 0.421 g/mL. This is lower than the other bulk densities that have been run but within 0.1 g/mL of the first WM-187 sample (0.50 g/mL). The analysis started with 22 mL of as-received sample weighing 23.454 g. The sample was allowed to settle overnight and the supernate removed with a plastic transfer pipette. The solids portion of the sample was washed with deionized water and then centrifuged. The supernate was removed with a plastic transfer pipette. This wash was repeated two more times. The solids portion of the sample was air dried, the volume read, and weighed. Table 3-19 provides densities of the various WM-187 sample fractions. Wet solids are the solids with the original interstitial fluid still between the solids. That is, the original liquid in between the solids has not been removed. It has only been removed above the settled solids.

Table 3-19. Densities for WM-187 (0402101).

Sample WM-187 (0402101)	Density (g/mL)
As Received Sample	1.066
Liquid	1.029
Wet Solids Density (g/mL)	1.035
Dried Solids Bulk Density (g/mL)	0.421

4. CAKE FILTRATION PERFORMANCE

4.1 Strategy

The objective of the testing described in this report is to provide an experimental approach to compare cake filtration properties of the metathesis-prepared SBW slurry surrogate and the actual radioactive slurry sample collected from INTEC tank WM-187. Constant pressure filtration was adapted because it is the most common method for collecting experimental filtration data in the laboratory; also, because of its simplicity.

The bench scale cake filtration apparatus was designed so that the test system can be operated either manually in a laboratory fume hood or remotely in the INTEC RAL. Cake filtration tests were performed to collect data for characterizing the SBW slurry and supporting solid/liquid separation technology for treating SBW slurry. Because of the radioactive nature and the limited quantities of the actual SBW slurry, cost, and difficulty of remote "hot cell" experiments; it is desirable to use nonradioactive surrogate, where possible, when conducting process design experiments. To ensure a high quality surrogate that accurately represents the unique properties of the actual waste, slurry surrogate was prepared using the metathesis method, which emulates the conditions that formed the actual waste slurry. The surrogate filtered cake properties were determined and compared with the cake formed by the radioactive SBW slurry as a means to optimize the processing conditions.

4.2 Apparatus

The test apparatus used for specific resistance of filtration (SRF) experiments, illustrated in Figure 4-1, is comprised of a 600-mL clear filtration cylinder, a filtrate collection vessel, a pressurized air supply, an air heater, a pressure regulator, and a mass flow meter. The upper part of the filtration cylinder consists of double-wall plastic pipe, 20 cm high, with an inside diameter of 6.4 cm. The filter cup is 5 cm high, has an inside diameter that gradually decreases from 6.4 to 3.2 cm and a cylinder height above the filtration area of 1.2 cm. A filter cup housed the filter solids, the filter medium, and the filter medium support, which was fabricated for these tests.

The filter cup is sandwiched between the upper cylinder section and the lower receiving part by a screw connection. The lower receiving part of the filtration cylinder was used to collect and release filtrate. Connections between the upper cylinder, the filter cup, and the receiving part of were sealed with Viton O-rings to prevent leakage. A 50-psig air supply capable of temperatures of up to 80°C, as well as feed and wash water inlets were connected to the top of the filtration cylinder. Filter medium cloths made of polypropylene sulfide (PPS) – Ryton, polyvinylidene fluoride (PVDF) – Kynar, were used and they contained mean pore sizes of 2.9, 5.5, and 11.5 μm (Appendix D). The filtration cylinder assembly was designed to be remotely assembled and disassembled (and was for the test involving SBW solids), the entire test apparatus can be operated with hot cell manipulators. Two identical test systems were constructed for surrogate and SBW slurries, respectively, to avoid contamination.

Compressed air was introduced into the filter test vessel immediately after a predetermined amount of either surrogate or SBW slurry was added to the filtration vessel, and each experiment was carried out at a constant pressure. Filtrate was collected in a receiver equipped with an electronic balance. The filtration time and mass of the filtrate were continuously recorded by a data acquisition system until filtration was complete. When the filtrate flow ceased, air pressure was stopped and the filter cup with cake was removed and weighed. The mass of filtered solids was measured after oven drying at ~100 to 105°C.

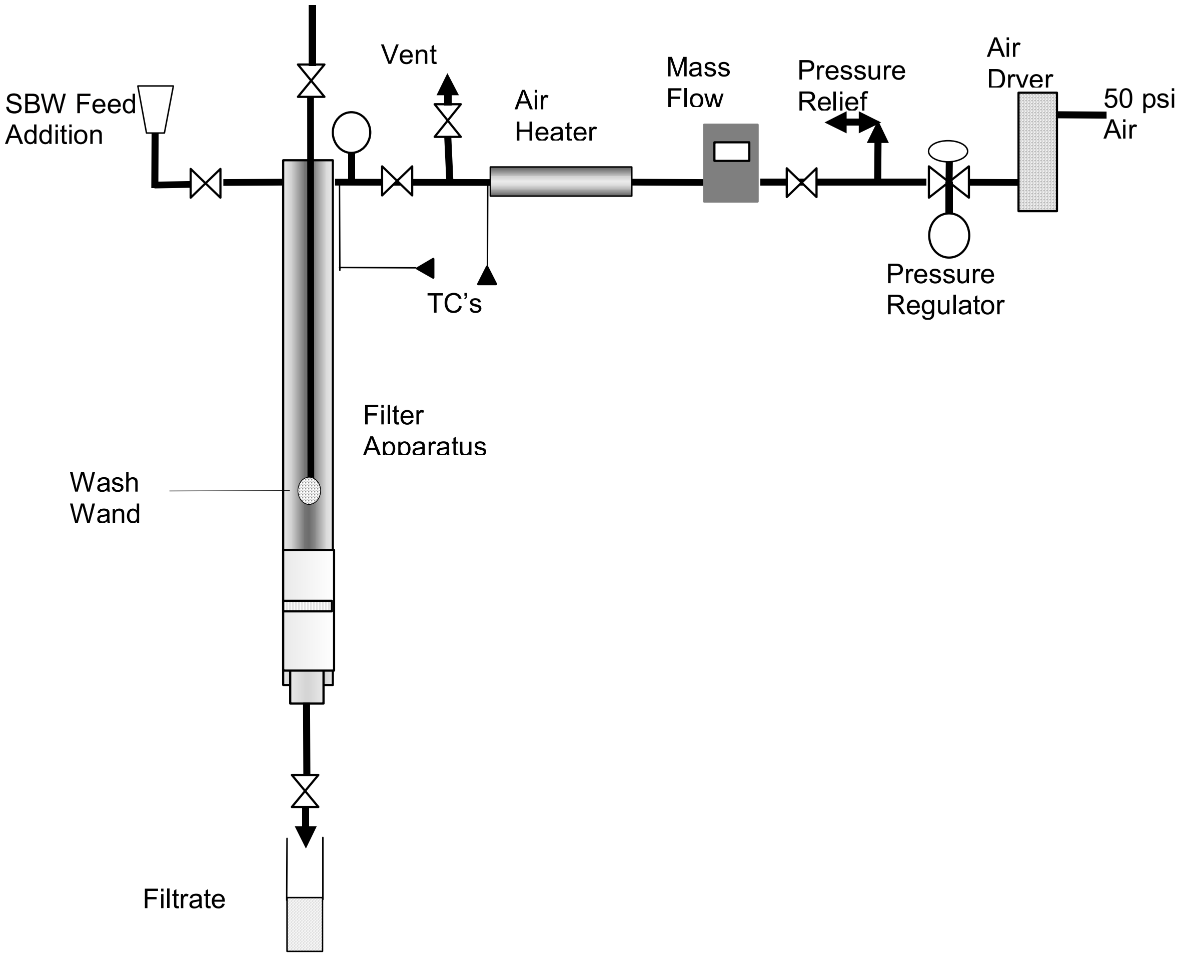


Figure 4-1. Bench scale constant pressure filtration apparatus.

4.3 Materials

Constant pressure filtration experiments using the surrogate suspension were conducted to determine the filtered cake properties (e.g., specific resistance of filtration, α, cake compressibility, n) of the surrogate solids and compare them with the corresponding properties of the cake formed by the radioactive SBW slurry. Because of limited quantities of the actual SBW slurry, cost and difficulty of conducting the remote "hot cell" experiments, surrogate was used to test processing conditions.

4.3.1 SBW Slurry Surrogate #1

To prepare SBW slurry surrogate for this study, a high-solids content slurry surrogate was prepared via a metathesis process (Janikowski 2003), sonicated to break up the agglomerated solids and mixed with a diluted SBW liquid surrogate (Christian 2001; Pao and Lewis 2003). Detailed chemical composition is not reported here, however, some of its properties are listed in Table 4-1. This mixture is referred as SBW slurry surrogate #1.

Table 4-1. Properties of the SBW slurry surrogate #1.

PH	Settled Solid Volume %	Particle Density (g/mL)	Slurry UDS (g/liter)	Liquid TDS (g/liter)
0.2 ~ 0.7	35	2.13	~27.5	98

Filtrate Density ((g/mL)/°C)				Filtrate Viscosity (cp/°C)				
1.09/17	1.08/20	1.075/22	1.07/23	1.32/17	1.29/19	1.245/21	1.205/23	1.155/25

4.3.2 Radioactive SBW Slurry

The radioactive SBW sludge samples were collected and transferred to the RAL at INTEC. Because the received actual sludge samples have relatively high acid content (2.39 M) and high liquid density (1.28 g/mL @ 33°C), each of the samples for filtration testing were modified by mixing 30 mL of the actual SBW slurry with 45 mL of water. The mixed samples were allowed to stabilize for a minimum of two days before testing. At this time the settled SBW slurry layer constituted approximately 50% of the sample volume in the sample bottle. Approximately 35 mL of supernate was then removed and 40-mL samples were used to minimize the sample size for the filtration test. Properties of the modified SBW slurry (post decant) are listed in Table 4-2.

Table 4-2. Properties of the modified radioactive SBW slurry (decant).

pH	Settled Solid Volume %	Particle Density (g/mL)	Slurry UDS (g/liter)	Liquid TDS (g/liter)
~ 0	85	N/A	30	105

Filtrate Density ((g/mL)/°C)				Filtrate Viscosity (cp/°C)			
1.122/31.7	1.12/ 32.7	1.11/33.7	1.1/34.5	1.01/31.7	0.987/32.7	0.96/33.7	0.947/34.2

4.3.3 SBW Slurry Surrogate #2

Because some differences were observed from the filtration test results of the surrogate #1 and the actual radioactive SBW slurry samples (Maio et al. 2004), the SBW slurry surrogate #2 was prepared in order to reduce the difference of the PSD of the solids material in the actual SBW and the surrogate mixture. To prepare the surrogate #2, slurry products from the metathesis process were first sonicated, and the large size solids were removed via settling. The rest of small particles were collected via centrifugation, decanting free liquid, and adding an appropriate amount of the diluted SBW liquid surrogate. Properties of the SBW slurry surrogate #2 are listed in Table 4-3.

Table 4-3. Properties of the SBW slurry surrogate #2.

pH	Settled Solid Volume %	Particle Density (g/mL)	Slurry UDS (g/liter)	Liquid TDS (g/liter)
~ 0.1	40	2.13[a]	28	78

Filtrate Density ((g/mL)/°C)			Filtrate Viscosity (cp/°C)		
1.078/20	1.077/22	1.076/24	1.3/20	1.17/22	1.1/24

a. Assumed the particle density is the same as surrogate #1.

A Horiba Model LA-300 was utilized to measure the particle size distribution on the surrogate solids and the modified radioactive SBW solids, the optics of the Horiba Model LA-300 are designed to measure particles with diameters ranging from 0.1 μm to 600 μm. The measured PSD of all three slurry samples is shown in Figure 4-2. For solids material in the SBW slurry surrogate, the average initial diameter was 7.95 μm (SD = +/- 10.7 μm) for surrogate #1 and 5.12 μm (SD = +/- 2.52 μm) for surrogate #2. The average diameter of the modified radioactive SBW slurry was 7.68 μm (SD = +/- 5.25 μm).

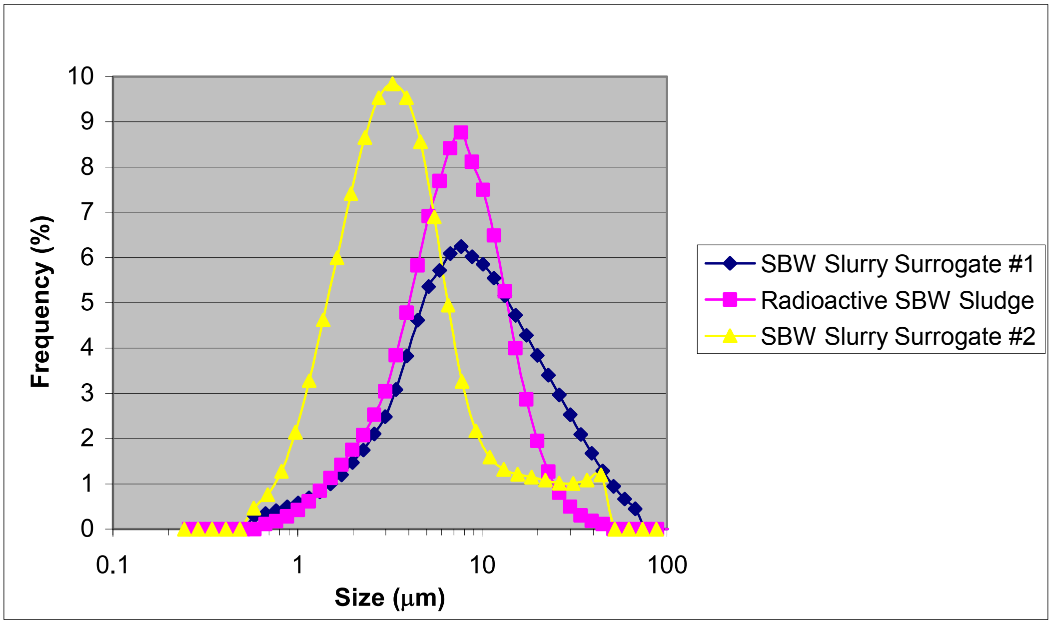


Figure 4-2. PSD comparison of SBW slurry surrogates and the modified SBWs slurry.

The settling rate of a solid is usually a function of concentration. To obtain settling rates, a sample of the surrogate and SBW slurry were shaken in a 12 mm diameter glass column and the height of the solids layer was monitored over time. For radioactive SBW slurry, the solids settled very slowly, and the undecanted modified actual SBW slurry was used for the measurement. Table 4-4 provides the calculated values of the liquid-solid interface velocity for all three slurries. For both surrogate #1 and #2, it took approximately two days to settle; however, it took more than 5 days for the modified SBW slurry to settle completely.

Table 4-4. Comparison of SBW slurry settling rates.

Surrogate #1		Modified Hot SBW Slurry		Surrogate #2	
Time (hr)	Interface Velocity (mm/hr)	Time (hr)	Interface Velocity (mm/hr)	Time (hr)	Interface Velocity (mm/hr)
1.4	—	2.5	—	1.5	—
2.1	48	5	2.26	2.5	57
5.4	9.5	21.25	0.35	4	5.7
9.8	5	25.5	0.68	8	1.9
25	3.4	29.25	0.75	22	0.81
47	1.4	117	0.32	32	0.38

4.4 Results and Analyses

For constant pressure filtration studies reported in the literature, filtrate volume (or mass) vs. time are the data obtained (Christensen and Dick 1985). Many slurry filtration data display anomalies associated with the initial stages of filtration, even though their overall character is parabolic. Anomalies in the initial stages of filtration may be the result of a slow buildup of pressure drop across the cake, or error in determining the initial start time and corresponding filtrate volume (Christensen and Dick 1985; Tiller 1983). The formation of the first particle bridge is a delicate process. A collapse of these structures induced by a high-pressure load at the beginning of cake formation might cause severe medium clogging and blinding. However, a slowly increasing pressure might permit the formation of stable structures. Once the solids bridge the pores of the filter medium, pressure drop across the cake begins to increase concomitantly with cake development.

For data that fit both constant pressure filtration models I and II (equations (6)-(7) in Appendix A.4), initial timing of the filtrate mass (or volume) reading does not affect, theoretically, the slope of the standard plot or the calculated α. In order to obtain consistent results, data collection may be delayed for 10 seconds or longer, as long as the system is under constant pressure, and the time and filtrate mass (volume) readings are matched pairs (Christensen and Dick 1985; Tiller 1983).

4.4.1 SBW Slurry Surrogate #1 Test Results

Laboratory filtration tests usually yield the α (or SRF) data via the slope of the line generated when plotting the reciprocal instantaneous rate, $1/q$, versus the total mass of dry cake solids per unit area of filter surface, w_c, which are then usable in process design and scale-up calculations, and surrogate validation.

Table 4-5 summarizes the filtration results obtained from 28 constant pressure filtration runs on three filter mediums, with various amounts of SBW slurry surrogate (Pao and Lewis, 2003; Maio et al 2004). SRFs were calculated using both instantaneous rate (model I) and average rate (model II) over the entire filtration cycle. An example of filtration data (at 49 psi) that fit the standard models is presented in Figure 4-3, and as evident by the figure, the data fit both models well. As indicated by the theory-based equations, the slope of the $pt/\mu v$ vs. w_c line is approximately half of the slope of the $pdt/\mu dv$ (or $p/\mu q$) line. The wet cake thicknesses were approximately 3.0, 3.5 and 5.5 mm for 30, 40 and 60-mL samples; and the equivalent total dry cake mass (undissolved solids [UDS] + total dissolved solids [TDS]) was approximately 0.7, 1.04 and 1.77 g, respectively. After washing the filter cake to remove the dissolved solids, the amount of UDS in each of the dried filter cakes was estimated to be approximately 81% of the original cake mass. Because of sample variation, each sample cake was collected and its mass verified individually.

The initial α determined for the fresh SBW slurry surrogate #1 ranged from 1.00×10^{13} to 1.17×10^{13} m/kg at 30 psig and 49 psig (Test Set 1). However, the SRF measurements of the same slurry surrogate gradually decreased to between 7.18×10^{12} and 8.42×10^{12} m/kg (Test Set 6) under identical test pressure, two weeks later. This observed decrease of α was probably due to sample aging, i.e., the fine particles agglomerated over the duration (see Figure 4-4).

Table 4-5. SRF summary of SBW slurry surrogate #1.

			Test Set: 1			
Sample Size: 30 mL	Filter Medium: PVDF, Mean Pore Size: 5.5µm					
Model	I			II		
Pressure (psi)	30	40	49	30	40	49
α_{av} (m/kg)*E-12	10.2	10	11.7	8.98	11.36	11.4
	10.6	11.6		10.58	10.28	
			Test Set: 2			
Sample Size: 30 mL	Filter Medium: PPS, Mean Pore Size: 2.9µm					
Model	I			II		
Pressure (psi)	30	40	49	30	40	49
α_{av} (m/kg)*E-12	8.86	10.7	11.3	9.28	9.86	10.2
	8.87	10.	10.8	8.86	10.3	10.94
			Test Set: 3			
Sample Size: 40 mL	Filter Medium: PVDF, Mean Pore Size: 11.5µm					
Model	I			II		
Pressure (psi)	30	40	49	30	40	49
α_{av} (m/kg)*E-12	9.56	10.5	11.2	9.64	10.24	10.38
	8.86	10.4	11.7	8.52	10.24	10.8
			Test Set: 4			
Sample Size: 40 mL	Filter Medium: PVDF, Mean Pore Size: 5.5µm					
Model	I			II		
Pressure (psi)	30	40	49	30	40	49
α_{av} (m/kg)*E-12	9.77	10.4	11.2	9.28	10.14	10.82
		9.36	10.7		9.16	10.78
			Test Set: 5			
Sample Size: 40 mL	Filter Medium: PPS, Mean Pore Size: 2.9µm					
Model	I			II		
Pressure (psig)	30	40	49	30	40	49
α_{av} (m/kg)*E-12	7.94	8.92	9.23	8.1	8.6	9.12
			Test Set: 6			
Sample Size: 60 mL	Filter Medium: PPS, Mean Pore Size: 2.9µm					
Model	I			II		
Pressure (psig)	30	40	49	30	40	49
α_{av} (m/kg)*E-12	7.18	8.15	8.42	7.16	8.04	8.16

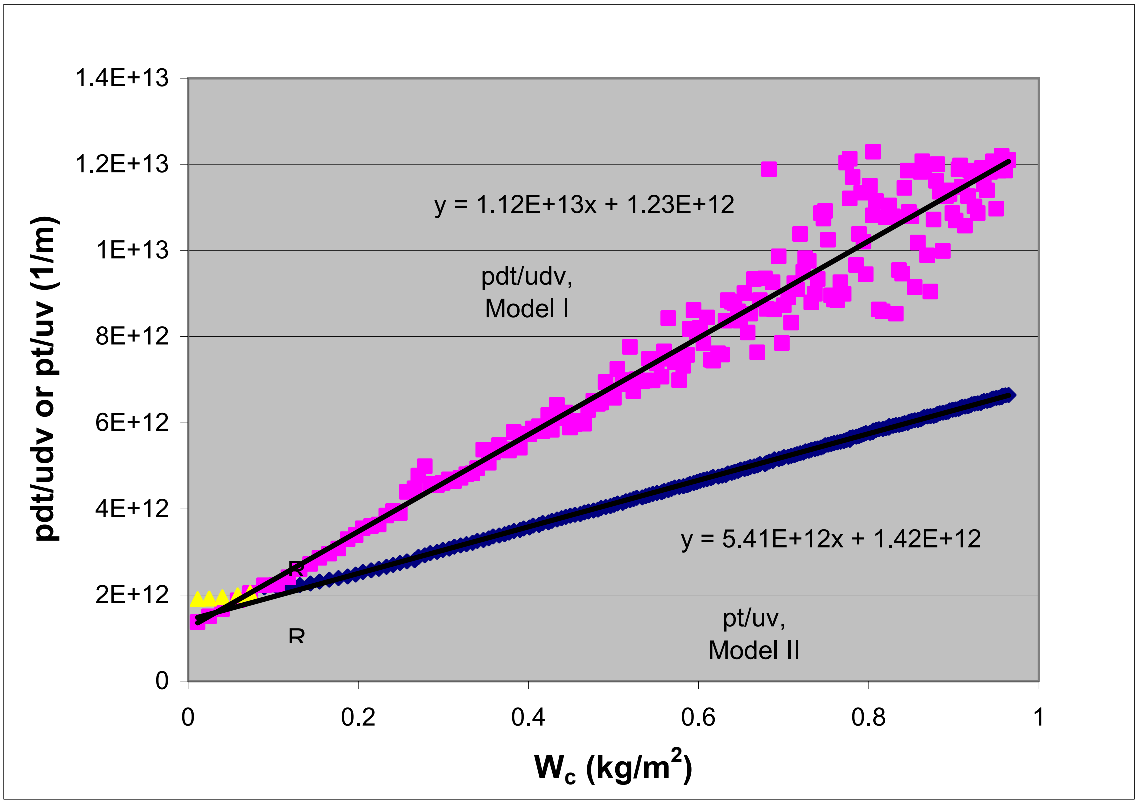


Figure 4-3. Determination of cake filtration resistance in a constant pressure filtration run.

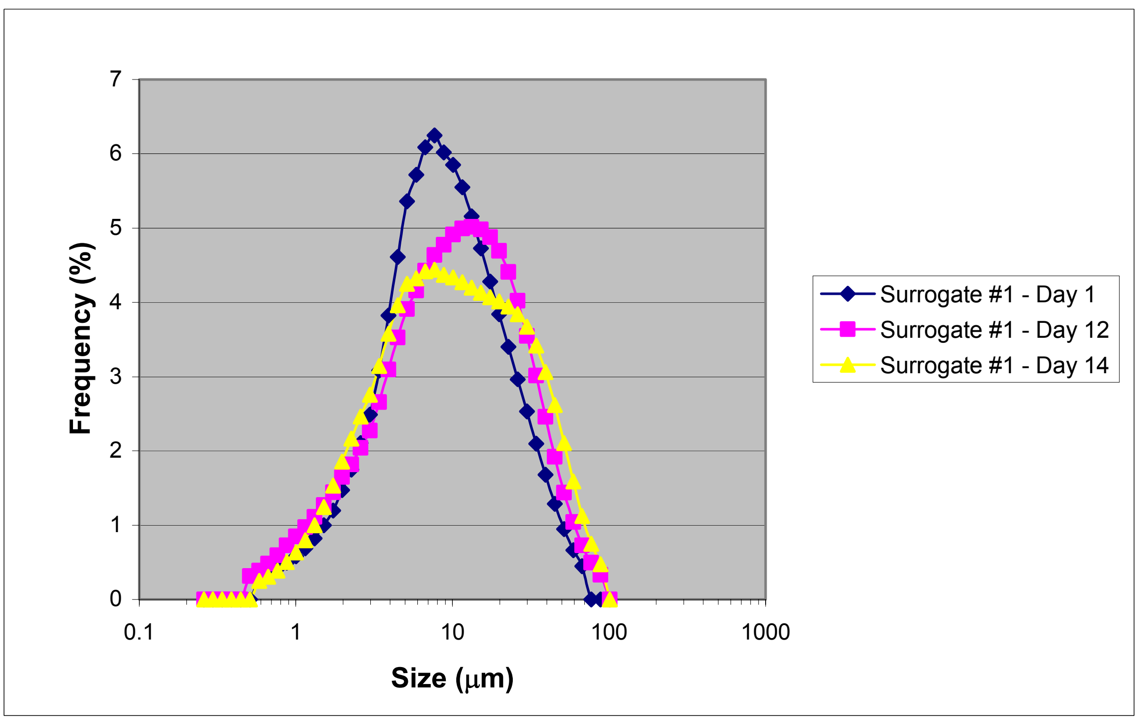


Figure 4-4. PSD of SBW slurry surrogate #1.

4.4.2 Radioactive SBW Slurry Test Results

A total of 18 filtration tests were performed at the RAL at INTEC. All tests were conducted by using the filter medium made of PVDF; at mean pore size of 5.5 µm. Filtration tests were performed within four days after the fresh sample was prepared, and analyses of the control sample showed that the difference of PSD is insignificant, over the duration (Maio et al. 2004).

Specific filtrate volume (m^3/m^2) was calculated by dividing the filtrate volume by the filter area. Table 4-6 shows the derived values of the SRF for the SBW slurry using Models I and II. The wet cake thickness ranged between 8-10 mm for the 40-mL sample, and the equivalent total dry cake mass (UDS+TDS) was determined at 1.4-1.8 g. The total UDS was estimated at approximately 75% of the dry cake mass.

Table 4-6. SRF summary of radioactive SBW slurry.

Model	I			II		
Pressure (psig)	30	40	50	30	40	50
	22.7	28.6	37.1	22.0	27.2	38.4
	24.4	27.1	33.0	24.2	26.8	32.2
	21.4	28.3	30.4	20.8	27.8	30.4
α_{av} (m/kg)*E-12	22.4	26.6	31.7	21.0	26.8	29.8
	19.8	23.7	29.8	20.8	22.6	30.4
	20.5		27.4	17.9		28.0
			31.1			29.0

4.4.3 SBW Slurry Surrogate #2 Test Results

Table 4-7 summarizes the filtration results obtained from 14 filtration tests, all tests were conducted by using the filter medium made of PVDF; at a mean pore size of 5.5 µm. Tests were performed within seven days after the fresh samples were prepared, and the analyses of sample PSD showed a minimum change over the period. The wet cake thicknesses were at approximately 7 mm of the 40-mL sample, and the equivalent total dry cake mass (UDS+TDS) was determined at 1.2-1.4 g. The total UDS was estimated at approximately 85% of the dry cake mass.

Table 4-7. SRF summary of SBW slurry surrogate #2.

Model	I			II		
Pressure (psig)	30	40	49	30	40	49
	6.27	7.41	8.52	6.06	7.36	8.3
	5.63	7.63	10.1	5.84	7.1	9.18
α_{av} (m/kg)*E-12	6.86	7.66	8.38	6.64	7.16	8.06
	6.28	7.41	9.29	5.94	7.0	9.14
		7.91	9.24		7.78	8.76

4.4.4 Comparison of SRF (α) and Cake Compressibility

Following the cake filtration tests carried out at different pressures (30 to 50 psig), the calculated parameter "α" was plotted as a function of the applied pressure "p". A useful expression for this purpose is only valid over a specified range of pressures and takes the form of equation (10) in Appendix A.4. The results of the α vs. p relationship for both surrogates and the radioactive SBW slurry are shown in Figure 4-5. The data illustrate increased cake permeability for the surrogate samples when compared to the SBW slurry sample. The increase of surrogate cake permeability is likely a consequence of less efficient particle packing.

The SRF value for the SBW sample is higher than the value for both surrogates #1 and #2. Surrogate #1 has a greater mean particle size distribution and is relatively quite broad (0.1 ~ 70 μm) while surrogate #2 has a smaller mean particle size and a narrower distribution. Under the acidic sample conditions, the particles should be dispersed (i.e., they have a strong positive charge), but a high dissolved solid contents can also lead to a compressed double layer charges. Settling behavior seems to support the case for dispersed particles, i.e., settling takes place over a period of time greater than two hours. So, for the case of surrogate #2, it seems reasonable to conclude that the increased cake permeability relative to surrogate #1 is due to reduced particle packing efficiency. But when comparing the radioactive SBW slurry to surrogate #1, another important element of the experiment that can be used to explain the observed behavior is the settling data. The radioactive SBW sample took much longer to settle, implying a reduced density of the solid and/or a significant fraction of small particles that would be able to infiltrate the cake and create a low permeability filter cake.

In addition, the permeability (flow rate) similarly decreases when the particles are better dispersed; SBW slurry (radioactive) with slower sedimentation velocity would increase SRF. Over the pressure range of this study, the SRF for the radioactive SBW slurry was within experimental error of that determined for the surrogates. Regardless, filtering the actual SBW slurries took approximately 2-3 times longer under the given conditions to filter than the surrogates. The filter cake collected from the SBW slurry surrogate #1 had an average cake compressibility of "0.33," a low-to-moderate compressibility filter cake. In contrast, the cake collected from SBW radioactive slurry and slurry surrogate #2, had an average cake compressibility of "0.71" and "0.76", respectively, a moderate-to-high compressibility filter cake (Table 4-8).

Particle interactions play a very important role in fine-particle filtration, because ionic strength and zeta potential in the mixture would affect the aggregate size in the suspension (Wakeman et al. 1991; Koenders and Wakeman 1997), and the extent of aggregation in suspensions determines the degree of cake compressibility. Compressibility depends on particle size distribution, particle shape, and degree of aggregation (Perry and Chilton 1997; Rushton et al. 1996; Wakeman et al. 1989; Wakeman et al. 1991). While there exist many factors influencing the filtration behaviors, the underlying phenomena are currently not well understood. In this study, the radioactive SBW slurry was not settled readily, and the suspension is said to be very stable. The particles in these dispersions maintain their resistance to aggregation through interactions at their surfaces, and it may be necessary to apply high pressure in order to squeeze the liquid from the stable SBW slurry dispersions. On the contrary, the filtration results of surrogate #2 showed that the filter cake has high permeability (or lower SRF), even though the surrogate #2 solids have a smaller PSD. This difference is probably due to the fact that the surrogate is relatively unstable versus the SBW slurry. However, surrogate #2 has showed that it has a cake compressibility that is similar to that of the radioactive SBW slurry.

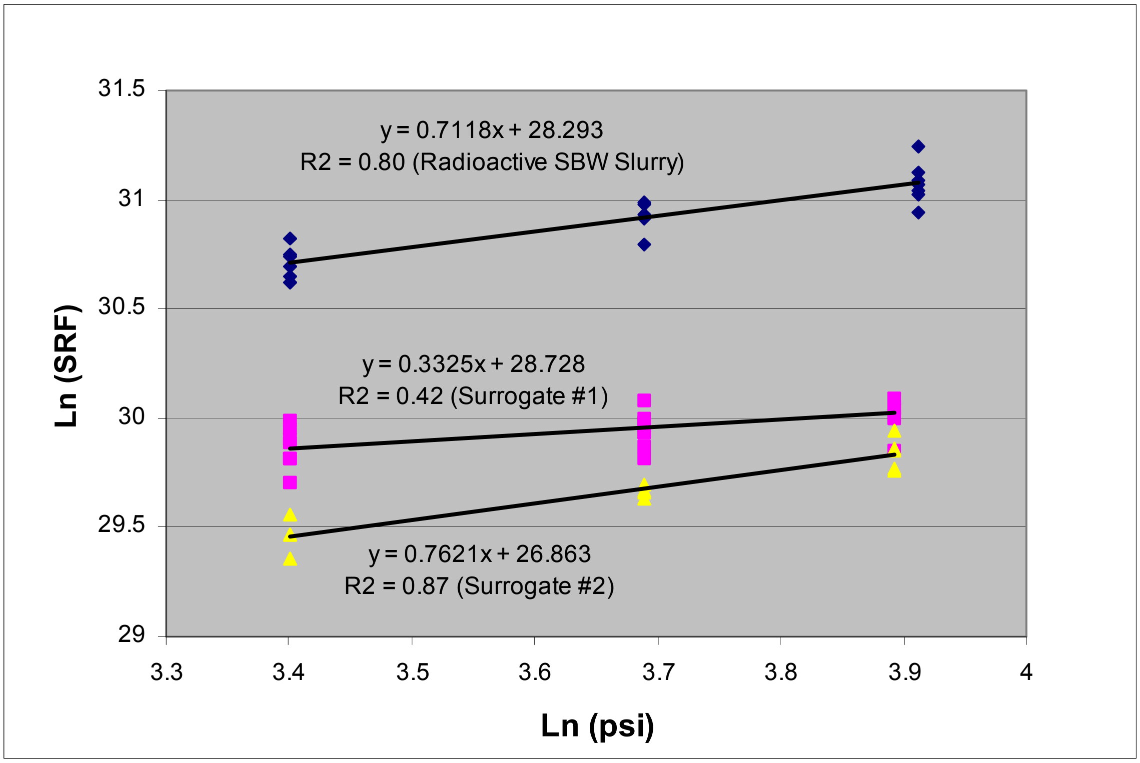


Figure 4-5. Comparison of cake compressibility (Model I).

Table 4-8. Comparison of cake compressibility coefficients.

	Model	I			II		
	Sample Stream	Surrogate #1	Radioactive SBW Slurry	Surrogate #2	Surrogate #1	Radioactive SBW Slurry	Surrogate #2
	Mean	0.33	0.71	0.76	0.29	0.76	0.71
n	Upper 95%	0.50	0.90	0.95	0.45	0.98	0.87
	Lower 95%	0.16	0.53	0.58	0.14	0.54	0.51

5. RECOMMENDATIONS

Prior to using the metathesis-prepared SBW surrogate in waste processing design and mockup studies, it is recommended that additional research be performed in several areas. First, it is recommended that the SBW tanks be sampled in multiple locations to provide bounding SBW solids characterization data.

Any future surrogate development should be designed to emulate the expected wastes that will result from the planned tank farm consolidation. The decision to consolidate WM-180 waste into WM-187 changes data needed for tank slurries. Surrogate required for testing coprocessing scenarios must be representative of the tank farm solids in concentrated SBW. The uncertainty in the average undissolved solids weight percentage in the tanks could be between 2 and 4 %. Surrogate required for testing the CsIX process must be representative of the high solids (~7 wt% undissolved solids), concentrated SBW in WM-187. Testing of heel processing requires a surrogate with properties representative of wash water slurry with low solids content.

It is recommended that a surrogate with similar thixotropy to that of the tank farm waste be developed. This surrogate would be used to emulate the properties of the tank farm waste during extended waste handling operations. The time-dependent shear thinning characteristic of the undried FY-04 metathesis-prepared SBW surrogate may render it nonconservative for applications that occur over a significant period of time (with or without applied shear stresses). Surrogate preparation steps suggested to reduce thixotropy differences between the surrogate and tank farm waste include thermal treatment of the surrogate and reformulation of the surrogate to include more metal oxides and less silica (to reduce the amount of silica gels in the surrogate). Flow curve analysis of dried FY-03 metathesis-prepared SBW surrogate samples with a lower solids volume percentage than the centrifuged WM-187 tank farm waste indicated that the samples had similar thixotropy, but that the shear stress curve of the surrogate was lower than the shear stress curve of the waste. It is recommended that flow curve analyses be performed on dried metathesis-prepared SBW surrogate and tank farm waste samples with similar solids volume percentages as part of the effort to identify a surrogate with similar rheology to the tank farm waste.

Although every effort was made to collect and prepare waste and surrogate samples as consistently as possible, variation between the various samples of each surrogate preparation inevitably existed. Sample collection methods were devised to minimize these differences as much as possible. Nonetheless, small variations in solids volume percentage and solids characteristics were present in otherwise similar samples. Repetition of physical property analyses would provide additional certainty that the surrogate provides a good representation of the tank farm waste physical properties.

6. CONCLUSIONS

Slurries formed from undried, sonicated FY-04 metathesis-prepared SBW solids surrogate and metathesis mother liquor had flow curve profiles similar to tank farm waste sample slurries of comparable solids volume and weight percentages. The slurries formed from undried, sonicated FY-04 metathesis-prepared SBW solids surrogate and metathesis mother liquor had flow curve profiles that approximated the flow curve profiles of each of the tank farm waste sample fractions tested ("as-received," gravity-settled, and centrifuged sludge) more accurately than waste surrogate slurries formed from any other combination of solid and liquid surrogates tested. The waste surrogate slurry formed from the FY-04 SBW solids surrogate and metathesis mother liquor liquid surrogate provided better representations of the tank farm waste sample fractions than waste surrogate slurries formed from FY-04 SBW solids surrogate and WM-180 or WM-189 liquid surrogates.

Waste surrogate slurry formed from dried, sonicated FY-03 SBW solids surrogate and WM-187 liquid surrogate (187/20wt%/D/S) had very similar thixotropy to that of the centrifuged tank farm waste sample. Although the thixotropy of the 187/20wt%/D/S surrogate was similar to that of the centrifuged tank farm waste sample, its shear stress profile fell below that of the centrifuged tank farm waste sample, rendering it nonconservative for tank farm solids transportation operations simulation. Nevertheless, the flow curve data collected from this surrogate (and all other FY-03 SBW solids surrogate and WM-187 liquid surrogate slurries) provide evidence that drying (or other thermal treatment) of the SBW solids surrogate prior to final surrogate slurry sample preparation may produce surrogates with thixotropy more similar to the WM-187 tank farm waste sample.

Flow curve analyses performed on waste surrogate samples with different chemical and physical makeups (liquid surrogate, solids surrogate batch, solids weight percentage, and particle size distribution) and at varying test temperatures show several trends in response to changes in these parameters (assuming no change in other variables). Understanding these trends will help in the subsequent development of more accurate waste surrogates and may provide insight into the character of the tank farm waste. The shear stress profile universally increased with increasing solids weight percent for all surrogate samples tested. The shear stress profiles for samples prepared with the four different liquid surrogates follow the pattern WM-189 > WM-180 > META > WM-187. The shear stress profile universally increased with decreasing temperature. No definitive trend could be concluded for changes to sample particle size distribution. Additional data and analyses are needed to further investigate the effect of changes in the sample particle size distribution on the flow curve shear stress profile.

One important difference between the waste surrogate and the tank farm waste were the properties of samples allowed to sit undisturbed for extended periods. Surrogate slurry samples became noticeably coagulated after sitting undisturbed for periods on the order of 24 hrs. The surrogate slurry samples continued to coagulate and form cohesive sludge phases the longer they were allowed to sit undisturbed. Slurries prepared with dried FY-03 solids surrogate formed relatively "brittle" sludge phases after sitting undisturbed, while slurries prepared with undried FY-04 solids surrogate formed relatively "gelatinous" sludge phases after sitting undisturbed. Coagulation was not observed in tank farm waste slurry samples allowed to sit undisturbed for several weeks.

For testing physical systems associated with moving the tank farm solids, the surrogate described in this report is the best currently available choice. No other available surrogate exhibits the noted similarities in behavior to the tank farm waste sludges. Nonetheless, one or more additional waste surrogate development and analysis iterations would allow the surrogate to be prepared so as to target the tank farm waste sample properties more accurately. An additional waste surrogate development and analysis iteration would require synthesis of another batch of waste surrogate, procurement of a new viscometer, and completion of another flow curve data collection campaign. Synthesis and preparation of another batch of waste surrogate (with knowledge of the similarities and differences between the waste surrogate and tank farm waste sample gleaned from the testing described in this report) may lead to the development of a surrogate with properties increasingly similar to those of the tank farm waste. Confidence that the waste surrogate is an accurate representation of the tank farm waste would be further elevated by this effort. Since there is a difference in chemical makeup of the surrogate and the tank farm waste, if a chemical treatment process were to be evaluated for final treatment and disposition of the waste sludges, the surrogate synthesis process would likely require modification to yield a surrogate with a closer matching chemical composition.

The development of realistic surrogates that simulate actual hazardous and/or radioactive materials, such as waste streams from the DOE nuclear industry, is paramount if appropriate treatment technologies are to be successfully developed and tested within an acceptable safety and economical envelope. However, the degree of precision required for simulating a toxic waste, albeit one of a solid or sludge nature, depends on the type of technological processes and unit operations that will be developed and optimized with the waste surrogate. Large volumes of liquid surrogates that contain the major chemical constituents, dissolved salts, and acidity level of the actual waste are less arduous to prepare and validate, especially if they are to be used in the development of nonphysical processes. These liquid waste surrogates are simply established with rudimentary aqueous chemical mixing techniques as long as statistically-accurate analysis data on representative samples of the real waste are available.

Solids and slurries, on the other hand, require a more thorough, broad, and rigorous surrogate approach, since their resulting surrogate is usually utilized to develop, test, and identify the full-scale parameter ranges for the more temperamental waste physical processes (e.g., filtration, drying, centrifuging, sizing, transport, mixing, and pumping). Consequently, hazardous and/or radioactive waste solids/sludge surrogates must be prepared in a method reflective of their actual production (e.g., metathesis synthesis) and not by simply adding together raw solid chemicals to mimic the actual solid composition.

Whereas a simple chemical constituent addition technique validated with a corresponding concentration comparison may be adequate for validating a liquid waste surrogate, more complex data are necessary for a solid/slurry waste surrogate. The extra surrogate data for solids and sludges are a manifestation of their ubiquitous, yet unique, physical properties (such as coagulation, cohesiveness, friability, compressibility, and caking resistivity). Collectively, these traits acquire a determination of not only the solids simple chemical makeup, but also their deeper chemical structure, mineralogy/morphology, and even more important, their dynamic physical properties. Physical properties include those presented in this paper: particle size distribution, slurry rheology, settling velocities, solids weight percentage, bulk density, the filtration properties of cake compressibility, and cake resistance. As indicated by the preliminary results presented in this paper, comparison of the metathesis-prepared solids surrogate and actual INTEC tank radioactive slurry wastes under constant pressure filtration test conditions, provides an early indication of the iterative nature of the process for aligning the properties of the surrogate with those of the actual solids. Even though use of this approach for all the chemical and physical properties defined in this paper, in addition to a statistical comparison between the surrogate and actual solids, may be costly and time-consuming, it is a more economically viable option than integrated testing with actual wastes. Above all, the rigorous surrogate method outlined will ensure reliable development data for a successful waste technology deployment. Conversely, poorly-assumed and simple solids surrogate representation in the cold development phase will inevitably result in inadequate full-scale design and operation, along with cost-prohibitive retrofits and reworks. As proven by documented waste processing case histories, such financial setbacks are not an option available to project engineering managers responsible for successfully meeting high profile waste treatment and disposal milestones across the DOE complex.

7. REFERENCES

Alles, Carina Maria, Harald Anlauf, and Werner Stahl, 1998, "Compressible Cake Filtration Under Variable Pressure," *Advances in Filtration and Separation Technology*, Vol. 12, p. 628, America, Filtration & Separation Society, Northport, Alabama.

Analytical Chemistry Methods Manual, Volume I, "Bulk Density," Idaho National Engineering and Environmental Laboratory, ACMM-7007, Rev. 0, August 6, 2003.

Analytical Chemistry Methods Manual, Volume I "Determination of Total Solids in Aqueous Samples," Idaho National Engineering and Environmental Laboratory, ACMM-7975, Rev. 5, September 28, 2000.

Barnes, C. M. and C. B. Millet, 2003,. *Feed Composition for the Sodium-Bearing Waste Treatment Process,* INEEL/EXT-2000-01378, Rev. 2, January 2003.

Barnes H. A., J. F. Hutton, and K. Walters, 1989, *An Introduction to Rheology*, Amsterdam: Elsevier.

Batcheller, T. A., D. D. Taylor, and V. J. Johnson, 2002,, *Characterization of Tank WM-189 Sodium-Bearing Waste at the Idaho Nuclear Technology and Engineering Center*, INEEL/EXT-02-01171, Rev. 1, (draft), December 2002.

Brookfield Engineering, Inc. *More Solutions to Sticky Problems: A Guide to Getting More from Your Brookfield Viscometer,* http://www.brookfieldengineering.com/download/files/more_solutions.pdf, Web page visited on October 20, 2003.

Christensen, G. L. and Richard I. Dick, 1985, "Specific Resistance Measurement: Non-parabolic Data," *Journal of Environmental Engineering*, Vol. 111, No. 3, p. 243.

Christian, J. D, 2001, *Composition and Simulation of Tank WM-180 SBW at the Idaho Nuclear Technology and Engineering Center*, INEEL/EXT-2001-00600.

Darcy, J. P. G., 1856, *Les Fontaines Publiques de la Ville De Dijon*, Paris: Victor Dalmont.

Derivation of the sediment settling velocity equations, http://freespace.virgin.net/mark.davidson3/sediment/stokes/SETTLEV.html, Web page visited on October 23, 2003.

EDF-TST-001, 2001, "Solids Characterization," Poloski, A. and M. Wilcox, February 10, 2001.

EDF-1914, 2001, "Rheology of the INTEC Tank Farm Closure Surrogate and WM-182 LDUA Sample/Dissolution of the WM-182 LDUA Sample in 6M Nitric Acid," Poloski, A. P., February 19, 2001.

EDF-15722-040, 2000, "INTEC Tank Farm Sludge Density Measurements/Calculations," Poloski, A. P., July 7, 2000.

EDF-15722-041, 2000, "Surrogate Sludge for Tank Farm Closure Mockups," Poloski, A. and M. Wilcox, October 30, 2000.

Geankoplis, C. J., 1978, *Transport Processes and Unit Operation*, Allyn and Bacon.

Heywood, N. I., 1999, "Stop Your Slurries From Stirring Up Trouble," *Chemical Engineering Progress*, September 1999.

Heywood, N. I. and N. J. Alderman, 2003, "Developments in Slurry Pipeline Technologies," *Chemical Engineering Progress*, April 2003.

Janikowski, S., 2003, *Sodium Bearing Waste: Solids Characterization and Solids Simulant Development*, FY-03 Year End Report, Doc ID 1398707, September 16, 2003.

Janikowski, S. K, 2003, *Metathesis Formation of Tank Farm Solid Simulant*, INEEL-IHR #1013-03-IRC.

Koenders, M. A. and R. J. Wakeman, 1997, "Initial Deposition of Interacting Particles by Filtration of Dilute Suspensions," *AICHE Journal*, 43, p. 946-958.

Maio, V., et al., 2004, "Sludge Surrogate Development and Validation using Caking Filtration Parameters for a Radioactive Sodium Bearing Waste Derived Sludge at the Idaho National Engineering and Environmental Laboratory," *Waste Management Conference, Tucson Arizona*, *February 2004*.

Pao, Jenn-Hai, and R. R. Lewis, 2003, *Experimental Study of Filtration and Solids' Post-Treatment from Simulated SBW Derived Slurry*, INEEL/EXT-03-01106, September 2003.

Perry and Green, 1984, *Perry's Chemical Engineers' Handbook,* New York: McGraw Hill, 6th edition.

Perry and Green, 1997, *Perry's Chemical Engineers' Handbook*, New York: McGraw-Hill, 7th edition.

Pierre, A. C. and K. Ma, 1999, "DLVO Theory and Clay Aggregate Architectures formed with $AlCl_3$," *Journal of the European Ceramic Society*, 19:1615-1622.

Rushton, A., A. S. Ward, and R. G. Holdich, 1996, "Solid-Liquid Filtration and Separation Technology," *VCH Verlagsgesellschaft mbH, Weinhein, Federal Republic of Germany, 1996*.

Sperry, D. R, 1916, "Principles of Filtration, II," *Chem. Met. Eng*, 19, p. 161.

Tien, Chi., Renbi Bai, and B. V. Ramarao, 1997, "Analysis of Cake Growth in Cake Filtration: Effect of Fine Particle Retention," *AICHE Journal*, Vol. 43, No. 1, January 1997, p. 33.

Tiller, F. M., 1990, "Tutorial: Interpretation of Filtration Data, I," *Fluid/Particle Separation Journal*, Vol. 3, p. 85.

Tiller, F. M. and J. R. Crump, 1997, "Solid-Liquid Separation: An Overview," *Chemical Engineering Progress*, October 1997, p. 65.

Tiller, F. M. and W. Leu, 1983, "Experimental Study of the Mechanism of Constant Pressure Cake Filtration: Clogging of Filter Media," *Separation Science and Technology*, Vol. 18, #12/13, p. 1351.

Wakeman, R. J., M. N. Sabri, and E. S. Tarleton, 1991, "Factors Affecting the formation and Properties of Wet Compacts," *Powder Technology*, 65, pp. 283-292.

Wakeman, R. J., S. T. Thuraisingham, and E. S. Tarleton, 1989, "Colloid Science in Solid-Liquid Separation Technology," *Filtration & Separation*, July/August 1989, pp. 277-283.

Water Environment Research Foundation, 1993, *Guidance Manual for Polymer Selection in Wastewater Treatment*, Project 91-ISP-5.

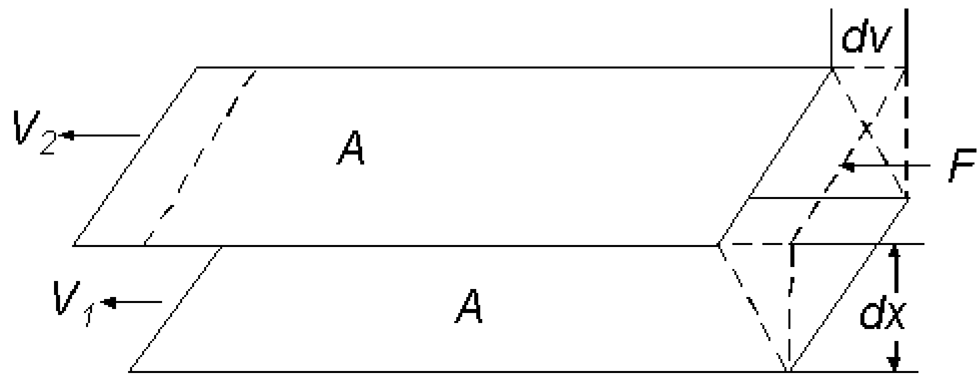
Appendix A

Theory

A-1 VISCOSITY

The following viscosity theory discussion was adapted from Brookfield Engineering's Support web page (http://www.brookfieldengineering.com).

Viscosity is the measure of the internal friction of a fluid. This friction becomes apparent when a layer of fluid is made to move in relation to another layer. The greater the friction, the greater the amount of force required to cause this movement, which is called "shear." Shearing occurs whenever the fluid is physically moved or distributed, as in pouring, spreading, spraying, mixing, etc. Highly viscous fluids, therefore, require more force to move than less viscous materials.



Isaac Newton defined viscosity by considering the model represented in the figure above. Two parallel planes of fluid of equal area "A" are separated by a distance "dx" and are moving in the same direction at different velocities "V_1" and "V_2." Newton assumed that the force required to maintain this difference in speed was proportional to the difference in speed through the liquid, or the velocity gradient. To express this, Newton wrote:

$$\frac{F}{A} = \mu \frac{dv}{dx}$$

where μ is a constant for a given material and is called its "viscosity."

The velocity gradient, dv/dx, is a measure of the change in speed at which the intermediate layers move with respect to each other. It describes the shearing the liquid experiences and is thus called "shear rate." This will be symbolized as "S" in subsequent discussions. Its unit of measure is called the "reciprocal second" (sec^{-1}).

The term F/A indicates the force per unit area required to produce the shearing action. It is referred to as "shear stress" and will be symbolized by "F′." Its unit of measurement is "dynes per square centimeter" ($dynes/cm^2$).

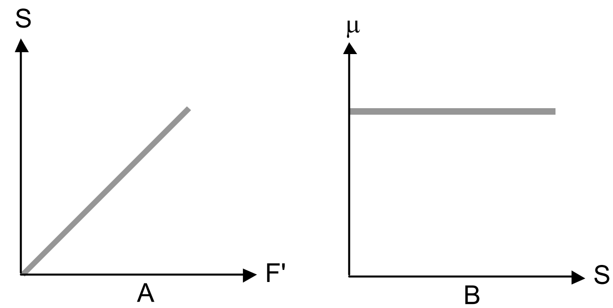
Using these simplified terms, viscosity may be defined mathematically by this formula:

$$\mu = \text{viscosity} = \frac{\text{F}'}{\text{S}} = \frac{\text{shear stress}}{\text{shear rate}} .$$

The fundamental unit of viscosity measurement is the “poise.” A material requiring a shear stress of one dyne per square centimeter to produce a shear rate of one reciprocal second has a viscosity of one poise, or 100 centipoise. Other units of viscosity include “Pascal-seconds” (Pa·s) and “milli-Pascal-seconds” (mPa·s); these are units of the International System and are sometimes used in preference to the Metric designations. One Pascal-second is equal to ten poise; one milli-Pascal-second is equal to one centipoise.

A-1.1 Newtonian Fluids

A Newtonian fluid is represented graphically in the figure below. Graph A shows that the relationship between shear stress (F′) and shear rate (S) is a straight line. Graph B shows that the fluid’s viscosity remains constant as the shear rate is varied. Typical Newtonian fluids include water and thin motor oils.



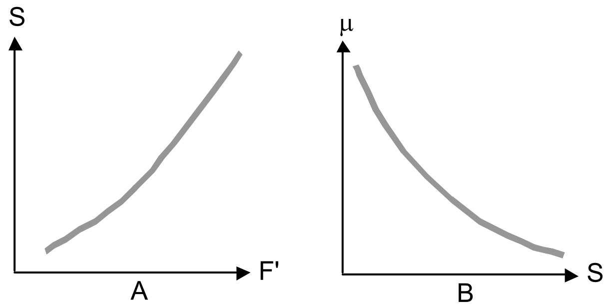
A-1.2 Non-Newtonian Fluids

A non-Newtonian fluid is broadly defined as one for which the relationship F′/S is not a constant. In other words, when the shear rate is varied, the shear stress doesn’t vary in the same proportion (or even necessarily in the same direction). The viscosity of such fluids will therefore change as the shear rate is varied. Thus, the experimental parameters of viscometer model, spindle and speed all have an effect on the measured viscosity of a non-Newtonian fluid. This measured viscosity is called the “apparent viscosity” of the fluid and is accurate only when explicit experimental parameters are defined and adhered to.

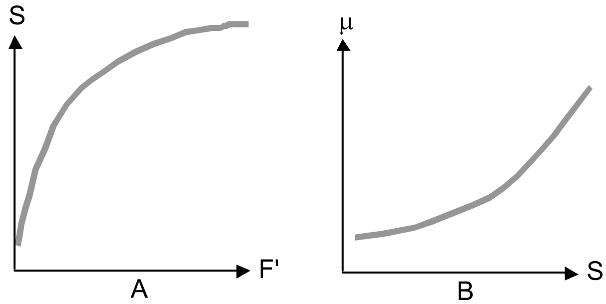
Non-Newtonian flow can be envisioned by thinking of any fluid as a mixture of molecules with different shapes and sizes. As they pass by each other, as happens during flow, their size, shape, and cohesiveness will determine how much force is required to move them. At each specific rate of shear, the alignment may be different and more or less force may be required to maintain motion.

There are several types of non-Newtonian flow behavior, characterized by the way a fluid’s viscosity changes in response to variations in shear rate. The most common types of non-Newtonian fluids that may be encountered include:

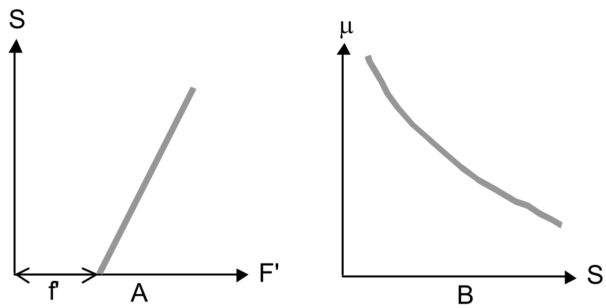
Psuedoplastic: This type of fluid will display a decreasing viscosity with an increasing shear rate, as shown in the figure below. Probably the most common of the non-Newtonian fluids, pseudo-plastics include paints, emulsions, and dispersions of many types. This type of flow behavior is sometimes called "shear-thinning."



Dilatant: Increasing viscosity with an increase in shear rate characterizes the dilatant fluid; see the figure below. Although rarer than pseudoplasticity, dilatancy is frequently observed in fluids containing high levels of deflocculated solids, such as clay slurries, candy compounds, corn starch in water, and sand/water mixtures. Dilatancy is also referred to as "shear-thickening" flow behavior.



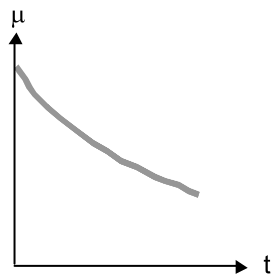
Plastic: This type of fluid will behave as a solid under static conditions. A certain amount of force must be applied to the fluid before any flow is induced; this force is called the “yield value.” Tomato catsup is a good example of this type fluid; its yield value will often make it refuse to pour from the bottle until the bottle is shaken or struck, allowing the catsup to gush freely. Once the yield value is exceeded and flow begins, plastic fluids may display Newtonian, pseudoplastic, or dilatant flow characteristics. See the following figure.



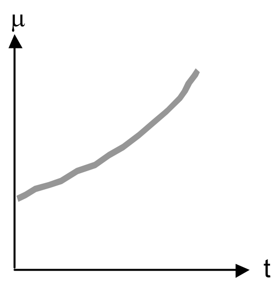
A-1.3 Thixotropy and Rheopexy

Some fluids display a change in viscosity with time under conditions of constant shear rate. There are two categories to consider:

Thixotropy: As shown in the figure below, a thixotropic fluid undergoes a decrease in viscosity with time as it is sheared at a constant rate.



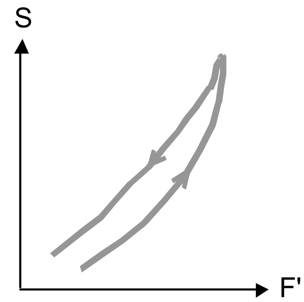
Rheopexy: This is essentially the opposite of thixotropic behavior, in that the fluid's viscosity increases with time as it is sheared at a constant rate. See the figure below.



Both thixotropy and rheopexy may occur in combination with any of the previously discussed flow behaviors, or only at certain shear rates. The time element is extremely variable; under conditions of constant shear, some fluids will reach their final viscosity value in a few seconds, while others may take up to several days.

Rheopectic fluids are rarely encountered. Thixotropy, however, is frequently observed in materials such as greases, heavy printing inks, and paints.

When subjected to varying rates of shear, a thixotropic fluid will react as illustrated in the following figure. A plot of shear stress versus shear rate was made as the shear rate was increased to a certain value, then immediately decreased to the starting point. Note that the "up" and "down" curves do not coincide. This "hysteresis loop" is caused by the decrease in the fluid's viscosity with increasing time of shearing. Such effects may or may not be reversible; some thixotropic fluids, if allowed to stand undisturbed for a while, will regain their initial viscosity, while others never will.



A-1.4 Laminar and Turbulent Flow

The very definition of viscosity implies the existence of what is called “laminar flow”: the movement of one layer of fluid past another with no transfer of matter from one layer to the other. Viscosity is the friction between these layers.

Depending on a number of factors, there is a certain maximum speed at which one layer of fluid can move with relation to another, beyond which an actual transfer of mass occurs. This is called “turbulence.” Molecules or larger particles jump from one layer to another and dissipate a substantial amount of energy in the process. The net result is that a larger energy input is required to maintain turbulent flow than laminar flow at a given velocity.

The increased energy input is manifested as an apparently greater shear stress than would be observed under laminar flow conditions at the same shear rate. This results in an erroneously high viscosity reading.

The point at which laminar flow evolves into turbulent flow depends on other factors besides the velocity at which the layers move. A material’s viscosity and specific gravity as well as the geometry of the Viscometer spindle and sample container all influence the point at which the laminar to turbulent transition occurs.

Care should be taken to distinguish between turbulent flow conditions and dilatant flow behavior. In general, dilatant materials will show a steadily increasing viscosity with increasing shear rate; turbulent flow is characterized by a relatively sudden and substantial increase in viscosity above a certain shear rate. The material’s flow behavior may be Newtonian or non-Newtonian below this point.

A-1.5 What Affects the Rheological Property?

Viscosity data often functions as a “window” through which other characteristics of a material may be observed. Viscosity is more easily measured than some of the properties that affect it, making it a valuable tool for material characterization.

A-1.5.1 Temperature

One of the most obvious factors that can have an effect on the rheological behavior of a material is temperature. Some materials are quite sensitive to temperature, and a relatively small variation will result in a significant change in viscosity. Others are relatively insensitive. Consideration of the effect of temperature on viscosity is essential in the evaluation of materials that will be subjected to temperature variations in use or processing, such as motor oils, greases, and hot-melt adhesives.

A-1.5.2 Shear Rate

Non-Newtonian fluids tend to be the rule rather than the exception in the real world, making an appreciation of the effects of shear rate a necessity for anyone engaged in the practical application of rheological data. It would, for example, be disastrous to try to pump a dilatant fluid through a system, only to have it go solid inside the pump, bringing the whole process to an abrupt halt. While this is an extreme example, the importance of shear rate effects should not be underestimated.

When a material is to be subjected to a variety of shear rates in processing or use, it is essential to know its viscosity at the projected shear rates. If these are not known, an estimate should be made. Viscosity measurements should then be made at shear rates as close as possible to the estimated values.

A-2 SETTLING TYPE AND RATE

Perry's Chemical Engineers' Handbook (Perry and Green 1984) has a general discussion of various settling regimes that will be applicable to WM-187 solids/slurries included in this study:

At low concentrations, the type of settling encountered is called particulate settling. Regardless of their nature, particles are sufficiently far apart to settle freely. Faster settling particles may collide with slower settling ones and, if they do not cohere, continue downward at their own specific rate. Those that do cohere will form floccules of a larger diameter that will settle at a rate greater than that of individual particles.

There is a gradual transition from particulate settling into the zone-settling regime, where the particles are constrained to settle as a mass. The principal characteristic of this zone is that the settling rate of the mass, as observed in batch tests, will be a function of the solids concentration (for any particular condition of flocculation, particle density, etc.).

The solids concentration ultimately will reach a level at which particle descent is restrained not only by the hydrodynamic forces but partially by mechanical support from the particles below; therefore, the weight of the particles in mutual contact can influence the rate of sedimentation of those at lower levels. This compression, as it is termed, will result in further solids concentration because of compaction of the individual floccules and partial filling of the interfloc voids by the deformed floccules. Accordingly, the rate of sedimentation in the compression regime is a function of both the solids concentration and the depth of pulp in this particular zone. As indicated in Figure A-1, granular, nonflocculent particles may reach their ultimate solids concentration without passing through this regime.

These types of settling are further discussed by Pierre and Ma (Pierre and Ma 1999). In this paper, Pierre and Ma describe two types of settling, accumulation sedimentation (which is analogous to particulate settling) and flocculation sedimentation (which is analogous to zone/compression settling). These types of sedimentation are illustrated in Figure A-2.

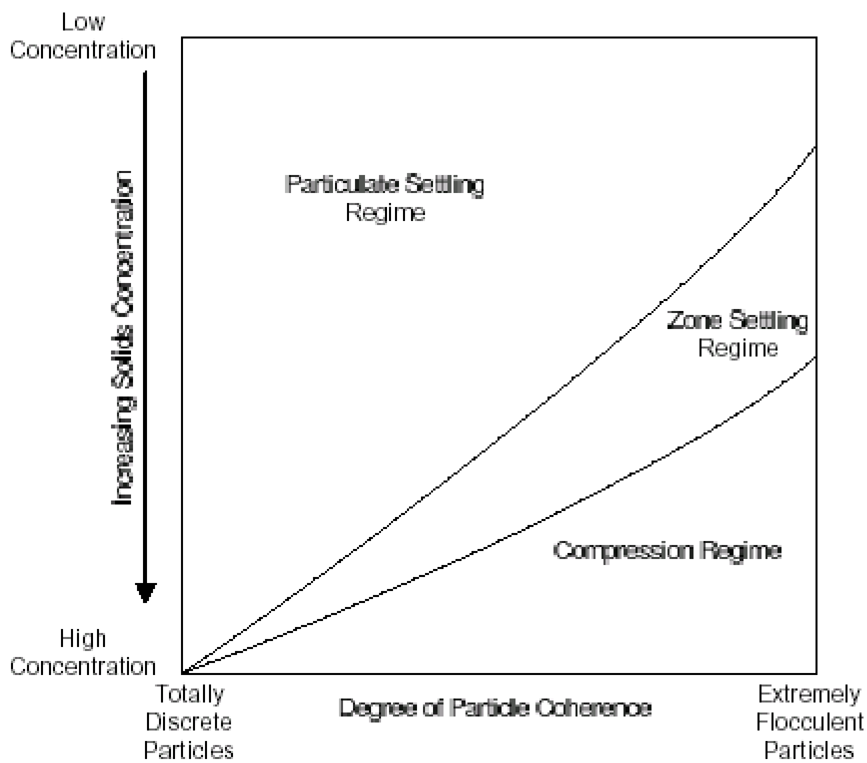


Figure A-1. Settling regimes.

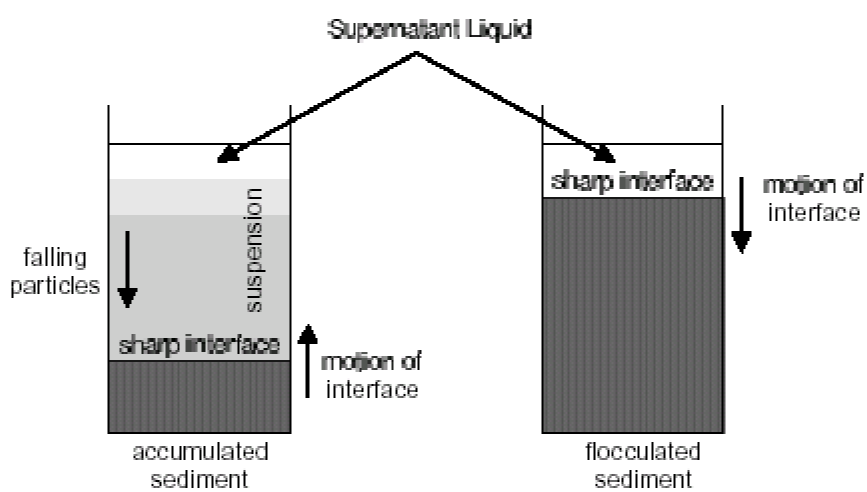


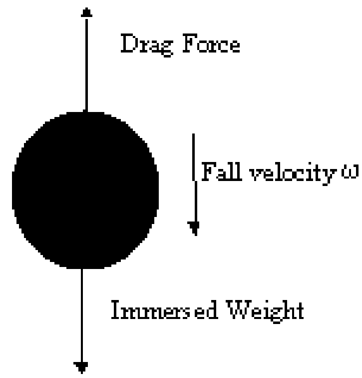
Figure A-2. Accumulation sedimentation and flocculation sedimentation.

A-3 PARTICLE SETTLING VELOCITY

The "Derivation of the Sediment Settling Velocity Equations" web page (http://freespace.virgin.net/mark.davidson3/sediment/stokes/SETTLEV.html) provides a derivation of the settling velocity equations for a particle settling in the particulate settling regime.

A-3.1 Spherical particles

Consider a simple spherical grain falling through a motionless fluid. The particle accelerates through the fluid until the ***immersed weight*** of the particle is balanced by the ***drag forces***. At this point the particle maintains a constant velocity called the ***terminal velocity***.



In cross-section the spherical grain is circular with a radius *r* (or diameter *D*). If the particle falls a distance *d* through the water column, it displaces a cylindrical volume of water.

The kinetic energy required to displace this volume of water is given by:

$$E = \frac{1}{2} m \varpi^2 . \tag{1}$$

From Figure 2, the mass of water displaced is given by:

$$m = \frac{d \pi D^2}{4} \rho_l . \tag{2}$$

where ρ_l is the density of the fluid. Substituting equation (1) into equation (2):

$$E = \frac{1}{2} \frac{d \pi D^2}{4} \rho_l \varpi^2 . \tag{3}$$

Energy is defined as a force times a distance (E=Fd). Therefore, we can write the drag force as:

$$E = \frac{1}{2} \frac{d \pi D^2}{4} \rho_l \varpi^2 = F_D d \qquad \text{Thus: } F_D = \frac{\pi D^2 \rho_l \varpi^2}{8} . \tag{4}$$

Equation (4) is the theoretical drag force on a sphere. However, this equation does not take into account the viscosity of the fluid or the dynamics of the flow around the sphere. So for a more practical solution, which includes these factors, we must introduce a drag coefficient C_D. Thus, allowing for fluid viscosity and the flow dynamics equation (4) becomes:

$$F_D = \frac{C_D \pi D^2 \rho_l \varpi^2}{8} . \tag{5}$$

The flow regime around the object is best described in terms of the dimensionless Reynold's number where:

$$\mathrm{Re} = \frac{\varpi D \rho_l}{\mu}. \tag{6}$$

Here μ is the coefficient of molecular viscosity. For $Re<1$ there is laminar flow around the sphere. This is called the viscous regime. Here the drag coefficient is inversely related to the Reynold's number where:

$$C_D = \frac{24}{\mathrm{Re}}. \tag{7}$$

Substituting equation (7) into (5) gives:

$$F_D = \frac{3\pi D^2 \rho_l \varpi^2}{\mathrm{Re}} = 3\mu\pi D\varpi . \tag{8}$$

When the particle reaches its terminal velocity, this drag force is balanced by the immersed weight of the particle. The immersed weight is given by:

I =weight of particle (*W*) - fluid upthrust (*U*). (9)

The weight of the particle is the product of its mass and the acceleration due to gravity (g) (Newton's second law of motion, $F=ma$), and the mass is equal to the volume times the density of the particle, therefore:

$$m = \frac{4}{3}\pi r^3 \rho_s = \frac{4}{3}\pi \frac{D^3}{8}\rho_s \tag{10}$$

$$W = \frac{4}{3}\pi \frac{D^3}{8}\rho_s g . \tag{11}$$

Here ρ_s is the density of the particle.

The upthrust is equal to the weight of water that the particle displaces (Archimedes' Law). Thus;

$$U = \frac{4}{3}\pi \frac{D^3}{8}\rho_l g . \tag{12}$$

Combining equations (9), (11), and (12) gives the immersed weight of the particle as:

$$I = \frac{4}{3}\pi \frac{D^3}{8} g(\rho_s - \rho_l). \tag{13}$$

Within the viscous regime (***Re***<*1*), the terminal fall velocity of the particle may be found by combining equations (8) and (13) {drag force (F_D) = immersed weight (I)}:

$$3\mu\pi D\varpi = \frac{4}{3}\pi\frac{D^3}{8}g(\rho_s - \rho_l). \tag{14}$$

Rearranging the above in terms of the fall velocity gives **Stoke's Law**:

$$\varpi = \frac{D^2 g(\rho_s - \rho_l)}{18\mu}. \tag{15}$$

For a given fluid density, particle density, and fluid viscosity equation (15) simplifies to:

$$\omega = cD^2 \tag{16}$$

where c is a constant of proportionality. For quartz particles in water, c has the following values for a salinity of 35 ppt:

Temperature °C	c ($cm^{-1}s^{-1}$)
20	8975
10	6880
5	5920

At higher Reynold's numbers (>1), flow separation occurs, turbulent eddies are formed (the turbulent regime) and the drag coefficient deviates from equation (7). For Reynold's number above 10^3, the drag coefficient reaches a constant value (approx. 0.4 for spheres). Equations (5) and (13) imply that if C_D is constant then $\varpi \propto \sqrt{D}$. This is known as the ***Impact Law***.

A-3.2 Nonspherical Particles

The drag coefficient will vary significantly with the shape of the particle. The shape of an irregular, nonspherical particle is often characterized by the Corey shape factor;

$$C = \frac{D_c}{\sqrt{D_a D_b}} \tag{17}$$

where D_a, D_b and D_c are the major, minor, and intermediate axes of the particle. The theoretical settling velocity for the settling of discs (similar to clay minerals) within the viscous regime (Re<1) is:

$$\omega_s = \frac{1}{2k\mu}\frac{\overline{D}}{D_c}(\rho_s - \rho_l)g\overline{D}^2 \qquad)18)$$

where

$$\overline{D} = \frac{1}{2}(D_a + D_b).$$

The coefficient k has a theoretical value of 5.1 for broadside settling of infinitely thin particles. The best fit to natural data; however, gives $k = 9$. Thus, for spherical particles ($\overline{D} = D_c$), equation (18) is equivalent to equation (15). For turbulent conditions, the particle will oscillate while falling and even falls along a zigzag path under extreme conditions.

Due to the complex effects of the flow field around the particle, particle shape, and the irregular trajectories of the particles, empirical relationships often are used to describe the fall velocity of particles such as the tank farm facility solids/sludge pertinent to this study. Baba and Komar (1981) found a good empirical fit to their data for sand grains with different shape factors. A good fit to their data was given by:

$$\omega_n = 0.977\omega_s^{0.913} \tag{19}$$

where ω_n is settling velocity of the natural grains and ω_s is given by equation (15) taking $D=D_b$.

A-4 CAKE FILTRATION

A-4.1 Cake Filtration Description

Cake (or dead-end) filtration is a process in which suspended solids are separated a suspension via the permeation of suspending medium through porous membrane. Permeation of the filtrate is driven by gravity or by the application of a vacuum, or pneumatic or hydrostatic pressure. As permeation of the filtrate takes place, a filter cake builds up on the porous membrane. The structure/permeability of the filter cake is often the rate limiting factor for permeate flux in the process.

Cake filtration, as a solid/liquid separation process, is widely used in both the chemical and process industries. Despite its simplicity and long history of development, filtration is not easily described like some other transport unit operations, such as heat transfer, mass transfer, fluid mixing, and fluid transport. For these operations, properties are well defined and predictable. However, in the case of filtration, solids can have widely varying properties in addition to size distribution, that depend on conditioning and processing. For example, particle size and shape can change with treatment, aging, flocculation, pH, and pumping. For these reasons, filtration and other solid/sludge waste processing technologies are difficult to understand, and are very underrated engineering disciplines.

Filtration performance (or permeate flux) is affected by a series of parameters, some of which are related to the suspended solid or flocculent properties of the sludge feed. An optimization of the filtration operation implies a systematic analysis of each important parameter. Noted "Father of filtration," F. M. Tiller of the University of Houston, stated that: "Experiment is a necessary part of any filtration design procedure, and average filtration resistances are noticeably affected by sludge concentration, rate of change of applied stresses, and internal shear forces. Even under carefully controlled conditions, it is difficult to measure resistance within ±10%. Caution and judgment are essential to interpret and make use of filtration data correctly" (Tiller and Crump 1997).

The most commonly used analysis for measuring the de-liquoring rates of sludges is the specific resistance to filtration (SRF) test (Water Environmental Research Foundation 1993; Geankoplis 1978; Perry and Chilton 1997; Christensen and Dick 1985). The SRF test is a laboratory procedure that measures the rates at which sludges will de-liquor under pressure or vacuum. The test is based on an analysis of pressure drop for flow through a porous medium (i.e., the filter cake). The theoretical description of filtration identifies the SRF as the proportionality factor between the amount of cake solids deposited in the cake and the total flow resistance of the cake. As expected the SRF, as briefly derived below, is related to cake permeability.

In cake filtration, the sludge to be treated is dispersed in a liquid medium, whereafter it is brought into contact with a filter medium with openings smaller than the diameters of most of the particles present in the sludge. The cake filtration behaviors are strongly affected by the properties of the filter cake formed by the accumulation of the particles and/or macromolecules on the surface of the filter medium. A cake is formed above the filter medium, which subsequently provides filtering, and the cake thickness increases with time. The cake structure may undergo changes as a result of cake compression caused by the sludge flow. In turn, this change in cake structure may dynamically affect filtration performance (Alles et al. 1998).

If the cake from the sludge filtration contains a wide range of particle sizes there will be a tendency for the cake to behave like one composed of its finer particles rather than one composed of its coarser particles, because the small particles migrate into the cake creating a denser cake. Sludges containing fine particles are extremely difficult to separate because they form highly compressible cakes. While the majority of the particles are retained to form a cake, a small amount of finer ones may penetrate into the cake. The permeability of a cake depends on the extent of the compression to which it is subjected, as well as the amount of fines retained within the cake. Fine particle retention can contribute significantly to the decrease of cake permeability and may significant effect the performance of cake filtration even if the amounts of fines are small (Tien et al. 1997).

A-4.2 Cake Filtration Theory

Liquid flow through porous media is the common characteristic of filtration process. As the waste slurry liquid passes around the surface of the solid particles trapped on a porous medium (a frit or the filter cake), friction between the liquid and the solid particles being collected on the filtration medium creates a pressure drop over the length of the medium, resulting in a reduction in flow through the medium. A basic flow equation – Darcy's Law (Darcy 1856) - provides a fundamental relation between this pressure drop and the liquid flow through both the cake and the filter medium.

$$\mathrm{q} = \mathrm{dV}/\mathrm{d}t = k\,(\mathrm{A}\,p)/(\mu\, L) \qquad (1)$$

or $$q = \mathrm{d}v/\mathrm{d}t = p/(\mu\,\mathrm{R}) \qquad (2)$$

where q is the volumetric flow rate of the filtrate; V, the total liquid filtrate volume collected at time, *t; t*, the time since the start of filtration; *k*, the cake permeability (assumed constant here, but not so in reality); A, the cross-sectional area of the collected solid (also equal to the surface area of the filter medium); *p*, the pressure drop across the collected cake and the filter medium; *L*, the porous cake depth; μ, the liquid filtrate viscosity; R, the sum of the resistance of the cake, R_c, and the resistance of the filter medium, R_m , (also equal to *L/k*); *v* , the filtrate volume collected at time, t (i.e., V) per unit area of filtration (i.e., A).

Both the solid filter cake resting on a filter medium and the medium itself contribute to the various resistances during constant pressure filtration (Figure A-3). Starting with equation (2) and using the defined resistance identities of equations (4) and (5) below, the following resistance model of cake filtration is obtainable:

$$\mathrm{dv/dt} = \mathrm{p}/\mu\,(\alpha\,\mathrm{C\,V/A} + \mathrm{Rm}) = \mathrm{p}/\mu\,(\mathrm{Rc} + \mathrm{Rm}) \qquad (3)$$

$$\text{where } \mathrm{R} = \mathrm{Rc} + \mathrm{Rm} \text{ and} \qquad (4)$$

$$R_c = (\alpha\,\mathrm{C\,V})/\mathrm{A} = \alpha_{av}\,\mathrm{C}\,v = \alpha_{av}\,w_c \qquad (5)$$

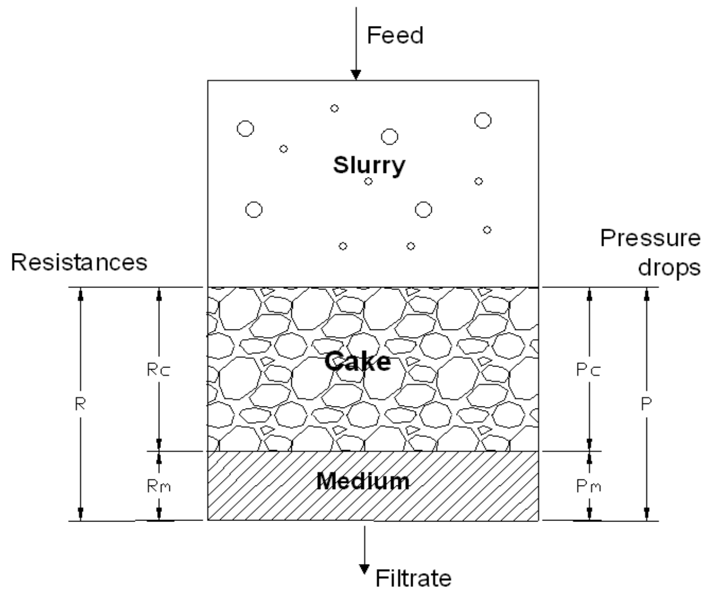


Figure A-3. Relationship between the applied filter pressure and the filter cake/medium resistance.

α is the specific resistance of filtration (SRF) for the filter cake in units of m/kg; C, the slurry concentration expressed as the mass of dry cake per unit volume of filtrate (kg/m^3); R_c and R_m are the cake and filter medium resistance, respectively (1/m); $w_c = Cv$, the total mass of dry cake solids per unit area of filter surface (kg/m2).

Inspection of equation (3) reveals a linear relationship between the rate of filtration and the total volume of filtrate collected. In order to obtain this *v* vs. *t* relationship for constant pressure filtration, Tiller (Tiller 1990; Tiller 1983) recommends using the following equations, as derived from equations (3):

$$pdt/\mu dv = p/(\mu\ q) = \alpha av\ C\ v + Rm \tag{6}$$

$$pt/\mu v = p/(\mu\ qav) = (\alpha av\ /2)\ C\ v + Rm \tag{7}$$

since $R_c = \alpha_{av}\ C\ v$

$$R = p/\mu\ q = Rc + Rm \tag{8}$$

$$p/(\mu\ qav) = ½\ Rc + Rm \tag{9}$$

where $q = dv/dt$, the instantaneous rate, and $q_{av} = v/t$, the average rate over the entire filtration cycle. Since equations (6) and (7) are of linear form, a plot of $1/q$ versus v provides a curve whose slope is related directly proportional to the particular cake SRF (or α_{av}), as well as a Y intercept that is representative of the resistance of the filter medium. As will be discussed in detail later, graphical interpretations of equations (6) and (7), designated as filtration models I and II by Teller, are provided in Figure A-4. However, experimental data are frequently not precise, and undoubtedly any points on both the $p/\mu q$ and $p/\mu q_{av}$ plots will probably deviate from straight lines. Since the slope of the equation (6) is twice that of the equation (7), Tiller (Tiller 1990; Tiller 1983) advised plotting both lines to reach a compromise on both the slopes and intercepts.

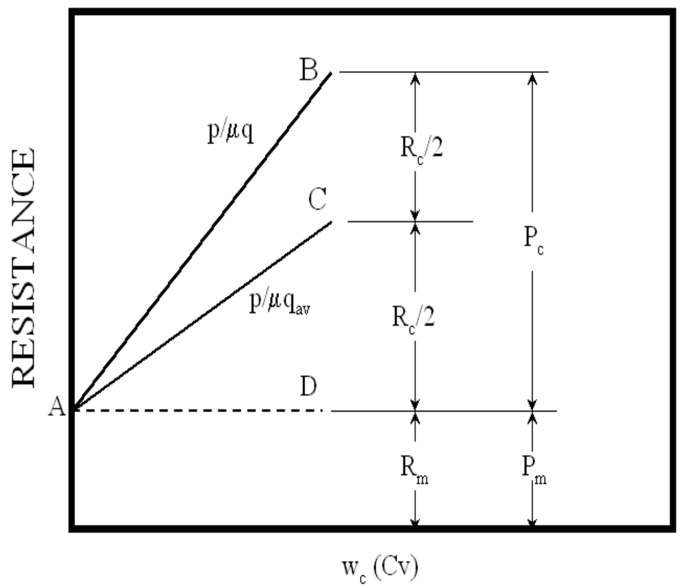


Figure A-4. Overall filtration resistance plot.

It should be noted that the filtration resistance α (or SRF) is a measure of the filterability of the suspensions. The greater the α, the greater the time required for filtration (smaller filtration rate) for a given pressure drop across the filter. To determine the effect of a change in the applied filtration pressure for a particular sludge, at least three different constant pressure tests are to be conducted, and for each case, α was determined. Based on reference (Sperry 1916), plotting the natural log of α ($Ln\ \alpha$) versus $Ln\ p$ also results in an approximate straight line. The straight line indicates that equation (10) as proposed by Sperry, and given below, is consistent with numerous documented experiments with sludge cake filtration. Sperry's results indicate that α_0 and n are empirical constants for a particular sludge, and the slope of the line, as generated by the Ln-Ln plot described above, is the compressibility of the cake, n. This value varies from 0 for a rigid, incompressible cake, to n>1 for super-compactable cake. Values of n used to classify the cake compressibility are listed in Table A-1.

$$\alpha_{av} = \alpha_0 * (p)^n \quad (10)$$

Table A-1. Cake compressibility classifications.

Incompressible	n = 0
Moderately compressible	n ~ 0.5-0.6
Highly compressible	n ~ 0.7-0.8
Super compressible	n>1

Cake filtration and cake compressibility are influenced by numerous factors such as the particle size, particle size distribution, the particle shape, and their aggregation (Perry and Chilton 1997; Rushton et al. 1996; Wakeman et al. 1989; Wakeman et al. 1991). In the case of low or moderate cake compressibility, higher filtration pressure leads to higher filtration rates—a desired result. On the other hand, highly compressible cakes can lead to greatly increased filtration times as a consequence of pressure induced pore constriction. Generally speaking, for the very compressible filter cake, high pressures and long filtration times are often necessary.

Appendix B

Previous History and Prior Data

B-1 PREVIOUS HISTORY AND PRIOR DATA

SBW solids samples and previous solids surrogates have been compared in the past. In 2000, physical property data was collected on the 1999 Light- Duty Utility Arm (LDUA) WM-182 sample. Physical property data collected included sludge density measurements, sludge viscosity measurements, solids settling type and rate, and solids particle size distribution. The WM-182 sludge physical property data collected was used to select an appropriate sludge surrogate for the FY-2000 Tank Farm Closure "Wash and Pump" and "Slurry Pipe Flow" mock-up tests. The waste surrogate selected was kaolin clay (pigmented with iron-oxide) flocculated by the addition of aluminum sulfate. In addition, calcium sulfate dihyrdate (hydrated gypsum) provides effective adjustment of settling rate and particle size of the waste surrogate (Poloski and Wilcox 2000). A summary of the WM-182 sludge and surrogate sludge physical property data collected is summarized in the following sections.

B-2 SLUDGE DENSITY MEASUREMENTS

The average density of the 1999 LDUA WM-182 sludge sample was reported as 1.25 g/mL by Poloski (Poloski 2001). The kaolin clay/aluminum sulfate surrogate described in "Surrogate Sludge for Tank Farm Closure Mockups" (Poloski and Wilcox 2000) had an expected sludge density in the range of 1.16 – 1.48 g/mL, which encompasses the tank farm sludge density of 1.25 g/mL.

B-3 SLUDGE VISCOSITY MEASUREMENTS

Poloski reported the viscosity of the 1999 LDUA WM-182 sludge sample at shear rates ranging from 0 to 50 s^{-1} (Poloski and Wilcox 2001). The viscosity of undiluted WM-182 sludge sample was approximately 200 cP at a shear rate of 35 s^{-1} and the viscosity of diluted WM-182 sludge sample was approximately 50 cP at a shear rate of 35 s^{-1}. The kaolin clay/aluminum sulfate surrogate described in "Surrogate Sludge for Tank Farm Closure Mockups" (Poloski and Wilcox 2000) had a viscosity higher than that of the actual waste, approximately 1600 cP at a shear rate of 35 s^{-1} (see Figure B-1).

B-4 SETTLING TYPE AND RATE

Poloski reported the settling type of the 1999 LDUA WM-182 sludge sample as slow flocculation sedimentation. Figure B-2 is a plot of the WM-182 solids settling velocity data collected (Poloski and Wilcox 2001). Figure B-3 illustrates the kaolin/alum waste surrogate settling rate in comparison to the WM-182 sludge settling rate (Poloski and Wilcox 2000). The kaolin/alum surrogate displayed a slower settling rate than the WM-182 sludge. In the tank farm closure mockup, a slower waste surrogate settling rate would result in a greater amount of solids being transferred from the mockup than in actual tank farm closure operations. Therefore, various quantities of hydrated gypsum, which acts as a settling agent, were added to the kaolin/alum waste surrogate to increase the waste surrogate settling rate. Figure B-4 illustrates the kaolin/alum/gypsum waste surrogate settling rate in comparison to the WM-182 sludge settling rate (Poloski and Wilcox 2000).

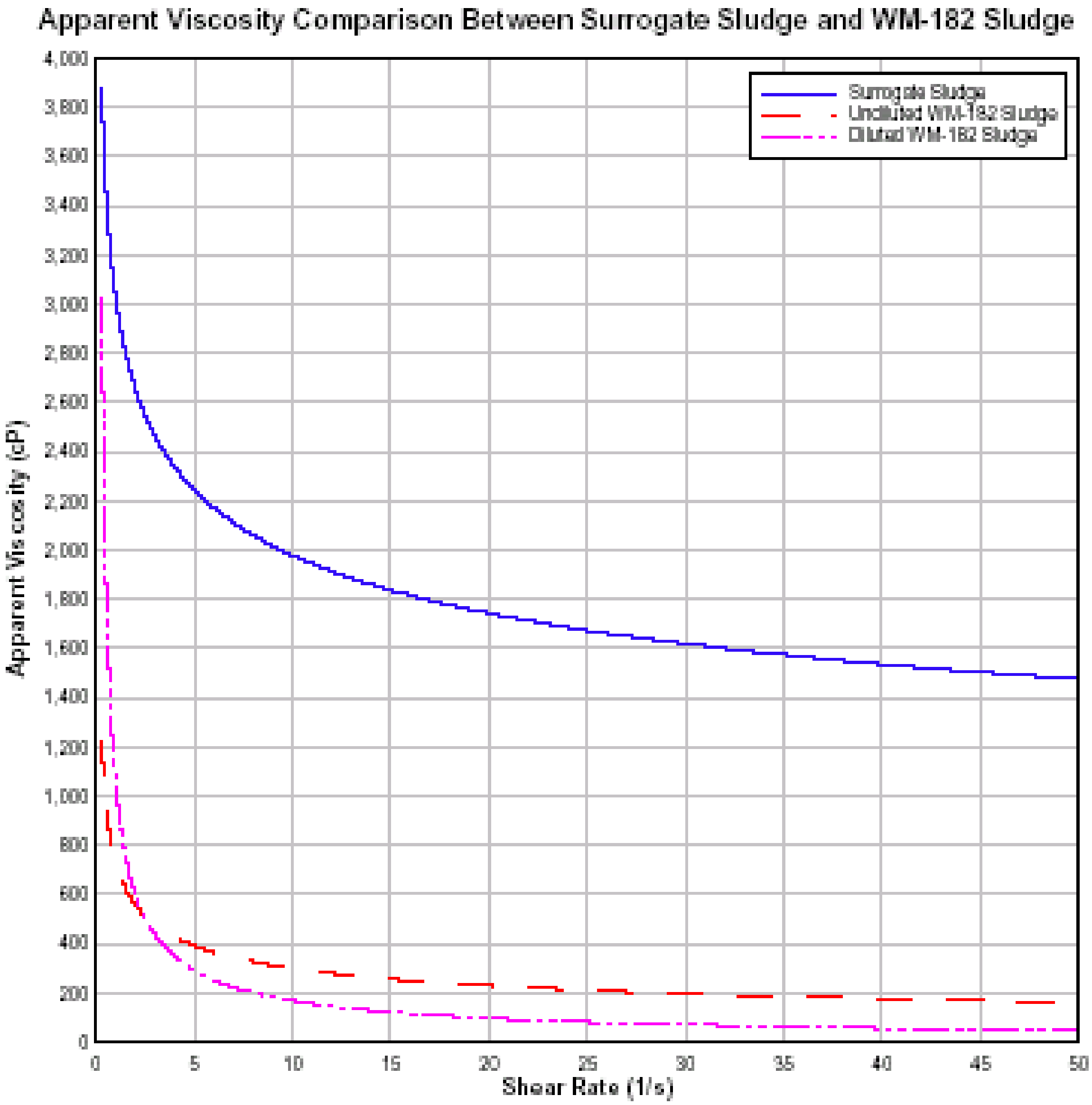


Figure B-1. Apparent viscosity comparison between surrogate sludge developed in 2000 and actual WM-182 sludge.

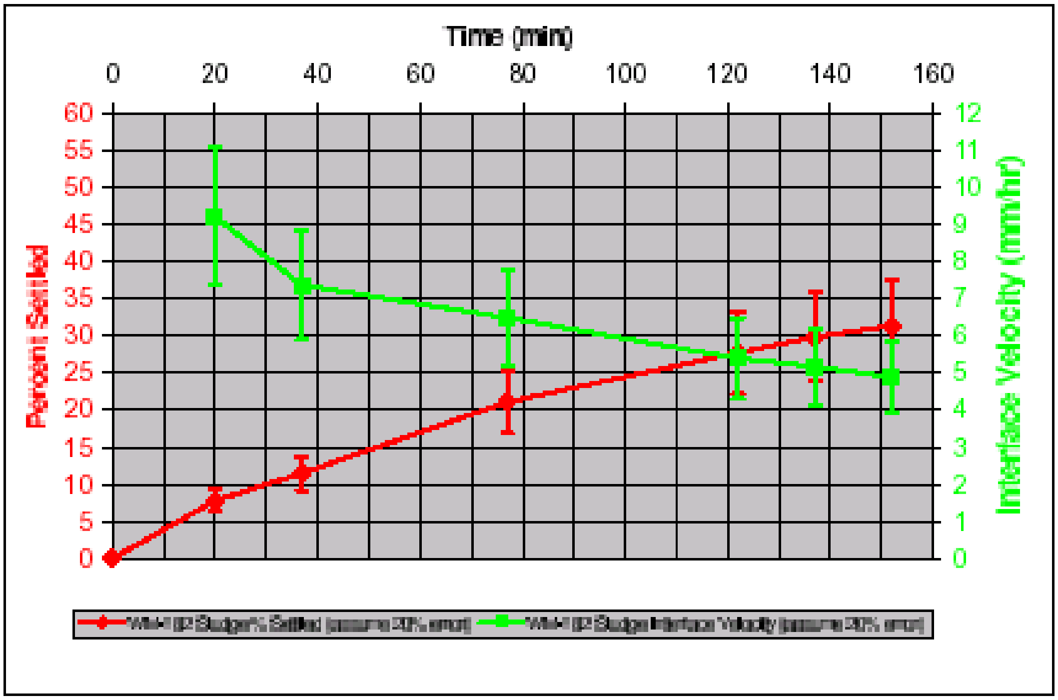


Figure B-2. WM-182 sludge compression settling rate.

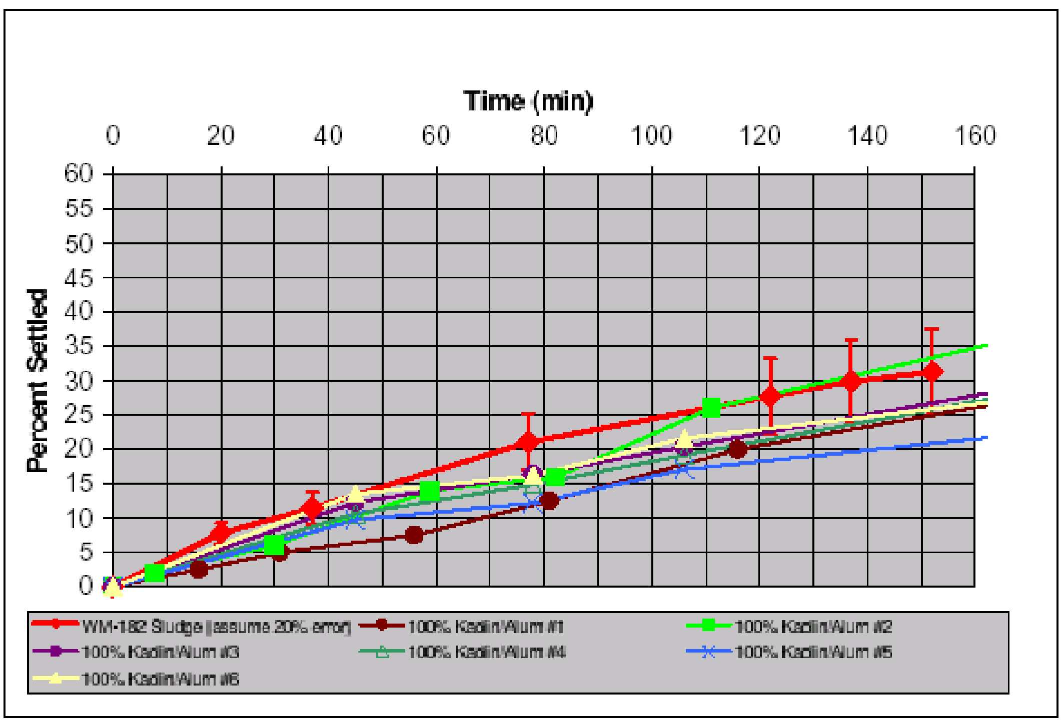


Figure B-3. Kaolin/alum compression settling rate.

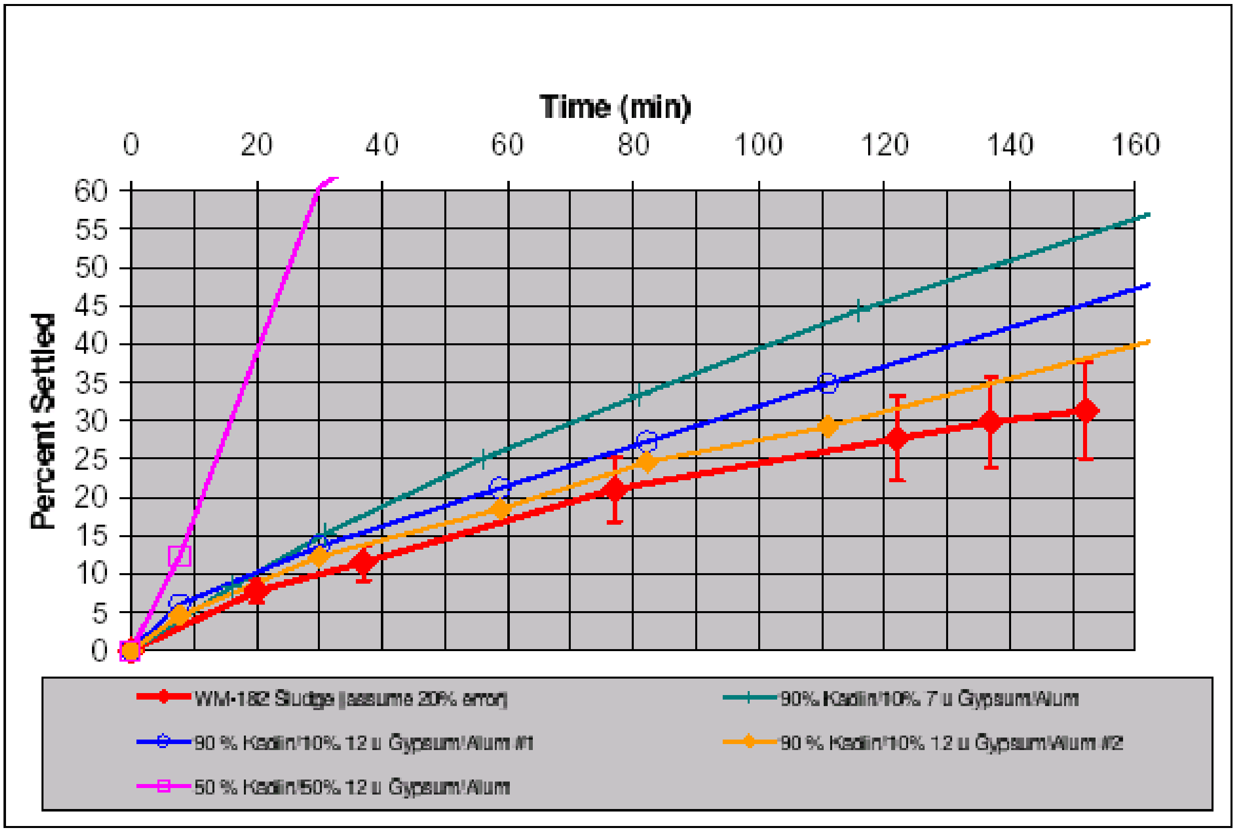


Figure B-4. Kaolin/alum/gypsum compression settling rate.

B-5 PARTICLE SIZE DISTRIBUTION

Sonicated and unsonicated WM-182 and WM-183 sludge particle size distributions were reported by Poloski and Wilcox. Figure B-5 summarizes the WM-182 and WM-183 particle size distribution data (Poloski and Wilcox 2000). Figure B-6 is a particle size distribution comparison of sonicated WM-182 and WM-183 samples with the kaolin/alum/iron oxide surrogate sludge (Poloski and Wilcox 2000).

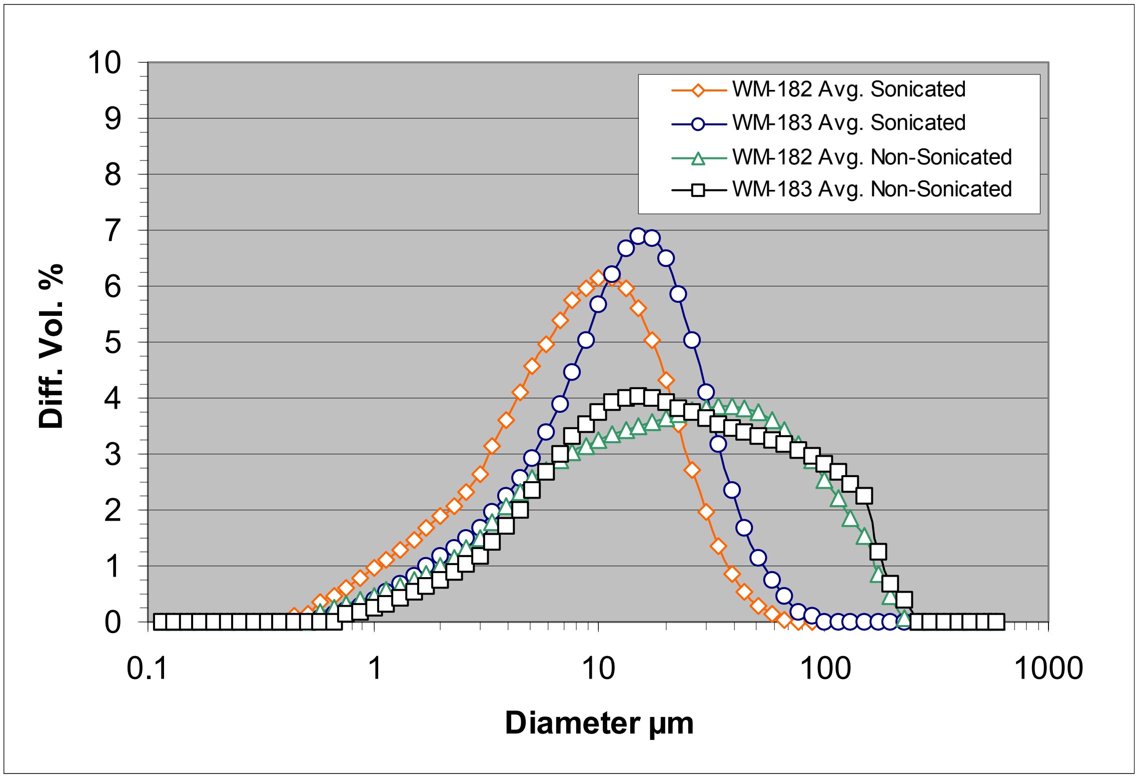


Figure B-5. WM-182 and WM-183 particle size distributions.

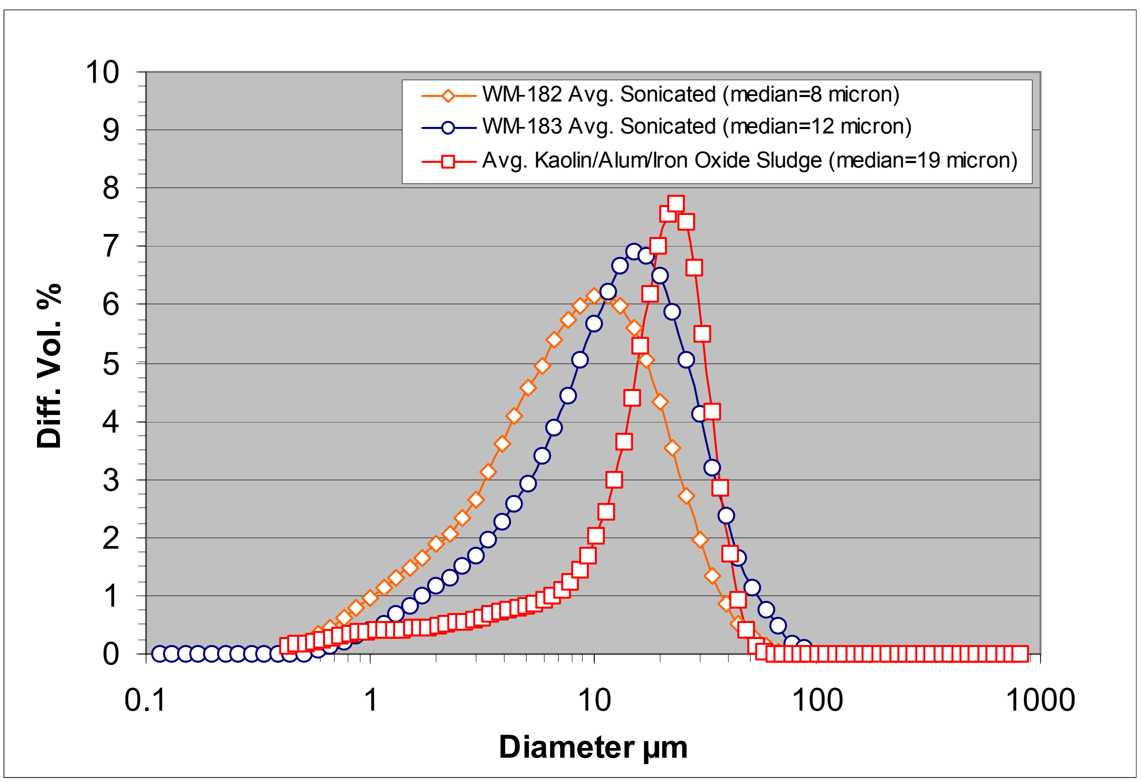


Figure B-6. WM-182, WM-183, and kaolin/alum/iron oxide surrogate sludge PSD comparison.

Appendix C

Surrogate Composition

Metathesis Solids Surrogate Composition

Cation	wt % needed	wt% added	Anion	[wt %]	wt% added	Form	Formula wt	Formula wt% cation	Weight of cation, g	Formula wt% anion	Weight of anion, g	**Amount to add (g, ml) (per 100 g solids)**	Moles of Acid	**Amount to add (g,ml) per 500 g solids**	**A ac P**
Na+	5.3	5.59				NaNO3 (s)	85	27	0.00	73	0.00	0		0	
Na+			OH-1	4.0		NaOH (s)	40	57.5	5.18	42.5	3.83	9	-0.23	45.00	
Na+			F-1	0.1	0.11	NaF (s)	42	54.8	0.12	45.2	0.10	0.225		1.13	
Al+3	2.2	2.32				Al(NO3)3 . 9H2O (s)	375.1	7.2	2.20	49.6	15.13	30.5		152.50	
Zr+4	2	2.12				ZrO(NO3)2 . H2O (s)	231.2	39.5	2.01	53.6	2.73	5.1		25.50	
K+	1.6	1.71				KNO3 (s)	101.1	38.7	1.63	61.3	2.57	4.2		21.00	
Ca+2	0.5	0.54				Ca(NO3)2 . 4H2O (s)	236.2	17	0.51	52.5	1.58	3		15.00	
Fe+3	0.4	0.42				Fe(NO3)2 . 9H2O (s)	404	13.8	0.40	30.7	0.89	2.9		14.50	
Mn+2	0.2	0.23				Mn(NO3)2 . H2O (s)	179	30.7	0.21	69.2	0.48	0.7		3.50	
Mg+2	0.2	0.22				Mg(NO3)2 . 6H2O (s)	256.4	9.5	0.21	48.3	1.06	2.2		11.00	
Sn+4	0.1	0.00	Cl-1	0.1	0.00	SnCl4 (s)	260.5	45.6	0.00	54.4	0.00	0		0.00	
Sn+2		0.11	Cl-1		0.07	SnCl2 . 2H2O	225.6	52.6	0.11	31.4	0.06	0.2		1.00	
			Cl-1		0.09	HCl (37 wt%)	36.5	2.8	0.00	97.1	0.09	0.2	0.00	1.00	
			NO3-1	25.0	25.83	HNO3 (70 wt%)	63	1.6	0.36	98.4	24.50	25	0.39	125.00	
			PO4-3	5.5	5.91	H3PO4 (85 wt%)	98	3.1	0.18	96.9	5.60	4	0.18	20.00	
			Si+4	2.1	0.00	H4**Si**O4 (s)	96.1	4.2	0.00	95.8	0.00	0	0.00	0.00	
			Si+4		2.18	27% SiO2, 14% NaOH	60.1	12.6	4.39	6.0	2.07	25	-0.12	125.00	
			SO4-2	1.5	1.64	H2SO4 (95-98%)	98.1	2.1	0.03	98	1.56	0.9	0.03	4.50	
Totals	12.5			34.3					Volume of liquid added			55.1		275.50	

Mass of known anions and cations needed	46.8	Mass of solids added	58.025	290.13
Total wt% of known cations (metallic) required	12.50			
Total wt% of known anions required	34.10			
Total wt% known anions & cations required	46.60			
Total weight of added salts, g	57.83			
Total wt% cations	12.47			
Total wt% NO3-1	48.94			

WM-187 Liquid Surrogate Composition

compound	mol/L required	compound MW, g/mol	compound SPG, g/mL	Amount to add per L solution	[units]	Cations				Anions	
						H^+	Al^{3+}	K^+	Na^+	NO_3^-	
HNO_3 (69 wt%)	2.29E-01	63	1.41	14.83	mL	2.29E-01				2.29E-01	
$Al(NO_3)_3 \cdot 9H_2O$ (s)	3.58E-02	375	N/A	13.43	g		3.58E-02			1.07E-01	
KNO_3 (s)	1.58E-02	101	N/A	1.60	g			1.58E-02		1.58E-02	
$NaNO_3$ (s)	1.02E-01	85	N/A	8.66	g				1.02E-01	1.02E-01	
NaF (s)	1.11E-02	42	N/A	0.47	g				1.11E-02		1.
total, mol/L						2.29E-01	3.58E-02	1.58E-02	1.13E-01	4.54E-01	1
required, mol/L						2.29E-01	3.58E-02	1.58E-02	1.13E-01	4.85E-01	1
difference						0.00E+00	0.00E+00	0.00E+00	0.00E+00	-3.09E-02	0

Mass of 1 L solution
1030.228333 g

WM-180 Liquid Surrogate Composition

WM-180 Sodium-Bearing Waste -- Simulant Calculations
(based on "Composition and Simulation of Tank WM-180 SBW" by J. D. Christian)
Updated: 11/19/02

Species	Desired Molarity	Stock Chemical	Molecular Weight	1 L Batch Amount	10 L Batch Amount	Nitrates	Estimated Solid Content	Valence
Al	6.63E-01	2.2 *M* $Al(NO_3)_3$		301.50 ml	3015.00 ml	1.99	1.79E+01	3
B	1.23E-02	H_3BO_3	61.832	0.76 g	7.61 g		1.33E-01	3
Ca	4.72E-02	$Ca(NO_3)_2 \cdot 4H_2O$	236.15	11.14 g	111.44 g	0.09	1.89E+00	2
Cl	3.00E-02	12.0 *M* HCl		2.50 ml	24.99 ml		1.06E+00	-1
Cu	6.97E-04	$Cu(NO_3)_2 \cdot 2.5H_2O$	232.59	0.16 g	1.62 g	0.00	4.43E-02	2
F	4.74E-02	27.6 *M* HF		1.72 ml	17.17 ml		9.00E-01	-1
Fe	2.17E-02	$Fe(NO_3)_3 \cdot 9H_2O$	404.00	8.78 g	87.79 g	0.07	1.21E+00	3
H	1.01E+00	All Acids	-----	-----	-----		1.02E+00	1
K	1.96E-01	KNO_3	101.10	19.84 g	198.36 g	0.20	7.67E+00	1
Na	2.06E+00	$NaNO_3$	85.00	174.92 g	1749.20 g	2.06	4.73E+01	1
NO_3	5.01E+00	15.8 *M* HNO_3		47.13 ml	471.30 ml	0.75	3.20E+02	-1
PO_4	1.37E-02	14.8 *M* H_3PO_4		0.93 ml	9.26 ml		1.30E+00	-3
SO_4	5.40E-02	18.0 *M* H_2SO_4		3.00 ml	29.99 ml		5.19E+00	-2
Zn	1.05E-03	$Zn(NO_3)_2 \cdot 6H_2O$	297.47	0.31 g	3.12	0.00	6.86E-02	2
Zr	6.33E-05	$ZrO(NO_3)_2 \cdot 3H_2O$	285.27	0.02 g	0.18 g	0.00	5.77E-03	4
				Actual NO_3=	5.16 *M*	TDS =	405.56 g/L	
				Actual Acid =	1.01 *M*	NO_3 =	319.86 g/L	

WM-189 Liquid Surrogate Composition

WM-189 Sodium-Bearing Waste Non-Hazardous Simulant
(based on "Characterization of Tank WM-189 SBW" by T. A. Batcheller, Table 4-5)
Updated: 11/19/02

Species	Desired Molarity	Stock Chemical	Molecular Weight	1 L Batch Amount	10 L Batch Amount	Nitrates	Estimated Solid Content	Valence
Al	7.11E-01	$Al(NO_3)_3 \cdot 9H_2O$	375.13	266.72 g	2667.17 g	2.13	1.92E+01	3
B	2.12E-02	H_3BO_3	61.832	1.31 g	13.11 g		2.29E-01	3
Ca	7.30E-02	$Ca(NO_3)_2 \cdot 4H_2O$	236.15	17.24 g	172.39 g	0.15	2.93E+00	2
Cl	2.06E-02	12.0 *M* HCl		1.72 ml	17.17 ml		7.30E-01	-1
Cu	9.54E-04	$Cu(NO_3)_2 \cdot 2.5H_2O$	232.59	0.22 g	2.22 g	0.00	6.06E-02	2
F	1.38E-02	27.6 *M* HF		0.50 ml	5.00 ml		2.62E-01	-1
Fe	2.68E-02	$Fe(NO_3)_3 \cdot 9H_2O$	404.00	10.83 g	108.27 g	0.08	1.50E+00	3
H	2.86E+00	All Acids	-----	-----	-----		2.88E+00	1
K	2.25E-01	KNO_3	101.10	22.75 g	227.48 g	0.23	8.80E+00	1
Mg	2.21E-02	$Mg(NO_3)_2 \cdot 6H_2O$	256.41	5.67 g	56.67 g	0.04	5.37E-01	2
Mn	1.95E-02	$Mn(NO_3)_2$ [50% soln.]	178.95	6.98 g soln.	69.79 g soln.	0.04	1.07E+00	2
Na	2.04E+00	$NaNO_3$	85.00	173.39 g	1733.90 g	2.04	4.69E+01	1
NO_3	6.52E+00	15.8 *M* HNO_3		160.87 ml	1608.73 ml	2.56	4.51E+02	-1
PO_4	2.07E-03	14.8 *M* H_3PO_4		0.14 ml	1.40 ml		1.97E-01	-3
Si	3.08E-04	10 g/L Si in 5% (0.8*M*) HNO_3	28.08	0.86 ml	8.65 ml	0.00	8.65E-03	1
SO_4	1.07E-01	18.0 *M* H_2SO_4		5.94 ml	59.44 ml		1.03E+01	-2
Zn	1.07E-03	$Zn(NO_3)_2 \cdot 6H_2O$	297.47	0.32 g	3.18	0.00	7.00E-02	2
Zr	3.57E-04	$ZrO(NO_3)_2 \cdot 3H_2O$	285.27	0.10 g	1.02 g	0.00	3.26E-02	4
				Actual NO_3=	7.27 *M*	TDS =	546.58 g/L	
				Actual Acid =	2.88 *M*	NO_3 =	450.92 g/L	

Procedure for Preparing Nonhazardous SBW Surrogates

1. Add the following salts to a 2-L glass beaker in the amounts listed in composition tables: $NaNO_3$, KNO_3, $Ca(NO_3)_2$, $Cu(NO_3)_2$, $Fe(NO_3)_3$, $Zn(NO_3)_2$, and $Mg(NO_3)_2$ (WM-189 only). Add just enough demineralized water to dissolve 100% of the salts. Stir and warm as needed.

2. To the above solution, add the $Al(NO_3)_3$ and the 50% solution of $Mn(NO_3)_2$ (WM-189 only). Continue heating and stirring while performing the following steps.

3. In a separate glass beaker, dissolve as much of the H_3BO_3 as possible in approximately 40 mL of water. Heat and stir as necessary. It may not be possible to dissolve all of the H_3BO_3 in the water alone. Discontinue heating and add the HF. The HF will immediately cause any undissolved H_3BO_3 to go into solution. Stir well and combine with the solution from Steps 1 and 2 while stirring vigorously.

4. Add the H_2SO_4 to the solution generated in Steps 1-3 and mix thoroughly.

5. Add demineralized water to the solution prepared in Steps 1-4 bringing the total solution volume to about 750 mL.

6. Slowly add the remaining components (HCl, H_3PO_4, and HNO_3) to the solution.

7. Add demineralized water (approximately 50 mL) to the mixture solution, bringing the final volume to 1 L.

NOTE: *This procedure and composition spreadsheet target the acid content while the nitrate content is allowed to float. In these cases, the nitrate composition comes in slightly higher than the desired molarity. Since the nitrate content is very large, the small variation is not significant to SBW experiments. The acid content is more important.*

Appendix D

FUNDABAC Filtermedia

FUNDABAC Filtermedia

Type	Warp	Weft	Air permeability L/dm2 × min	Porometer value in microns[a] ×10	×50	×90	Max. Operating Temperature °C
B31 MU-100	PVDF Monofilament	PVDF Multifilament	50-100	24	11.5	4.2	130
B31 U-005	PVDF Multifilament	PVDF Multifilament	3-6	1.35	5.5	14.5	130
B46 U-010	PPS Multifilament	PPS Multifilament	6-10	6.4	2.9	1.7	180

a. The indicated porometer values are based on the bubble point method and indicate the percentage of pore bigger than the size indicated in micrometers. For example, a value of 5.0 in the ×10 column means that 10% of the opening are bigger than 5 microns and 90% are smaller than 5 microns etc.

Appendix E

Data

E-1 PARTICLE SIZE DISTRIBUTION

E-1.1 SBW Surrogate Samples

187/5wt%/D/N 0 min sonication

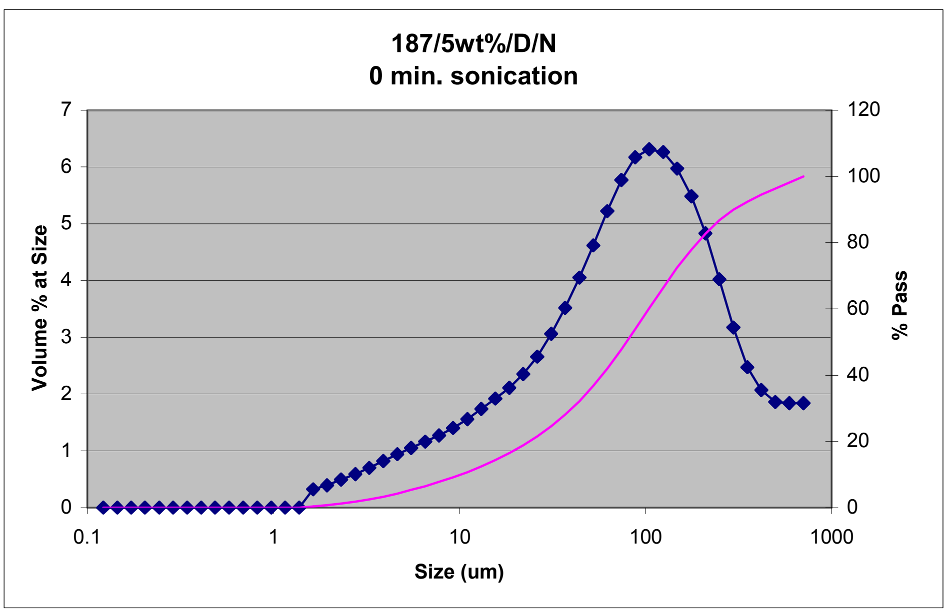
Summary Data

		Run#	ID#1	
MV	123.763994	210		0
MN	2.564482			
MA	24.712661		Dist	
CS	0.242791		Prog	
SD	101.240437			
SampleLD	0.196			
Dist	0			
Prog	0			

Percentile	Percentile Data		
10	10.214151		10
20	23.840677		10.214151
30	40.339854		
40	58.481072		
50	79.006476		
60	104.158986		
70	137.787312		
80	189.221174		
90	297.559629		
95	439.744205		

Number of Channels

50



187/5wt%/D/N

Channel	Selected E	Selected Volume	Cummulative
1	704	1.84	100
2	592	1.84	98.16
3	497.8	1.86	96.32
4	418.6	2.07	94.46
5	352	2.47	92.39
6	296	3.17	89.92
7	248.9	4.02	86.75
8	209.3	4.83	82.73
9	176	5.48	77.9
10	148	5.97	72.42
11	124.5	6.26	66.45
12	104.7	6.31	60.19
13	88	6.17	53.88
14	74	5.77	47.71
15	62.23	5.22	41.94
16	52.33	4.62	36.72
17	44	4.05	32.1
18	37	3.52	28.05
19	31.11	3.06	24.53
20	26.16	2.66	21.47
21	22	2.35	18.81
22	18.5	2.11	16.46
23	15.56	1.92	14.35
24	13.08	1.74	12.43
25	11	1.56	10.69
26	9.25	1.4	9.13
27	7.778	1.27	7.73
28	6.541	1.16	6.46
29	5.5	1.05	5.3
30	4.625	0.94	4.25
31	3.889	0.82	3.31
32	3.27	0.7	2.49
33	2.75	0.59	1.79
34	2.312	0.49	1.2
35	1.945	0.39	0.71
36	1.635	0.32	0.32
37	1.375	0	1.05471E-15
38	1.156	0	1.05471E-15
39	0.972	0	1.05471E-15
40	0.818	0	1.05471E-15
41	0.688	0	1.05471E-15
42	0.578	0	1.05471E-15
43	0.486	0	1.05471E-15
44	0.409	0	1.05471E-15
45	0.344	0	1.05471E-15
46	0.289	0	1.05471E-15
47	0.243	0	1.05471E-15
48	0.204	0	1.05471E-15
49	0.172	0	1.05471E-15
50	0.145	0	1.05471E-15
51	0.122	0	1.05471E-15

187/5wt%/D/S 210 min. sonication

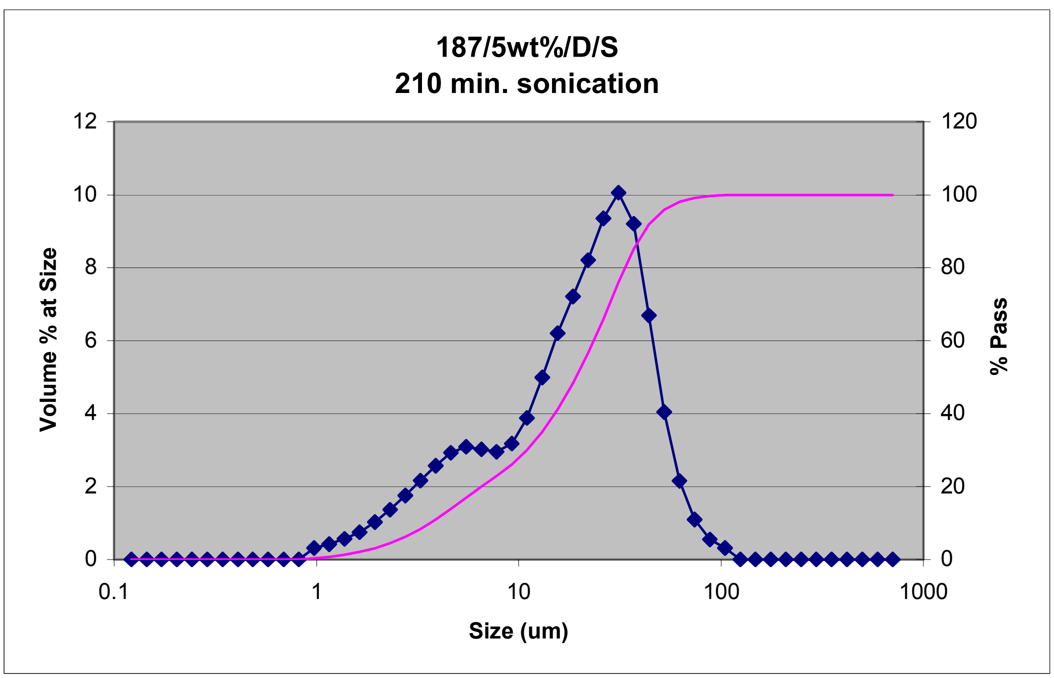
Summary Data

		Run#	ID#1
MV	21.52874	216	P-004?
MN	1.761992		
MA	9.079633		Dist
CS	0.66082		Prog
SD	15.452112		
SampleLD	0.084		
Dist	0		
Prog	0		

Percentile	Percentile Data		
10	3.670706		10
20	6.568494		3.670706
30	11.02589		
40	15.108638		
50	19.197204		
60	23.50631		
70	28.086258		
80	33.450741		
90	41.629979		
95	49.882973		

Number of Channels

50



187/5wt%/D/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0	100
11	124.5	0	100
12	104.7	0.31	100
13	88	0.55	99.69
14	74	1.09	99.14
15	62.23	2.15	98.05
16	52.33	4.04	95.9
17	44	6.69	91.86
18	37	9.21	85.17
19	31.11	10.06	75.96
20	26.16	9.35	65.9
21	22	8.21	56.55
22	18.5	7.21	48.34
23	15.56	6.2	41.13
24	13.08	4.99	34.93
25	11	3.88	29.94
26	9.25	3.18	26.06
27	7.778	2.95	22.88
28	6.541	3.02	19.93
29	5.5	3.09	16.91
30	4.625	2.92	13.82
31	3.889	2.57	10.9
32	3.27	2.16	8.33
33	2.75	1.75	6.17
34	2.312	1.36	4.42
35	1.945	1.02	3.06
36	1.635	0.75	2.04
37	1.375	0.56	1.29
38	1.156	0.42	0.73
39	0.972	0.31	0.31
40	0.818	0	0
41	0.688	0	0
42	0.578	0	0
43	0.486	0	0
44	0.409	0	0
45	0.344	0	0
46	0.289	0	0
47	0.243	0	0
48	0.204	0	0
49	0.172	0	0
50	0.145	0	0
51	0.122	0	0

187/20wt%/D/N 0 min sonication

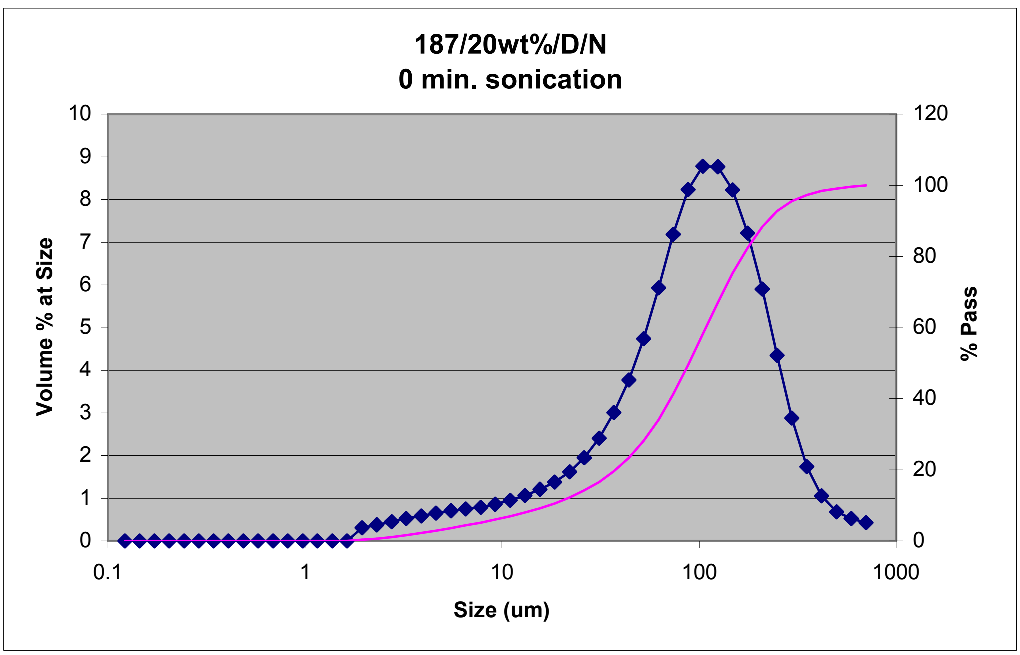
Summary Data

		Run#	ID#1
MV	110.70015	217	P-004?
MN	2.916034		
MA	32.974649		Dist
CS	0.181958		Prog
SD	76.831761		
SampleLD	0.653		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	17.165946	10
20	37.740502	17.165946
30	55.50203	
40	71.972762	
50	88.972872	
60	108.354964	
70	132.363106	
80	165.487664	
90	222.206521	
95	284.003078	

Number of Channels

50



187/20wt%/D/N

Channel	Selected E	Selected Volume	Cummulative
1	704	0.43	100
2	592	0.52	99.57
3	497.8	0.68	99.05
4	418.6	1.06	98.37
5	352	1.74	97.31
6	296	2.88	95.57
7	248.9	4.35	92.69
8	209.3	5.9	88.34
9	176	7.21	82.44
10	148	8.22	75.23
11	124.5	8.77	67.01
12	104.7	8.78	58.24
13	88	8.23	49.46
14	74	7.18	41.23
15	62.23	5.93	34.05
16	52.33	4.74	28.12
17	44	3.77	23.38
18	37	3.01	19.61
19	31.11	2.41	16.6
20	26.16	1.95	14.19
21	22	1.62	12.24
22	18.5	1.38	10.62
23	15.56	1.21	9.24
24	13.08	1.07	8.03
25	11	0.95	6.96
26	9.25	0.86	6.01
27	7.778	0.79	5.15
28	6.541	0.75	4.36
29	5.5	0.71	3.61
30	4.625	0.65	2.9
31	3.889	0.59	2.25
32	3.27	0.52	1.66
33	2.75	0.45	1.14
34	2.312	0.38	0.69
35	1.945	0.31	0.31
36	1.635	0	0
37	1.375	0	0
38	1.156	0	0
39	0.972	0	0
40	0.818	0	0
41	0.688	0	0
42	0.578	0	0
43	0.486	0	0
44	0.409	0	0
45	0.344	0	0
46	0.289	0	0
47	0.243	0	0
48	0.204	0	0
49	0.172	0	0
50	0.145	0	0
51	0.122	0	0

187/20wt%/D/S 150 min sonication, after transfer to bottle

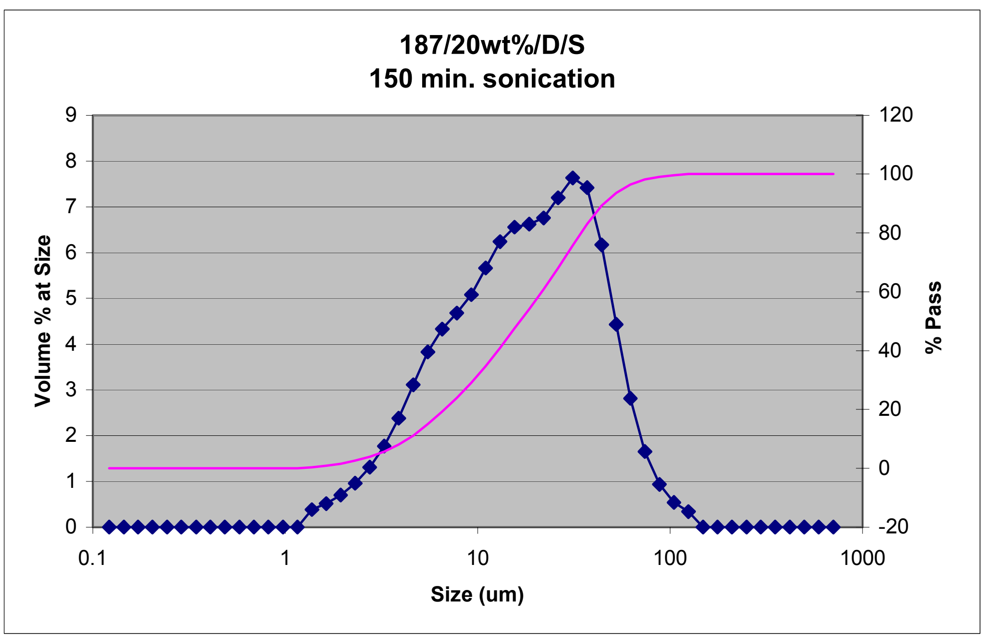
Summary Data

		Run#	ID#1
MV	21.701981	249	P-004?
MN	2.587387		
MA	9.88622		Dist
CS	0.606905		Prog
SD	16.050087		
SampleLD	0.209		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	4.365107	10
20	6.72391	4.365107
30	9.539149	
40	12.757145	
50	16.615126	
60	21.524547	
70	27.342403	
80	34.326287	
90	45.072644	
95	56.048171	

Number of Channels

50



187/20wt%/D/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0	100
11	124.5	0.34	100
12	104.7	0.54	99.66
13	88	0.93	99.12
14	74	1.65	98.19
15	62.23	2.81	96.54
16	52.33	4.43	93.73
17	44	6.17	89.3
18	37	7.42	83.13
19	31.11	7.63	75.71
20	26.16	7.2	68.08
21	22	6.76	60.88
22	18.5	6.62	54.12
23	15.56	6.56	47.5
24	13.08	6.24	40.94
25	11	5.66	34.7
26	9.25	5.08	29.04
27	7.778	4.68	23.96
28	6.541	4.33	19.28
29	5.5	3.83	14.95
30	4.625	3.11	11.12
31	3.889	2.38	8.01
32	3.27	1.77	5.63
33	2.75	1.31	3.86
34	2.312	0.96	2.55
35	1.945	0.7	1.59
36	1.635	0.51	0.89
37	1.375	0.38	0.38
38	1.156	0	-1.96509E-14
39	0.972	0	-1.96509E-14
40	0.818	0	-1.96509E-14
41	0.688	0	-1.96509E-14
42	0.578	0	-1.96509E-14
43	0.486	0	-1.96509E-14
44	0.409	0	-1.96509E-14
45	0.344	0	-1.96509E-14
46	0.289	0	-1.96509E-14
47	0.243	0	-1.96509E-14
48	0.204	0	-1.96509E-14
49	0.172	0	-1.96509E-14
50	0.145	0	-1.96509E-14
51	0.122	0	-1.96509E-14

META/AR/U/N 0 min sonication

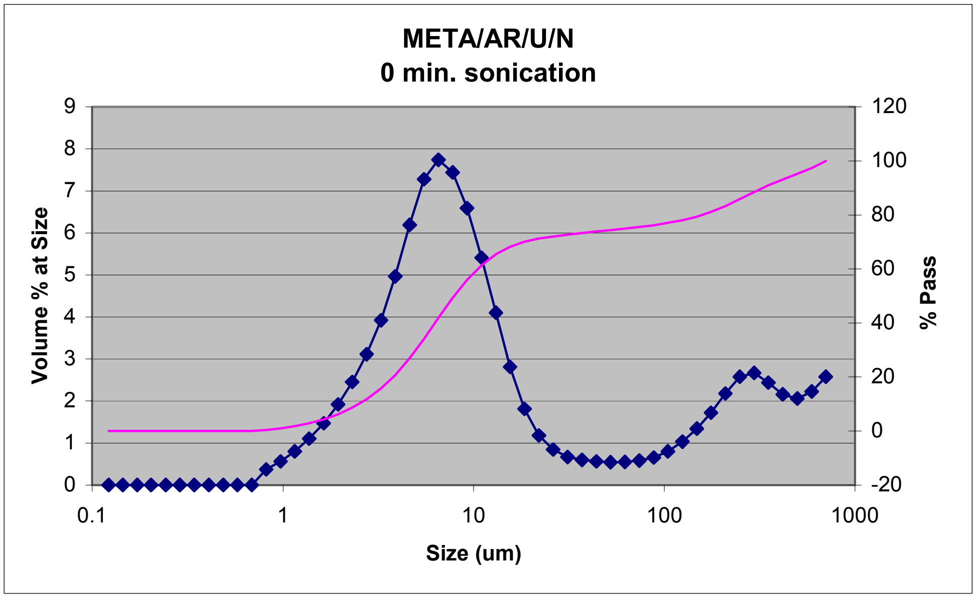
Summary Data

		Run#	ID#1	
MV	85.189938	255		0
MN	1.54794			
MA	5.76196		Dist	
CS	1.041312		Prog	
SD	108.41776			
SampleLD	0.106			
Dist	0			
Prog	0			

Percentile	Percentile Data	
10	2.502941	10
20	3.807294	2.502941
30	4.996809	
40	6.270928	
50	7.91259	
60	10.500671	
70	18.41791	
80	158.349045	
90	327.879956	
95	490.104064	

Number of Channels

50



META/AR/U/N

Channel	Selected E	Selected Volume	Cummulative
1	704	2.58	100
2	592	2.23	97.42
3	497.8	2.06	95.19
4	418.6	2.16	93.13
5	352	2.44	90.97
6	296	2.67	88.53
7	248.9	2.58	85.86
8	209.3	2.18	83.28
9	176	1.72	81.1
10	148	1.34	79.38
11	124.5	1.03	78.04
12	104.7	0.8	77.01
13	88	0.65	76.21
14	74	0.58	75.56
15	62.23	0.55	74.98
16	52.33	0.54	74.43
17	44	0.56	73.89
18	37	0.6	73.33
19	31.11	0.67	72.73
20	26.16	0.84	72.06
21	22	1.18	71.22
22	18.5	1.81	70.04
23	15.56	2.81	68.23
24	13.08	4.1	65.42
25	11	5.41	61.32
26	9.25	6.59	55.91
27	7.778	7.44	49.32
28	6.541	7.74	41.88
29	5.5	7.28	34.14
30	4.625	6.19	26.86
31	3.889	4.97	20.67
32	3.27	3.92	15.7
33	2.75	3.11	11.78
34	2.312	2.45	8.67
35	1.945	1.92	6.22
36	1.635	1.47	4.3
37	1.375	1.1	2.83
38	1.156	0.8	1.73
39	0.972	0.56	0.93
40	0.818	0.37	0.37
41	0.688	0	-3.56382E-14
42	0.578	0	-3.56382E-14
43	0.486	0	-3.56382E-14
44	0.409	0	-3.56382E-14
45	0.344	0	-3.56382E-14
46	0.289	0	-3.56382E-14
47	0.243	0	-3.56382E-14
48	0.204	0	-3.56382E-14
49	0.172	0	-3.56382E-14
50	0.145	0	-3.56382E-14
51	0.122	0	-3.56382E-14

META/AR/U/S 120 min sonication, after transfer

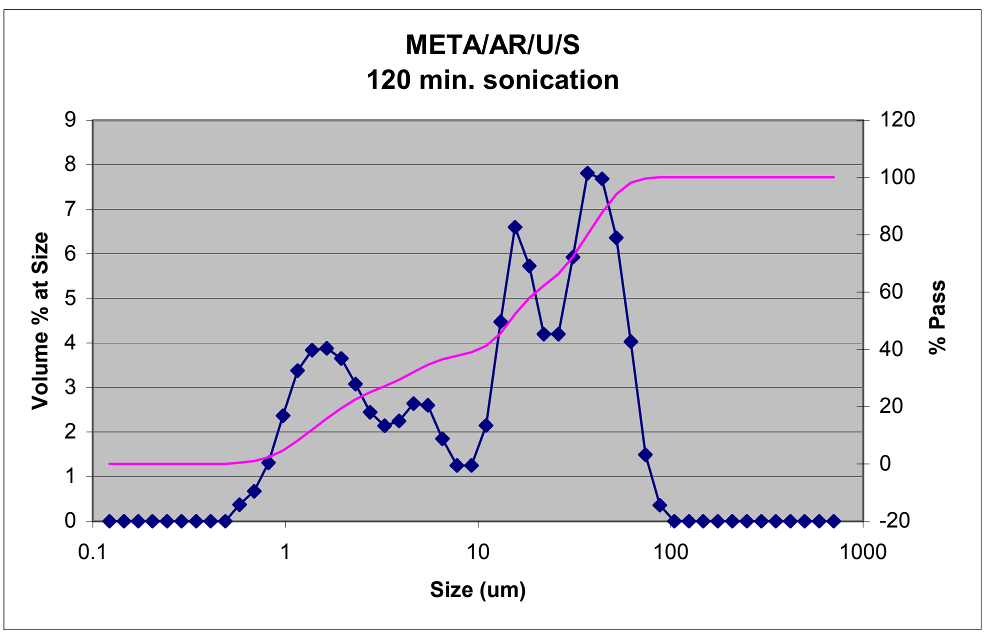
Summary Data

		Run#	ID#1	
MV	19.661043	260		0
MN	0.990079			
MA	3.972206		Dist	
CS	1.510496		Prog	
SD	19.341712			
SampleLD	0.038			
Dist	0			
Prog	0			

Percentile	Percentile Data	
10	1.26151	10
20	1.999916	1.26151
30	4.054905	
40	10.20413	
50	14.703345	
60	20.046017	
70	29.307827	
80	36.937876	
90	46.537709	
95	53.956899	

Number of Channels

50



META/AR/U/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0	100
11	124.5	0	100
12	104.7	0	100
13	88	0.36	100
14	74	1.49	99.64
15	62.23	4.03	98.15
16	52.33	6.36	94.12
17	44	7.68	87.76
18	37	7.81	80.08
19	31.11	5.93	72.27
20	26.16	4.2	66.34
21	22	4.2	62.14
22	18.5	5.73	57.94
23	15.56	6.6	52.21
24	13.08	4.48	45.61
25	11	2.15	41.13
26	9.25	1.25	38.98
27	7.778	1.25	37.73
28	6.541	1.85	36.48
29	5.5	2.6	34.63
30	4.625	2.64	32.03
31	3.889	2.25	29.39
32	3.27	2.14	27.14
33	2.75	2.45	25
34	2.312	3.08	22.55
35	1.945	3.65	19.47
36	1.635	3.88	15.82
37	1.375	3.84	11.94
38	1.156	3.38	8.1
39	0.972	2.37	4.72
40	0.818	1.31	2.35
41	0.688	0.67	1.04
42	0.578	0.37	0.37
43	0.486	0	-9.32587E-15
44	0.409	0	-9.32587E-15
45	0.344	0	-9.32587E-15
46	0.289	0	-9.32587E-15
47	0.243	0	-9.32587E-15
48	0.204	0	-9.32587E-15
49	0.172	0	-9.32587E-15
50	0.145	0	-9.32587E-15
51	0.122	0	-9.32587E-15

META/5wt%/U/N 0 min sonication

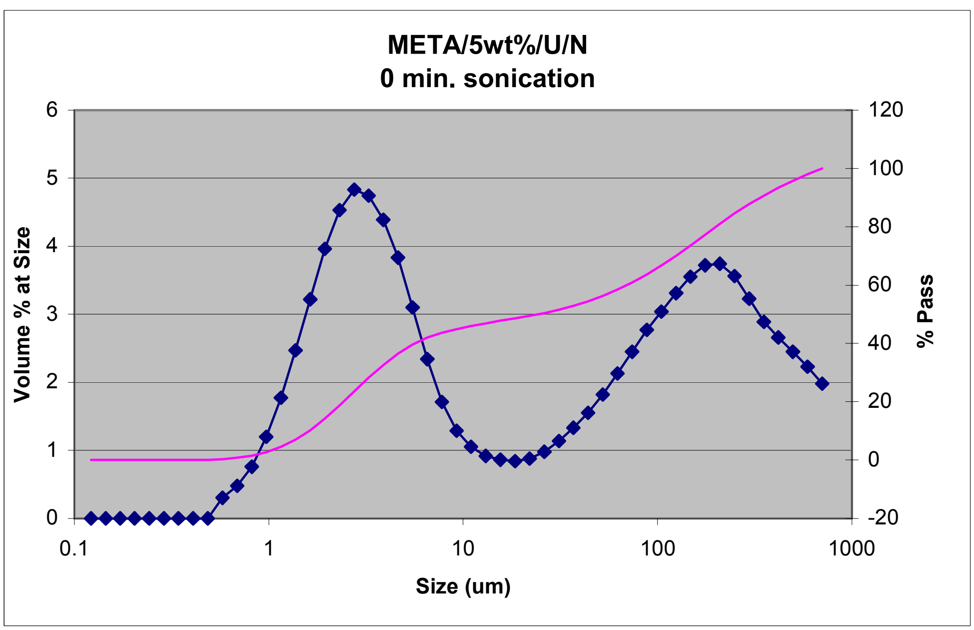
Summary Data

		Run#	ID#1	
MV	106.832562	250		0
MN	1.090635			
MA	4.619356		Dist	
CS	1.298882		Prog	
SD	119.966665			
SampleLD	0.138			
Dist	0			
Prog	0			

Percentile	Percentile Data	
10	1.619254	10
20	2.425275	1.619254
30	3.496465	
40	5.656991	
50	24.230826	
60	69.766034	
70	124.563436	
80	199.723701	
90	337.463458	
95	470.121386	

Number of Channels

50



META/5wt%/U/N

Channel	Selected E	Selected Volume	Cummulative
1	704	1.98	100
2	592	2.23	98.02
3	497.8	2.45	95.79
4	418.6	2.66	93.34
5	352	2.89	90.68
6	296	3.23	87.79
7	248.9	3.56	84.56
8	209.3	3.74	81
9	176	3.72	77.26
10	148	3.55	73.54
11	124.5	3.31	69.99
12	104.7	3.04	66.68
13	88	2.77	63.64
14	74	2.45	60.87
15	62.23	2.13	58.42
16	52.33	1.82	56.29
17	44	1.55	54.47
18	37	1.33	52.92
19	31.11	1.14	51.59
20	26.16	0.98	50.45
21	22	0.88	49.47
22	18.5	0.84	48.59
23	15.56	0.86	47.75
24	13.08	0.92	46.89
25	11	1.05	45.97
26	9.25	1.29	44.92
27	7.778	1.71	43.63
28	6.541	2.34	41.92
29	5.5	3.1	39.58
30	4.625	3.83	36.48
31	3.889	4.39	32.65
32	3.27	4.74	28.26
33	2.75	4.83	23.52
34	2.312	4.53	18.69
35	1.945	3.96	14.16
36	1.635	3.22	10.2
37	1.375	2.47	6.98
38	1.156	1.77	4.51
39	0.972	1.2	2.74
40	0.818	0.76	1.54
41	0.688	0.48	0.78
42	0.578	0.3	0.3
43	0.486	0	-1.97065E-14
44	0.409	0	-1.97065E-14
45	0.344	0	-1.97065E-14
46	0.289	0	-1.97065E-14
47	0.243	0	-1.97065E-14
48	0.204	0	-1.97065E-14
49	0.172	0	-1.97065E-14
50	0.145	0	-1.97065E-14
51	0.122	0	-1.97065E-14

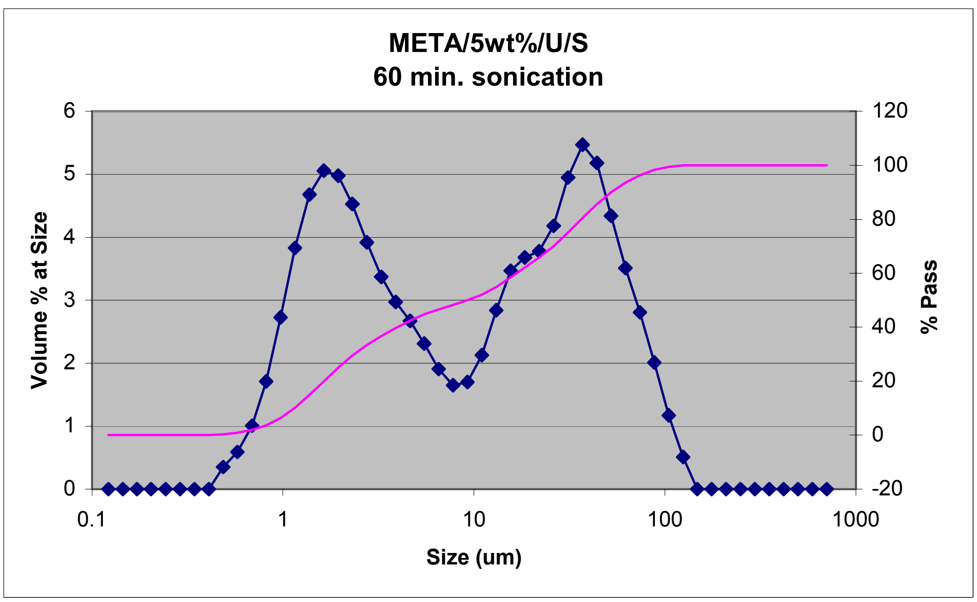
META/5wt%/U/S 60 min sonication, after transfer

Summary Data

		Run#	ID#1	
MV	19.419087	254		0
MN	0.897807			
MA	3.149172		Dist	
CS	1.905263		Prog	
SD	20.059498			
SampleLD	0.042			
Dist	0			
Prog	0			

Percentile	Percentile Data	
10	1.145739	10
20	1.637302	1.145739
30	2.364635	
40	3.955659	
50	9.275605	
60	16.776568	
70	26.109894	
80	36.462172	
90	52.354312	
95	67.871112	

Number of Channels
50



META/5wt%/U/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0	100
11	124.5	0.51	100
12	104.7	1.17	99.49
13	88	2.01	98.32
14	74	2.81	96.31
15	62.23	3.51	93.5
16	52.33	4.34	89.99
17	44	5.18	85.65
18	37	5.47	80.47
19	31.11	4.95	75
20	26.16	4.18	70.05
21	22	3.78	65.87
22	18.5	3.68	62.09
23	15.56	3.47	58.41
24	13.08	2.84	54.94
25	11	2.13	52.1
26	9.25	1.7	49.97
27	7.778	1.65	48.27
28	6.541	1.91	46.62
29	5.5	2.31	44.71
30	4.625	2.67	42.4
31	3.889	2.97	39.73
32	3.27	3.37	36.76
33	2.75	3.92	33.39
34	2.312	4.53	29.47
35	1.945	4.98	24.94
36	1.635	5.06	19.96
37	1.375	4.68	14.9
38	1.156	3.83	10.22
39	0.972	2.73	6.39
40	0.818	1.71	3.66
41	0.688	1.01	1.95
42	0.578	0.59	0.94
43	0.486	0.35	0.35
44	0.409	0	-2.24265E-14
45	0.344	0	-2.24265E-14
46	0.289	0	-2.24265E-14
47	0.243	0	-2.24265E-14
48	0.204	0	-2.24265E-14
49	0.172	0	-2.24265E-14
50	0.145	0	-2.24265E-14
51	0.122	0	-2.24265E-14

META/10wt%/U/N as received, batch 1

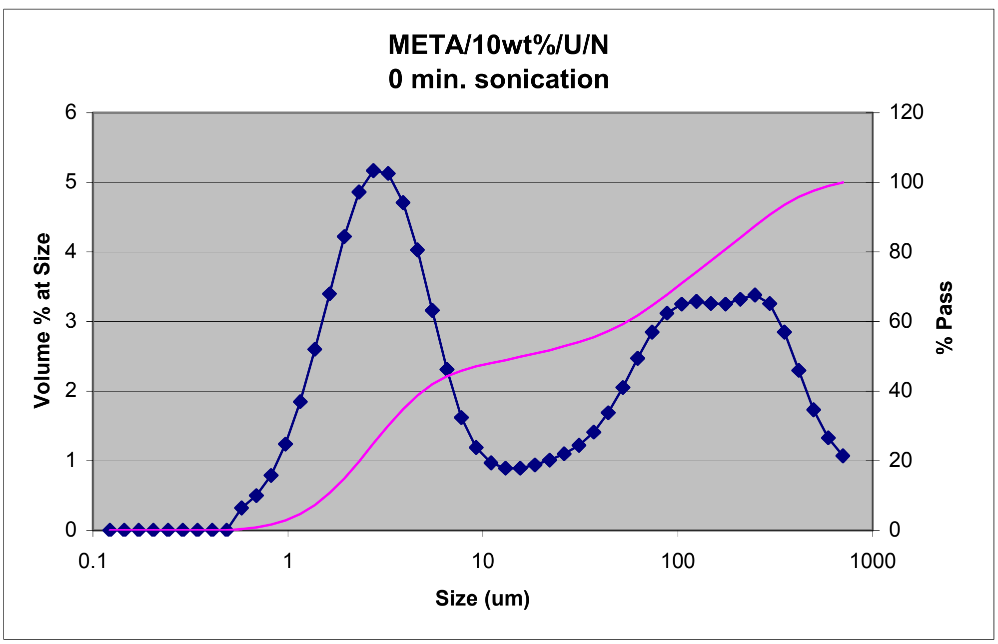
Summary Data

		Run#	ID#1
MV	90.22103	289	as recieved batch 1
MN	1.093206		
MA	4.38355		Dist
CS	1.368754		Prog
SD	103.212821		
SampleLD	0.075		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	1.582949	10
20	2.329749	1.582949
30	3.261217	
40	4.910314	
50	16.011441	
60	55.246235	
70	99.468926	
80	169.018888	
90	284.47071	
95	390.2206	

Number of Channels

50



META/10wt%/U/N

Channel	Selected E	Selected Volume	Cummulative
1	704	1.07	100
2	592	1.33	98.93
3	497.8	1.73	97.6
4	418.6	2.3	95.87
5	352	2.85	93.57
6	296	3.26	90.72
7	248.9	3.38	87.46
8	209.3	3.32	84.08
9	176	3.25	80.76
10	148	3.26	77.51
11	124.5	3.29	74.25
12	104.7	3.25	70.96
13	88	3.12	67.71
14	74	2.85	64.59
15	62.23	2.47	61.74
16	52.33	2.05	59.27
17	44	1.69	57.22
18	37	1.41	55.53
19	31.11	1.22	54.12
20	26.16	1.1	52.9
21	22	1.01	51.8
22	18.5	0.94	50.79
23	15.56	0.89	49.85
24	13.08	0.89	48.96
25	11	0.97	48.07
26	9.25	1.19	47.1
27	7.778	1.62	45.91
28	6.541	2.31	44.29
29	5.5	3.16	41.98
30	4.625	4.03	38.82
31	3.889	4.71	34.79
32	3.27	5.13	30.08
33	2.75	5.17	24.95
34	2.312	4.86	19.78
35	1.945	4.22	14.92
36	1.635	3.4	10.7
37	1.375	2.6	7.3
38	1.156	1.85	4.7
39	0.972	1.24	2.85
40	0.818	0.79	1.61
41	0.688	0.5	0.82
42	0.578	0.32	0.32
43	0.486	0	2.40363E-14
44	0.409	0	2.40363E-14
45	0.344	0	2.40363E-14
46	0.289	0	2.40363E-14
47	0.243	0	2.40363E-14
48	0.204	0	2.40363E-14
49	0.172	0	2.40363E-14
50	0.145	0	2.40363E-14
51	0.122	0	2.40363E-14

META/10wt%/U/S final mix

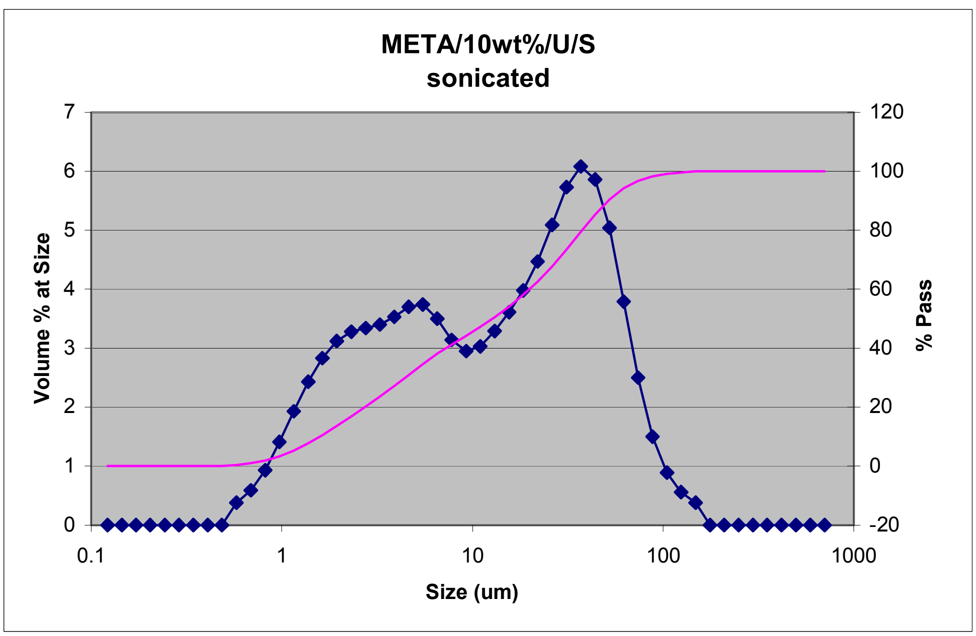
Summary Data

		Run#	ID#1
MV	21.136988	299	final mix
MN	1.012912		
MA	4.528334		Dist
CS	1.324991		Prog
SD	20.008364		
SampleLD	0.078		
Dist	0		
Prog	0		

Percentile	Percentile Data		
10	1.588331		10
20	2.716554		1.588331
30	4.442801		
40	7.247885		
50	12.74383		
60	19.957379		
70	28.130972		
80	37.564888		
90	51.599559		
95	65.384992		

Number of Channels

50



META/10wt%/U/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0.38	100
11	124.5	0.56	99.62
12	104.7	0.89	99.06
13	88	1.5	98.17
14	74	2.5	96.67
15	62.23	3.79	94.17
16	52.33	5.04	90.38
17	44	5.86	85.34
18	37	6.08	79.48
19	31.11	5.73	73.4
20	26.16	5.09	67.67
21	22	4.47	62.58
22	18.5	3.98	58.11
23	15.56	3.61	54.13
24	13.08	3.29	50.52
25	11	3.03	47.23
26	9.25	2.95	44.2
27	7.778	3.14	41.25
28	6.541	3.5	38.11
29	5.5	3.74	34.61
30	4.625	3.7	30.87
31	3.889	3.53	27.17
32	3.27	3.4	23.64
33	2.75	3.34	20.24
34	2.312	3.28	16.9
35	1.945	3.12	13.62
36	1.635	2.83	10.5
37	1.375	2.43	7.67
38	1.156	1.93	5.24
39	0.972	1.41	3.31
40	0.818	0.93	1.9
41	0.688	0.59	0.97
42	0.578	0.38	0.38
43	0.486	0	-1.36557E-14
44	0.409	0	-1.36557E-14
45	0.344	0	-1.36557E-14
46	0.289	0	-1.36557E-14
47	0.243	0	-1.36557E-14
48	0.204	0	-1.36557E-14
49	0.172	0	-1.36557E-14
50	0.145	0	-1.36557E-14
51	0.122	0	-1.36557E-14

META/15wt%/U/S 60 sonication

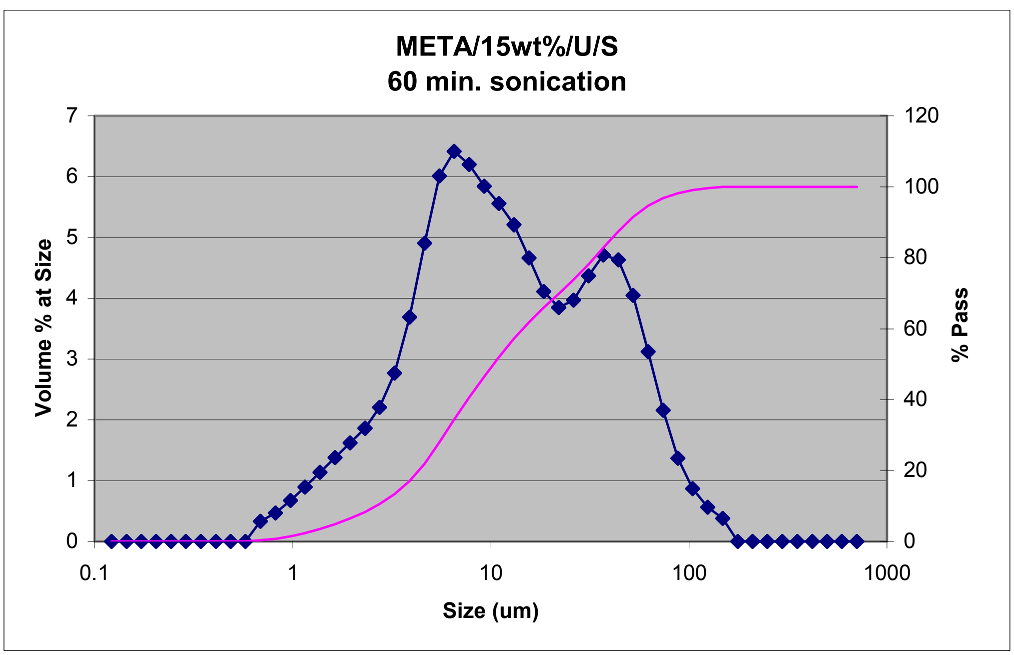
Summary Data

		Run#	ID#1
MV	19.484428	302	60 min sonication
MN	1.243279		
MA	5.995613		Dist
CS	1.000732		Prog
SD	17.428096		
SampleLD	0.12		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	2.63593	10
20	4.338815	2.63593
30	5.814436	
40	7.651882	
50	10.333068	
60	14.49345	
70	22.19038	
80	33.336727	
90	48.80964	
95	63.725105	

Number of Channels

50



META/15wt%/U/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0.38	100
11	124.5	0.56	99.62
12	104.7	0.87	99.06
13	88	1.37	98.19
14	74	2.16	96.82
15	62.23	3.12	94.66
16	52.33	4.05	91.54
17	44	4.63	87.49
18	37	4.71	82.86
19	31.11	4.37	78.15
20	26.16	3.97	73.78
21	22	3.85	69.81
22	18.5	4.11	65.96
23	15.56	4.66	61.85
24	13.08	5.21	57.19
25	11	5.56	51.98
26	9.25	5.84	46.42
27	7.778	6.2	40.58
28	6.541	6.42	34.38
29	5.5	6.01	27.96
30	4.625	4.91	21.95
31	3.889	3.69	17.04
32	3.27	2.77	13.35
33	2.75	2.21	10.58
34	2.312	1.86	8.37
35	1.945	1.62	6.51
36	1.635	1.38	4.89
37	1.375	1.14	3.51
38	1.156	0.9	2.37
39	0.972	0.67	1.47
40	0.818	0.47	0.8
41	0.688	0.33	0.33
42	0.578	0	1.17129E-14
43	0.486	0	1.17129E-14
44	0.409	0	1.17129E-14
45	0.344	0	1.17129E-14
46	0.289	0	1.17129E-14
47	0.243	0	1.17129E-14
48	0.204	0	1.17129E-14
49	0.172	0	1.17129E-14
50	0.145	0	1.17129E-14
51	0.122	0	1.17129E-14

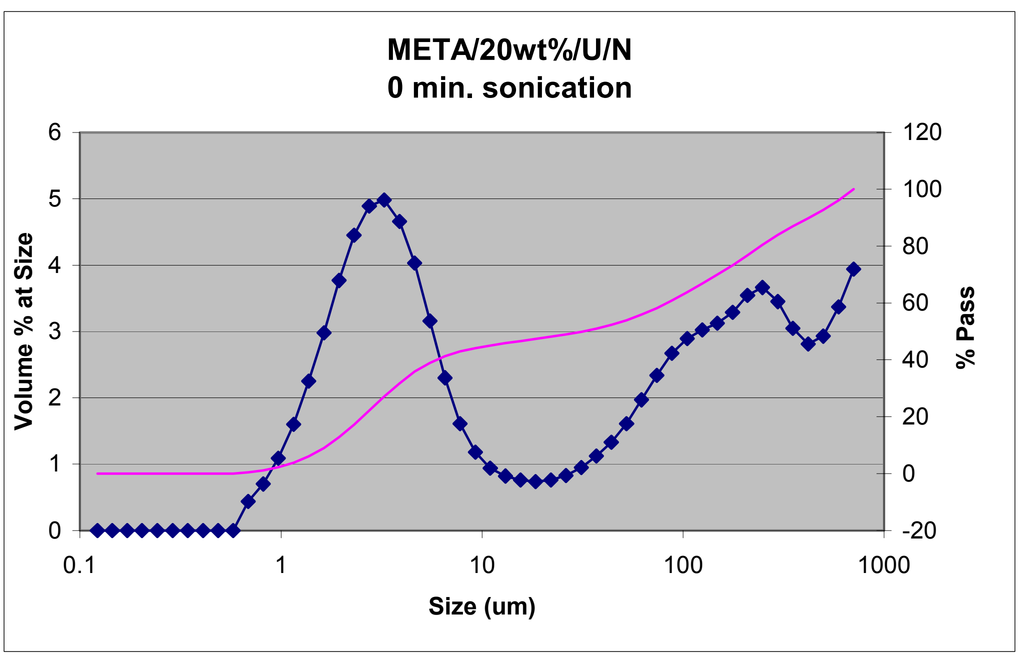
META/20wt%/U/N as received

Summary Data

		Run#	ID#1
MV	127.026598	268	0 min sonication
MN	1.212747		
MA	4.924112		Dist
CS	1.218494		Prog
SD	147.718885		
SampleLD	0.107		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	1.713664	10
20	2.549863	1.713664
30	3.628936	
40	5.892355	
50	31.688157	
60	83.018655	
70	148.328903	
80	243.645189	
90	424.874129	
95	563.29269	

Number of Channels
50



META/20wt%/U/N

Channel	Selected E	Selected Volume	Cummulative
1	704	3.94	100
2	592	3.37	96.06
3	497.8	2.93	92.69
4	418.6	2.81	89.76
5	352	3.05	86.95
6	296	3.45	83.9
7	248.9	3.66	80.45
8	209.3	3.54	76.79
9	176	3.29	73.25
10	148	3.12	69.96
11	124.5	3.02	66.84
12	104.7	2.89	63.82
13	88	2.67	60.93
14	74	2.34	58.26
15	62.23	1.97	55.92
16	52.33	1.61	53.95
17	44	1.33	52.34
18	37	1.12	51.01
19	31.11	0.95	49.89
20	26.16	0.83	48.94
21	22	0.76	48.11
22	18.5	0.74	47.35
23	15.56	0.76	46.61
24	13.08	0.82	45.85
25	11	0.94	45.03
26	9.25	1.18	44.09
27	7.778	1.61	42.91
28	6.541	2.3	41.3
29	5.5	3.16	39
30	4.625	4.03	35.84
31	3.889	4.66	31.81
32	3.27	4.98	27.15
33	2.75	4.89	22.17
34	2.312	4.45	17.28
35	1.945	3.77	12.83
36	1.635	2.98	9.06
37	1.375	2.25	6.08
38	1.156	1.6	3.83
39	0.972	1.09	2.23
40	0.818	0.7	1.14
41	0.688	0.44	0.44
42	0.578	0	-1.249E-14
43	0.486	0	-1.249E-14
44	0.409	0	-1.249E-14
45	0.344	0	-1.249E-14
46	0.289	0	-1.249E-14
47	0.243	0	-1.249E-14
48	0.204	0	-1.249E-14
49	0.172	0	-1.249E-14
50	0.145	0	-1.249E-14
51	0.122	0	-1.249E-14

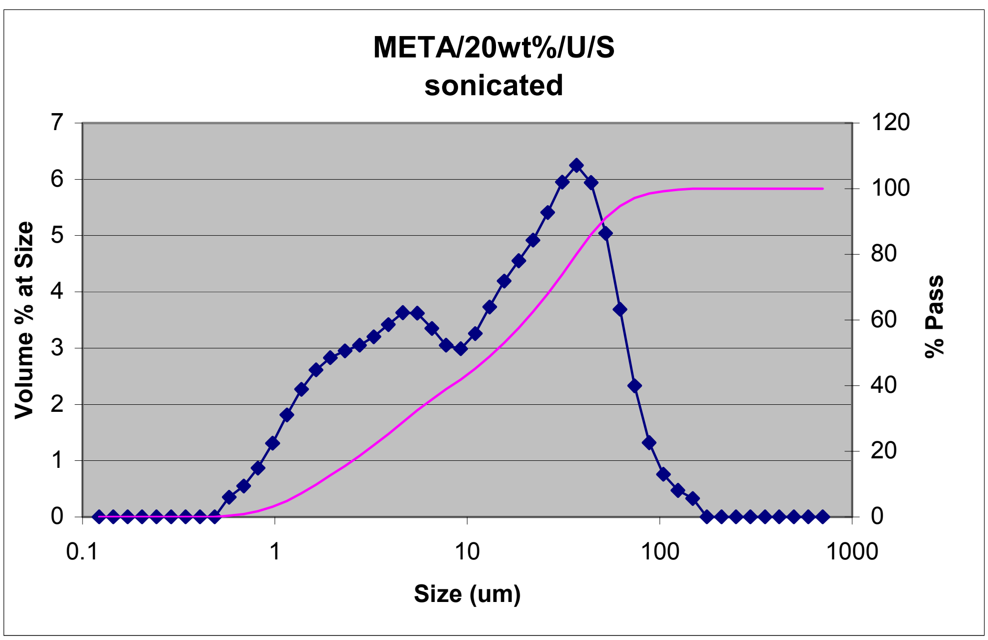
META/20wt%/U/S sonicated at 10wt%, centrifuged, mixed to 20Wt%

Summary Data

		Run#	ID#1
MV	21.04061	301	centrifuged
MN	1.015057		
MA	4.771858		Dist
CS	1.257372		Prog
SD	19.49206		
SampleLD	0.133		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	1.659289	10
20	2.970767	1.659289
30	4.884698	
40	8.311672	
50	13.743689	
60	20.172397	
70	27.843609	
80	36.879123	
90	50.198964	
95	63.056032	

Number of Channels
50



META/20wt%/U/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0.33	100
11	124.5	0.47	99.67
12	104.7	0.76	99.2
13	88	1.32	98.44
14	74	2.33	97.12
15	62.23	3.69	94.79
16	52.33	5.04	91.1
17	44	5.94	86.06
18	37	6.25	80.12
19	31.11	5.95	73.87
20	26.16	5.41	67.92
21	22	4.92	62.51
22	18.5	4.55	57.59
23	15.56	4.19	53.04
24	13.08	3.73	48.85
25	11	3.26	45.12
26	9.25	2.99	41.86
27	7.778	3.05	38.87
28	6.541	3.35	35.82
29	5.5	3.62	32.47
30	4.625	3.63	28.85
31	3.889	3.42	25.22
32	3.27	3.2	21.8
33	2.75	3.05	18.6
34	2.312	2.95	15.55
35	1.945	2.83	12.6
36	1.635	2.61	9.77
37	1.375	2.27	7.16
38	1.156	1.81	4.89
39	0.972	1.31	3.08
40	0.818	0.87	1.77
41	0.688	0.55	0.9
42	0.578	0.35	0.35
43	0.486	0	1.28786E-14
44	0.409	0	1.28786E-14
45	0.344	0	1.28786E-14
46	0.289	0	1.28786E-14
47	0.243	0	1.28786E-14
48	0.204	0	1.28786E-14
49	0.172	0	1.28786E-14
50	0.145	0	1.28786E-14
51	0.122	0	1.28786E-14

180/5wt%/U/N 0 min sonication

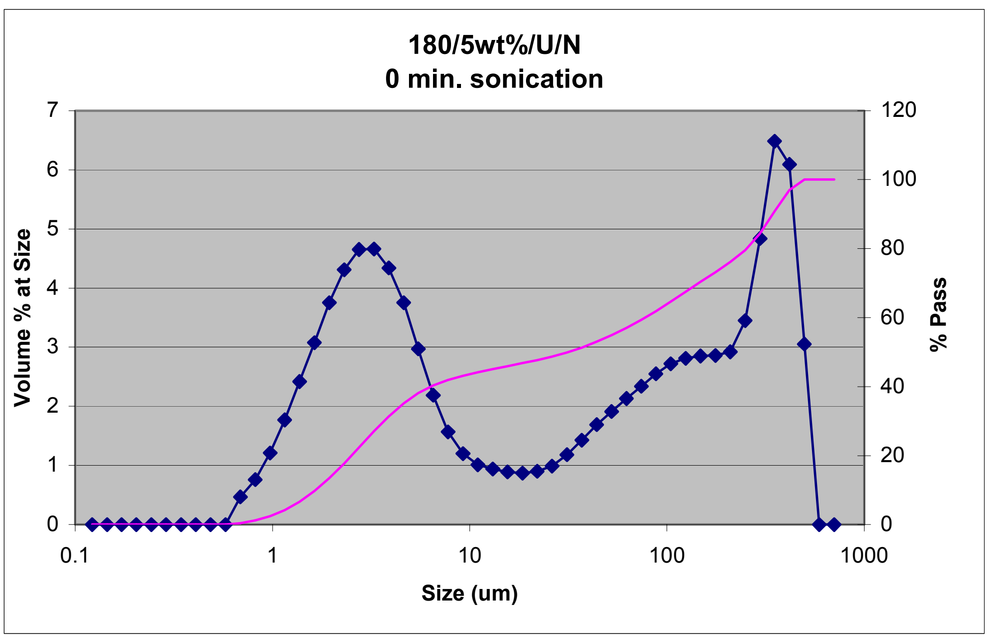
Summary Data

		Run#	ID#1	
MV	108.62403	261		0
MN	1.18615			
MA	4.873517		Dist	
CS	1.231144		Prog	
SD	145.180602			
SampleLD	0.057			
Dist	0			
Prog	0			

Percentile	Percentile Data	
10	1.659129	10
20	2.515352	1.659129
30	3.667892	
40	6.350615	
50	31.607274	
60	77.286328	
70	145.263893	
80	253.692604	
90	344.367142	
95	393.656746	

Number of Channels

50



180/5wt%/U/N

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	3.05	100
4	418.6	6.09	96.95
5	352	6.48	90.86
6	296	4.84	84.38
7	248.9	3.45	79.54
8	209.3	2.92	76.09
9	176	2.86	73.17
10	148	2.85	70.31
11	124.5	2.81	67.46
12	104.7	2.72	64.65
13	88	2.55	61.93
14	74	2.34	59.38
15	62.23	2.13	57.04
16	52.33	1.91	54.91
17	44	1.69	53
18	37	1.43	51.31
19	31.11	1.18	49.88
20	26.16	0.99	48.7
21	22	0.9	47.71
22	18.5	0.87	46.81
23	15.56	0.89	45.94
24	13.08	0.94	45.05
25	11	1.01	44.11
26	9.25	1.2	43.1
27	7.778	1.57	41.9
28	6.541	2.19	40.33
29	5.5	2.97	38.14
30	4.625	3.75	35.17
31	3.889	4.34	31.42
32	3.27	4.66	27.08
33	2.75	4.65	22.42
34	2.312	4.31	17.77
35	1.945	3.75	13.46
36	1.635	3.08	9.71
37	1.375	2.42	6.63
38	1.156	1.77	4.21
39	0.972	1.21	2.44
40	0.818	0.76	1.23
41	0.688	0.47	0.47
42	0.578	0	4.44089E-15
43	0.486	0	4.44089E-15
44	0.409	0	4.44089E-15
45	0.344	0	4.44089E-15
46	0.289	0	4.44089E-15
47	0.243	0	4.44089E-15
48	0.204	0	4.44089E-15
49	0.172	0	4.44089E-15
50	0.145	0	4.44089E-15
51	0.122	0	4.44089E-15

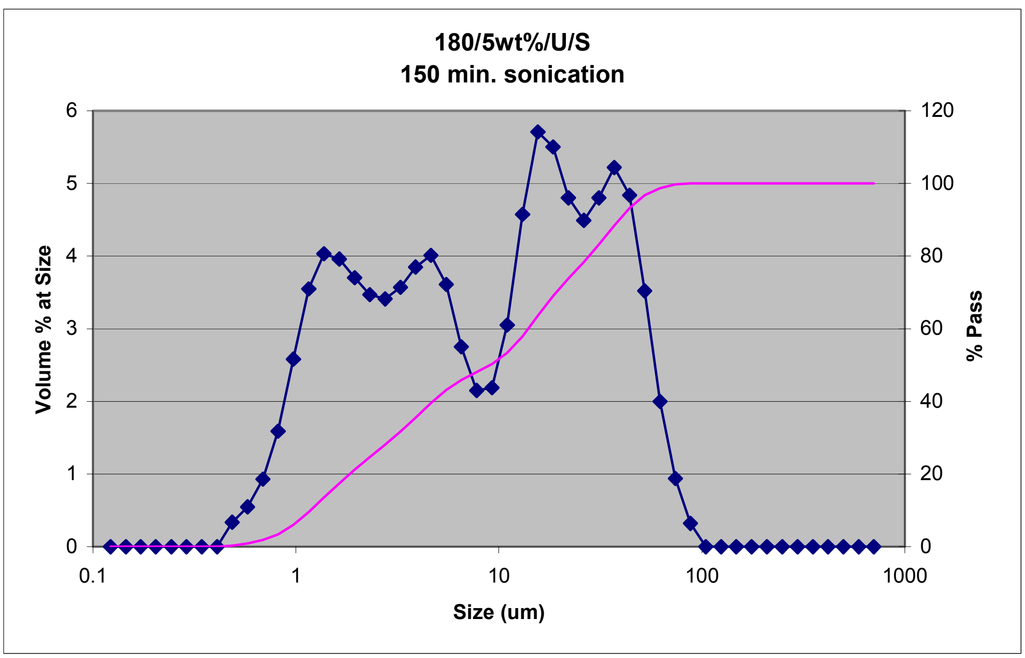
180/5wt%/U/S 150 min sonication, after transfer

Summary Data

		Run#	ID#1
MV	14.97223	267	150 min sonicatin
MN	0.888923		
MA	3.349096		Dist
CS	1.791528		Prog
SD	15.241099		
SampleLD	0.039		
Dist	0		
Prog	0		

Percentile	Percentile Data		
10	1.179823		10
20	1.833546		1.179823
30	3.019057		
40	4.722987		
50	9.092152		
60	13.990122		
70	19.105722		
80	27.81263		
90	39.09908		
95	47.607196		

Number of Channels
50



180/5wt%/U/S

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0	100
11	124.5	0	100
12	104.7	0	100
13	88	0.32	100
14	74	0.94	99.68
15	62.23	2	98.74
16	52.33	3.52	96.74
17	44	4.84	93.22
18	37	5.22	88.38
19	31.11	4.8	83.16
20	26.16	4.49	78.36
21	22	4.8	73.87
22	18.5	5.5	69.07
23	15.56	5.71	63.57
24	13.08	4.57	57.86
25	11	3.05	53.29
26	9.25	2.19	50.24
27	7.778	2.15	48.05
28	6.541	2.75	45.9
29	5.5	3.61	43.15
30	4.625	4.01	39.54
31	3.889	3.85	35.53
32	3.27	3.57	31.68
33	2.75	3.41	28.11
34	2.312	3.47	24.7
35	1.945	3.7	21.23
36	1.635	3.96	17.53
37	1.375	4.03	13.57
38	1.156	3.55	9.54
39	0.972	2.58	5.99
40	0.818	1.59	3.41
41	0.688	0.93	1.82
42	0.578	0.55	0.89
43	0.486	0.34	0.34
44	0.409	0	2.7478E-14
45	0.344	0	2.7478E-14
46	0.289	0	2.7478E-14
47	0.243	0	2.7478E-14
48	0.204	0	2.7478E-14
49	0.172	0	2.7478E-14
50	0.145	0	2.7478E-14
51	0.122	0	2.7478E-14

189/5wt%/U/N 0 min sonication

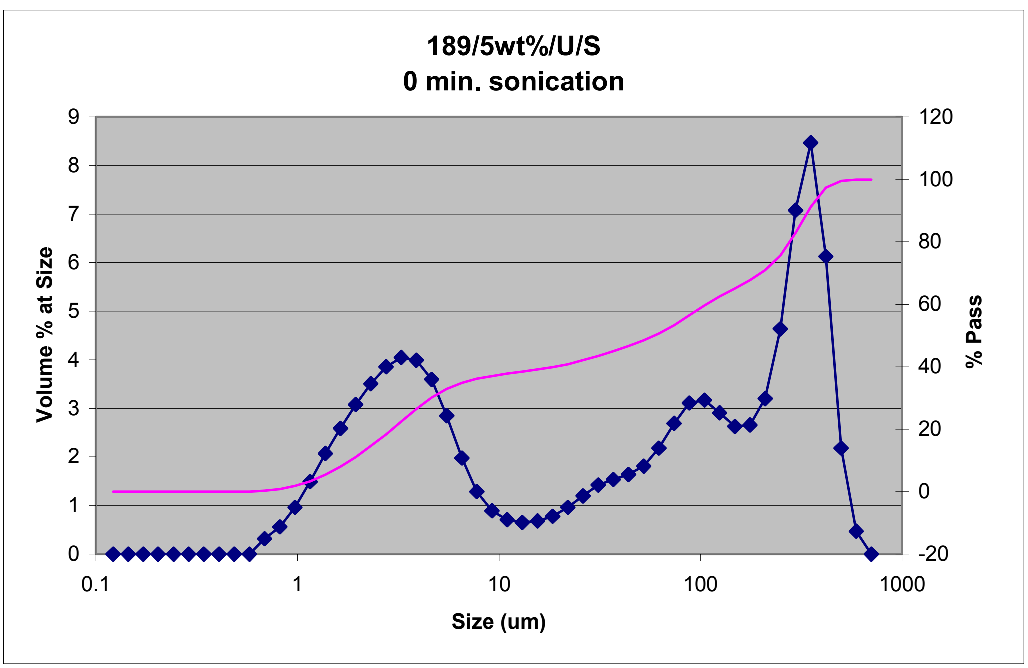
Summary Data

		Run#	ID#1
MV	123.493506	270	0 min sonication
MN	1.222786		
MA	5.776366		Dist
CS	1.038715		Prog
SD	150.631633		
SampleLD	0.078		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	1.836136	10
20	2.941866	1.836136
30	4.606364	
40	18.834953	
50	59.270366	
60	106.949017	
70	199.015953	
80	278.369574	
90	343.062138	
95	386.988817	

Number of Channels

50



189/5wt%/U/N

Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0.47	100
3	497.8	2.18	99.53
4	418.6	6.13	97.35
5	352	8.47	91.22
6	296	7.08	82.75
7	248.9	4.64	75.67
8	209.3	3.2	71.03
9	176	2.66	67.83
10	148	2.63	65.17
11	124.5	2.91	62.54
12	104.7	3.17	59.63
13	88	3.11	56.46
14	74	2.69	53.35
15	62.23	2.18	50.66
16	52.33	1.81	48.48
17	44	1.64	46.67
18	37	1.54	45.03
19	31.11	1.42	43.49
20	26.16	1.2	42.07
21	22	0.96	40.87
22	18.5	0.78	39.91
23	15.56	0.68	39.13
24	13.08	0.65	38.45
25	11	0.71	37.8
26	9.25	0.89	37.09
27	7.778	1.29	36.2
28	6.541	1.98	34.91
29	5.5	2.85	32.93
30	4.625	3.6	30.08
31	3.889	3.99	26.48
32	3.27	4.05	22.49
33	2.75	3.86	18.44
34	2.312	3.51	14.58
35	1.945	3.08	11.07
36	1.635	2.59	7.99
37	1.375	2.07	5.4
38	1.156	1.49	3.33
39	0.972	0.96	1.84
40	0.818	0.56	0.88
41	0.688	0.32	0.32
42	0.578	0	-1.19349E-14
43	0.486	0	-1.19349E-14
44	0.409	0	-1.19349E-14
45	0.344	0	-1.19349E-14
46	0.289	0	-1.19349E-14
47	0.243	0	-1.19349E-14
48	0.204	0	-1.19349E-14
49	0.172	0	-1.19349E-14
50	0.145	0	-1.19349E-14
51	0.122	0	-1.19349E-14

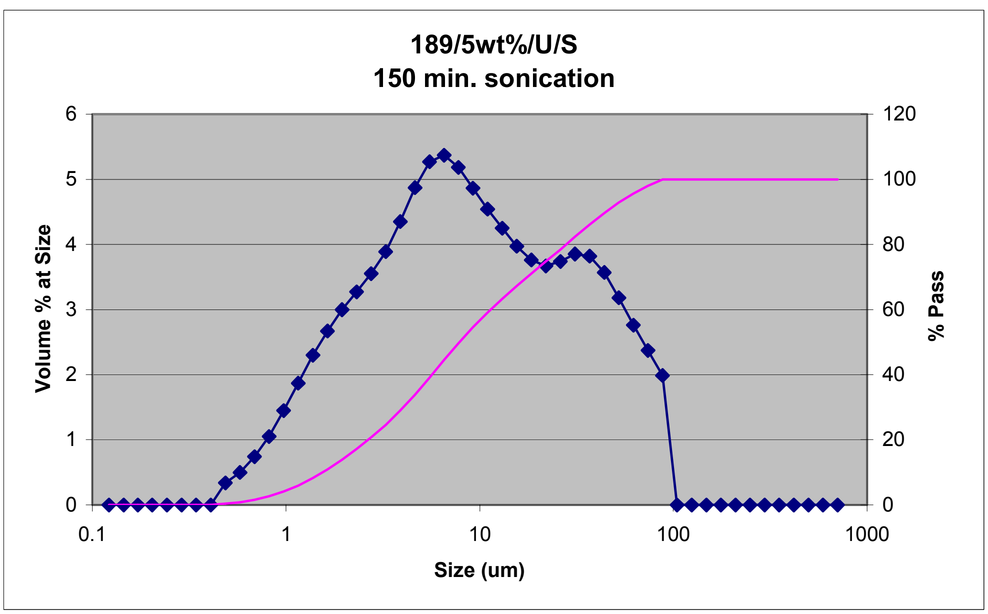
189/5wt%/U/S 150 min sonication, after transfer

Summary Data

		Run#	ID#1
MV	16.130435	276	150 min sonication
MN	0.879804		
MA	4.009774		Dist
CS	1.496344		Prog
SD	15.699682		
SampleLD	0.047		
Dist	0		
Prog	0		

Percentile	Percentile Data	
10	1.544291	10
20	2.655508	1.544291
30	4.038821	
40	5.659618	
50	7.869351	
60	11.41831	
70	17.619385	
80	28.055016	
90	44.701454	
95	59.639753	

Number of Channels
50

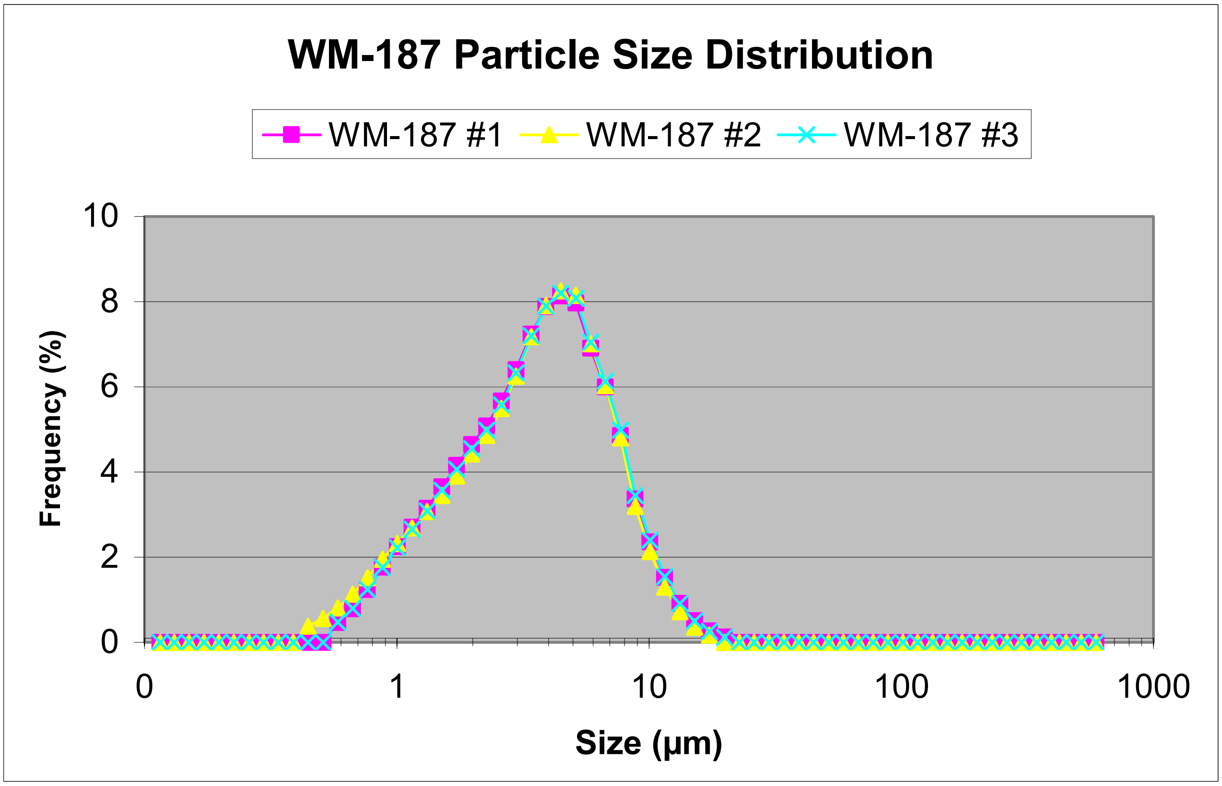


189/5wt%/U/S

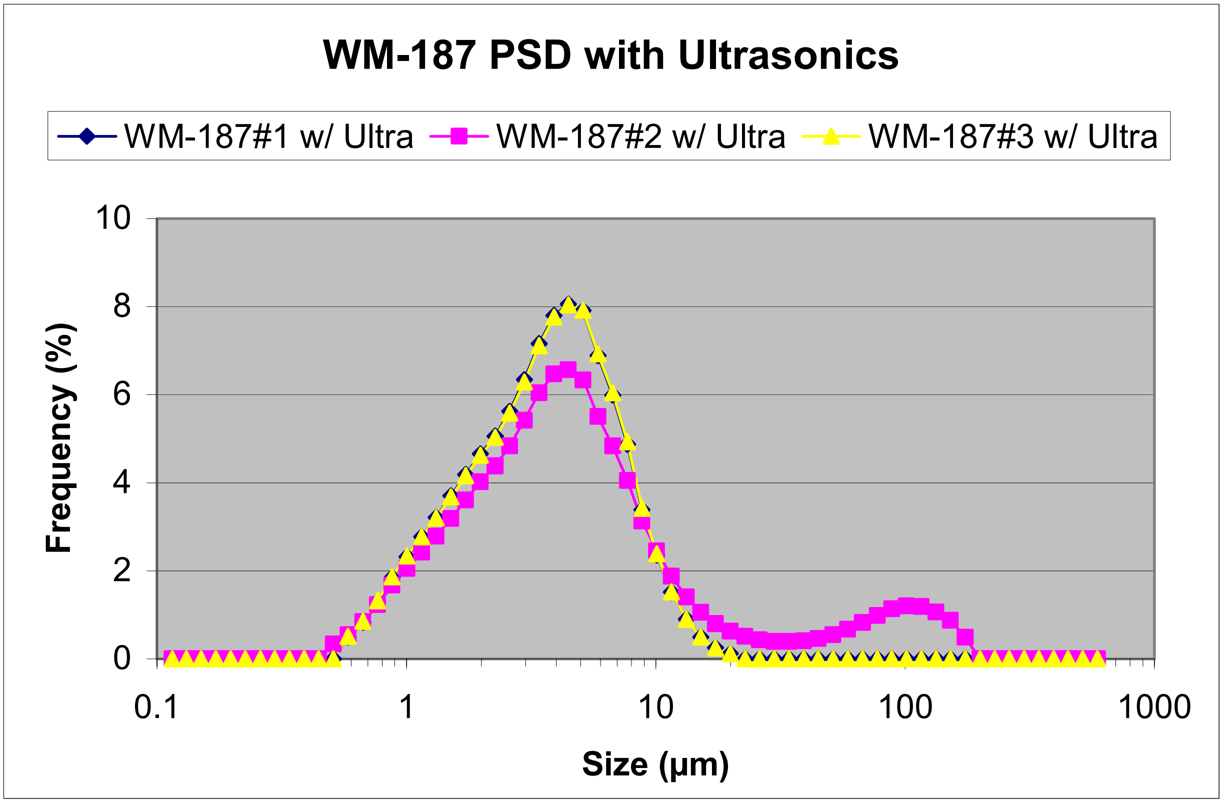
Channel	Selected E	Selected Volume	Cummulative
1	704	0	100
2	592	0	100
3	497.8	0	100
4	418.6	0	100
5	352	0	100
6	296	0	100
7	248.9	0	100
8	209.3	0	100
9	176	0	100
10	148	0	100
11	124.5	0	100
12	104.7	0	100
13	88	1.99	100
14	74	2.37	98.01
15	62.23	2.76	95.64
16	52.33	3.18	92.88
17	44	3.57	89.7
18	37	3.82	86.13
19	31.11	3.85	82.31
20	26.16	3.74	78.46
21	22	3.67	74.72
22	18.5	3.76	71.05
23	15.56	3.97	67.29
24	13.08	4.25	63.32
25	11	4.54	59.07
26	9.25	4.86	54.53
27	7.778	5.18	49.67
28	6.541	5.37	44.49
29	5.5	5.27	39.12
30	4.625	4.87	33.85
31	3.889	4.35	28.98
32	3.27	3.89	24.63
33	2.75	3.55	20.74
34	2.312	3.27	17.19
35	1.945	3	13.92
36	1.635	2.67	10.92
37	1.375	2.3	8.25
38	1.156	1.87	5.95
39	0.972	1.45	4.08
40	0.818	1.05	2.63
41	0.688	0.74	1.58
42	0.578	0.5	0.84
43	0.486	0.34	0.34
44	0.409	0	8.72E-15
45	0.344	0	8.72E-15
46	0.289	0	8.72E-15
47	0.243	0	8.72E-15
48	0.204	0	8.72E-15
49	0.172	0	8.72E-15
50	0.145	0	8.72E-15
51	0.122	0	8.72E-15

E-1.2 Tank Farm Waste Samples

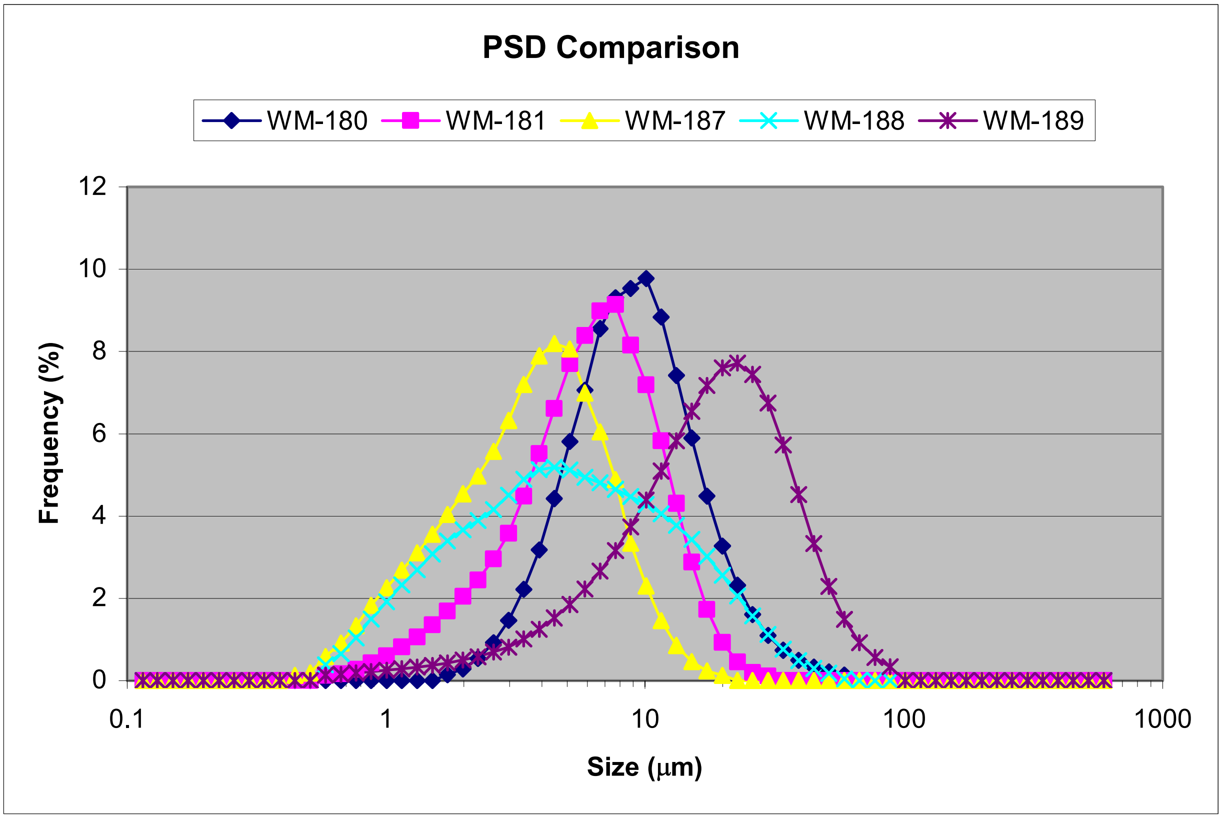
Diameter	WM-187 #1 Frequency (%)	WM-187 #2 Frequency (%)	WM-187 #3 Frequency (%)
0.115	0	0	0
0.131	0	0	0
0.15	0	0	0
0.172	0	0	0
0.197	0	0	0
0.226	0	0	0
0.259	0	0	0
0.296	0	0	0
0.339	0	0	0
0.389	0	0	0
0.445	0	0.381	0
0.51	0	0.562	0
0.584	0.467	0.811	0.477
0.669	0.793	1.132	0.803
0.766	1.237	1.519	1.241
0.877	1.769	1.955	1.762
1.005	2.245	2.318	2.219
1.151	2.703	2.686	2.655
1.318	3.15	3.067	3.083
1.51	3.652	3.447	3.567
1.729	4.154	3.911	4.062
1.981	4.641	4.423	4.548
2.269	5.079	4.864	4.982
2.599	5.659	5.489	5.571
2.976	6.399	6.256	6.322
3.409	7.241	7.172	7.195
3.905	7.887	7.91	7.889
4.472	8.137	8.25	8.196
5.122	7.968	8.139	8.08
5.867	6.91	7.01	7.042
6.72	5.99	6.027	6.129
7.697	4.857	4.801	4.981
8.816	3.371	3.19	3.448
10.097	2.356	2.132	2.402
11.565	1.523	1.298	1.544
13.246	0.912	0.719	0.916
15.172	0.507	0.363	0.504
17.377	0.264	0.168	0.258
19.904	0.13	0	0.125
22.797	0	0	0
26.111	0	0	0
29.907	0	0	0
34.255	0	0	0
39.234	0	0	0
44.938	0	0	0
51.471	0	0	0
58.953	0	0	0
67.523	0	0	0
77.339	0	0	0
88.583	0	0	0
101.46	0	0	0
116.21	0	0	0
133.103	0	0	0
152.453	0	0	0
174.616	0	0	0
200	0	0	0
229.075	0	0	0
262.376	0	0	0
300.518	0	0	0
344.206	0	0	0
394.244	0	0	0
451.556	0	0	0
517.2	0	0	0
592.387	0	0	0


WM-187 Particle Size Distribution
WM-187 #1
WM-187 #2
WM-187 #3
Frequency (%)
10
8
6
4
2
0
0
1
10
100
1000
Size (µm)

Diameter	WM-187 #1 Ultra Frequency (%)	WM-187 #2 Ultra Frequency (%)	WM-187 #3 Ultra Frequency (%)
0.115	0	0	0
0.131	0	0	0
0.15	0	0	0
0.172	0	0	0
0.197	0	0	0
0.226	0	0	0
0.259	0	0	0
0.296	0	0	0
0.339	0	0	0
0.389	0	0	0
0.445	0	0	0
0.51	0	0.333	0
0.584	0.491	0.543	0.51
0.669	0.83	0.842	0.854
0.766	1.291	1.226	1.316
0.877	1.839	1.672	1.86
1.005	2.321	2.053	2.331
1.151	2.775	2.422	2.772
1.318	3.212	2.788	3.199
1.51	3.701	3.187	3.679
1.729	4.183	3.606	4.159
1.981	4.649	4.023	4.623
2.269	5.06	4.38	5.026
2.599	5.62	4.836	5.579
2.976	6.336	5.42	6.288
3.409	7.162	6.042	7.112
3.905	7.8	6.472	7.761
4.472	8.056	6.562	8.039
5.122	7.907	6.33	7.919
5.867	6.888	5.505	6.928
6.72	5.99	4.832	6.044
7.697	4.871	4.053	4.927
8.816	3.38	3.125	3.416
10.097	2.358	2.452	2.38
11.565	1.517	1.872	1.526
13.246	0.9	1.407	0.9
15.172	0.493	1.054	0.489
17.377	0.251	0.799	0.247
19.904	0.12	0.622	0.117
22.797	0	0.504	0
26.111	0	0.431	0
29.907	0	0.394	0
34.255	0	0.387	0
39.234	0	0.408	0
44.938	0	0.46	0
51.471	0	0.546	0
58.953	0	0.668	0
67.523	0	0.82	0
77.339	0	0.986	0
88.583	0	1.129	0
101.46	0	1.206	0
116.21	0	1.184	0
133.103	0	1.062	0
152.453	0	0.874	0
174.616	0	0.486	0
200	0	0	0
229.075	0	0	0
262.376	0	0	0
300.518	0	0	0
344.206	0	0	0
394.244	0	0	0
451.556	0	0	0
517.2	0	0	0
592.387	0	0	0


WM-187 PSD with Ultrasonics
WM-187#1 w/ Ultra
WM-187#2 w/ Ultra
WM-187#3 w/ Ultra
Frequency (%)
10
8
6
4
2
0
0.1
1
10
100
1000
Size (µm)

Diameter	WM-180 Average Frequency (%)	WM-181 Average Frequency (%)	WM-187 Average Frequency (%)	WM-188 Average Frequency (%)	WM-189 Average Frequency (%)
0.115	0	0	0	0	0
0.131	0	0	0	0	0
0.15	0	0	0	0	0
0.172	0	0	0	0	0
0.197	0	0	0	0	0
0.226	0	0	0	0	0
0.259	0	0	0	0	0
0.296	0	0	0	0	0
0.339	0	0	0	0	0
0.389	0	0	0	0	0
0.445	0	0	0.127	0	0
0.51	0	0	0.187	0	0
0.584	0	0.122	0.585	0.383	0.131
0.669	0	0.166	0.909	0.655	0.152
0.766	0	0.276	1.332	1.034	0.185
0.877	0	0.426	1.829	1.496	0.218
1.005	0	0.603	2.261	1.917	0.249
1.151	0	0.817	2.681	2.322	0.285
1.318	0	1.063	3.1	2.691	0.325
1.51	0	1.355	3.555	3.075	0.365
1.729	0.142	1.688	4.042	3.394	0.425
1.981	0.288	2.048	4.537	3.66	0.499
2.269	0.535	2.439	4.975	3.888	0.577
2.599	0.917	2.96	5.573	4.153	0.69
2.976	1.467	3.58	6.326	4.51	0.815
3.409	2.213	4.483	7.203	4.888	1.009
3.905	3.174	5.52	7.895	5.127	1.245
4.472	4.421	6.612	8.194	5.184	1.521
5.122	5.813	7.702	8.062	5.118	1.846
5.867	7.056	8.386	6.987	4.945	2.223
6.72	8.553	8.987	6.049	4.812	2.659
7.697	9.304	9.144	4.88	4.651	3.157
8.816	9.535	8.155	3.336	4.473	3.735
10.097	9.778	7.193	2.297	4.285	4.387
11.565	8.835	5.831	1.455	4.055	5.094
13.246	7.418	4.306	0.849	3.773	5.831
15.172	5.898	2.876	0.458	3.43	6.549
17.377	4.48	1.728	0.23	3.022	7.174
19.904	3.27	0.931	0.128	2.558	7.602
22.797	2.316	0.45	0	2.06	7.718
26.111	1.605	0.196	0	1.568	7.439
29.907	1.093	0.109	0	1.124	6.751
34.255	0.736	0	0	0.758	5.729
39.234	0.49	0	0	0.484	4.527
44.938	0.323	0	0	0.295	3.331
51.471	0.211	0	0	0.174	2.291
58.953	0.137	0	0	0.039	1.487
67.523	0	0	0	0	0.924
77.339	0	0	0	0	0.56
88.583	0	0	0	0	0.338
101.46	0	0	0	0	0
116.21	0	0	0	0	0
133.103	0	0	0	0	0
152.453	0	0	0	0	0
174.616	0	0	0	0	0
200	0	0	0	0	0
229.075	0	0	0	0	0
262.376	0	0	0	0	0
300.518	0	0	0	0	0
344.206	0	0	0	0	0
394.244	0	0	0	0	0
451.556	0	0	0	0	0
517.2	0	0	0	0	0
592.387	0	0	0	0	0



E-2 FLOW CURVE

Data in gray text was below the 10% (permil scale range 0 – 1,000%) torque threshold limit of the Brookfield R/S rheometer. The grayed-out data are included to provide a complete data set and are for reference only.

E-2.1 SBW Surrogate Samples

E-2.1.1 180/0wt%

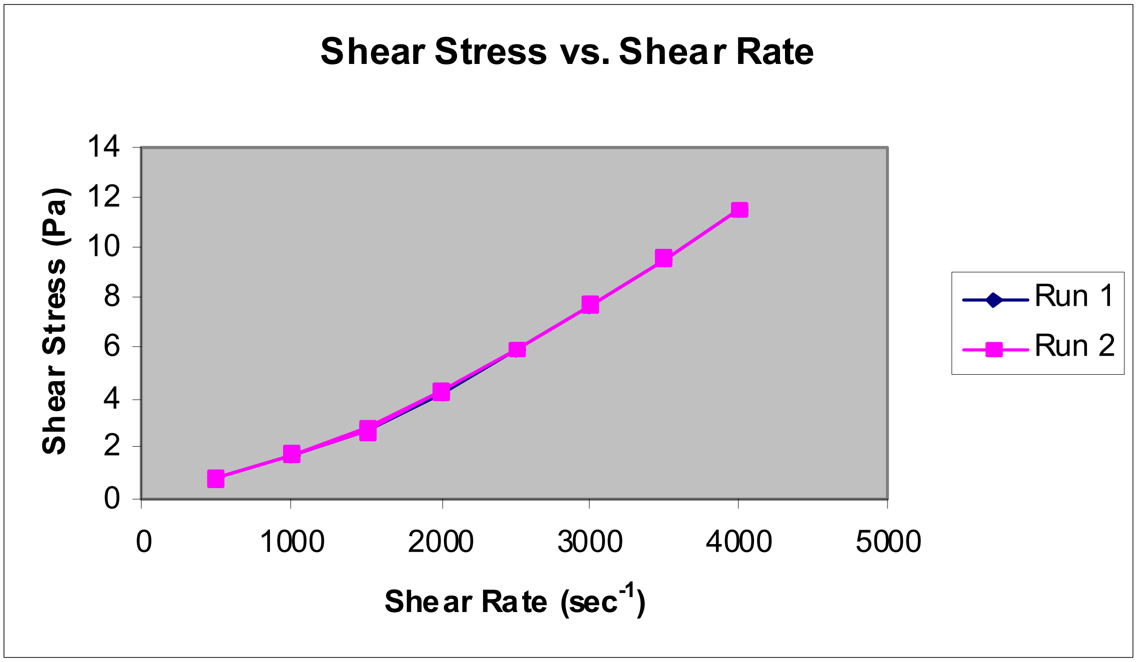
2004.01.22 180-0 wt% 500-4000 s-1 DG run 1.txt

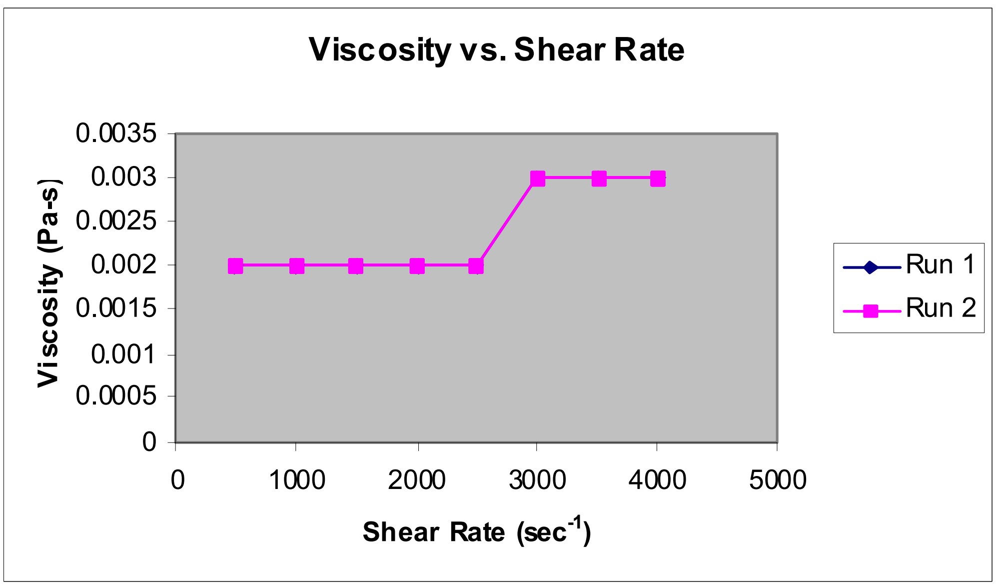
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	12.2	207.56895	0	0	28	500.02	0.818	0.002	1	1	0.6102	0
1	1	40	198.46	26.22	621.50049	0	0	28	1000.04	1.756	0.002	2	1	1.3108	0
1	1	60	297.68	40.48	1243.71805	0	0	28	1500.01	2.712	0.002	3	1	2.02395	0
1	1	80	396.91	63.05	2074.01271	0	0	28	2000.03	4.224	0.002	4	1	3.1525	0
1	1	100	496.13	88.76	3110.20029	0	0	28	2500	5.947	0.002	5	1	4.4378	0
1	1	120	595.36	115.26	4355.76638	0	0	28	3000.02	7.723	0.003	6	1	5.76315	0
1	1	140	694.58	142.83	5809.46219	0	0	28	3499.99	9.569	0.003	7	1	7.1414	0
1	1	160	793.81	171.85	7470.66099	0	0	28	4000.01	11.514	0.003	8	1	8.59245	0
1	2	180	793.81	171.53	9151.29447	0	0	28	4000.01	11.493	0.003	9	1	8.5766	0
1	2	200	793.81	171.43	10814.26041	0	0	28	4000.01	11.486	0.003	10	1	8.57135	0
1	2	220	793.81	171.29	12476.81323	0	0	28	4000.01	11.476	0.003	11	1	8.56425	0
1	3	240	793.81	171.27	14156.81996	0	0	28	4000.01	11.475	0.003	12	1	8.5637	0

1	3	260	694.58	142.43	15613.89299	0	0	28	3499.99	9.543	0.003	13	1	7.12155	0
1	3	280	595.36	115.1	16861.84983	0	0	28	3000.02	7.711	0.003	14	1	5.75475	0
1	3	300	496.13	88.62	17902.16467	0	0	28	2500	5.938	0.002	15	1	4.4311	0
1	3	320	396.91	62.89	18735.35510		0	28	2000.03	4.214	0.002	16	1	3.1445	0
1	3	340	297.68	40.52	19360.72054	0	0	28	1500.01	2.715	0.002	17	1	2.0261	0
1	3	360	198.46	26.14	19778.04578	0	0	28	1000.04	1.751	0.002	18	1	1.30695	0
1	3	380	99.23	12.8	19987.63477	0	0	28	500.02	0.857	0.002	19	1	0.63975	0

2004.01.22 180-0 wt% 500-4000 s-1 DG run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	12.16	207.51633	0	0	28	500.02	0.815	0.002	1	1	0.60785	0
1	1	40	198.46	26.22	621.96859	0	0	28	1000.04	1.757	0.002	2	1	1.31105	0
1	1	60	297.68	40.56	1243.667	0	0	28	1500.01	2.717	0.002	3	1	2.0279	0
1	1	80	396.91	62.99	2072.92258	0	0	28	2000.03	4.22	0.002	4	1	3.1495	0
1	1	100	496.13	88.55	3111.44829	0	0	28	2500	5.933	0.002	5	1	4.4274	0
1	1	120	595.36	115.07	4356.75284	0	0	28	3000.02	7.71	0.003	6	1	5.75365	0
1	1	140	694.58	142.38	5808.31708	0	0	28	3499.99	9.539	0.003	7	1	7.11885	0
1	1	160	793.81	171.35	7469.1546	0	0	28	4000.01	11.481	0.003	8	1	8.5677	0
1	2	180	793.81	171.5	9149.00817	0	0	28	4000.01	11.491	0.003	9	1	8.57515	0
1	2	200	793.81	171.48	10812.80664	0	0	28	4000.01	11.489	0.003	10	1	8.5738	0
1	2	220	793.81	171.33	12474.11068	0	0	28	4000.01	11.479	0.003	11	1	8.5665	0
1	3	240	793.81	171.27	14154.11898	0	0	28	4000.01	11.475	0.003	12	1	8.5633	0
1	3	260	694.58	142.44	15611.60748	0	0	28	3499.99	9.543	0.003	13	1	7.1219	0
1	3	280	595.36	115.13	16860.23741	0	0	28	3000.02	7.714	0.003	14	1	5.7567	0
1	3	300	496.13	88.65	17899.67339	0	0	28	2500	5.939	0.002	15	1	4.43225	0
1	3	320	396.91	63	18733.54319	0	0	28	2000.03	4.221	0.002	16	1	3.1501	0
1	3	340	297.68	40.95	19358.70128	0	0	28	1500.01	2.744	0.002	17	1	2.04765	0
1	3	360	198.46	26.39	19775.65895	0	0	28	1000.04	1.768	0.002	18	1	1.3195	0
1	3	380	99.23	13.03	19985.2935	0	0	28	500.02	0.873	0.002	19	1	0.65165	0





E-2.1.2 187/0wt%

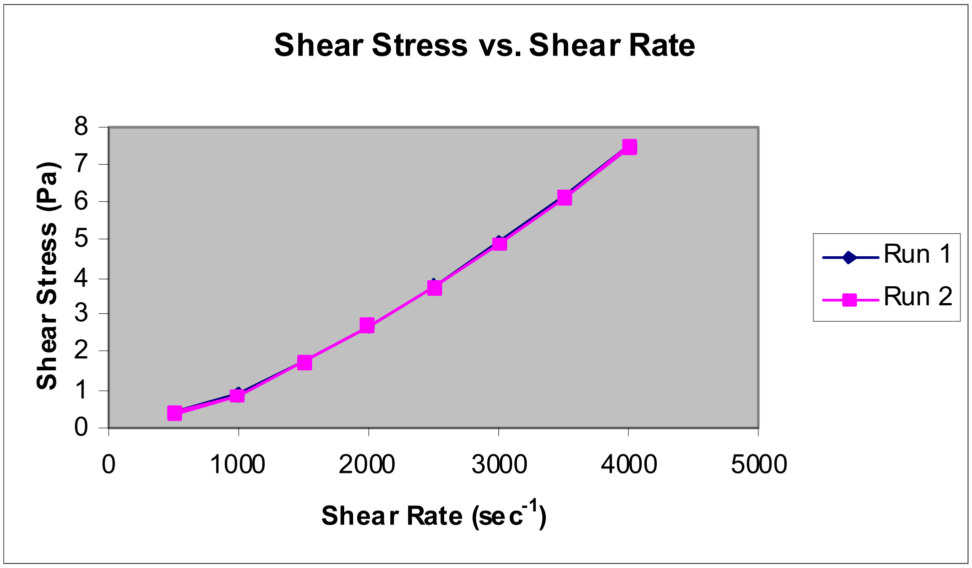
2004.01.22 187-0 wt% 500-4000 s-1 DG run 1.txt

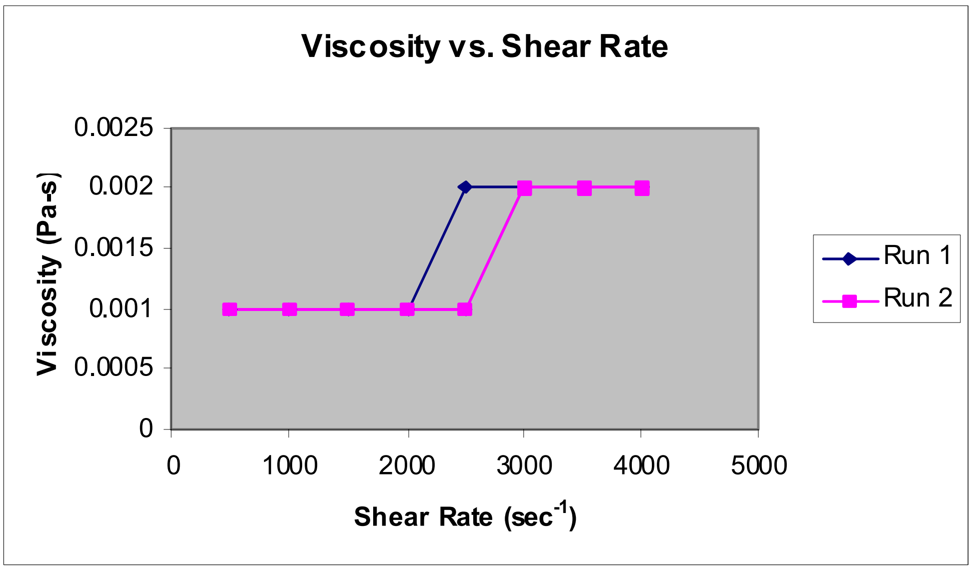
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.27	6.31	207.72917	0	0	28	500.22	0.423	0.001	1	1	0.31545	0
1	1	40	198.46	13.41	621.76674	0	0	28	1000.04	0.898	0.001	2	1	0.67035	0
1	1	60	297.68	26.39	1243.31043	0	0	28	1500.01	1.768	0.001	3	1	1.31955	0
1	1	80	396.91	40.65	2073.1904	0	0	28	2000.03	2.723	0.001	4	1	2.0323	0
1	1	100	496.13	56.01	3111.4585	0	0	28	2500	3.753	0.002	5	1	2.80045	0
1	1	120	595.36	73.17	4356.09153	0	0	28	3000.02	4.903	0.002	6	1	3.6587	0
1	1	140	694.58	91.5	5809.16217	0	0	28	3499.99	6.13	0.002	7	1	4.57485	0

1	1	160	793.81	111.53	7470.00047	0	0	28	4000.01	7.473	0.002	8	1	5.5767	0
1	2	180	793.81	111.46	9149.83284	0	0	28	4000.01	7.468	0.002	9	1	5.5729	0
1	2	200	793.81	110.97	10813.63052	0	0	28	4000.01	7.435	0.002	10	1	5.5486	0
1	2	220	793.81	110.84	12476.1802	0	0	28	4000.01	7.426	0.002	11	1	5.54185	0
1	3	240	793.81	110.9	14156.19007	0	0	28	4000.01	7.43	0.002	12	1	5.545	0
1	3	260	694.58	91.29	15613.74848	0	0	28	3499.99	6.116	0.002	13	1	4.5643	0
1	3	280	595.36	72.75	16861.99356	0	0	28	3000.02	4.874	0.002	14	1	3.63755	0
1	3	300	496.13	55.66	17903.07338	0	0	28	2500	3.729	0.001	15	1	2.7831	0
1	3	320	396.91	40.24	18735.42422	0	0	28	2000.03	2.696	0.001	16	1	2.01175	0
1	3	340	297.68	25.95	19361.13208	0	0	28	1500.01	1.738	0.001	17	1	1.29735	0
1	3	360	198.46	13.02	19778.16359	0	0	28	1000.04	0.873	0.001	18	1	0.65115	0
1	3	380	99.23	6.37	19987.81384	0	0	28	500.02	0.427	0.001	19	1	0.3185	0

2004.01.22 187-0 wt% 500-4000 s-1 DG run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	5.84	207.8352	0	0	28	500.42	0.391	0.001	1	1	0.292	0
1	1	40	198.46	12.99	621.61202	0	0	28	1000.04	0.871	0.001	2	1	0.64965	0
1	1	60	297.68	25.82	1243.46672	0	0	27.9	1500.01	1.73	0.001	3	1	1.2908	0
1	1	80	396.91	39.98	2073.19118	0	0	28	2000.03	2.679	0.001	4	1	1.9989	0
1	1	100	496.13	55.46	3110.68017	0	0	28	2500	3.716	0.001	5	1	2.77295	0
1	1	120	595.36	72.73	4355.67449	0	0	28	3000.02	4.873	0.002	6	1	3.63645	0
1	1	140	694.58	91.21	5808.69722	0	0	28	3499.99	6.111	0.002	7	1	4.56065	0
1	1	160	793.81	111.27	7470.36804	0	0	28	4000.01	7.455	0.002	8	1	5.56325	0
1	2	180	793.81	111.32	9150.19648	0	0	28	4000.01	7.458	0.002	9	1	5.566	0
1	2	200	793.81	111.07	10813.99652	0	0	28	4000.01	7.441	0.002	10	1	5.5533	0
1	2	220	793.81	111.07	12475.30213	0	0	28	4000.01	7.442	0.002	11	1	5.55355	0
1	3	240	793.81	110.95	14155.31199	0	0	28	4000.01	7.434	0.002	12	1	5.5476	0
1	3	260	694.58	91.25	15612.07715	0	0	28	3499.99	6.113	0.002	13	1	4.56225	0
1	3	280	595.36	72.67	16859.76303	0	0	28	3000.02	4.869	0.002	14	1	3.6333	0
1	3	300	496.13	55.45	17900.83971	0	0	28	2500	3.715	0.001	15	1	2.77265	0
1	3	320	396.91	40.15	18734.13852	0	0	28	2000.03	2.69	0.001	16	1	2.00765	0
1	3	340	297.68	25.84	19359.84246	0	0	28	1500.01	1.731	0.001	17	1	1.29185	0
1	3	360	198.46	12.93	19776.97685	0	0	28	1000.04	0.867	0.001	18	1	0.6467	0
1	3	380	99.23	6.39	19986.57763	0	0	28	500.02	0.428	0.001	19	1	0.31955	0





E-2.1.3 189/0wt%

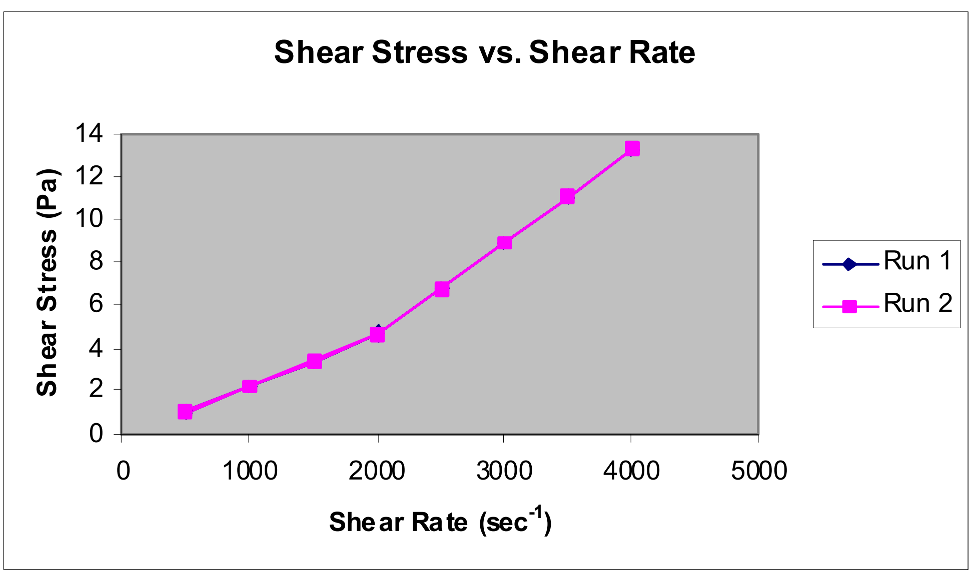
2004.01.22 189-0 wt% 500-4000 s-1 DG run 1.txt

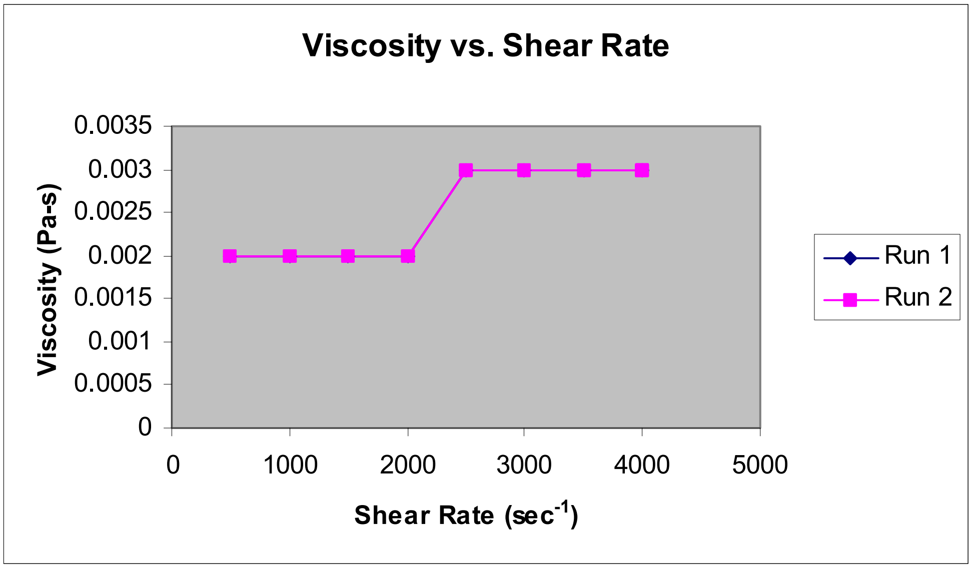
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	15.63	207.67184	0	0	28	500.02	1.047	0.002	1	1	0.7814	0
1	1	40	198.46	32.62	621.39525	0	0	28	1000.04	2.186	0.002	2	1	1.63115	0
1	1	60	297.68	49.95	1243.24995	0	0	28	1500.01	3.347	0.002	3	1	2.49755	0
1	1	80	396.91	70.13	2073.18097	0	0	28	2000.03	4.699	0.002	4	1	3.5067	0
1	1	100	496.13	100.72	3111.13413	0	0	28	2500	6.748	0.003	5	1	5.03585	0
1	1	120	595.36	132.27	4356.07425	0	0	28	3000.02	8.862	0.003	6	1	6.6134	0
1	1	140	694.58	164.07	5809.81955	0	0	28	3499.99	10.993	0.003	7	1	8.20345	0
1	1	160	793.81	197.58	7470.18975	0	0	28	4000.01	13.238	0.003	8	1	9.8791	0
1	2	180	793.81	197.76	9151.7013	0	0	28	4000.01	13.25	0.003	9	1	9.88805	0
1	2	200	793.81	197.79	10813.84179	0	0	28	4000.01	13.252	0.003	10	1	9.8896	0

1	2	220	793.81	197.81	12476.39069	0	0	28	4000.01	13.254	0.003	11	1	9.8907	0
1	3	240	793.81	197.61	14155.98665	0	0	28	4000.01	13.24	0.003	12	1	9.8806	0
1	3	260	694.58	164.33	15612.74709	0	0	28	3499.99	11.01	0.003	13	1	8.21625	0
1	3	280	595.36	132.23	16862.26138	0	0	28	3000.02	8.86	0.003	14	1	6.6116	0
1	3	300	496.13	100.42	17903.07417	0	0	28	2500	6.728	0.003	15	1	5.02115	0
1	3	320	396.91	69.61	18735.4415	0	0	28	2000.03	4.664	0.002	16	1	3.4806	0
1	3	340	297.68	50.27	19360.27679	0	0	28	1500.01	3.368	0.002	17	1	2.5133	0
1	3	360	198.46	32.67	19777.99708	0	0	28	1000.04	2.189	0.002	18	1	1.6335	0
1	3	380	99.23	16.2	19987.67483	0	0	28	500.02	1.086	0.002	19	1	0.81025	0

2004.01.22 189-0 wt% 500-4000 s-1 DG run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	15.53	207.62	0	0	28	500.02	1.04	0.002	1	1	0.77625	0
1	1	40	198.46	32.57	621.3442	0	0	28	1000.04	2.182	0.002	2	1	1.6283	0
1	1	60	297.68	50.25	1243.71648	0	0	28	1500.01	3.367	0.002	3	1	2.5125	0
1	1	80	396.91	69.5	2072.76393	0	0	28	2000.03	4.656	0.002	4	1	3.47475	0
1	1	100	496.13	100.67	3110.24977	0	0	28	2500	6.745	0.003	5	1	5.0337	0
1	1	120	595.36	132.64	4356.75127	0	0	28	3000.02	8.887	0.003	6	1	6.6322	0
1	1	140	694.58	164.91	5808.26211	0	0	28	3499.99	11.049	0.003	7	1	8.2455	0
1	1	160	793.81	198.36	7469.46169	0	0	28	4000.01	13.29	0.003	8	1	9.9181	0
1	2	180	793.81	198.23	9148.89586	0	0	28	4000.01	13.281	0.003	9	1	9.91145	0
1	2	200	793.81	198.06	10811.86652	0	0	28	4000.01	13.27	0.003	10	1	9.9029	0
1	2	220	793.81	198.22	12475.25029	0	0	28	4000.01	13.281	0.003	11	1	9.9109	0
1	3	240	793.81	198.15	14155.25545	0	0	28	4000.01	13.276	0.003	12	1	9.90735	0
1	3	260	694.58	165.1	15612.38267	0	0	28	3499.99	11.062	0.003	13	1	8.25495	0
1	3	280	595.36	133.05	16860.39292	0	0	28	3000.02	8.914	0.003	14	1	6.6525	0
1	3	300	496.13	100.86	17901.20492	0	0	28	2500	6.758	0.003	15	1	5.0432	0
1	3	320	396.91	69.65	18734.81239	0	0	28	2000.03	4.667	0.002	16	1	3.4825	0
1	3	340	297.68	50.59	19359.22592	0	0	28	1500.01	3.389	0.002	17	1	2.5294	0
1	3	360	198.46	33.09	19776.94308	0	0	28	1000.04	2.217	0.002	18	1	1.65465	0
1	3	380	99.23	16.39	19986.41584	0	0	28	500.02	1.098	0.002	19	1	0.8196	0





E-2.1.4 META/0wt%

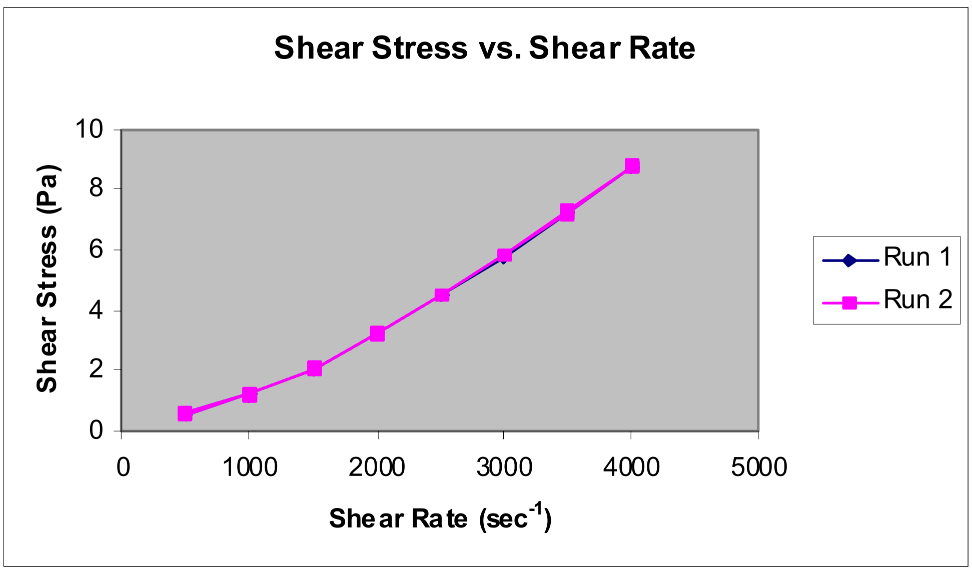
2004.01.22 META-0 wt% 500-4000 s-1 DG run 1.txt

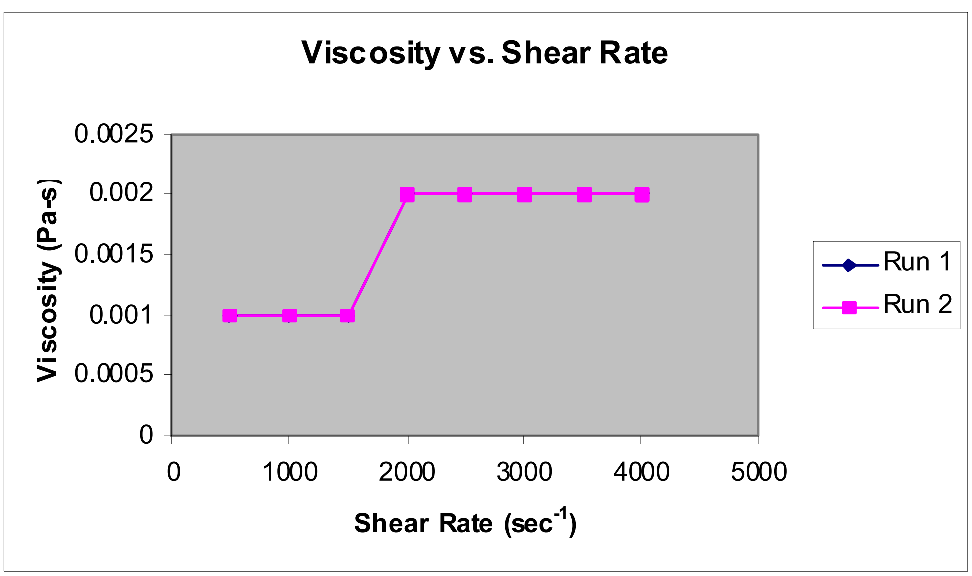
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	8.34	207.56895	0	0	28	500.02	0.559	0.001	1	1	0.4168	0
1	1	40	198.46	17.96	621.91832	0	0	28	1000.04	1.203	0.001	2	1	0.89785	0
1	1	60	297.68	30.45	1243.61673	0	0	28	1500.01	2.04	0.001	3	1	1.5225	0
1	1	80	396.91	48.23	2073.28779	0	0	28	2000.03	3.232	0.002	4	1	2.4117	0
1	1	100	496.13	66.88	3110.72493	0	0	28	2500	4.481	0.002	5	1	3.34375	0
1	1	120	595.36	86.69	4355.98079	0	0	28	3000.02	5.808	0.002	6	1	4.33445	0
1	1	140	694.58	107.85	5808.32572	0	0	28	3499.99	7.226	0.002	7	1	5.39235	0
1	1	160	793.81	130.37	7469.16402	0	0	28	4000.01	8.735	0.002	8	1	6.51855	0
1	2	180	793.81	130.46	9149.03802	0	0	28	4000.01	8.741	0.002	9	1	6.5229	0
1	2	200	793.81	130.1	10812.0071	0	0	28	4000.01	8.716	0.002	10	1	6.50485	0
1	2	220	793.81	130.16	12474.14288	0	0	28	4000.01	8.721	0.002	11	1	6.50785	0
1	3	240	793.81	130.06	14153.73727	0	0	28	4000.01	8.714	0.002	12	1	6.5031	0
1	3	260	694.58	107.78	15610.49614	0	0	28	3499.99	7.221	0.002	13	1	5.3888	0
1	3	280	595.36	86.48	16858.47497	0	0	28	3000.02	5.794	0.002	14	1	4.3239	0
1	3	300	496.13	66.8	17899.01287	0	0	28	2500	4.476	0.002	15	1	3.34015	0
1	3	320	396.91	48.36	18732.02737	0	0	28	2000.03	3.24	0.002	16	1	2.41775	0
1	3	340	297.68	30.46	19358.03133	0	0	28	1500.01	2.041	0.001	17	1	1.52315	0
1	3	360	198.46	17.97	19774.99686	0	0	28	1000.04	1.204	0.001	18	1	0.89835	0
1	3	380	99.23	8.91	19984.7987	0	0	28	500.02	0.597	0.001	19	1	0.44555	0

2004.01.22 META-0 wt% 500-4000 s-1 DG run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	8.24	207.62158	0	0	28	500.02	0.552	0.001	1	1	0.4122	0
1	1	40	198.46	18.07	621.50206	0	0	28	1000.04	1.211	0.001	2	1	0.9036	0
1	1	60	297.68	30.51	1244.03142	0	0	28	1500.01	2.044	0.001	3	1	1.52525	0
1	1	80	396.91	48.42	2073.54776	0	0	28	2000.03	3.244	0.002	4	1	2.4211	0
1	1	100	496.13	66.94	3110.77677	0	0	28	2500	4.485	0.002	5	1	3.34725	0
1	1	120	595.36	86.74	4356.03184	0	0	28	3000.02	5.811	0.002	6	1	4.3369	0

1	1	140	694.58	108.05	5808.37835	0	0	28	3499.99	7.239	0.002	7	1	5.40225	0
1	1	160	793.81	130.76	7469.63055	0	0	28.1	4000.01	8.761	0.002	8	1	6.53795	0
1	2	180	793.81	130.97	9148.60683	0	0	28	4000.01	8.775	0.002	9	1	6.54825	0
1	2	200	793.81	130.86	10811.16201	0	0	28	4000.01	8.768	0.002	10	1	6.54305	0
1	2	220	793.81	130.89	12474.54422	0	0	28	4000.01	8.77	0.002	11	1	6.5446	0
1	3	240	793.81	130.89	14153.72235	0	0	28	4000.01	8.77	0.002	12	1	6.5447	0
1	3	260	694.58	108.39	15610.89748	0	0	28	3499.99	7.262	0.002	13	1	5.4195	0
1	3	280	595.36	87.21	16859.23524	0	0	28	3000.02	5.843	0.002	14	1	4.3603	0
1	3	300	496.13	67.19	17900.81222	0	0	28.1	2500	4.502	0.002	15	1	3.35945	0
1	3	320	396.91	48.5	18733.83379	0	0	28	2000.03	3.25	0.002	16	1	2.42505	0
1	3	340	297.68	30.62	19358.70128	0	0	28.1	1500.01	2.052	0.001	17	1	1.5312	0
1	3	360	198.46	18.14	19776.1404	0	0	28.1	1000.04	1.215	0.001	18	1	0.907	0
1	3	380	99.23	8.99	19985.68306	0	0	28	500.02	0.603	0.001	19	1	0.44975	0





E-2.1.5 META/AR/U/N

2004.02.06 META-AR-U DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41705	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.248	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49835	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16261	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.24392	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.7407	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65531	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.9854	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.73096	0	0	28	9.02	0	0	9	1	0	0
1	2	200	1.98	0	22.90614	0	0	28	9.98	0	0	10	1	0	0
1	2	220	3.97	1.93	31.18423	0	0	28	20	0.129	0.006	11	1	0.0966	0
1	2	240	5.95	2.57	43.62023	0	0	28	29.98	0.172	0.006	12	1	0.12835	0
1	2	260	7.94	3.13	60.21412	0	0	28	40.01	0.21	0.005	13	1	0.1565	0
1	2	280	9.92	3.51	80.95884	0	0	28	49.99	0.235	0.005	14	1	0.1756	0
1	2	300	11.91	4.31	105.85204	0	0	28	60.01	0.288	0.005	15	1	0.21525	0
1	2	320	13.89	4.85	134.94319	0	0	28	69.99	0.325	0.005	16	1	0.2426	0
1	2	340	15.88	5.17	168.16239	0	0	28	80.02	0.346	0.004	17	1	0.2585	0
1	2	360	17.86	5.81	205.50257	0	0	28	90	0.389	0.004	18	1	0.29025	0
1	3	380	19.85	6.38	247.40985	0	0	28	100.02	0.427	0.004	19	1	0.31885	0
1	3	400	39.69	11.53	330.28585	0	0	28	200	0.772	0.004	20	1	0.5763	0
1	3	420	59.54	16.02	454.69291	0	0	28	300.02	1.073	0.004	21	1	0.80095	0
1	3	440	79.38	20.11	620.80777	0	0	28	400	1.347	0.003	22	1	1.0053	0
1	3	460	99.23	24.25	828.21493	0	0	28	500.02	1.625	0.003	23	1	1.21255	0
1	3	480	119.07	28.18	1077.29767	0	0	28	599.99	1.888	0.003	24	1	1.409	0
1	3	500	138.92	32.3	1367.7764	0	0	28	700.02	2.164	0.003	25	1	1.61515	0
1	3	520	158.76	36.19	1700.22288	0	0	28	799.99	2.424	0.003	26	1	1.80925	0
1	3	540	178.61	40.34	2073.59724	0	0	28	900.02	2.703	0.003	27	1	2.0169	0
1	3	560	198.45	44.44	2489.31398	0	0	28	999.99	2.978	0.003	28	1	2.2221	0
1	4	570	198.45	44.12	2701.21362	0	0	28	999.99	2.956	0.003	29	1	2.206	0
1	4	580	198.45	44.05	2908.82184	0	0	28	999.99	2.951	0.003	30	1	2.20245	0
1	4	590	198.45	43.94	3117.15813	0	0	28	999.99	2.944	0.003	31	1	2.19685	0
1	4	600	198.45	43.82	3324.76635	0	0	28	999.99	2.936	0.003	32	1	2.1912	0
1	4	610	198.45	43.71	3532.68717	0	0	28	999.99	2.929	0.003	33	1	2.1855	0
1	4	620	198.45	43.62	3740.60719	0	0	28	999.99	2.922	0.003	34	1	2.18095	0
1	5	640	198.45	43.51	4160.60357	0	0	28	999.99	2.915	0.003	35	1	2.1754	0
1	5	660	178.61	39.03	4535.36023	0	0	28	900.02	2.615	0.003	36	1	1.95125	0
1	5	680	158.76	34.54	4867.9308	0	0	28	799.99	2.314	0.003	37	1	1.7268	0
1	5	700	138.92	30.51	5159.40698	0	0	28	700.02	2.044	0.003	38	1	1.52555	0
1	5	720	119.07	26.3	5409.04029	0	0	28	599.99	1.762	0.003	39	1	1.31515	0
1	5	740	99.23	22.32	5617.12211	0	0	28	500.02	1.495	0.003	40	1	1.1159	0
1	5	760	79.38	18.06	5783.73569	0	0	28	400	1.21	0.003	41	1	0.90305	0
1	5	780	59.54	13.88	5908.74516	0	0	28	300.02	0.93	0.003	42	1	0.694	0
1	5	800	39.69	9.51	5992.18115	0	0	28	200	0.637	0.003	43	1	0.47545	0
1	5	820	19.85	5.27	6034.05701	0	0	28	100.02	0.353	0.004	44	1	0.2634	0
1	6	840	17.86	4.95	6071.71057	0	0	28	90	0.332	0.004	45	1	0.24765	0
1	6	860	15.88	4.4	6105.0036	0	0	28	80.02	0.295	0.004	46	1	0.2202	0

1	6	880	13.89	4.13	6134.14501	0	0	28	69.99	0.277	0.004	47	1	0.2065	0
1	6	900	11.9	3.7	6159.10653	0	0	28	59.96	0.248	0.004	48	1	0.185	0
1	6	920	9.92	2.93	6179.91095	0	0	28	49.99	0.196	0.004	49	1	0.14645	0
1	6	940	7.93	2.64	6196.54097	0	0	28	39.96	0.177	0.004	50	1	0.132	0
1	6	960	5.95	2.25	6209.03194	0	0	28	29.98	0.151	0.005	51	1	0.1124	0
1	6	980	3.96	1.76	6217.36658	0	0	28	19.95	0.118	0.006	52	1	0.0882	0
1	6	1000	1.98	0	6221.5449	0	0	28	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6225.31324	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.64883	0	0	28	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6231.56894	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6234.07122	0	0	28	6	0	0	57	1	0	0
1	7	1100	0.99	0	6236.15802	0	0	28	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.82778	0	0	28	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6239.08284	0	0	28	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.92008	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6240.34262	0	0	28	1.01	0	0	62	1	0	0

2004.02.06 META-AR-U DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41626	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.24878	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49678	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16182	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.24392	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.74148	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65531	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.98383	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.72939	0	0	28	9.02	0	0	9	1	0	0
1	2	200	1.98	0	22.903	0	0	28	9.98	0	0	10	1	0	0
1	2	220	3.97	2.19	31.17559	0	0	28	20	0.146	0.007	11	1	0.1093	0
1	2	240	5.95	2.61	43.6108	0	0	28	29.98	0.175	0.006	12	1	0.13055	0
1	2	260	7.94	3.05	60.20627	0	0	28	40.01	0.204	0.005	13	1	0.1526	0
1	2	280	9.92	3.53	80.96041	0	0	28	49.99	0.236	0.005	14	1	0.17645	0
1	2	300	11.91	4.24	105.88502	0	0	28	60.01	0.284	0.005	15	1	0.21195	0
1	2	320	13.89	4.72	134.91884	0	0	28	69.99	0.316	0.005	16	1	0.23605	0
1	2	340	15.88	5.01	168.14668	0	0	28	80.02	0.336	0.004	17	1	0.25075	0
1	2	360	17.86	5.55	205.52378	0	0	28	90	0.372	0.004	18	1	0.2774	0
1	3	380	19.85	5.97	247.45461	0	0	28	100.02	0.4	0.004	19	1	0.2987	0
1	3	400	39.69	10.32	330.31962	0	0	28	200	0.691	0.003	20	1	0.51575	0
1	3	420	59.54	14.52	454.57118	0	0	28	300.02	0.973	0.003	21	1	0.72595	0
1	3	440	79.38	18.61	620.73787	0	0	28	400	1.247	0.003	22	1	0.93035	0
1	3	460	99.23	22.9	828.04057	0	0	28	500.02	1.534	0.003	23	1	1.1448	0
1	3	480	119.07	26.84	1077.30082	0	0	28	599.99	1.798	0.003	24	1	1.3419	0
1	3	500	138.92	30.99	1367.77954	0	0	28	700.02	2.076	0.003	25	1	1.5493	0
1	3	520	158.76	34.86	1699.96605	0	0	28	799.99	2.335	0.003	26	1	1.7428	0
1	3	540	178.61	39.08	2073.90197	0	0	28	900.02	2.618	0.003	27	1	1.95385	0
1	3	560	198.45	43.24	2489.10821	0	0	28	999.99	2.897	0.003	28	1	2.1618	0
1	4	570	198.45	43.04	2701.20577	0	0	28	999.99	2.884	0.003	29	1	2.1521	0
1	4	580	198.45	42.94	2908.81478	0	0	28	999.99	2.877	0.003	30	1	2.14675	0
1	4	590	198.45	42.85	3116.52746	0	0	27.9	999.99	2.871	0.003	31	1	2.1423	0

1	4	600	198.45	42.81	3324.96663	0	0	28	999.99	2.868	0.003	32	1	2.14055	0
1	4	610	198.45	42.7	3532.16016	0	0	28	999.99	2.861	0.003	33	1	2.1351	0
1	4	620	198.45	42.66	3739.97573	0	0	28	999.99	2.858	0.003	34	1	2.1332	0
1	5	640	198.45	42.56	4159.9729	0	0	28	999.99	2.852	0.003	35	1	2.12805	0
1	5	660	178.61	38.16	4534.45938	0	0	28	900.02	2.557	0.003	36	1	1.9079	0
1	5	680	158.76	33.81	4867.28913	0	0	28	799.99	2.265	0.003	37	1	1.6905	0
1	5	700	138.92	29.89	5158.77631	0	0	28	700.02	2.003	0.003	38	1	1.49455	0
1	5	720	119.07	25.79	5408.49208	0	0	28	599.99	1.728	0.003	39	1	1.2894	0
1	5	740	99.23	21.95	5616.63674	0	0	28	500.02	1.471	0.003	40	1	1.0975	0
1	5	760	79.38	17.66	5783.03198	0	0	28	400	1.183	0.003	41	1	0.88305	0
1	5	780	59.54	13.6	5908.13491	0	0	28	300.02	0.911	0.003	42	1	0.67985	0
1	5	800	39.69	9.19	5991.50885	0	0	28	200	0.615	0.003	43	1	0.4593	0
1	5	820	19.85	4.93	6033.42555	0	0	27.9	100.02	0.331	0.003	44	1	0.24675	0
1	6	840	17.86	4.64	6071.08775	0	0	27.9	90	0.311	0.003	45	1	0.232	0
1	6	860	15.88	4.07	6104.39884	0	0	27.9	80.02	0.273	0.003	46	1	0.2034	0
1	6	880	13.89	3.84	6133.51041	0	0	27.9	69.99	0.257	0.004	47	1	0.19195	0
1	6	900	11.9	3.39	6158.45544	0	0	27.9	59.96	0.227	0.004	48	1	0.1695	0
1	6	920	9.92	2.7	6179.27556	0	0	27.9	49.99	0.181	0.004	49	1	0.1348	0
1	6	940	7.93	2.41	6195.915	0	0	27.9	39.96	0.161	0.004	50	1	0.12045	0
1	6	960	5.95	2.06	6208.41462	0	0	27.9	29.98	0.138	0.005	51	1	0.103	0
1	6	980	3.96	1.61	6216.74219	0	0	28	19.95	0.108	0.005	52	1	0.0805	0
1	6	1000	1.98	0	6220.91894	0	0	28	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6224.68885	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.02444	0	0	28	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6230.94455	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6233.4484	0	0	28	6	0	0	57	1	0	0
1	7	1100	0.99	0	6235.53442	0	0	27.9	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.20496	0	0	27.9	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6238.45924	0	0	27.9	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.29726	0	0	27.9	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6239.71902	0	0	27.9	1.01	0	0	62	1	0	0

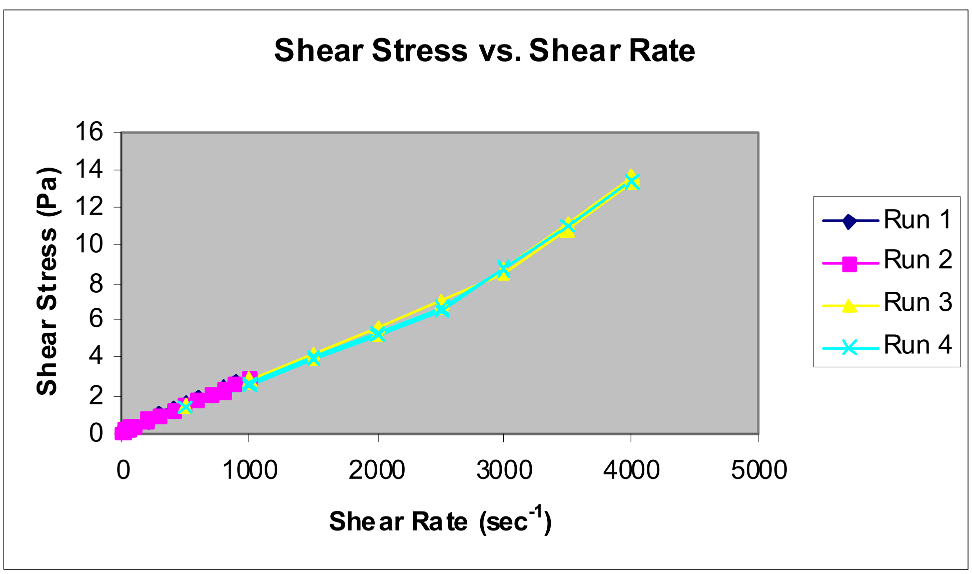
2004.02.06 META-AR-U DG 500-4000 s-1 run 1.txt

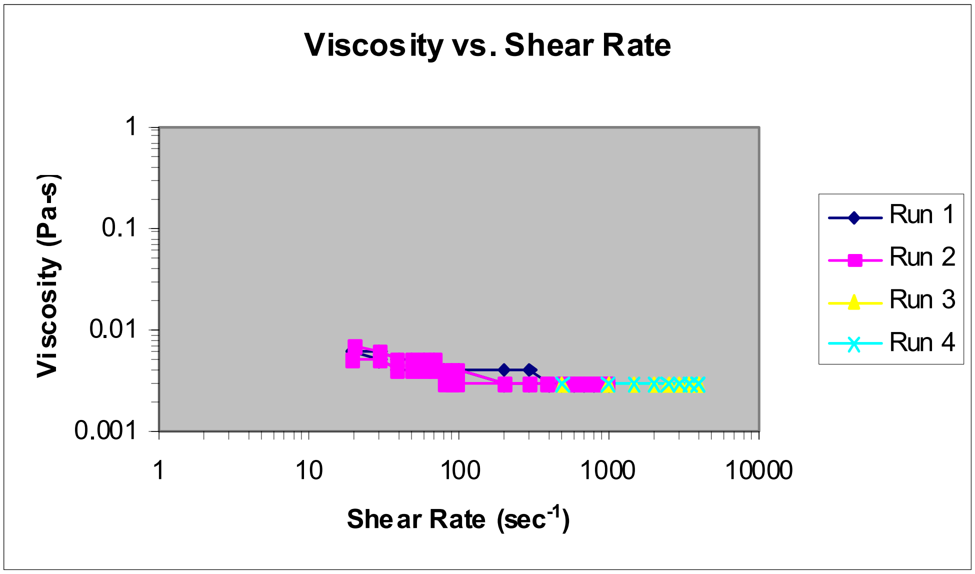
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.27	21.64	207.56189	0	0	28	500.22	1.45	0.003	1	1	1.08175	0
1	1	40	198.46	42.61	622.01335	0	0	28	1000.04	2.855	0.003	2	1	2.1303	0
1	1	60	297.68	63.7	1243.29393	0	0	28	1500.01	4.268	0.003	3	1	3.1848	0
1	1	80	396.91	84.46	2073.38047	0	0	28	2000.03	5.659	0.003	4	1	4.22315	0
1	1	100	496.13	103.81	3111.39017	0	0	28	2500	6.955	0.003	5	1	5.1905	0
1	1	120	595.36	125.98	4356.69629	0	0	28	3000.02	8.44	0.003	6	1	6.29885	0
1	1	140	694.58	161.67	5810.02454	0	0	27.9	3499.99	10.832	0.003	7	1	8.08365	0
1	1	160	793.81	197.89	7469.61091	0	0	28	4000.01	13.259	0.003	8	1	9.8946	0
1	2	180	793.81	201.09	9151.12875	0	0	27.9	4000.01	13.473	0.003	9	1	10.0547	0
1	2	200	793.81	203.42	10813.26217	0	0	27.9	4000.01	13.629	0.003	10	1	10.1712	0
1	2	220	793.81	203.58	12475.81578	0	0	27.9	4000.01	13.64	0.003	11	1	10.179	0
1	3	240	793.81	202.59	14155.40624	0	0	28	4000.01	13.573	0.003	12	1	10.1293	0
1	3	260	694.58	165.61	15611.85802	0	0	28	3499.99	11.096	0.003	13	1	8.28055	0
1	3	280	595.36	129.23	16860.75263	0	0	28	3000.02	8.658	0.003	14	1	6.4615	0
1	3	300	496.13	98.88	17901.98168	0	0	28	2500	6.625	0.003	15	1	4.9438	0
1	3	320	396.91	79	18734.11653	0	0	28	2000.03	5.293	0.003	16	1	3.9502	0

1	3	340	297.68	59.5	19359.87388	0	0	28	1500.01	3.986	0.003	17	1	2.9748	0
1	3	360	198.46	39.92	19777.37897	0	0	27.9	1000.04	2.675	0.003	18	1	1.9959	0
1	3	380	99.23	20.9	19986.89493	0	0	28	500.02	1.4	0.003	19	1	1.04475	0

2004.02.06 META-AR-U DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	20.52	207.81792	0	0	28	500.37	1.375	0.003	1	1	1.02585	0
1	1	40	198.46	40.3	621.74946	0	0	28	1000.04	2.7	0.003	2	1	2.0148	0
1	1	60	297.68	60.06	1243.81072	0	0	28	1500.01	4.024	0.003	3	1	3.0028	0
1	1	80	396.91	79.62	2073.5344	0	0	28	2000.03	5.335	0.003	4	1	3.9811	0
1	1	100	496.13	99.09	3111.23073	0	0	28	2500	6.639	0.003	5	1	4.95435	0
1	1	120	595.36	130.84	4355.49699	0	0	28	3000.02	8.766	0.003	6	1	6.5418	0
1	1	140	694.58	164.43	5807.78616	0	0	28	3499.99	11.017	0.003	7	1	8.2215	0
1	1	160	793.81	199.83	7469.86852	0	0	28	4000.01	13.388	0.003	8	1	9.9913	0
1	2	180	793.81	199.98	9150.96774	0	0	28	4000.01	13.399	0.003	9	1	9.9992	0
1	2	200	793.81	199.79	10813.10509	0	0	27.9	4000.01	13.386	0.003	10	1	9.9897	0
1	2	220	793.81	199.62	12475.65556	0	0	27.9	4000.01	13.375	0.003	11	1	9.98105	0
1	3	240	793.81	199.5	14154.83212	0	0	27.9	4000.01	13.366	0.003	12	1	9.97485	0
1	3	260	694.58	164.14	15613.10288	0	0	27.9	3499.99	10.997	0.003	13	1	8.20705	0
1	3	280	595.36	129.69	16861.68175	0	0	27.9	3000.02	8.689	0.003	14	1	6.48455	0
1	3	300	496.13	96.4	17902.49611	0	0	27.9	2500	6.459	0.003	15	1	4.8202	0
1	3	320	396.91	76.92	18734.43383	0	0	27.9	2000.03	5.153	0.003	16	1	3.84585	0
1	3	340	297.68	57.84	19360.35611	0	0	28	1500.01	3.875	0.003	17	1	2.8919	0
1	3	360	198.46	38.69	19777.34363	0	0	28	1000.04	2.592	0.003	18	1	1.9345	0
1	3	380	99.23	20.04	19987.06143	0	0	28	500.02	1.342	0.003	19	1	1.00175	0





E-2.1.6 META/AR/U/S

2004.02.04 META-AR-U [sonicated] DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	16.54	0.40998	0	0	28	1.01	1.108	1.097	1	1	0.82715	0
1	1	40	0.4	22.59	1.23779	0	0	28	2.02	1.513	0.749	2	1	1.12945	0
1	1	60	0.6	36.64	2.48107	0	0	28	3.02	2.455	0.813	3	1	1.8319	0
1	1	80	0.8	56.19	4.1414	0	0	28	4.03	3.765	0.934	4	1	2.80965	0
1	1	100	1	14.3	6.24234	0	0	28	5.04	0.958	0.19	5	1	0.71495	0
1	1	120	1.19	0	8.74148	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65295	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.98383	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.78	14.15	18.71525	0	0	28	8.97	0.948	0.106	9	1	0.70745	0
1	2	200	1.99	48.08	22.903	0	0	28	10.03	3.222	0.321	10	1	2.40415	0
1	2	220	3.96	7.07	31.16774	0	0	28	19.95	0.474	0.024	11	1	0.35345	0
1	2	240	5.94	37.83	43.60845	0	0	28	29.93	2.535	0.085	12	1	1.8915	0
1	2	260	7.94	7.57	60.20234	0	0	28	40.01	0.507	0.013	13	1	0.37855	0
1	2	280	9.92	11.18	80.9612	0	0	28	49.99	0.749	0.015	14	1	0.55895	0
1	2	300	11.91	22.74	105.86539	0	0	28	60.01	1.524	0.025	15	1	1.137	0
1	2	320	13.89	10.36	134.91648	0	0	28	69.99	0.694	0.01	16	1	0.51775	0
1	2	340	15.88	13.63	168.16317	0	0	28	80.02	0.913	0.011	17	1	0.68165	0
1	2	360	17.86	16.58	205.49079	0	0	28	90	1.111	0.012	18	1	0.829	0
1	3	380	19.85	21.11	247.40985	0	0	28	100.02	1.415	0.014	19	1	1.0556	0
1	3	400	39.69	26.44	330.28663	0	0	28	200	1.772	0.009	20	1	1.3222	0
1	3	420	59.54	27.99	454.68113	0	0	28	300.02	1.876	0.006	21	1	1.3997	0
1	3	440	79.38	25.71	620.71431	0	0	28	400	1.723	0.004	22	1	1.2856	0
1	3	460	99.23	26.27	828.22435	0	0	28	500.02	1.76	0.004	23	1	1.3136	0
1	3	480	119.07	30.72	1076.99608	0	0	28	599.99	2.058	0.003	24	1	1.53605	0
1	3	500	138.92	35.28	1367.69315	0	0	28	700.02	2.363	0.003	25	1	1.7638	0
1	3	520	158.76	39.48	1700.12863	0	0	28	799.99	2.645	0.003	26	1	1.9739	0
1	3	540	178.61	44.04	2073.60745	0	0	28	900.02	2.951	0.003	27	1	2.2021	0
1	3	560	198.45	48.45	2488.91736	0	0	28	999.99	3.246	0.003	28	1	2.4223	0

1	4	570	198.45	47.98	2701.3275	0	0	28	999.99	3.214	0.003	29	1	2.39875	0
1	4	580	198.45	47.81	2908.83205	0	0	28	999.99	3.203	0.003	30	1	2.3903	0
1	4	590	198.45	47.67	3116.95943	0	0	28	999.99	3.194	0.003	31	1	2.3837	0
1	4	600	198.45	47.53	3324.3603	0	0	28	999.99	3.185	0.003	32	1	2.3767	0
1	4	610	198.45	47.41	3531.96931	0	0	28	999.99	3.177	0.003	33	1	2.37055	0
1	4	620	198.45	47.34	3740.40849	0	0	28	999.99	3.172	0.003	34	1	2.3668	0
1	5	640	198.45	47.22	4160.71824	0	0	28	999.99	3.164	0.003	35	1	2.36105	0
1	5	660	178.61	42.26	4535.11048	0	0	28	900.02	2.832	0.003	36	1	2.11315	0
1	5	680	158.76	37.38	4867.9308	0	0	28	799.99	2.505	0.003	37	1	1.86905	0
1	5	700	138.92	32.94	5159.26169	0	0	28	700.02	2.207	0.003	38	1	1.64705	0
1	5	720	119.07	28.25	5408.78111	0	0	28	599.99	1.893	0.003	39	1	1.41265	0
1	5	740	99.23	23.79	5616.97681	0	0	28	500.02	1.594	0.003	40	1	1.1894	0
1	5	760	79.38	18.99	5783.45531	0	0	28	400	1.272	0.003	41	1	0.9496	0
1	5	780	59.54	14.37	5908.59908	0	0	27.9	300.02	0.962	0.003	42	1	0.71825	0
1	5	800	39.69	9.46	5992.03664	0	0	27.9	200	0.634	0.003	43	1	0.47295	0
1	5	820	19.85	4.86	6033.87008	0	0	27.9	100.02	0.325	0.003	44	1	0.24275	0
1	6	840	17.86	4.6	6071.53307	0	0	28	90	0.308	0.003	45	1	0.2302	0
1	6	860	15.88	4.07	6104.81746	0	0	28	80.02	0.273	0.003	46	1	0.20355	0
1	6	880	13.89	3.82	6133.9518	0	0	27.9	69.99	0.256	0.004	47	1	0.19075	0
1	6	900	11.9	3.39	6158.92668	0	0	27.8	59.96	0.227	0.004	48	1	0.16965	0
1	6	920	9.92	2.58	6179.73188	0	0	27.8	49.99	0.173	0.003	49	1	0.1292	0
1	6	940	7.93	2.29	6196.35797	0	0	27.8	39.96	0.153	0.004	50	1	0.1143	0
1	6	960	5.95	1.92	6208.85051	0	0	27.8	29.98	0.129	0.004	51	1	0.096	0
1	6	980	3.96	1.62	6217.18908	0	0	27.8	19.95	0.109	0.005	52	1	0.0811	0
1	6	1000	1.98	0	6221.36348	0	0	27.8	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6225.13182	0	0	27.8	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.46819	0	0	27.9	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6231.38594	0	0	27.9	7	0	0	56	1	0	0
1	7	1080	1.19	0	6233.89058	0	0	27.9	6	0	0	57	1	0	0
1	7	1100	0.99	0	6235.97738	0	0	27.9	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.64792	0	0	27.9	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6238.90142	0	0	27.9	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.73944	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6240.16198	0	0	28	1.01	0	0	62	1	0	0

2004.02.04 META-AR-U [sonicated] DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41626	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.24957	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49678	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16261	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.2447	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.74227	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65452	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.98461	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.73018	0	0	28	9.02	0	0	9	1	0	0
1	2	200	1.98	0	22.903	0	0	28	9.98	0	0	10	1	0	0
1	2	220	3.97	1.84	31.18031	0	0	28	20	0.123	0.006	11	1	0.0921	0
1	2	240	5.95	2.35	43.62808	0	0	28	29.98	0.157	0.005	12	1	0.1174	0
1	2	260	7.94	2.78	60.21648	0	0	28	40.01	0.186	0.005	13	1	0.1388	0

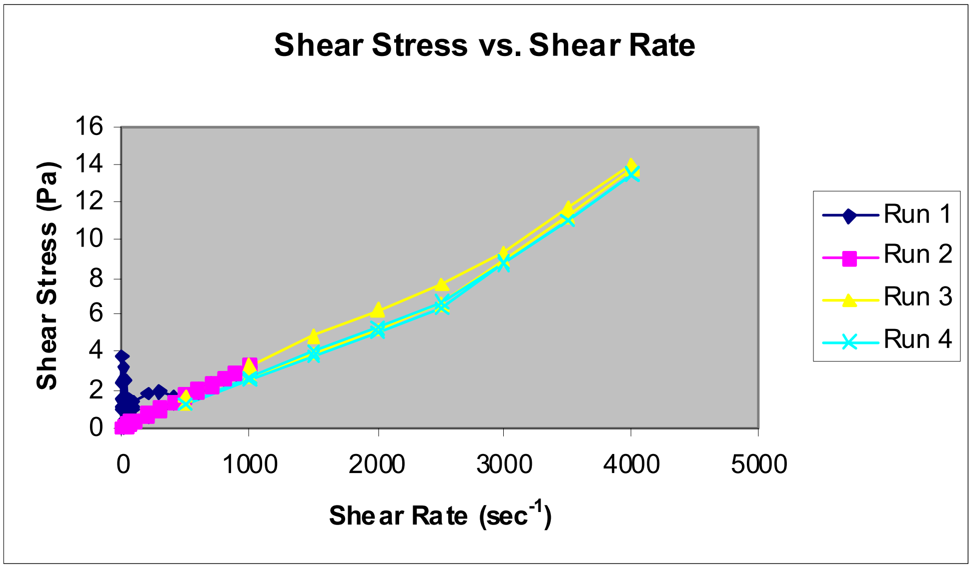
1	2	280	9.92	3.15	80.94785	0	0	28	49.99	0.211	0.004	14	1	0.15765	0
1	2	300	11.91	3.94	105.86539	0	0	28	60.01	0.264	0.004	15	1	0.1969	0
1	2	320	13.89	4.41	134.92748	0	0	28	69.99	0.296	0.004	16	1	0.22055	0
1	2	340	15.88	4.85	168.15532	0	0	28	80.02	0.325	0.004	17	1	0.2423	0
1	2	360	17.86	5.4	205.50493	0	0	28	90	0.362	0.004	18	1	0.27005	0
1	3	380	19.85	5.85	247.40278	0	0	28	100.02	0.392	0.004	19	1	0.2924	0
1	3	400	39.69	11.36	330.35182	0	0	28	200	0.761	0.004	20	1	0.5678	0
1	3	420	59.54	16.51	454.65443	0	0	28	300.02	1.106	0.004	21	1	0.8253	0
1	3	440	79.38	21.28	620.69624	0	0	28	400	1.426	0.004	22	1	1.06395	0
1	3	460	99.23	26.12	828.04136	0	0	28	500.02	1.75	0.003	23	1	1.3062	0
1	3	480	119.07	30.75	1077.22777	0	0	28	599.99	2.06	0.003	24	1	1.5376	0
1	3	500	138.92	35.41	1367.86279	0	0	28	700.02	2.372	0.003	25	1	1.7703	0
1	3	520	158.76	39.66	1699.81054	0	0	28	799.99	2.657	0.003	26	1	1.98305	0
1	3	540	178.61	44.22	2073.93182	0	0	28	900.02	2.963	0.003	27	1	2.2109	0
1	3	560	198.45	48.71	2489.2433	0	0	28	999.99	3.263	0.003	28	1	2.43535	0
1	4	570	198.45	48.31	2701.02905	0	0	28	999.99	3.237	0.003	29	1	2.4156	0
1	4	580	198.45	48.16	2909.15721	0	0	28	999.99	3.227	0.003	30	1	2.40815	0
1	4	590	198.45	48.09	3116.66097	0	0	28	999.99	3.222	0.003	31	1	2.40435	0
1	4	600	198.45	47.94	3324.68624	0	0	28	999.99	3.212	0.003	32	1	2.3972	0
1	4	610	198.45	47.82	3532.29447	0	0	28	999.99	3.204	0.003	33	1	2.39075	0
1	4	620	198.45	47.72	3740.00636	0	0	28	999.99	3.197	0.003	34	1	2.38585	0
1	5	640	198.45	47.63	4160.52346	0	0	28	999.99	3.191	0.003	35	1	2.38125	0
1	5	660	178.61	42.63	4534.53164	0	0	28	900.02	2.856	0.003	36	1	2.1317	0
1	5	680	158.76	37.72	4867.37239	0	0	28	799.99	2.527	0.003	37	1	1.88615	0
1	5	700	138.92	33.24	5158.85878	0	0	28	700.02	2.227	0.003	38	1	1.6621	0
1	5	720	119.07	28.54	5408.50308	0	0	28	599.99	1.912	0.003	39	1	1.427	0
1	5	740	99.23	23.98	5616.63674	0	0	28	500.02	1.606	0.003	40	1	1.19875	0
1	5	760	79.38	19.16	5783.16706	0	0	28	400	1.284	0.003	41	1	0.9582	0
1	5	780	59.54	14.58	5908.15533	0	0	28	300.02	0.977	0.003	42	1	0.7291	0
1	5	800	39.69	9.63	5991.65493	0	0	28	200	0.645	0.003	43	1	0.4816	0
1	5	820	19.85	4.92	6033.53079	0	0	28	100.02	0.329	0.003	44	1	0.24585	0
1	6	840	17.86	4.54	6071.19299	0	0	28	90	0.304	0.003	45	1	0.22705	0
1	6	860	15.88	3.98	6104.48602	0	0	28	80.02	0.267	0.003	46	1	0.19915	0
1	6	880	13.89	3.75	6133.61408	0	0	28	69.99	0.251	0.004	47	1	0.18745	0
1	6	900	11.9	3.31	6158.55754	0	0	28	59.96	0.222	0.004	48	1	0.1654	0
1	6	920	9.92	2.67	6179.37766	0	0	28	49.99	0.179	0.004	49	1	0.13365	0
1	6	940	7.93	2.24	6196.0336	0	0	28	39.96	0.15	0.004	50	1	0.11205	0
1	6	960	5.95	1.89	6208.51436	0	0	28	29.98	0.126	0.004	51	1	0.09435	0
1	6	980	3.96	1.54	6216.84979	0	0	28	19.95	0.103	0.005	52	1	0.07695	0
1	6	1000	1.98	0	6221.02575	0	0	28	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6224.79802	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.13125	0	0	28	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6231.05215	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6233.55364	0	0	28	6	0	0	57	1	0	0
1	7	1100	0.99	0	6235.64044	0	0	28	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.3102	0	0	28	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6238.56448	0	0	28	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.4025	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6239.82347	0	0	28	1.01	0	0	62	1	0	0

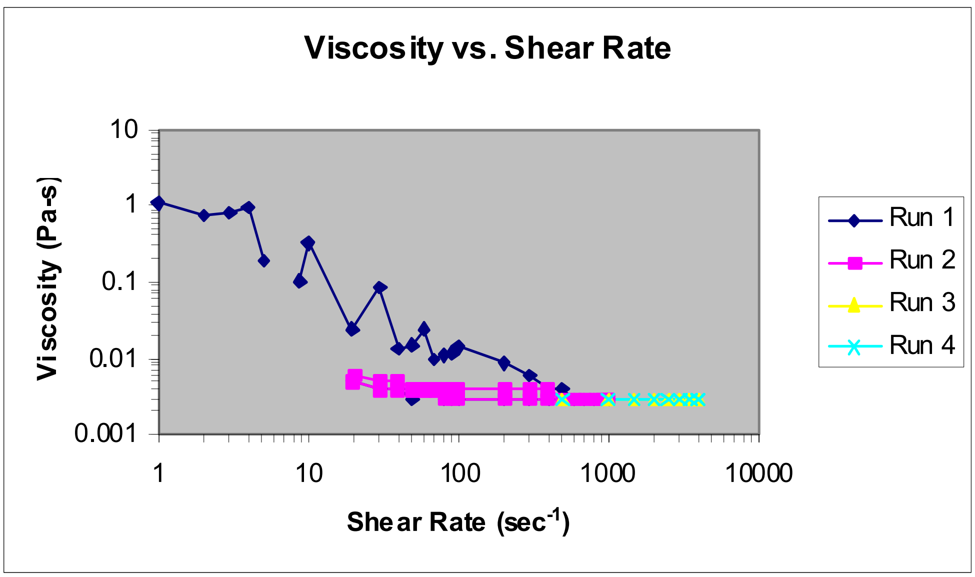
2004.02.04 META-AR-U [sonicated] DG 500-4000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.28	25.14	207.73781	0	0	28	500.27	1.684	0.003	1	1	1.257	0
1	1	40	198.46	49.56	621.66778	0	0	28	1000.04	3.321	0.003	2	1	2.4782	0
1	1	60	297.68	72.25	1243.52091	0	0	28	1500.01	4.841	0.003	3	1	3.6127	0
1	1	80	396.91	93.59	2073.39932	0	0	28	2000.03	6.271	0.003	4	1	4.6795	0
1	1	100	496.13	113.51	3111.40666	0	0	28	2500	7.605	0.003	5	1	5.6755	0
1	1	120	595.36	139.43	4356.34836	0	0	28	3000.02	9.342	0.003	6	1	6.97155	0
1	1	140	694.58	173.24	5808.27624	0	0	28	3499.99	11.607	0.003	7	1	8.6619	0
1	1	160	793.81	208.6	7469.52923	0	0	28	4000.01	13.976	0.003	8	1	10.4299	0
1	2	180	793.81	206.92	9148.96419	0	0	28	4000.01	13.864	0.003	9	1	10.34615	0
1	2	200	793.81	205.64	10811.93406	0	0	28	4000.01	13.778	0.003	10	1	10.2821	0
1	2	220	793.81	204.72	12474.48296	0	0	28	4000.01	13.716	0.003	11	1	10.23585	0
1	3	240	793.81	204.17	14154.4944	0	0	28	4000.01	13.679	0.003	12	1	10.20855	0
1	3	260	694.58	167.04	15610.52756	0	0	28	3499.99	11.192	0.003	13	1	8.352	0
1	3	280	595.36	132.51	16859.10643	0	0	28	3000.02	8.878	0.003	14	1	6.6254	0
1	3	300	496.13	98.09	17900.39046	0	0	28	2500	6.572	0.003	15	1	4.9044	0
1	3	320	396.91	78.12	18733.73168	0	0	28	2000.03	5.234	0.003	16	1	3.9061	0
1	3	340	297.68	58.73	19358.76411	0	0	28	1500.01	3.935	0.003	17	1	2.9363	0
1	3	360	198.46	38.83	19776.11213	0	0	28	1000.04	2.601	0.003	18	1	1.9413	0
1	3	380	99.23	19.63	19985.62494	0	0	28	500.02	1.315	0.003	19	1	0.98125	0

2004.02.04 META-AR-U [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.27	19.24	207.52183	0	0	28	500.22	1.289	0.003	1	1	0.96215	0
1	1	40	198.46	39.35	621.86884	0	0	28	1000.04	2.637	0.003	2	1	1.96765	0
1	1	60	297.68	59.62	1243.72119	0	0	28	1500.01	3.995	0.003	3	1	2.9812	0
1	1	80	396.91	79.54	2073.1849	0	0	28	2000.03	5.329	0.003	4	1	3.977	0
1	1	100	496.13	99.62	3110.3613	0	0	28	2500	6.675	0.003	5	1	4.981	0
1	1	120	595.36	131.65	4356.86122	0	0	28	3000.02	8.821	0.003	6	1	6.5826	0
1	1	140	694.58	164.86	5810.29707	0	0	28	3499.99	11.045	0.003	7	1	8.24285	0
1	1	160	793.81	201.51	7469.05328	0	0	28	4000.01	13.501	0.003	8	1	10.07565	0
1	2	180	793.81	201.18	9149.73467	0	0	28	4000.01	13.479	0.003	9	1	10.0588	0
1	2	200	793.81	200.72	10812.70375	0	0	28	4000.01	13.448	0.003	10	1	10.03605	0
1	2	220	793.81	200.48	12475.25579	0	0	28	4000.01	13.432	0.003	11	1	10.02395	0
1	3	240	793.81	200.3	14154.84861	0	0	28	4000.01	13.42	0.003	12	1	10.01495	0
1	3	260	694.58	163.9	15610.93675	0	0	28	3499.99	10.981	0.003	13	1	8.19505	0
1	3	280	595.36	130.2	16860.45104	0	0	28	3000.02	8.723	0.003	14	1	6.51005	0
1	3	300	496.13	95.62	17901.00386	0	0	28	2500	6.406	0.003	15	1	4.7809	0
1	3	320	396.91	76.04	18734.04741	0	0	28	2000.03	5.095	0.003	16	1	3.8022	0
1	3	340	297.68	57.21	19359.03193	0	0	28	1500.01	3.833	0.003	17	1	2.8607	0
1	3	360	198.46	37.75	19776.33125	0	0	28	1000.04	2.529	0.003	18	1	1.8875	0
1	3	380	99.23	19.07	19985.90454	0	0	28	500.02	1.278	0.003	19	1	0.95365	0





E-2.1.7 187/5wt%/D/N

2004.02.06 187-5 wt%-D DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	3.69	0.41312	0	0	28	1.01	0.247	0.245	1	1	0.1847	0
1	1	40	0.4	8.95	1.24486	0	0	28	2.02	0.6	0.297	2	1	0.4475	0
1	1	60	0.6	8.35	2.49521	0	0	28	3.02	0.56	0.185	3	1	0.4177	0
1	1	80	0.8	7.8	4.16025	0	0	28	4.03	0.522	0.13	4	1	0.3898	0
1	1	100	1	6.15	6.24313	0	0	28	5.04	0.412	0.082	5	1	0.3077	0
1	1	120	1.19	5.99	8.73991	0	0	28	6	0.401	0.067	6	1	0.2995	0
1	1	140	1.39	6.66	11.65295	0	0	28	7	0.446	0.064	7	1	0.333	0
1	1	160	1.59	5.22	14.98226	0	0	28	8.01	0.35	0.044	8	1	0.261	0
1	1	180	1.79	5.42	18.73018	0	0	28	9.02	0.363	0.04	9	1	0.2711	0
1	2	200	1.98	5.23	22.90614	0	0	28	9.98	0.35	0.035	10	1	0.2614	0

1	2	220	3.97	6.47	31.17952	0	0	28	20	0.433	0.022	11	1	0.3234	0
1	2	240	5.95	6.34	43.62808	0	0	28	29.98	0.425	0.014	12	1	0.3172	0
1	2	260	7.94	6.3	60.21098	0	0	28	40.01	0.422	0.011	13	1	0.3149	0
1	2	280	9.92	6.1	80.95413	0	0	28	49.99	0.409	0.008	14	1	0.3052	0
1	2	300	11.91	6.62	105.85439	0	0	28	60.01	0.443	0.007	15	1	0.331	0
1	2	320	13.89	7.04	134.91648	0	0	28	69.99	0.472	0.007	16	1	0.3521	0
1	2	340	15.88	7.35	168.13647	0	0	28	80.02	0.492	0.006	17	1	0.3673	0
1	2	360	17.86	7.7	205.54106	0	0	28	90	0.516	0.006	18	1	0.385	0
1	3	380	19.85	8.08	247.48053	0	0	28	100	0.542	0.005	19	1	0.4042	0
1	3	400	39.69	11.97	330.25364	0	0	28	200	0.802	0.004	20	1	0.5985	0
1	3	420	59.54	14.22	454.75418	0	0	28	300	0.953	0.003	21	1	0.7111	0
1	3	440	79.38	16.19	620.70331	0	0	28	400	1.085	0.003	22	1	0.8094	0
1	3	460	99.23	18.05	828.17252	0	0	28	500	1.209	0.002	23	1	0.9024	0
1	3	480	119.1	20.1	1077.3809	0	0	28	600	1.347	0.002	24	1	1.0049	0
1	3	500	138.9	22.27	1368.0882	0	0	28	700	1.492	0.002	25	1	1.1134	0
1	3	520	158.8	24.36	1700.109	0	0	28	800	1.632	0.002	26	1	1.218	0
1	3	540	178.6	26.45	2073.8486	0	0	28	900	1.772	0.002	27	1	1.3223	0
1	3	560	198.5	28.2	2489.2637	0	0	28	1000	1.889	0.002	28	1	1.4099	0
1	4	570	198.5	27.32	2701.267	0	0	28	1000	1.831	0.002	29	1	1.3662	0
1	4	580	198.5	27.15	2909.4996	0	0	28	1000	1.819	0.002	30	1	1.3575	0
1	4	590	198.5	27.05	3117.2123	0	0	28	1000	1.812	0.002	31	1	1.3525	0
1	4	600	198.5	26.94	3324.7169	0	0	28	1000	1.805	0.002	32	1	1.3472	0
1	4	610	198.5	26.89	3532.5332	0	0	28	1000	1.801	0.002	33	1	1.3444	0
1	4	620	198.5	26.81	3740.2459	0	0	28	1000	1.796	0.002	34	1	1.3406	0
1	5	640	198.5	26.73	4160.3468	0	0	28	1000	1.791	0.002	35	1	1.3367	0
1	5	660	178.6	24.03	4534.8215	0	0	28	900	1.61	0.002	36	1	1.2016	0
1	5	680	158.8	21.65	4867.3912	0	0	28	800	1.451	0.002	37	1	1.0825	0
1	5	700	138.9	19.97	5159.0237	0	0	28	700	1.338	0.002	38	1	0.9986	0
1	5	720	119.1	18	5408.6044	0	0	28	600	1.206	0.002	39	1	0.8998	0
1	5	740	99.23	15.89	5616.7475	0	0	28	500	1.065	0.002	40	1	0.7945	0
1	5	760	79.38	14	5783.3713	0	0	28	400	0.938	0.002	41	1	0.7001	0
1	5	780	59.54	11.86	5908.3281	0	0	28	300	0.794	0.003	42	1	0.5928	0
1	5	800	39.69	8.98	5991.8065	0	0	28	200	0.602	0.003	43	1	0.4489	0
1	5	820	19.85	6.25	6033.6494	0	0	28	100	0.419	0.004	44	1	0.3127	0
1	6	840	17.86	6.93	6071.3477	0	0	28	90	0.464	0.005	45	1	0.3464	0
1	6	860	15.88	7	6104.5921	0	0	28	80.02	0.469	0.006	46	1	0.3499	0
1	6	880	13.89	7.02	6133.7193	0	0	28	69.99	0.47	0.007	47	1	0.3511	0
1	6	900	11.9	6.78	6158.706	0	0	28	59.96	0.454	0.008	48	1	0.339	0
1	6	920	9.92	6.37	6179.5002	0	0	28	49.99	0.426	0.009	49	1	0.3183	0
1	6	940	7.93	6.18	6196.1428	0	0	28	39.96	0.414	0.01	50	1	0.3089	0
1	6	960	5.95	5.77	6208.6377	0	0	28	29.98	0.387	0.013	51	1	0.2887	0
1	6	980	3.96	5.7	6216.9692	0	0	28	19.95	0.382	0.019	52	1	0.2848	0
1	6	1000	1.98	4.69	6221.1436	0	0	28	9.98	0.314	0.031	53	1	0.2346	0
1	7	1020	1.79	5.89	6224.9111	0	0	28	9.02	0.395	0.044	54	1	0.2946	0
1	7	1040	1.59	5.66	6228.2459	0	0	28	8.01	0.379	0.047	55	1	0.2828	0
1	7	1060	1.39	6.34	6231.1676	0	0	28	7	0.425	0.061	56	1	0.3169	0
1	7	1080	1.19	5.7	6233.6683	0	0	28	6	0.382	0.064	57	1	0.285	0
1	7	1100	0.99	5.81	6235.7543	0	0	28	4.99	0.389	0.078	58	1	0.2904	0
1	7	1120	0.8	7.41	6237.4264	0	0	28	4.03	0.497	0.123	59	1	0.3706	0
1	7	1140	0.6	6.33	6238.6799	0	0	28	3.02	0.424	0.14	60	1	0.3166	0
1	7	1160	0.4	5.51	6239.518	0	0	28	2.02	0.369	0.183	61	1	0.2757	0
1	7	1180	0.2	5.69	6239.9389	0	0	28	1.01	0.381	0.377	62	1	0.2845	0

2004.02.06 187-5 wt%-D DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	1.44	0.41469	0	0	28	1.01	0.097	0.096	1	1	0.0721	0
1	1	40	0.4	5.85	1.24643	0	0	28	2.02	0.392	0.194	2	1	0.2927	0
1	1	60	0.6	6.63	2.496	0	0	28	3.02	0.444	0.147	3	1	0.3314	0
1	1	80	0.8	8.28	4.16025	0	0	28	4.03	0.555	0.138	4	1	0.414	0
1	1	100	1	6.59	6.24234	0	0	28	5.04	0.442	0.088	5	1	0.3297	0
1	1	120	1.19	5.78	8.73913	0	0	28	6	0.387	0.065	6	1	0.2891	0
1	1	140	1.39	7.05	11.65138	0	0	28	7	0.472	0.067	7	1	0.3525	0
1	1	160	1.59	5.73	14.98147	0	0	28	8.01	0.384	0.048	8	1	0.2865	0
1	1	180	1.79	6.96	18.73018	0	0	28	9.02	0.467	0.052	9	1	0.3482	0
1	2	200	1.98	6.45	22.90064	0	0	28	9.98	0.432	0.043	10	1	0.3224	0
1	2	220	3.97	8.06	31.17952	0	0	28	20	0.54	0.027	11	1	0.4031	0
1	2	240	5.95	7.77	43.62887	0	0	28	29.98	0.521	0.017	12	1	0.3886	0
1	2	260	7.94	7.92	60.21098	0	0	28	40.01	0.531	0.013	13	1	0.396	0
1	2	280	9.92	8.02	80.94863	0	0	28	49.99	0.537	0.011	14	1	0.4008	0
1	2	300	11.91	8.34	105.85439	0	0	28	60.01	0.558	0.009	15	1	0.4168	0
1	2	320	13.89	8.93	134.92434	0	0	28	69.99	0.598	0.009	16	1	0.4463	0
1	2	340	15.88	8.99	168.16003	0	0	28	80.02	0.603	0.008	17	1	0.4497	0
1	2	360	17.86	9.22	205.54655	0	0	28	90	0.617	0.007	18	1	0.4608	0
1	3	380	19.85	9.42	247.49624	0	0	28	100	0.631	0.006	19	1	0.4709	0
1	3	400	39.69	13.82	330.26857	0	0	28	200	0.926	0.005	20	1	0.691	0
1	3	420	59.54	16.18	454.72904	0	0	28	300	1.084	0.004	21	1	0.8091	0
1	3	440	79.38	18.37	620.59414	0	0	28	400	1.231	0.003	22	1	0.9186	0
1	3	460	99.23	20.42	828.3131	0	0	28	500	1.368	0.003	23	1	1.0211	0
1	3	480	119.1	22.06	1077.1375	0	0	28	600	1.478	0.002	24	1	1.1029	0
1	3	500	138.9	24	1367.9798	0	0	28	700	1.608	0.002	25	1	1.1999	0
1	3	520	158.8	25.18	1699.8239	0	0	28	800	1.687	0.002	26	1	1.2592	0
1	3	540	178.6	26.79	2073.6569	0	0	28	900	1.795	0.002	27	1	1.3393	0
1	3	560	198.5	28.3	2489.1648	0	0	28	1000	1.896	0.002	28	1	1.4151	0
1	4	570	198.5	27.48	2700.9513	0	0	28	1000	1.841	0.002	29	1	1.3738	0
1	4	580	198.5	27.27	2909.2868	0	0	28	1000	1.827	0.002	30	1	1.3634	0
1	4	590	198.5	27.12	3116.7914	0	0	28	1000	1.817	0.002	31	1	1.3559	0
1	4	600	198.5	27.01	3324.4004	0	0	28	1000	1.809	0.002	32	1	1.3503	0
1	4	610	198.5	26.91	3532.2167	0	0	28	1000	1.803	0.002	33	1	1.3456	0
1	4	620	198.5	26.84	3740.5522	0	0	28	1000	1.798	0.002	34	1	1.342	0
1	5	640	198.5	26.77	4160.3413	0	0	28	1000	1.793	0.002	35	1	1.3383	0
1	5	660	178.6	24.05	4535.2016	0	0	28	900	1.611	0.002	36	1	1.2023	0
1	5	680	158.8	21.52	4867.7714	0	0	28	800	1.442	0.002	37	1	1.0759	0
1	5	700	138.9	19.78	5158.8839	0	0	28	700	1.325	0.002	38	1	0.9888	0
1	5	720	119.1	17.69	5408.7034	0	0	28	600	1.185	0.002	39	1	0.8845	0
1	5	740	99.23	15.5	5616.9399	0	0	28	500	1.039	0.002	40	1	0.775	0
1	5	760	79.38	13.52	5783.5425	0	0	28	400	0.906	0.002	41	1	0.6761	0
1	5	780	59.54	11.3	5908.4891	0	0	28	300	0.757	0.003	42	1	0.5652	0
1	5	800	39.69	8.51	5991.9471	0	0	28	200	0.57	0.003	43	1	0.4253	0
1	5	820	19.85	5.46	6033.7806	0	0	28	100	0.366	0.004	44	1	0.2731	0
1	6	840	17.86	6.38	6071.4938	0	0	28	90	0.427	0.005	45	1	0.3188	0
1	6	860	15.88	6.28	6104.7279	0	0	28	80.02	0.421	0.005	46	1	0.3139	0
1	6	880	13.89	6.23	6133.856	0	0	28	69.99	0.417	0.006	47	1	0.3114	0
1	6	900	11.9	6.03	6158.8301	0	0	28	59.96	0.404	0.007	48	1	0.3017	0

1	6	920	9.92	5.47	6179.6353	0	0	28	49.99	0.366	0.007	49	1	0.2735	0
1	6	940	7.93	5.17	6196.2912	0	0	28	39.96	0.346	0.009	50	1	0.2586	0
1	6	960	5.95	4.89	6208.7728	0	0	28	29.98	0.328	0.011	51	1	0.2448	0
1	6	980	3.96	4.67	6217.1074	0	0	28	19.95	0.313	0.016	52	1	0.2335	0
1	6	1000	1.98	3.55	6221.2826	0	0	28	9.98	0.238	0.024	53	1	0.1777	0
1	7	1020	1.79	4.85	6225.0517	0	0	28	9.02	0.325	0.036	54	1	0.2425	0
1	7	1040	1.59	4.36	6228.3889	0	0	28	8.01	0.292	0.036	55	1	0.218	0
1	7	1060	1.39	5.06	6231.3058	0	0	28	7	0.339	0.048	56	1	0.2532	0
1	7	1080	1.19	4.46	6233.8089	0	0	28	6	0.299	0.05	57	1	0.2229	0
1	7	1100	0.99	4.66	6235.8965	0	0	28	4.99	0.312	0.063	58	1	0.2329	0
1	7	1120	0.8	5.03	6237.567	0	0	28	4.03	0.337	0.084	59	1	0.2515	0
1	7	1140	0.6	4.66	6238.8213	0	0	28	3.02	0.312	0.103	60	1	0.233	0
1	7	1160	0.4	4.25	6239.6585	0	0	28	2.02	0.285	0.141	61	1	0.2124	0
1	7	1180	0.2	4.48	6240.0803	0	0	28	1.01	0.3	0.297	62	1	0.2241	0

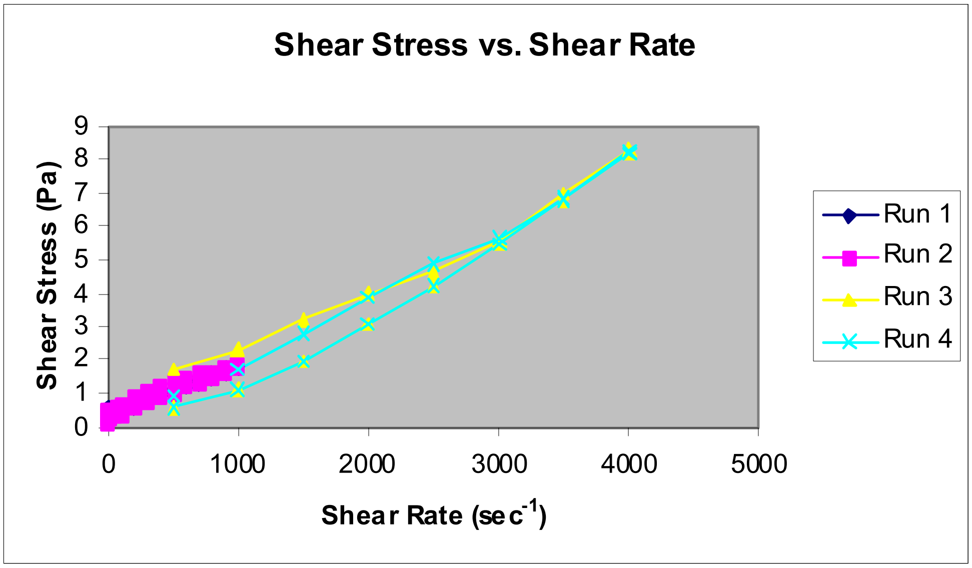
2004.02.06 187-5 wt%-D DG 500-4000
s-1 run 1.txt

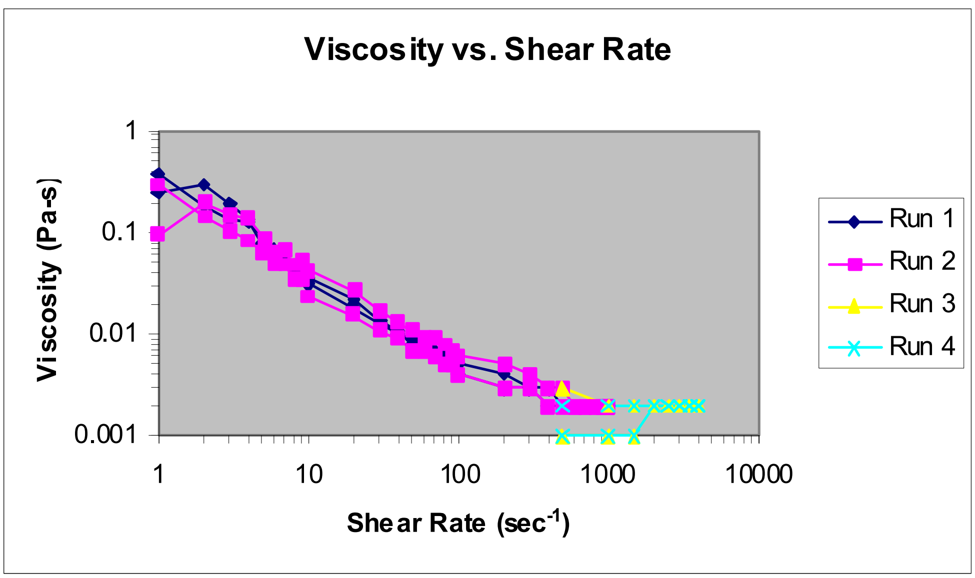
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.24	25.85	207.67106	0	0	28	500.1	1.732	0.003	1	1	1.2923	0
1	1	40	198.5	34.5	621.44787	0	0	28	1000	2.312	0.002	2	1	1.7252	0
1	1	60	297.7	47.7	1243.8225	0	0	28	1500	3.196	0.002	3	1	2.3849	0
1	1	80	396.9	59.37	2072.6634	0	0	28	2000	3.978	0.002	4	1	2.9687	0
1	1	100	496.1	69.83	3110.6739	0	0	28	2500	4.678	0.002	5	1	3.4913	0
1	1	120	595.4	82.82	4355.9297	0	0	28	3000	5.549	0.002	6	1	4.1408	0
1	1	140	694.6	103.9	5809.3656	0	0	28	3500	6.964	0.002	7	1	5.1971	0
1	1	160	793.8	123.2	7470.983	0	0	28	4000	8.257	0.002	8	1	6.1621	0
1	2	180	793.8	122.2	9150.3811	0	0	28	4000	8.184	0.002	9	1	6.1075	0
1	2	200	793.8	121.9	10813.762	0	0	28	4000	8.169	0.002	10	1	6.0961	0
1	2	220	793.8	121.9	12475.484	0	0	28	4000	8.165	0.002	11	1	6.093	0
1	3	240	793.8	121.8	14154.659	0	0	28	4000	8.159	0.002	12	1	6.0886	0
1	3	260	694.6	101.2	15612.568	0	0	28	3500	6.778	0.002	13	1	5.0585	0
1	3	280	595.4	81.77	16860.595	0	0	28	3000	5.479	0.002	14	1	4.0886	0
1	3	300	496.1	63.27	17901.616	0	0	28	2500	4.239	0.002	15	1	3.1637	0
1	3	320	396.9	46.04	18734.061	0	0	28	2000	3.085	0.002	16	1	2.3022	0
1	3	340	297.7	29.66	19359.909	0	0	28	1500	1.987	0.001	17	1	1.4831	0
1	3	360	198.5	16.68	19776.989	0	0	28	1000	1.118	0.001	18	1	0.8342	0
1	3	380	99.23	8.86	19986.493	0	0	28	500	0.593	0.001	19	1	0.4428	0

2004.02.06 187-5 wt%-D DG 500-4000
s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.32	14.37	207.67969	0	0	28	500.5	0.963	0.002	1	1	0.7184	0
1	1	40	198.5	25.72	621.50913	0	0	28	1000	1.724	0.002	2	1	1.2862	0
1	1	60	297.7	41.4	1243.8304	0	0	28	1500	2.774	0.002	3	1	2.0702	0
1	1	80	396.9	57.38	2073.3467	0	0	28	2000	3.845	0.002	4	1	2.8691	0
1	1	100	496.1	72.68	3111.0454	0	0	28	2500	4.87	0.002	5	1	3.6342	0
1	1	120	595.4	84.55	4356.5604	0	0	28	3000	5.665	0.002	6	1	4.2276	0
1	1	140	694.6	102.5	5808.1255	0	0	28	3500	6.865	0.002	7	1	5.1231	0
1	1	160	793.8	122.7	7468.9645	0	0	28	4000	8.222	0.002	8	1	6.1356	0
1	2	180	793.8	121.6	9150.5248	0	0	28	4000	8.145	0.002	9	1	6.0784	0
1	2	200	793.8	121.8	10811.413	0	0	28	4000	8.158	0.002	10	1	6.088	0
1	2	220	793.8	121.7	12474.796	0	0	28	4000	8.154	0.002	11	1	6.085	0
1	3	240	793.8	121.5	14155.636	0	0	28	4000	8.143	0.002	12	1	6.0769	0

1	3	260	694.6	101	15612.41	0	0	28	3500	6.768	0.002	13	1	5.0506	0
1	3	280	595.4	81.77	16861.069	0	0	28	3000	5.478	0.002	14	1	4.0884	0
1	3	300	496.1	63.25	17901.159	0	0	28	2500	4.238	0.002	15	1	3.1627	0
1	3	320	396.9	46.07	18734.644	0	0	28	2000	3.086	0.002	16	1	2.3033	0
1	3	340	297.7	29.77	19359.413	0	0	28	1500	1.995	0.001	17	1	1.4886	0
1	3	360	198.5	16.8	19776.91	0	0	28	1000	1.126	0.001	18	1	0.8402	0
1	3	380	99.23	9.02	19986.509	0	0	28	500	0.605	0.001	19	1	0.4512	0





E-2.1.8 187/5wt%/D/S

2004.01.30 187-5 wt%-D [sonicated] DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41626	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.248	0	0	28	2.02	0	0	2	1	0	0

1	1	60	0.6	0	2.49757	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16182	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.24392	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.74227	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	1.06	11.65531	0	0	28	7	0.071	0.01	7	1	0.0529	0
1	1	160	1.59	1.15	14.98383	0	0	28	8.01	0.077	0.01	8	1	0.05745	0
1	1	180	1.79	1.13	18.73018	0	0	28	9.02	0.076	0.008	9	1	0.05635	0
1	2	200	1.98	1.16	22.90535	0	0	28	9.98	0.078	0.008	10	1	0.0582	0
1	2	220	3.97	2.09	31.17874	0	0	28	20	0.14	0.007	11	1	0.10425	0
1	2	240	5.95	2.43	43.62494	0	0	28	29.98	0.163	0.005	12	1	0.12155	0
1	2	260	7.94	2.73	60.21962	0	0	28	40.01	0.183	0.005	13	1	0.13625	0
1	2	280	9.92	2.97	80.95806	0	0	28	49.99	0.199	0.004	14	1	0.14855	0
1	2	300	11.91	3.59	105.84968	0	0	28	60.01	0.241	0.004	15	1	0.1796	0
1	2	320	13.89	3.95	134.92748	0	0	28	69.99	0.264	0.004	16	1	0.19725	0
1	2	340	15.88	4.16	168.15532	0	0	28	80.02	0.279	0.003	17	1	0.20805	0
1	2	360	17.86	4.71	205.52378	0	0	28	90	0.315	0.004	18	1	0.23525	0
1	3	380	19.85	5.16	247.43184	0	0	28	100.02	0.346	0.003	19	1	0.2579	0
1	3	400	39.69	8.88	330.29841	0	0	28	200	0.595	0.003	20	1	0.44395	0
1	3	420	59.54	10.71	454.7369	0	0	28	300.02	0.718	0.002	21	1	0.5357	0
1	3	440	79.38	12.06	620.57215	0	0	28	400	0.808	0.002	22	1	0.60315	0
1	3	460	99.23	13.89	828.1356	0	0	28	500.02	0.931	0.002	23	1	0.6947	0
1	3	480	119.07	16.13	1077.4469	0	0	28	599.99	1.08	0.002	24	1	0.80625	0
1	3	500	138.92	18.06	1367.92641	0	0	28	700.02	1.21	0.002	25	1	0.903	0
1	3	520	158.76	19.88	1700.03124	0	0	28	799.99	1.332	0.002	26	1	0.99405	0
1	3	540	178.61	22.16	2073.60195	0	0	28	900.02	1.485	0.002	27	1	1.1079	0
1	3	560	198.45	24.23	2489.12156	0	0	28	999.99	1.623	0.002	28	1	1.2114	0
1	4	570	198.45	23.89	2700.9081	0	0	28	999.99	1.6	0.002	29	1	1.1943	0
1	4	580	198.45	23.81	2909.03547	0	0	28	999.99	1.595	0.002	30	1	1.1903	0
1	4	590	198.45	23.68	3117.16363	0	0	28	999.99	1.586	0.002	31	1	1.1838	0
1	4	600	198.45	23.56	3324.46083	0	0	28	999.99	1.579	0.002	32	1	1.1782	0
1	4	610	198.45	23.53	3532.69266	0	0	28	999.99	1.577	0.002	33	1	1.17665	0
1	4	620	198.45	23.49	3740.30089	0	0	28	999.99	1.574	0.002	34	1	1.1745	0
1	5	640	198.45	23.42	4160.5054	0	0	28	999.99	1.569	0.002	35	1	1.17075	0
1	5	660	178.61	20.95	4535.1686	0	0	28	900.02	1.404	0.002	36	1	1.0475	0
1	5	680	158.76	18.42	4867.65513	0	0	28	799.99	1.234	0.002	37	1	0.9212	0
1	5	700	138.92	16.36	5158.92318	0	0	28	700.02	1.096	0.002	38	1	0.8182	0
1	5	720	119.07	14.2	5408.75362	0	0	28	599.99	0.951	0.002	39	1	0.70995	0
1	5	740	99.23	11.76	5616.79303	0	0	28	500.02	0.788	0.002	40	1	0.5879	0
1	5	760	79.38	9.61	5783.45845	0	0	28	400	0.644	0.002	41	1	0.4804	0
1	5	780	59.54	7.54	5908.48834	0	0	28	300.02	0.505	0.002	42	1	0.37685	0
1	5	800	39.69	5.17	5991.85207	0	0	28	200	0.346	0.002	43	1	0.25835	0
1	5	820	19.85	3.05	6033.74756	0	0	28	100.02	0.204	0.002	44	1	0.1524	0
1	6	840	17.86	3.01	6071.41997	0	0	28	90	0.202	0.002	45	1	0.1506	0
1	6	860	15.88	2.72	6104.69651	0	0	28	80.02	0.182	0.002	46	1	0.1361	0
1	6	880	13.89	2.73	6133.81828	0	0	28	69.99	0.183	0.003	47	1	0.1366	0
1	6	900	11.9	2.59	6158.79238	0	0	28	59.96	0.173	0.003	48	1	0.12945	0
1	6	920	9.92	2.19	6179.57558	0	0	28	49.99	0.147	0.003	49	1	0.10955	0
1	6	940	7.93	2.3	6196.23545	0	0	28	39.96	0.154	0.004	50	1	0.1152	0
1	6	960	5.95	2.17	6208.72485	0	0	28	29.98	0.146	0.005	51	1	0.1087	0
1	6	980	3.96	1.91	6217.05949	0	0	28	19.95	0.128	0.006	52	1	0.09545	0

1	6	1000	1.98	1.4	6221.2331	0	0	28	9.98	0.094	0.009	53	1	0.0701	0
1	7	1020	1.79	1.33	6225.00615	0	0	28	9.02	0.089	0.01	54	1	0.0667	0
1	7	1040	1.59	1.4	6228.34174	0	0	28	8.01	0.094	0.012	55	1	0.06995	0
1	7	1060	1.39	1.39	6231.25949	0	0	28	7	0.093	0.013	56	1	0.0696	0
1	7	1080	1.19	1.53	6233.76334	0	0	28	6	0.102	0.017	57	1	0.0764	0
1	7	1100	0.99	1.45	6235.84936	0	0	28	4.99	0.097	0.019	58	1	0.0724	0
1	7	1120	0.8	1.69	6237.5199	0	0	28	4.03	0.113	0.028	59	1	0.0846	0
1	7	1140	0.6	1.75	6238.77418	0	0	28	3.02	0.117	0.039	60	1	0.08765	0
1	7	1160	0.4	1.82	6239.61142	0	0	28	2.02	0.122	0.06	61	1	0.09075	0
1	7	1180	0.2	1.37	6240.03396	0	0	28	1.01	0.092	0.091	62	1	0.0684	0

2004.01.30 187-5 wt%-D [sonicated] DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	6.04	0.41469	0	0	28	1.01	0.404	0.4	1	1	0.3018	0
1	1	40	0.4	4.4	1.248	0	0	28	2.02	0.295	0.146	2	1	0.22	0
1	1	60	0.6	3.79	2.49678	0	0	28	3.02	0.254	0.084	3	1	0.18925	0
1	1	80	0.8	3.07	4.16104	0	0	28	4.03	0.205	0.051	4	1	0.1533	0
1	1	100	1	2.85	6.24392	0	0	28	5.04	0.191	0.038	5	1	0.14225	0
1	1	120	1.19	3.04	8.73913	0	0	28	6	0.204	0.034	6	1	0.152	0
1	1	140	1.39	2.78	11.65374	0	0	28	7	0.186	0.027	7	1	0.1389	0
1	1	160	1.59	3.05	14.98461	0	0	28	8.01	0.205	0.026	8	1	0.15265	0
1	1	180	1.79	2.99	18.73175	0	0	28	9.02	0.2	0.022	9	1	0.1496	0
1	2	200	1.98	2.78	22.90378	0	0	28	9.98	0.186	0.019	10	1	0.13885	0
1	2	220	3.97	4.4	31.18423	0	0	28	20	0.295	0.015	11	1	0.22005	0
1	2	240	5.95	4.74	43.61787	0	0	28	29.98	0.317	0.011	12	1	0.2368	0
1	2	260	7.94	4.94	60.22197	0	0	28	40.01	0.331	0.008	13	1	0.24695	0
1	2	280	9.92	5.08	80.95413	0	0	28	49.99	0.34	0.007	14	1	0.254	0
1	2	300	11.91	5.63	105.85911	0	0	28	60.01	0.377	0.006	15	1	0.2814	0
1	2	320	13.89	6.02	134.94319	0	0	28	69.99	0.403	0.006	16	1	0.3009	0
1	2	340	15.88	6.18	168.14668	0	0	28	80.02	0.414	0.005	17	1	0.30885	0
1	2	360	17.86	6.54	205.52378	0	0	28	90	0.438	0.005	18	1	0.32695	0
1	3	380	19.85	6.76	247.44205	0	0	28	100.02	0.453	0.005	19	1	0.33805	0
1	3	400	39.69	11.47	330.31883	0	0	28	200	0.768	0.004	20	1	0.5734	0
1	3	420	59.54	14.71	454.61202	0	0	28	300.02	0.986	0.003	21	1	0.7355	0
1	3	440	79.38	17.33	620.73708	0	0	28	400	1.161	0.003	22	1	0.86655	0
1	3	460	99.23	18.17	828.29033	0	0	28	500.02	1.217	0.002	23	1	0.90855	0
1	3	480	119.07	17.43	1077.17672	0	0	28	599.99	1.168	0.002	24	1	0.87155	0
1	3	500	138.92	18.74	1367.72849	0	0	28	700.02	1.255	0.002	25	1	0.93675	0
1	3	520	158.76	20.36	1699.91578	0	0	28	799.99	1.364	0.002	26	1	1.01775	0
1	3	540	178.61	22.65	2073.94517	0	0	28	900.02	1.518	0.002	27	1	1.1326	0
1	3	560	198.45	24.73	2488.94406	0	0	28	999.99	1.657	0.002	28	1	1.2365	0
1	4	570	198.45	24.43	2700.84448	0	0	28	999.99	1.637	0.002	29	1	1.22155	0
1	4	580	198.45	24.34	2909.07631	0	0	28	999.99	1.631	0.002	30	1	1.21695	0
1	4	590	198.45	24.25	3116.47719	0	0	28	999.99	1.625	0.002	31	1	1.2126	0
1	4	600	198.45	24.16	3324.60535	0	0	28	999.99	1.619	0.002	32	1	1.2081	0
1	4	610	198.45	24.08	3532.21357	0	0	28	999.99	1.613	0.002	33	1	1.20385	0
1	4	620	198.45	23.99	3739.92625	0	0	28	999.99	1.607	0.002	34	1	1.1994	0
1	5	640	198.45	23.92	4160.23444	0	0	28	999.99	1.602	0.002	35	1	1.19585	0
1	5	660	178.61	21.46	4534.62667	0	0	28	900.02	1.438	0.002	36	1	1.0732	0
1	5	680	158.76	18.83	4867.37396	0	0	28	799.99	1.261	0.002	37	1	0.9413	0

1	5	700	138.92	16.67	5158.72526	0	0	28	700.02	1.117	0.002	38	1	0.8336	0
1	5	720	119.07	14.42	5408.36878	0	0	28	599.99	0.966	0.002	39	1	0.7209	0
1	5	740	99.23	12	5616.6061	0	0	28	500.02	0.804	0.002	40	1	0.5998	0
1	5	760	79.38	9.81	5783.04219	0	0	28	400	0.657	0.002	41	1	0.49025	0
1	5	780	59.54	7.65	5908.02024	0	0	28	300.02	0.512	0.002	42	1	0.38235	0
1	5	800	39.69	5.2	5991.45623	0	0	28	200	0.348	0.002	43	1	0.25985	0
1	5	820	19.85	2.99	6033.3313	0	0	28	100.02	0.2	0.002	44	1	0.1495	0
1	6	840	17.86	2.96	6071.01235	0	0	28	90	0.198	0.002	45	1	0.148	0
1	6	860	15.88	2.54	6104.30616	0	0	28	80.02	0.17	0.002	46	1	0.1272	0
1	6	880	13.89	2.52	6133.40988	0	0	28	69.99	0.169	0.002	47	1	0.1262	0
1	6	900	11.9	2.31	6158.37847	0	0	28	59.96	0.155	0.003	48	1	0.11555	0
1	6	920	9.92	1.98	6179.18759	0	0	28	49.99	0.133	0.003	49	1	0.09895	0
1	6	940	7.93	1.97	6195.82233	0	0	28	39.96	0.132	0.003	50	1	0.09865	0
1	6	960	5.95	1.85	6208.32273	0	0	28	29.98	0.124	0.004	51	1	0.09265	0
1	6	980	3.96	1.72	6216.65344	0	0	28	19.95	0.115	0.006	52	1	0.08615	0
1	6	1000	1.98	1.01	6220.82862	0	0	28	9.98	0.068	0.007	53	1	0.05065	0
1	7	1020	1.79	0	6224.59932	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	1.25	6227.9349	0	0	28	8.01	0.084	0.01	55	1	0.06275	0
1	7	1060	1.39	1.26	6230.85344	0	0	28	7	0.084	0.012	56	1	0.0628	0
1	7	1080	1.19	1.35	6233.35808	0	0	28	6	0.09	0.015	57	1	0.0674	0
1	7	1100	0.99	1.07	6235.44409	0	0	28	4.99	0.072	0.014	58	1	0.0536	0
1	7	1120	0.8	1.17	6237.11464	0	0	28	4.03	0.079	0.02	59	1	0.0587	0
1	7	1140	0.6	1.45	6238.36813	0	0	28	3.02	0.097	0.032	60	1	0.07245	0
1	7	1160	0.4	1.5	6239.20694	0	0	28	2.02	0.101	0.05	61	1	0.07515	0
1	7	1180	0.2	1.12	6239.62791	0	0	28	1.01	0.075	0.074	62	1	0.0558	0

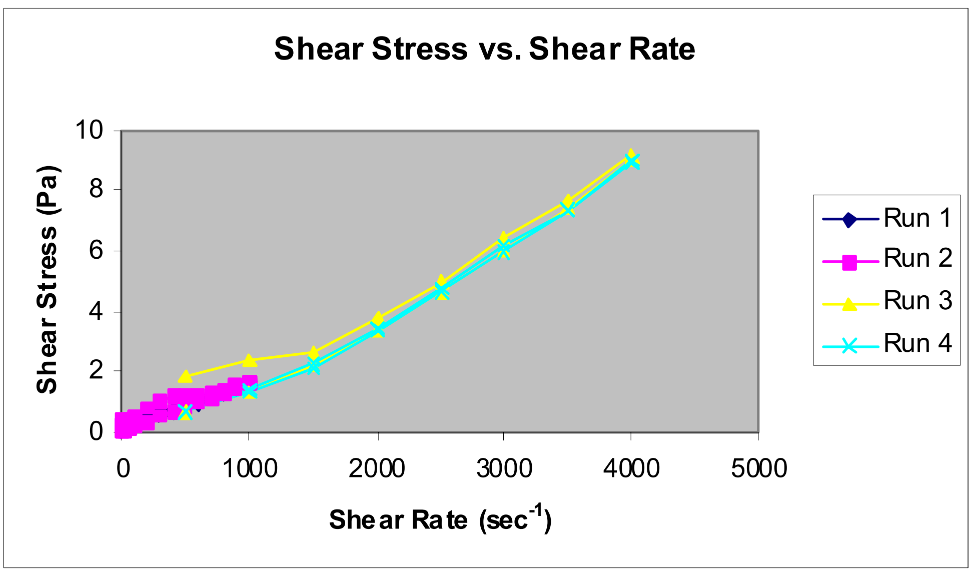
2004.01.30 187-5 wt%-D [sonicated] DG 500-4000 s-1 run 1.txt

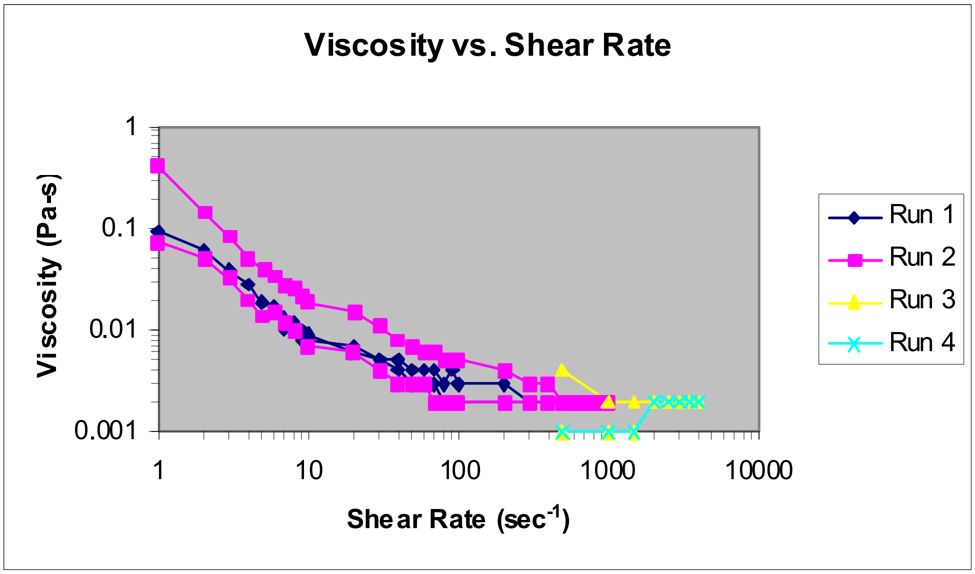
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	27.28	207.40245	0	0	28	500.42	1.828	0.004	1	1	1.3641	0
1	1	40	198.46	35.09	621.80444	0	0	28	1000.04	2.351	0.002	2	1	1.75465	0
1	1	60	297.68	39.26	1243.50285	0	0	28	1500.01	2.63	0.002	3	1	1.96285	0
1	1	80	396.91	56.22	2072.96656	0	0	28	2000.03	3.767	0.002	4	1	2.811	0
1	1	100	496.13	74.21	3110.97548	0	0	28	2500	4.972	0.002	5	1	3.71025	0
1	1	120	595.36	96.07	4355.86691	0	0	28	3000.02	6.437	0.002	6	1	4.8036	0
1	1	140	694.58	115.09	5808.88807	0	0	28	3499.99	7.711	0.002	7	1	5.7545	0
1	1	160	793.81	136.84	7469.7248	0	0	28	4000.01	9.168	0.002	8	1	6.842	0
1	2	180	793.81	135.72	9149.17939	0	0	28	4000.01	9.093	0.002	9	1	6.7858	0
1	2	200	793.81	135.21	10811.733	0	0	28	4000.01	9.059	0.002	10	1	6.7603	0
1	2	220	793.81	134.51	12474.69973	0	0	28	4000.01	9.013	0.002	11	1	6.72575	0
1	3	240	793.81	134.19	14155.12271	0	0	28	4000.01	8.991	0.002	12	1	6.70935	0
1	3	260	694.58	111.18	15611.15745	0	0	28	3499.99	7.449	0.002	13	1	5.55875	0
1	3	280	595.36	89.57	16860.64189	0	0	28	3000.02	6.001	0.002	14	1	4.4783	0
1	3	300	496.13	69.32	17900.19725	0	0	28	2500	4.645	0.002	15	1	3.46615	0
1	3	320	396.91	50.46	18733.21803	0	0	28	2000.03	3.381	0.002	16	1	2.52285	0
1	3	340	297.68	32.26	19358.86071	0	0	28	1500.01	2.161	0.001	17	1	1.6128	0
1	3	360	198.46	20.01	19775.88122	0	0	28	1000.04	1.341	0.001	18	1	1.0005	0
1	3	380	99.23	10.21	19985.73411	0	0	28	500.02	0.684	0.001	19	1	0.51045	0

2004.01.30 187-5 wt%-D [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]

1	1	20	99.23	9.85	207.56895	0	0	28	500.02	0.66	0.001	1	1	0.49225	0
1	1	40	198.46	21.01	621.97016	0	0	28	1000.04	1.408	0.001	2	1	1.05055	0
1	1	60	297.68	33.52	1243.71962	0	0	28	1500.01	2.246	0.001	3	1	1.6758	0
1	1	80	396.91	51.23	2073.23595	0	0	28	2000.03	3.432	0.002	4	1	2.56125	0
1	1	100	496.13	70.79	3110.6731	0	0	28	2500	4.743	0.002	5	1	3.53935	0
1	1	120	595.36	91.76	4355.92817	0	0	28	3000.02	6.148	0.002	6	1	4.5882	0
1	1	140	694.58	110.04	5808.27467	0	0	28	3499.99	7.373	0.002	7	1	5.50195	0
1	1	160	793.81	134.54	7471.13616	0	0	28	4000.01	9.014	0.002	8	1	6.727	0
1	2	180	793.81	133.64	9151.84582	0	0	28	4000.01	8.954	0.002	9	1	6.6822	0
1	2	200	793.81	133.54	10815.22881	0	0	28	4000.01	8.947	0.002	10	1	6.67705	0
1	2	220	793.81	133.04	12476.94754	0	0	28	4000.01	8.914	0.002	11	1	6.65215	0
1	3	240	793.81	132.98	14157.37288	0	0	28	4000.01	8.909	0.002	12	1	6.6488	0
1	3	260	694.58	110.2	15613.04083	0	0	28	3499.99	7.383	0.002	13	1	5.5098	0
1	3	280	595.36	88.77	16862.92897	0	0	28	3000.02	5.947	0.002	14	1	4.43825	0
1	3	300	496.13	68.73	17902.64691	0	0	28	2500	4.605	0.002	15	1	3.4363	0
1	3	320	396.91	49.98	18735.91352	0	0	28	2000.03	3.349	0.002	16	1	2.49895	0
1	3	340	297.68	31.95	19360.98679	0	0	28	1500.01	2.141	0.001	17	1	1.5974	0
1	3	360	198.46	19.67	19778.6898	0	0	28	1000.04	1.318	0.001	18	1	0.9836	0
1	3	380	99.23	10.01	19988.23717	0	0	28	500.02	0.671	0.001	19	1	0.50055	0





E-2.1.9 180/5wt%/U/N

2004.02.06 180-5 wt%-U DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.19	28.66	0.40369	0	0	28	0.96	1.92	2	1	1	1.4328	0
1	1	40	0.4	45.57	1.24014	0	0	28	2.02	3.053	1.511	2	1	2.27835	0
1	1	60	0.6	38.19	2.48657	0	0	28	3.02	2.559	0.847	3	1	1.90945	0
1	1	80	0.8	30.86	4.1579	0	0	28	4.03	2.067	0.513	4	1	1.5429	0
1	1	100	1	25.61	6.23371	0	0	28	5.04	1.716	0.34	5	1	1.2806	0
1	1	120	1.19	36.58	8.71871	0	0	28	6	2.451	0.409	6	1	1.82895	0
1	1	140	1.39	38.06	11.63882	0	0	28	7	2.55	0.364	7	1	1.90295	0
1	1	160	1.59	41.65	14.97283	0	0	28	8.01	2.79	0.348	8	1	2.08245	0
1	1	180	1.8	33.5	18.72232	0	0	28	9.07	2.244	0.247	9	1	1.67495	0
1	2	200	1.99	38.98	22.88807	0	0	28	10.03	2.611	0.26	10	1	1.94875	0
1	2	220	3.97	36.48	31.16303	0	0	28	20	2.444	0.122	11	1	1.82415	0
1	2	240	5.95	37.66	43.60295	0	0	28	29.98	2.523	0.084	12	1	1.88295	0
1	2	260	7.94	30.06	60.19527	0	0	28	40.01	2.014	0.05	13	1	1.50275	0
1	2	280	9.92	20.66	80.96513	0	0	28	49.99	1.384	0.028	14	1	1.0331	0
1	2	300	11.91	16.65	105.86382	0	0	28	60.01	1.116	0.019	15	1	0.8326	0
1	2	320	13.89	15.47	134.91805	0	0	28	69.99	1.037	0.015	16	1	0.77355	0
1	2	340	15.88	13.71	168.15296	0	0	28	80.02	0.918	0.011	17	1	0.68535	0
1	2	360	17.86	11.48	205.51985	0	0	28	90	0.769	0.009	18	1	0.5738	0
1	3	380	19.85	10.53	247.44912	0	0	28	100.02	0.706	0.007	19	1	0.5265	0
1	3	400	39.69	14.66	330.3047	0	0	28	200	0.982	0.005	20	1	0.7329	0
1	3	420	59.54	16.76	454.58767	0	0	28	300.02	1.123	0.004	21	1	0.83805	0
1	3	440	79.38	19.94	620.74415	0	0	28	400	1.336	0.003	22	1	0.9969	0
1	3	460	99.23	23.9	828.09869	0	0	28	500.02	1.601	0.003	23	1	1.1951	0
1	3	480	119.07	28.1	1077.10918	0	0	28	599.99	1.882	0.003	24	1	1.40475	0
1	3	500	138.92	31.65	1367.95233	0	0	28	700.02	2.121	0.003	25	1	1.5826	0
1	3	520	158.76	35.53	1699.79483	0	0	28	799.99	2.38	0.003	26	1	1.77645	0
1	3	540	178.61	39.88	2073.54383	0	0	28	900.02	2.672	0.003	27	1	1.99385	0
1	3	560	198.45	44.16	2489.27078	0	0	28	999.99	2.958	0.003	28	1	2.20775	0

1	4	570	198.45	43.92	2701.26467	0	0	28	999.99	2.942	0.003	29	1	2.19575	0
1	4	580	198.45	43.73	2908.97657	0	0	28	999.99	2.93	0.003	30	1	2.1866	0
1	4	590	198.45	43.69	3116.68846	0	0	28	999.99	2.927	0.003	31	1	2.18435	0
1	4	600	198.45	43.58	3324.92108	0	0	28	999.99	2.92	0.003	32	1	2.1791	0
1	4	610	198.45	43.53	3532.63297	0	0	28	999.99	2.916	0.003	33	1	2.17625	0
1	4	620	198.45	43.47	3740.55379	0	0	28	999.99	2.913	0.003	34	1	2.1736	0
1	5	640	198.45	43.4	4160.34282	0	0	28	999.99	2.908	0.003	35	1	2.1701	0
1	5	660	178.61	38.75	4534.73506	0	0	28	900.02	2.596	0.003	36	1	1.93755	0
1	5	680	158.76	34.18	4867.64885	0	0	28	799.99	2.29	0.003	37	1	1.7088	0
1	5	700	138.92	30.1	5159.12503	0	0	28	700.02	2.017	0.003	38	1	1.5052	0
1	5	720	119.07	25.76	5408.75833	0	0	28	599.99	1.726	0.003	39	1	1.2882	0
1	5	740	99.23	21.81	5616.84015	0	0	28	500.02	1.461	0.003	40	1	1.0906	0
1	5	760	79.38	17.46	5783.49458	0	0	28	400	1.17	0.003	41	1	0.87285	0
1	5	780	59.54	13.29	5908.43179	0	0	28	300.02	0.89	0.003	42	1	0.6645	0
1	5	800	39.69	8.88	5991.9416	0	0	28	200	0.595	0.003	43	1	0.44405	0
1	5	820	19.85	4.84	6033.8261	0	0	28	100.02	0.324	0.003	44	1	0.24205	0
1	6	840	17.86	5.13	6071.50479	0	0	28	90	0.344	0.004	45	1	0.2565	0
1	6	860	15.88	5	6104.79704	0	0	28	80.02	0.335	0.004	46	1	0.2499	0
1	6	880	13.89	5.31	6133.89525	0	0	28	69.99	0.356	0.005	47	1	0.2655	0
1	6	900	11.9	5.13	6158.85835	0	0	28	59.96	0.344	0.006	48	1	0.25645	0
1	6	920	9.92	4.91	6179.67925	0	0	28	49.99	0.329	0.007	49	1	0.24525	0
1	6	940	7.93	4.86	6196.32184	0	0	28	39.96	0.326	0.008	50	1	0.243	0
1	6	960	5.95	5.04	6208.81203	0	0	28	29.98	0.337	0.011	51	1	0.25175	0
1	6	980	3.96	5.53	6217.13882	0	0	28	19.95	0.371	0.019	52	1	0.27665	0
1	6	1000	1.98	3.77	6221.314	0	0	28	9.98	0.253	0.025	53	1	0.18845	0
1	7	1020	1.79	5.14	6225.08626	0	0	28.1	9.02	0.344	0.038	54	1	0.25675	0
1	7	1040	1.59	5.35	6228.42263	0	0	28	8.01	0.358	0.045	55	1	0.26745	0
1	7	1060	1.39	5.03	6231.34275	0	0	28	7	0.337	0.048	56	1	0.25165	0
1	7	1080	1.19	4.84	6233.84581	0	0	28	6	0.324	0.054	57	1	0.24195	0
1	7	1100	0.99	7.16	6235.92869	0	0	28	4.99	0.48	0.096	58	1	0.3582	0
1	7	1120	0.8	5.52	6237.60158	0	0	28	4.03	0.37	0.092	59	1	0.2759	0
1	7	1140	0.6	5.23	6238.85429	0	0	28	3.02	0.351	0.116	60	1	0.26165	0
1	7	1160	0.4	7.04	6239.69074	0	0	28	2.02	0.472	0.234	61	1	0.352	0
1	7	1180	0.2	9.87	6240.11093	0	0	28	1.01	0.661	0.654	62	1	0.49325	0

2004.02.06 180-5 wt%-U DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	11.97	0.4139	0	0	28.1	1.01	0.802	0.794	1	1	0.59865	0
1	1	40	0.4	10.23	1.24486	0	0	28	2.02	0.685	0.339	2	1	0.51135	0
1	1	60	0.6	9.53	2.48814	0	0	28	3.02	0.638	0.211	3	1	0.47635	0
1	1	80	0.8	5.8	4.16104	0	0	28	4.03	0.388	0.096	4	1	0.2898	0
1	1	100	1	6.67	6.24077	0	0	28	5.04	0.447	0.089	5	1	0.3334	0
1	1	120	1.19	8.34	8.7407	0	0	28	6	0.559	0.093	6	1	0.4172	0
1	1	140	1.39	5.64	11.65374	0	0	28	7	0.378	0.054	7	1	0.28195	0
1	1	160	1.59	7.62	14.98304	0	0	28	8.01	0.51	0.064	8	1	0.38075	0
1	1	180	1.79	5.18	18.72703	0	0	28	9.02	0.347	0.038	9	1	0.25915	0
1	2	200	1.98	6.87	22.90143	0	0	28.1	9.98	0.46	0.046	10	1	0.3436	0
1	2	220	3.97	6.07	31.18031	0	0	28	20	0.407	0.02	11	1	0.3035	0
1	2	240	5.95	6.23	43.62337	0	0	28	29.98	0.418	0.014	12	1	0.31165	0
1	2	260	7.94	5.91	60.20548	0	0	28	40.01	0.396	0.01	13	1	0.2953	0

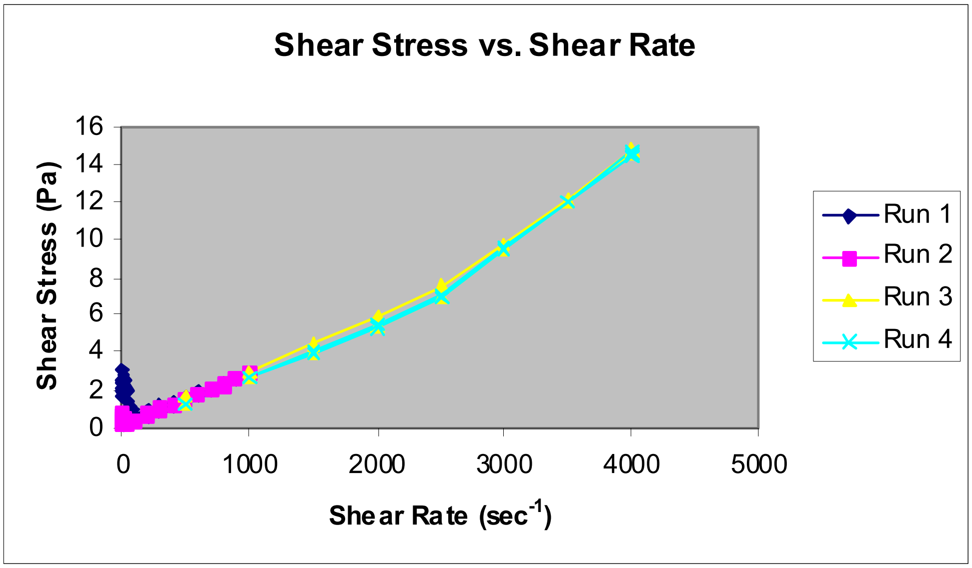
1	2	280	9.92	5.56	80.94471	0	0	28	49.99	0.373	0.007	14	1	0.27805	0
1	2	300	11.91	5.96	105.86932	0	0	28	60.01	0.4	0.007	15	1	0.29815	0
1	2	320	13.89	5.93	134.94633	0	0	28	69.99	0.397	0.006	16	1	0.29645	0
1	2	340	15.88	5.99	168.1404	0	0	28	80.02	0.401	0.005	17	1	0.2995	0
1	2	360	17.86	6.29	205.52692	0	0	28	90	0.421	0.005	18	1	0.31455	0
1	3	380	19.85	6.65	247.45697	0	0	28	100.02	0.446	0.004	19	1	0.3325	0
1	3	400	39.69	11.3	330.23951	0	0	28	200	0.757	0.004	20	1	0.56475	0
1	3	420	59.54	15.03	454.70941	0	0	28	300.02	1.007	0.003	21	1	0.75155	0
1	3	440	79.38	18.69	620.65776	0	0	28.1	400	1.252	0.003	22	1	0.9347	0
1	3	460	99.23	22.74	828.07513	0	0	28.1	500.02	1.524	0.003	23	1	1.13715	0
1	3	480	119.07	26.55	1077.33459	0	0	28.1	599.99	1.779	0.003	24	1	1.32745	0
1	3	500	138.92	30.72	1367.67901	0	0	28.1	700.02	2.058	0.003	25	1	1.53615	0
1	3	520	158.76	34.63	1700.19774	0	0	28.1	799.99	2.32	0.003	26	1	1.73155	0
1	3	540	178.61	39.08	2073.58231	0	0	28	900.02	2.618	0.003	27	1	1.95375	0
1	3	560	198.45	43.4	2489.30848	0	0	28	999.99	2.908	0.003	28	1	2.1702	0
1	4	570	198.45	43.22	2701.1987	0	0	28	999.99	2.895	0.003	29	1	2.1608	0
1	4	580	198.45	43.11	2908.91138	0	0	28.1	999.99	2.888	0.003	30	1	2.15555	0
1	4	590	198.45	43.16	3117.2461	0	0	28.1	999.99	2.892	0.003	31	1	2.158	0
1	4	600	198.45	43.07	3324.75143	0	0	28.1	999.99	2.885	0.003	32	1	2.15325	0
1	4	610	198.45	42.97	3532.46411	0	0	28.1	999.99	2.879	0.003	33	1	2.1485	0
1	4	620	198.45	42.94	3740.28047	0	0	28.1	999.99	2.877	0.003	34	1	2.1469	0
1	5	640	198.45	42.93	4160.17318	0	0	28.1	999.99	2.877	0.003	35	1	2.14665	0
1	5	660	178.61	38.41	4534.76333	0	0	28.1	900.02	2.573	0.003	36	1	1.9205	0
1	5	680	158.76	33.89	4867.59387	0	0	28.1	799.99	2.27	0.003	37	1	1.6944	0
1	5	700	138.92	29.84	5159.07005	0	0	28.1	700.02	1.999	0.003	38	1	1.4919	0
1	5	720	119.07	25.53	5408.57848	0	0	28	599.99	1.71	0.003	39	1	1.2764	0
1	5	740	99.23	21.49	5616.61867	0	0	28	500.02	1.44	0.003	40	1	1.0744	0
1	5	760	79.38	17.19	5783.38776	0	0	28	400	1.152	0.003	41	1	0.8595	0
1	5	780	59.54	13.11	5908.27314	0	0	28	300.02	0.878	0.003	42	1	0.6554	0
1	5	800	39.69	8.76	5991.75075	0	0	28.1	200	0.587	0.003	43	1	0.43805	0
1	5	820	19.85	4.75	6033.63604	0	0	28.1	100.02	0.319	0.003	44	1	0.2377	0
1	6	840	17.86	4.76	6071.29745	0	0	28	90	0.319	0.004	45	1	0.23815	0
1	6	860	15.88	4.57	6104.59205	0	0	28	80.02	0.306	0.004	46	1	0.22865	0
1	6	880	13.89	4.61	6133.71932	0	0	28	69.99	0.309	0.004	47	1	0.2304	0
1	6	900	11.9	4.45	6158.67614	0	0	28	59.96	0.298	0.005	48	1	0.2225	0
1	6	920	9.92	3.98	6179.49154	0	0	28	49.99	0.267	0.005	49	1	0.19895	0
1	6	940	7.93	3.77	6196.13963	0	0	28	39.96	0.253	0.006	50	1	0.1886	0
1	6	960	5.95	3.73	6208.6306	0	0	28	29.98	0.25	0.008	51	1	0.18635	0
1	6	980	3.96	3.62	6216.95425	0	0	28	19.95	0.242	0.012	52	1	0.1808	0
1	6	1000	1.98	2.76	6221.13178	0	0	28.1	9.98	0.185	0.019	53	1	0.13785	0
1	7	1020	1.79	3.14	6224.90327	0	0	28	9.02	0.21	0.023	54	1	0.15695	0
1	7	1040	1.59	3.64	6228.23728	0	0	28	8.01	0.244	0.03	55	1	0.182	0
1	7	1060	1.39	2.91	6231.15739	0	0	28	7	0.195	0.028	56	1	0.1455	0
1	7	1080	1.19	3.76	6233.66046	0	0	28	6	0.252	0.042	57	1	0.18805	0
1	7	1100	0.99	4.93	6235.74726	0	0	28	4.99	0.331	0.066	58	1	0.2467	0
1	7	1120	0.8	2.8	6237.41623	0	0	28	4.03	0.188	0.047	59	1	0.13995	0
1	7	1140	0.6	3.89	6238.67051	0	0	28	3.02	0.26	0.086	60	1	0.19425	0
1	7	1160	0.4	5.56	6239.50774	0	0	28	2.02	0.373	0.185	61	1	0.2782	0
1	7	1180	0.2	7.77	6239.92793	0	0	28	1.01	0.52	0.515	62	1	0.38825	0

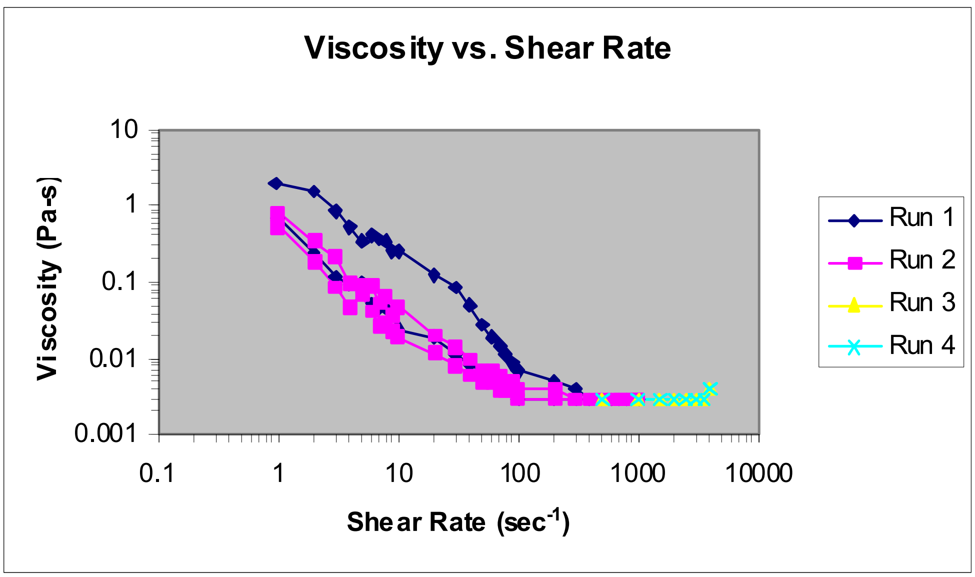
2004.02.06 180-5 wt%-U DG 500-4000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	25.14	207.65456	0	0	28	500.37	1.684	0.003	1	1	1.25685	0
1	1	40	198.46	44.64	621.53348	0	0	28	1000.04	2.991	0.003	2	1	2.2322	0
1	1	60	297.68	66.16	1243.59395	0	0	28	1500.01	4.432	0.003	3	1	3.3078	0
1	1	80	396.91	87.79	2073.88783	0	0	28	2000.03	5.882	0.003	4	1	4.38965	0
1	1	100	496.13	111.56	3110.54429	0	0	28	2500	7.475	0.003	5	1	5.578	0
1	1	120	595.36	145.01	4356.10803	0	0	28	3000.02	9.716	0.003	6	1	7.2504	0
1	1	140	694.58	180.1	5808.39877	0	0	28	3499.99	12.067	0.003	7	1	9.00495	0
1	1	160	793.81	219.69	7470.06566	0	0	28	4000.01	14.719	0.004	8	1	10.9845	0
1	2	180	793.81	219.57	9149.91609	0	0	28	4000.01	14.711	0.004	9	1	10.97865	0
1	2	200	793.81	216.99	10812.47127	0	0	28	4000.01	14.539	0.004	10	1	10.8497	0
1	2	220	793.81	216.56	12474.60548	0	0	28	4000.01	14.51	0.004	11	1	10.82805	0
1	3	240	793.81	216.9	14153.7844	0	0	28	4000.01	14.533	0.004	12	1	10.8452	0
1	3	260	694.58	179.28	15610.18198	0	0	28	3499.99	12.012	0.003	13	1	8.96405	0
1	3	280	595.36	141.11	16858.76164	0	0	28	3000.02	9.454	0.003	14	1	7.05555	0
1	3	300	496.13	102.6	17900.87741	0	0	28	2500	6.874	0.003	15	1	5.13005	0
1	3	320	396.91	80.16	18732.86853	0	0	28	2000.03	5.371	0.003	16	1	4.0081	0
1	3	340	297.68	59.57	19358.06118	0	0	28	1500.01	3.991	0.003	17	1	2.97855	0
1	3	360	198.46	39.17	19775.41548	0	0	28	1000.04	2.624	0.003	18	1	1.9583	0
1	3	380	99.23	19.68	19985.13878	0	0	28	500.02	1.318	0.003	19	1	0.98375	0

2004.02.06 180-5 wt%-U DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	19.44	207.61058	0	0	28	500.37	1.302	0.003	1	1	0.97185	0
1	1	40	198.46	39.95	622.06126	0	0	28	1000.04	2.677	0.003	2	1	1.9974	0
1	1	60	297.68	60.71	1244.12174	0	0	28	1500.01	4.067	0.003	3	1	3.03535	0
1	1	80	396.91	81.61	2072.80634	0	0	28	2000.03	5.468	0.003	4	1	4.08035	0
1	1	100	496.13	105.03	3110.55293	0	0	28	2500	7.037	0.003	5	1	5.25165	0
1	1	120	595.36	142.28	4356.37585	0	0	28	3000.02	9.532	0.003	6	1	7.11375	0
1	1	140	694.58	179.35	5808.66659	0	0	28	3499.99	12.016	0.003	7	1	8.96725	0
1	1	160	793.81	217.67	7470.74817	0	0	28	4000.01	14.584	0.004	8	1	10.88345	0
1	2	180	793.81	217.43	9151.84817	0	0	28	4000.01	14.568	0.004	9	1	10.8716	0
1	2	200	793.81	215.63	10814.39942	0	0	28	4000.01	14.447	0.004	10	1	10.78145	0
1	2	220	793.81	215.05	12476.95303	0	0	28	4000.01	14.408	0.004	11	1	10.75245	0
1	3	240	793.81	215.3	14156.12881	0	0	28	4000.01	14.425	0.004	12	1	10.7652	0
1	3	260	694.58	178.32	15613.98174	0	0	28	3499.99	11.948	0.003	13	1	8.9162	0
1	3	280	595.36	140.65	16861.05736	0	0	28	3000.02	9.423	0.003	14	1	7.03245	0
1	3	300	496.13	102.69	17902.39087	0	0	28	2500	6.88	0.003	15	1	5.1345	0
1	3	320	396.91	79.6	18735.83891	0	0	28	2000.03	5.333	0.003	16	1	3.97975	0
1	3	340	297.68	59.17	19361.02606	0	0	28	1500.01	3.965	0.003	17	1	2.9587	0
1	3	360	198.46	38.94	19778.01593	0	0	28	1000.04	2.609	0.003	18	1	1.947	0
1	3	380	99.23	19.58	19987.73766	0	0	28	500.02	1.312	0.003	19	1	0.9789	0





E-2.1.10 180/5wt%/U/S

2004.02.05 180-5 wt%-U [sonicated] DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	5.08	0.41548	0	0	28	1.01	0.34	0.337	1	1	0.25385	0
1	1	40	0.4	3.29	1.248	0	0	28	2.02	0.22	0.109	2	1	0.1645	0
1	1	60	0.6	3.23	2.496	0	0	28	3.02	0.216	0.072	3	1	0.1615	0
1	1	80	0.8	3.42	4.16104	0	0	28	4.03	0.229	0.057	4	1	0.1708	0
1	1	100	1	3.34	6.24234	0	0	28	5.04	0.224	0.044	5	1	0.1671	0
1	1	120	1.19	3.44	8.73991	0	0	28	6	0.231	0.039	6	1	0.1722	0
1	1	140	1.39	3.43	11.65374	0	0	28	7	0.229	0.033	7	1	0.17125	0
1	1	160	1.59	3.4	14.9854	0	0	28	8.01	0.228	0.028	8	1	0.17	0
1	1	180	1.79	3.54	18.73096	0	0	28	9.02	0.237	0.026	9	1	0.1772	0
1	2	200	1.98	3.75	22.90692	0	0	28	9.98	0.251	0.025	10	1	0.18735	0

1	2	220	3.97	6.47	31.18345	0	0	28	20	0.433	0.022	11	1	0.32335	0
1	2	240	5.95	7.93	43.6218	0	0	28	29.98	0.532	0.018	12	1	0.39665	0
1	2	260	7.94	8.93	60.19998	0	0	28	40.01	0.598	0.015	13	1	0.4464	0
1	2	280	9.92	10.05	80.95884	0	0	28	49.99	0.673	0.013	14	1	0.5023	0
1	2	300	11.91	11.11	105.88345	0	0	28	60.01	0.744	0.012	15	1	0.5554	0
1	2	320	13.89	12.06	134.94554	0	0	28	69.99	0.808	0.012	16	1	0.60305	0
1	2	340	15.88	13.17	168.12155	0	0	28	80.02	0.883	0.011	17	1	0.6587	0
1	2	360	17.86	14.06	205.51671	0	0	28	90	0.942	0.01	18	1	0.70315	0
1	3	380	19.85	14.88	247.45461	0	0	28	100.02	0.997	0.01	19	1	0.744	0
1	3	400	39.69	26.85	330.23637	0	0	28	200	1.799	0.009	20	1	1.34235	0
1	3	420	59.54	35.58	454.75653	0	0	28	300.02	2.384	0.008	21	1	1.77895	0
1	3	440	79.38	43.17	620.75672	0	0	28	400	2.892	0.007	22	1	2.15845	0
1	3	460	99.23	50.29	828.22514	0	0	28	500.02	3.369	0.007	23	1	2.5145	0
1	3	480	119.07	57.26	1077.24427	0	0	28	599.99	3.836	0.006	24	1	2.86295	0
1	3	500	138.92	64.03	1367.67194	0	0	28	700.02	4.29	0.006	25	1	3.2016	0
1	3	520	158.76	70.29	1700.02338	0	0	28	799.99	4.709	0.006	26	1	3.51435	0
1	3	540	178.61	76.99	2073.77238	0	0	28	900.02	5.158	0.006	27	1	3.8494	0
1	3	560	198.45	83.36	2489.18596	0	0	28	999.99	5.585	0.006	28	1	4.168	0
1	4	570	198.45	81.87	2701.17985	0	0	28	999.99	5.485	0.005	29	1	4.0935	0
1	4	580	198.45	81.25	2908.9962	0	0	28	999.99	5.444	0.005	30	1	4.0627	0
1	4	590	198.45	80.75	3116.91623	0	0	28	999.99	5.41	0.005	31	1	4.03725	0
1	4	600	198.45	80.33	3324.73258	0	0	28	999.99	5.382	0.005	32	1	4.01675	0
1	4	610	198.45	79.98	3532.75628	0	0	28	999.99	5.358	0.005	33	1	3.99885	0
1	4	620	198.45	79.65	3740.05349	0	0	28	999.99	5.336	0.005	34	1	3.9824	0
1	5	640	198.45	79.23	4160.05065	0	0	28	999.99	5.309	0.005	35	1	3.96165	0
1	5	660	178.61	71	4534.53792	0	0	28	900.02	4.757	0.005	36	1	3.5499	0
1	5	680	158.76	62.96	4867.61821	0	0	28	799.99	4.218	0.005	37	1	3.14795	0
1	5	700	138.92	55.57	5158.9491	0	0	28	700.02	3.723	0.005	38	1	2.77825	0
1	5	720	119.07	47.93	5408.6044	0	0	28	599.99	3.211	0.005	39	1	2.39625	0
1	5	740	99.23	40.43	5616.63516	0	0	28	500.02	2.709	0.005	40	1	2.02165	0
1	5	760	79.38	32.83	5783.12387	0	0	28	400	2.199	0.005	41	1	1.64135	0
1	5	780	59.54	25.08	5908.27	0	0	28	300.02	1.68	0.006	42	1	1.2538	0
1	5	800	39.69	17.13	5991.66514	0	0	28	200	1.148	0.006	43	1	0.8564	0
1	5	820	19.85	8.89	6033.53079	0	0	28	100.02	0.595	0.006	44	1	0.44435	0
1	6	840	17.86	8.48	6071.22362	0	0	28	90	0.568	0.006	45	1	0.42375	0
1	6	860	15.88	7.82	6104.50958	0	0	28	80.02	0.524	0.007	46	1	0.39085	0
1	6	880	13.89	7.31	6133.60701	0	0	28	69.99	0.49	0.007	47	1	0.3657	0
1	6	900	11.9	6.45	6158.58817	0	0	28	59.96	0.432	0.007	48	1	0.32255	0
1	6	920	9.92	5.47	6179.37845	0	0	28	49.99	0.366	0.007	49	1	0.27335	0
1	6	940	7.93	4.87	6196.02967	0	0	28	39.96	0.326	0.008	50	1	0.24345	0
1	6	960	5.95	3.9	6208.51907	0	0	28	29.98	0.262	0.009	51	1	0.19515	0
1	6	980	3.96	3.04	6216.84901	0	0	28	19.95	0.204	0.01	52	1	0.1519	0
1	6	1000	1.98	1.4	6221.02575	0	0	28	9.98	0.094	0.009	53	1	0.0701	0
1	7	1020	1.79	1.51	6224.79331	0	0	28	9.02	0.101	0.011	54	1	0.07565	0
1	7	1040	1.59	1.45	6228.13047	0	0	28	8.01	0.097	0.012	55	1	0.07235	0
1	7	1060	1.39	1.45	6231.04979	0	0	28	7	0.097	0.014	56	1	0.0725	0
1	7	1080	1.19	1.32	6233.55128	0	0	28	6	0.088	0.015	57	1	0.0658	0
1	7	1100	0.99	1.2	6235.63887	0	0	28	4.99	0.081	0.016	58	1	0.06015	0
1	7	1120	0.8	1.16	6237.30942	0	0	28	4.03	0.078	0.019	59	1	0.05785	0
1	7	1140	0.6	0	6238.56291	0	0	28	3.02	0	0	60	1	0	0

1	7	1160	0.4	0	6239.40093	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6239.82347	0	0	28	1.01	0	0	62	1	0	0

2004.02.05 180-5 wt%-U [sonicated] DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	1.87	0.41626	0	0	28	1.01	0.125	0.124	1	1	0.09345	0
1	1	40	0.4	1.98	1.24878	0	0	28	2.02	0.133	0.066	2	1	0.099	0
1	1	60	0.6	2.21	2.49678	0	0	28	3.02	0.148	0.049	3	1	0.11055	0
1	1	80	0.8	2.26	4.16182	0	0	28	4.03	0.152	0.038	4	1	0.11315	0
1	1	100	1	2.33	6.24156	0	0	28	5.04	0.156	0.031	5	1	0.1165	0
1	1	120	1.19	2.62	8.7407	0	0	28	6	0.176	0.029	6	1	0.1312	0
1	1	140	1.39	2.76	11.65295	0	0	28	7	0.185	0.026	7	1	0.1378	0
1	1	160	1.59	3	14.98304	0	0	28	8.01	0.201	0.025	8	1	0.1498	0
1	1	180	1.79	3.17	18.72939	0	0	28	9.02	0.212	0.024	9	1	0.15845	0
1	2	200	1.98	3.42	22.90221	0	0	28	9.98	0.229	0.023	10	1	0.1712	0
1	2	220	3.97	5.95	31.17952	0	0	28	20	0.399	0.02	11	1	0.2976	0
1	2	240	5.95	7.36	43.61395	0	0	28	29.98	0.493	0.016	12	1	0.3679	0
1	2	260	7.94	8.26	60.22512	0	0	28	40.01	0.553	0.014	13	1	0.41305	0
1	2	280	9.92	9.31	80.96827	0	0	28	49.99	0.624	0.012	14	1	0.46535	0
1	2	300	11.91	10.43	105.8489	0	0	28	60.01	0.698	0.012	15	1	0.52125	0
1	2	320	13.89	11.36	134.9102	0	0	28	69.99	0.761	0.011	16	1	0.56805	0
1	2	340	15.88	12.43	168.16239	0	0	28	80.02	0.833	0.01	17	1	0.6215	0
1	2	360	17.86	13.28	205.51985	0	0	28	90	0.89	0.01	18	1	0.66415	0
1	3	380	19.85	14.23	247.47896	0	0	28	100.02	0.953	0.01	19	1	0.7114	0
1	3	400	39.69	25.95	330.21987	0	0	28	200	1.739	0.009	20	1	1.29745	0
1	3	420	59.54	34.74	454.72983	0	0	28	300.02	2.328	0.008	21	1	1.73715	0
1	3	440	79.38	42.23	620.51089	0	0	28	400	2.829	0.007	22	1	2.1114	0
1	3	460	99.23	49.55	828.08298	0	0	28	500.02	3.32	0.007	23	1	2.47755	0
1	3	480	119.07	56.62	1077.16573	0	0	28	599.99	3.793	0.006	24	1	2.83095	0
1	3	500	138.92	63.61	1367.7277	0	0	28	700.02	4.262	0.006	25	1	3.1806	0
1	3	520	158.76	70.17	1700.24644	0	0	28	799.99	4.702	0.006	26	1	3.5086	0
1	3	540	178.61	76.97	2074.08732	0	0	28	900.02	5.157	0.006	27	1	3.84855	0
1	3	560	198.45	83.5	2489.08543	0	0	28	999.99	5.595	0.006	28	1	4.1752	0
1	4	570	198.45	82.12	2701.19399	0	0	27.9	999.99	5.502	0.006	29	1	4.10605	0
1	4	580	198.45	81.61	2908.90667	0	0	28	999.99	5.468	0.005	30	1	4.0806	0
1	4	590	198.45	81.15	3116.93037	0	0	28	999.99	5.437	0.005	31	1	4.0575	0
1	4	600	198.45	80.75	3324.74672	0	0	28	999.99	5.411	0.005	32	1	4.0377	0
1	4	610	198.45	80.43	3532.77042	0	0	28	999.99	5.389	0.005	33	1	4.0213	0
1	4	620	198.45	80.1	3740.06841	0	0	28	999.99	5.367	0.005	34	1	4.00495	0
1	5	640	198.45	79.77	4159.96112	0	0	28	999.99	5.345	0.005	35	1	3.9885	0
1	5	660	178.61	71.42	4534.72877	0	0	28	900.02	4.785	0.005	36	1	3.57105	0
1	5	680	158.76	63.34	4867.64335	0	0	28	799.99	4.244	0.005	37	1	3.167	0
1	5	700	138.92	55.89	5158.68285	0	0	28	700.02	3.744	0.005	38	1	2.7943	0
1	5	720	119.07	48.19	5408.26589	0	0	28	599.99	3.229	0.005	39	1	2.4096	0
1	5	740	99.23	40.66	5616.66972	0	0	28	500.02	2.724	0.005	40	1	2.0331	0
1	5	760	79.38	32.94	5783.15921	0	0	27.9	400	2.207	0.006	41	1	1.64705	0
1	5	780	59.54	25.19	5908.13805	0	0	27.9	300.02	1.688	0.006	42	1	1.25955	0
1	5	800	39.69	17.15	5991.59681	0	0	27.9	200	1.149	0.006	43	1	0.8574	0
1	5	820	19.85	8.93	6033.47267	0	0	27.9	100.02	0.598	0.006	44	1	0.4466	0
1	6	840	17.86	8.45	6071.15451	0	0	27.9	90	0.566	0.006	45	1	0.42265	0

1	6	860	15.88	7.75	6104.41612	0	0	27.9	80.02	0.519	0.006	46	1	0.3873	0
1	6	880	13.89	7.28	6133.55046	0	0	28	69.99	0.487	0.007	47	1	0.36375	0
1	6	900	11.9	6.47	6158.50649	0	0	28	59.96	0.433	0.007	48	1	0.32325	0
1	6	920	9.92	5.42	6179.30698	0	0	28	49.99	0.363	0.007	49	1	0.2711	0
1	6	940	7.93	4.7	6195.96134	0	0	28	39.96	0.315	0.008	50	1	0.2349	0
1	6	960	5.95	3.81	6208.4531	0	0	28	29.98	0.255	0.009	51	1	0.19025	0
1	6	980	3.96	3.03	6216.78382	0	0	28	19.95	0.203	0.01	52	1	0.1517	0
1	6	1000	1.98	1.39	6220.96371	0	0	28	9.98	0.093	0.009	53	1	0.06945	0
1	7	1020	1.79	1.51	6224.73441	0	0	28	9.02	0.101	0.011	54	1	0.0755	0
1	7	1040	1.59	1.43	6228.06921	0	0	28	8.01	0.096	0.012	55	1	0.07145	0
1	7	1060	1.39	1.5	6230.98932	0	0	28	7	0.1	0.014	56	1	0.07495	0
1	7	1080	1.19	1.29	6233.49238	0	0	28	6	0.086	0.014	57	1	0.06455	0
1	7	1100	0.99	1.21	6235.5784	0	0	28	4.99	0.081	0.016	58	1	0.06045	0
1	7	1120	0.8	1.19	6237.24815	0	0	28	4.03	0.079	0.02	59	1	0.05925	0
1	7	1140	0.6	0	6238.50322	0	0	28	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.34045	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6239.763	0	0	28	1.01	0	0	62	1	0	0

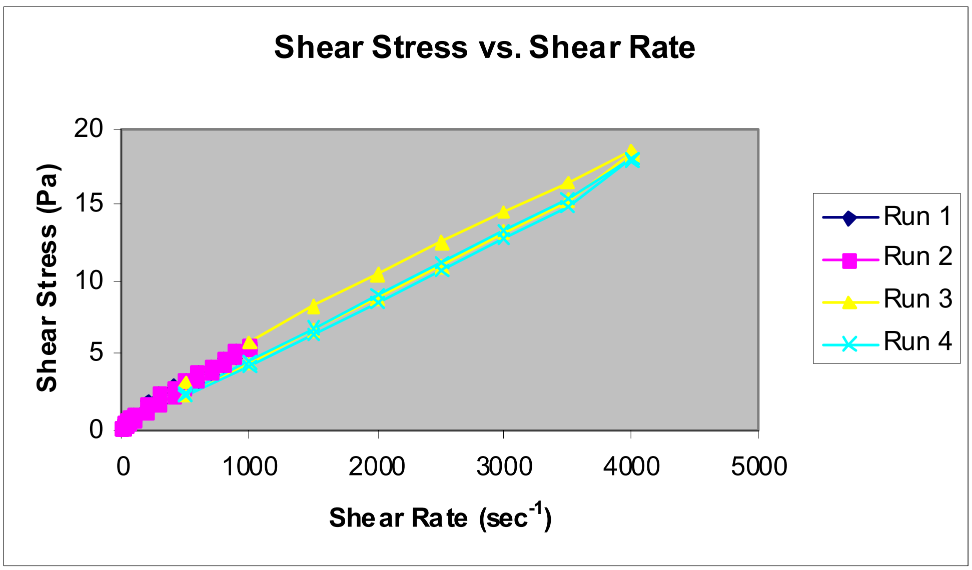
2004.02.05 180-5 wt%-U [sonicated] DG 500-4000 s-1 run 1.txt

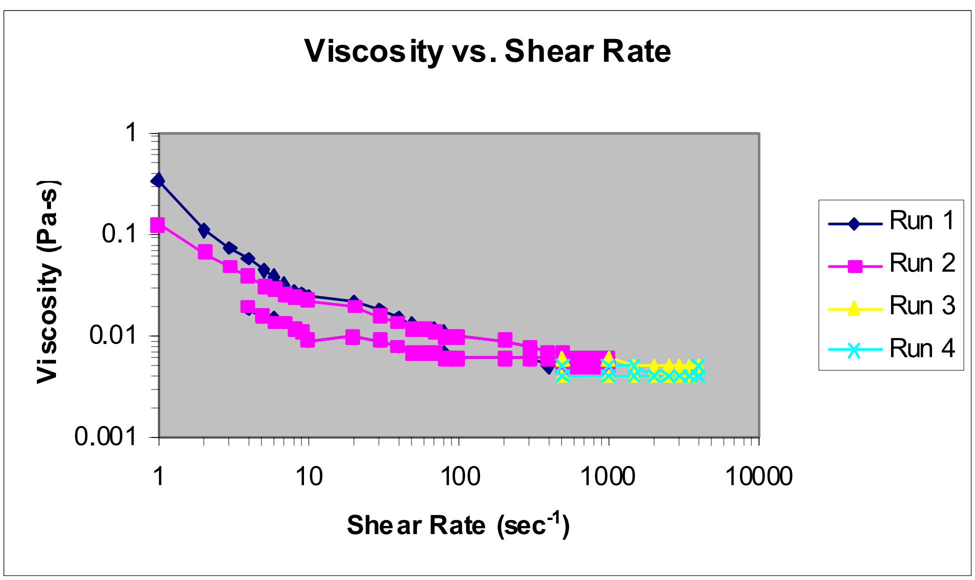
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	48.31	207.60979	0	0	28	500.42	3.236	0.006	1	1	2.41525	0
1	1	40	198.46	86.61	621.6937	0	0	28	1000.04	5.803	0.006	2	1	4.33045	0
1	1	60	297.68	121.93	1244.06284	0	0	28	1500.01	8.169	0.005	3	1	6.09645	0
1	1	80	396.91	155.15	2073.88783	0	0	28	2000.03	10.395	0.005	4	1	7.7575	0
1	1	100	496.13	185.79	3110.85453	0	0	28	2500	12.448	0.005	5	1	9.28935	0
1	1	120	595.36	215.39	4356.72928	0	0	28	3000.02	14.431	0.005	6	1	10.7696	0
1	1	140	694.58	244.43	5809.69624	0	0	28	3499.99	16.377	0.005	7	1	12.2213	0
1	1	160	793.81	277.27	7470.11907	0	0	28	4000.01	18.577	0.005	8	1	13.86325	0
1	2	180	793.81	276.01	9151.14603	0	0	28	4000.01	18.493	0.005	9	1	13.80055	0
1	2	200	793.81	275.93	10812.03852	0	0	28	4000.01	18.487	0.005	10	1	13.7966	0
1	2	220	793.81	274.44	12475.83541	0	0	28	4000.01	18.388	0.005	11	1	13.7222	0
1	3	240	793.81	272.41	14154.59807	0	0	28	4000.01	18.251	0.005	12	1	13.6204	0
1	3	260	694.58	228.33	15610.99723	0	0	28	3499.99	15.298	0.004	13	1	11.41665	0
1	3	280	595.36	195.54	16859.88948	0	0	28	3000.02	13.101	0.004	14	1	9.77715	0
1	3	300	496.13	162.62	17900.8617	0	0	28	2500	10.896	0.004	15	1	8.13105	0
1	3	320	396.91	130.21	18733.38925	0	0	28	2000.03	8.724	0.004	16	1	6.51065	0
1	3	340	297.68	97.92	19359.15288	0	0	28	1500.01	6.561	0.004	17	1	4.8962	0
1	3	360	198.46	65.44	19776.40901	0	0	28	1000.04	4.384	0.004	18	1	3.27195	0
1	3	380	99.23	33.55	19985.78045	0	0	28	500.02	2.248	0.004	19	1	1.67745	0

2004.02.05 180-5 wt%-U [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.29	34.82	207.80222	0	0	28	500.32	2.333	0.005	1	1	1.74105	0
1	1	40	198.46	68.12	621.62694	0	0	28	1000.04	4.564	0.005	2	1	3.40595	0
1	1	60	297.68	100.98	1243.63322	0	0	28	1500.01	6.766	0.005	3	1	5.0492	0
1	1	80	396.91	133.69	2072.93829	0	0	28	2000.03	8.957	0.004	4	1	6.68435	0
1	1	100	496.13	165.76	3110.11311	0	0	28	2500	11.106	0.004	5	1	8.288	0
1	1	120	595.36	197.47	4355.31242	0	0	28	3000.02	13.231	0.004	6	1	9.87355	0
1	1	140	694.58	228.68	5809.78735	0	0	28	3499.99	15.322	0.004	7	1	11.4342	0
1	1	160	793.81	267.87	7469.79234	0	0	28	4000.01	17.948	0.004	8	1	13.3937	0

1	2	180	793.81	267.52	9150.82323	0	0	28	4000.01	17.924	0.004	9	1	13.37585	0
1	2	200	793.81	267.85	10813.7931	0	0	28	4000.01	17.946	0.004	10	1	13.39245	0
1	2	220	793.81	268.82	12475.51183	0	0	28	4000.01	18.011	0.005	11	1	13.44115	0
1	3	240	793.81	268.86	14155.93796	0	0	28	4000.01	18.013	0.005	12	1	13.4428	0
1	3	260	694.58	220.97	15612.75573	0	0	28	3499.99	14.805	0.004	13	1	11.04835	0
1	3	280	595.36	189.57	16860.08504	0	0	28	3000.02	12.701	0.004	14	1	9.4786	0
1	3	300	496.13	157.82	17901.15936	0	0	28	2500	10.574	0.004	15	1	7.89115	0
1	3	320	396.91	126.49	18733.95002	0	0	28	2000.03	8.475	0.004	16	1	6.3244	0
1	3	340	297.68	95.26	19359.71444	0	0	28	1500.01	6.382	0.004	17	1	4.763	0
1	3	360	198.46	63.61	19776.75223	0	0	28	1000.04	4.262	0.004	18	1	3.1805	0
1	3	380	99.23	32.66	19986.28939	0	0	28	500.02	2.188	0.004	19	1	1.63295	0





E-2.1.11 189/5wt%/U/N

2004.02.06 189-5 wt%-U DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41626	0	0	28.1	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.24878	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49678	0	0	28.1	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16261	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.2447	0	0	28.1	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.73991	0	0	28.1	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65531	0	0	28.1	7	0	0	7	1	0	0
1	1	160	1.59	0	14.9854	0	0	28.1	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.72939	0	0	28.1	9.02	0	0	9	1	0	0
1	2	200	1.98	1.05	22.903	0	0	28.1	9.98	0.071	0.007	10	1	0.0527	0
1	2	220	3.97	2.28	31.17638	0	0	28	20	0.153	0.008	11	1	0.11385	0
1	2	240	5.95	2.96	43.62023	0	0	28	29.98	0.198	0.007	12	1	0.1479	0
1	2	260	7.94	3.52	60.21098	0	0	28	40.01	0.236	0.006	13	1	0.1761	0
1	2	280	9.92	3.9	80.96356	0	0	28	49.99	0.261	0.005	14	1	0.1951	0
1	2	300	11.91	4.79	105.84968	0	0	28	60.01	0.321	0.005	15	1	0.2397	0
1	2	320	13.89	5.42	134.91334	0	0	28	69.99	0.363	0.005	16	1	0.27105	0
1	2	340	15.88	5.83	168.1404	0	0	28	80.02	0.39	0.005	17	1	0.29125	0
1	2	360	17.86	6.4	205.52613	0	0	28	90	0.428	0.005	18	1	0.31975	0
1	3	380	19.85	6.95	247.44519	0	0	28	100.02	0.466	0.005	19	1	0.3476	0
1	3	400	39.69	12.87	330.26935	0	0	28	200	0.863	0.004	20	1	0.6437	0
1	3	420	59.54	18.36	454.69763	0	0	28	300.02	1.23	0.004	21	1	0.91775	0
1	3	440	79.38	23.48	620.57293	0	0	28	400	1.573	0.004	22	1	1.17405	0
1	3	460	99.23	28.6	828.23928	0	0	28	500.02	1.916	0.004	23	1	1.42975	0
1	3	480	119.07	33.53	1077.31103	0	0	28	599.99	2.246	0.004	24	1	1.67645	0
1	3	500	138.92	38.6	1367.93505	0	0	28	700.02	2.586	0.004	25	1	1.93015	0
1	3	520	158.76	43.37	1700.0493	0	0	28	799.99	2.906	0.004	26	1	2.16835	0
1	3	540	178.61	48.34	2073.79751	0	0	28	900.02	3.239	0.004	27	1	2.41695	0
1	3	560	198.45	53.23	2489.31555	0	0	28	999.99	3.566	0.004	28	1	2.66135	0
1	4	570	198.45	52.87	2701.20655	0	0	28	999.99	3.542	0.004	29	1	2.64355	0
1	4	580	198.45	52.75	2909.54127	0	0	28	999.99	3.534	0.004	30	1	2.63725	0
1	4	590	198.45	52.54	3117.0466	0	0	28	999.99	3.52	0.004	31	1	2.627	0
1	4	600	198.45	52.43	3325.17398	0	0	28	999.99	3.513	0.004	32	1	2.6214	0
1	4	610	198.45	52.29	3532.88666	0	0	28	999.99	3.503	0.004	33	1	2.61455	0
1	4	620	198.45	52.17	3740.70301	0	0	28	999.99	3.496	0.003	34	1	2.60865	0
1	5	640	198.45	52.06	4161.01198	0	0	28	999.99	3.488	0.003	35	1	2.6028	0
1	5	660	178.61	46.59	4535.405	0	0	28	900.02	3.122	0.003	36	1	2.32965	0
1	5	680	158.76	41.25	4868.30779	0	0	28	799.99	2.764	0.003	37	1	2.06235	0
1	5	700	138.92	36.32	5159.27504	0	0	28	700.02	2.434	0.003	38	1	1.81605	0
1	5	720	119.07	31.19	5409.04422	0	0	28	599.99	2.09	0.003	39	1	1.5594	0
1	5	740	99.23	26.26	5617.0742	0	0	28	500.02	1.759	0.004	40	1	1.3128	0
1	5	760	79.38	21.17	5783.64616	0	0	28	400	1.418	0.004	41	1	1.0584	0
1	5	780	59.54	16.26	5908.82135	0	0	28	300.02	1.089	0.004	42	1	0.813	0
1	5	800	39.69	10.94	5992.2377	0	0	28	200	0.733	0.004	43	1	0.5468	0
1	5	820	19.85	5.71	6034.08136	0	0	28	100.02	0.382	0.004	44	1	0.2854	0
1	6	840	17.86	5.32	6071.7624	0	0	28	90	0.356	0.004	45	1	0.26595	0
1	6	860	15.88	4.77	6105.02402	0	0	28	80.02	0.32	0.004	46	1	0.23845	0

1	6	880	13.89	4.41	6134.15051	0	0	28	69.99	0.295	0.004	47	1	0.22045	0
1	6	900	11.9	3.82	6159.11203	0	0	28	59.96	0.256	0.004	48	1	0.19105	0
1	6	920	9.92	3.07	6179.90623	0	0	28	49.99	0.206	0.004	49	1	0.15355	0
1	6	940	7.93	2.65	6196.55275	0	0	28	39.96	0.177	0.004	50	1	0.1324	0
1	6	960	5.95	2.16	6209.05864	0	0	28	29.98	0.145	0.005	51	1	0.10785	0
1	6	980	3.96	1.73	6217.38701	0	0	28	19.95	0.116	0.006	52	1	0.0865	0
1	6	1000	1.98	0	6221.56297	0	0	28	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6225.33288	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.66689	0	0	28	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6231.587	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6234.08928	0	0	28	6	0	0	57	1	0	0
1	7	1100	0.99	0	6236.17687	0	0	28	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.84741	0	0	28	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6239.10091	0	0	28	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.93971	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6240.36069	0	0	28	1.01	0	0	62	1	0	0

2004.02.06 189-5 wt%-U DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41705	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.24878	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49757	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16261	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.24392	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.73991	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65531	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.9854	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.73018	0	0	28	9.02	0	0	9	1	0	0
1	2	200	1.98	0	22.90221	0	0	28	9.98	0	0	10	1	0	0
1	2	220	3.97	2.22	31.18031	0	0	28	20	0.149	0.007	11	1	0.11085	0
1	2	240	5.95	2.77	43.61237	0	0	28	29.98	0.186	0.006	12	1	0.1385	0
1	2	260	7.94	3.27	60.20705	0	0	28	40.01	0.219	0.005	13	1	0.1633	0
1	2	280	9.92	3.7	80.94313	0	0	28	49.99	0.248	0.005	14	1	0.18505	0
1	2	300	11.91	4.56	105.87403	0	0	28	60.01	0.305	0.005	15	1	0.2278	0
1	2	320	13.89	5.08	134.90784	0	0	28	69.99	0.34	0.005	16	1	0.25375	0
1	2	340	15.88	5.45	168.16003	0	0	28	80.02	0.365	0.005	17	1	0.2724	0
1	2	360	17.86	6.08	205.51671	0	0	28	90	0.407	0.005	18	1	0.30405	0
1	3	380	19.85	6.64	247.46639	0	0	28	100.02	0.445	0.004	19	1	0.3318	0
1	3	400	39.69	12.46	330.23872	0	0	28	200	0.835	0.004	20	1	0.62315	0
1	3	420	59.54	17.77	454.656	0	0	28	300.02	1.191	0.004	21	1	0.8887	0
1	3	440	79.38	22.77	620.5211	0	0	28	400	1.526	0.004	22	1	1.1387	0
1	3	460	99.23	27.73	828.18744	0	0	28	500.02	1.858	0.004	23	1	1.3864	0
1	3	480	119.07	32.57	1077.19793	0	0	28	599.99	2.182	0.004	24	1	1.6287	0
1	3	500	138.92	37.58	1367.83295	0	0	28	700.02	2.518	0.004	25	1	1.87905	0
1	3	520	158.76	42.33	1700.11292	0	0	28	799.99	2.836	0.004	26	1	2.11645	0
1	3	540	178.61	47.41	2073.86034	0	0	28	900.02	3.176	0.004	27	1	2.37025	0
1	3	560	198.45	52.45	2489.28492	0	0	28	999.99	3.514	0.004	28	1	2.6223	0
1	4	570	198.45	52.17	2701.07146	0	0	28	999.99	3.495	0.003	29	1	2.60845	0
1	4	580	198.45	52.01	2909.40697	0	0	28	999.99	3.485	0.003	30	1	2.6004	0
1	4	590	198.45	51.9	3116.9123	0	0	28.1	999.99	3.478	0.003	31	1	2.5952	0

1	4	600	198.45	51.79	3324.41685	0	0	28.1	999.99	3.47	0.003	32	1	2.58955	0
1	4	610	198.45	51.76	3532.85603	0	0	28.1	999.99	3.468	0.003	33	1	2.58785	0
1	4	620	198.45	51.64	3740.56871	0	0	28.1	999.99	3.46	0.003	34	1	2.58175	0
1	5	640	198.45	51.53	4160.87689	0	0	28.1	999.99	3.452	0.003	35	1	2.5764	0
1	5	660	178.61	46.12	4535.26991	0	0	28.1	900.02	3.09	0.003	36	1	2.3058	0
1	5	680	158.76	40.82	4867.84127	0	0	28.1	799.99	2.735	0.003	37	1	2.0412	0
1	5	700	138.92	35.93	5159.31745	0	0	28	700.02	2.408	0.003	38	1	1.79665	0
1	5	720	119.07	30.82	5409.01359	0	0	28	599.99	2.065	0.003	39	1	1.54105	0
1	5	740	99.23	25.92	5617.15745	0	0	28	500.02	1.737	0.003	40	1	1.29615	0
1	5	760	79.38	20.93	5783.68778	0	0	28	400	1.402	0.004	41	1	1.04645	0
1	5	780	59.54	15.92	5908.67683	0	0	28	300.02	1.067	0.004	42	1	0.79595	0
1	5	800	39.69	10.71	5992.18665	0	0	28	200	0.718	0.004	43	1	0.5355	0
1	5	820	19.85	5.48	6034.07193	0	0	28	100.02	0.367	0.004	44	1	0.27385	0
1	6	840	17.86	5.12	6071.74277	0	0	28	90	0.343	0.004	45	1	0.256	0
1	6	860	15.88	4.48	6105.05386	0	0	28	80.02	0.3	0.004	46	1	0.22405	0
1	6	880	13.89	4.22	6134.13637	0	0	28.1	69.99	0.282	0.004	47	1	0.21075	0
1	6	900	11.9	3.73	6159.10575	0	0	28.1	59.96	0.25	0.004	48	1	0.18625	0
1	6	920	9.92	2.95	6179.92587	0	0	28.1	49.99	0.198	0.004	49	1	0.14755	0
1	6	940	7.93	2.59	6196.56531	0	0	28	39.96	0.173	0.004	50	1	0.1293	0
1	6	960	5.95	2.08	6209.05707	0	0	28	29.98	0.139	0.005	51	1	0.10375	0
1	6	980	3.96	1.63	6217.38936	0	0	28.1	19.95	0.109	0.005	52	1	0.08145	0
1	6	1000	1.98	0	6221.56689	0	0	28.1	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6225.33602	0	0	28.1	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.67161	0	0	28.1	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6231.59172	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6234.09399	0	0	28.1	6	0	0	57	1	0	0
1	7	1100	0.99	0	6236.1808	0	0	28.1	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.85134	0	0	28.1	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6239.10562	0	0	28.1	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.94364	0	0	28.1	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6240.36461	0	0	28	1.01	0	0	62	1	0	0

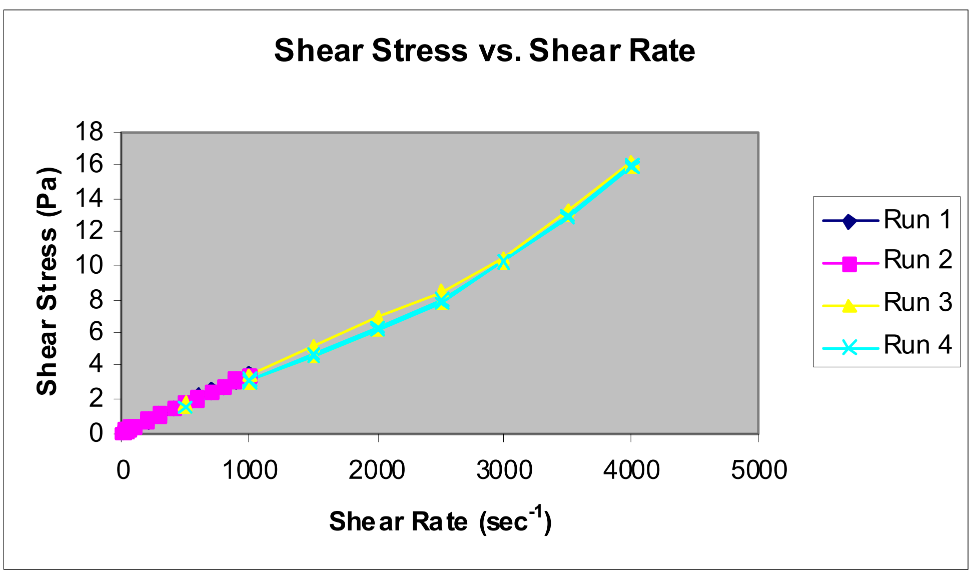
2004.02.06 189-5 wt%-U DG 500-4000 s-1 run 1.txt

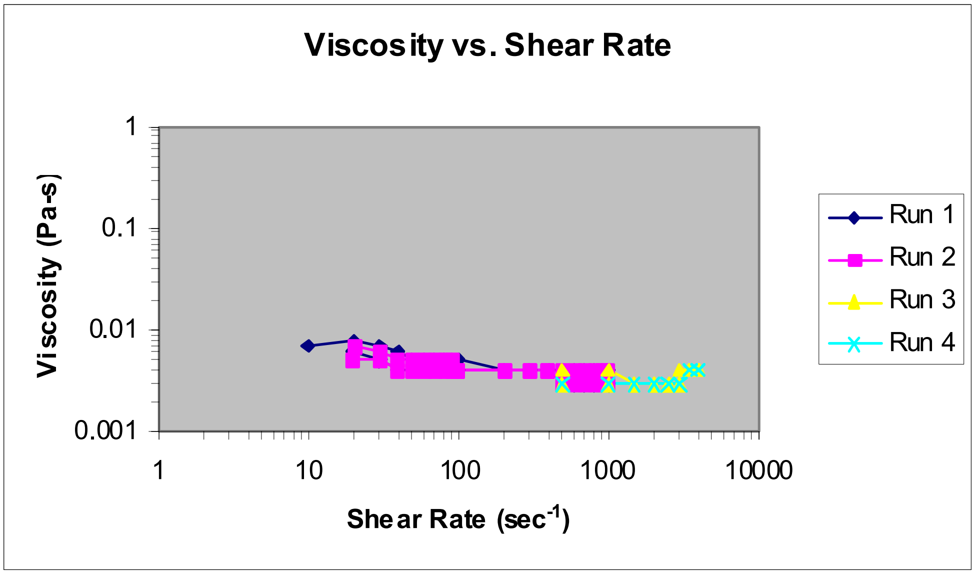
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	26.84	207.82656	0	0	28	500.42	1.798	0.004	1	1	1.34195	0
1	1	40	198.46	52.32	621.44473	0	0	28	1000.04	3.506	0.004	2	1	2.6161	0
1	1	60	297.68	77.54	1243.91989	0	0	28	1500.01	5.195	0.003	3	1	3.8768	0
1	1	80	396.91	102.55	2073.58938	0	0	28	2000.03	6.871	0.003	4	1	5.12725	0
1	1	100	496.13	126.8	3111.07836	0	0	28	2500	8.496	0.003	5	1	6.3402	0
1	1	120	595.36	157.23	4356.59105	0	0	28	3000.02	10.534	0.004	6	1	7.86125	0
1	1	140	694.58	198.59	5807.78851	0	0	28	3499.99	13.305	0.004	7	1	9.92945	0
1	1	160	793.81	241.74	7469.81826	0	0	28	4000.01	16.196	0.004	8	1	12.0869	0
1	2	180	793.81	240.85	9150.90805	0	0	28	4000.01	16.137	0.004	9	1	12.0423	0
1	2	200	793.81	240.18	10813.04461	0	0	28	4000.01	16.092	0.004	10	1	12.0088	0
1	2	220	793.81	239.33	12475.18118	0	0	28	4000.01	16.035	0.004	11	1	11.9663	0
1	3	240	793.81	238.23	14154.35931	0	0	28	4000.01	15.961	0.004	12	1	11.9114	0
1	3	260	694.58	194.08	15611.79912	0	0	28	3499.99	13.004	0.004	13	1	9.7042	0
1	3	280	595.36	153.01	16861.00396	0	0	28	3000.02	10.251	0.003	14	1	7.6503	0
1	3	300	496.13	117.2	17901.50573	0	0	28	2500	7.852	0.003	15	1	5.85995	0
1	3	320	396.91	93.37	18734.72835	0	0	28	2000.03	6.256	0.003	16	1	4.66865	0

1	3	340	297.68	69.94	19359.2754	0	0	28	1500.01	4.686	0.003	17	1	3.49685	0
1	3	360	198.46	46.27	19776.50718	0	0	28	1000.04	3.1	0.003	18	1	2.3133	0
1	3	380	99.23	23.61	19986.11503	0	0	28	500.02	1.582	0.003	19	1	1.18035	0

2004.02.06 189-5 wt%-U DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	23.61	207.71425	0	0	28	500.37	1.582	0.003	1	1	1.18045	0
1	1	40	198.46	47.28	621.74868	0	0	28	1000.04	3.168	0.003	2	1	2.36415	0
1	1	60	297.68	71.14	1243.80837	0	0	28	1500.01	4.766	0.003	3	1	3.55685	0
1	1	80	396.91	94.91	2073.27051	0	0	28	2000.03	6.359	0.003	4	1	4.7456	0
1	1	100	496.13	118.37	3111.01789	0	0	28	2500	7.931	0.003	5	1	5.9186	0
1	1	120	595.36	153.65	4355.59516	0	0	28	3000.02	10.294	0.003	6	1	7.68245	0
1	1	140	694.58	193.97	5810.01433	0	0	28	3499.99	12.996	0.004	7	1	9.69855	0
1	1	160	793.81	238.07	7469.96434	0	0	28	4000.01	15.95	0.004	8	1	11.90335	0
1	2	180	793.81	237.56	9151.06434	0	0	28	4000.01	15.917	0.004	9	1	11.87815	0
1	2	200	793.81	236.88	10812.78308	0	0	28	4000.01	15.871	0.004	10	1	11.84405	0
1	2	220	793.81	236.47	12475.33668	0	0	28	4000.01	15.843	0.004	11	1	11.8235	0
1	3	240	793.81	236.14	14154.09777	0	0	28	4000.01	15.821	0.004	12	1	11.8068	0
1	3	260	694.58	192.55	15612.36696	0	0	28	3499.99	12.901	0.004	13	1	9.6276	0
1	3	280	595.36	152.47	16859.70255	0	0	28	3000.02	10.216	0.003	14	1	7.6237	0
1	3	300	496.13	115.58	17900.46507	0	0	28	2500	7.744	0.003	15	1	5.77905	0
1	3	320	396.91	92.05	18733.22275	0	0	28	2000.03	6.167	0.003	16	1	4.6025	0
1	3	340	297.68	68.93	19358.49707	0	0	28	1500.01	4.618	0.003	17	1	3.44645	0
1	3	360	198.46	45.58	19775.88436	0	0	28	1000.04	3.054	0.003	18	1	2.27875	0
1	3	380	99.23	23.29	19985.60216	0	0	28	500.02	1.561	0.003	19	1	1.1647	0





E-2.1.12 189/5wt%/U/S

2004.02.05 189-5 wt%-U [sonicated] DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	13.85	0.41233	0	0	28	1.01	0.928	0.919	1	1	0.69245	0
1	1	40	0.4	15.04	1.24329	0	0	28	2.02	1.008	0.499	2	1	0.75195	0
1	1	60	0.6	19.4	2.4905	0	0	28	3.02	1.3	0.43	3	1	0.97	0
1	1	80	0.8	24	4.15397	0	0	28	4.03	1.608	0.399	4	1	1.20005	0
1	1	100	1	25.6	6.23606	0	0	28	5.04	1.715	0.34	5	1	1.27995	0
1	1	120	1.19	27.95	8.73049	0	0	28	6	1.873	0.312	6	1	1.3977	0
1	1	140	1.39	30.16	11.64353	0	0	28	7	2.021	0.289	7	1	1.508	0
1	1	160	1.59	29.24	14.97519	0	0	28	8.01	1.959	0.245	8	1	1.4622	0
1	1	180	1.79	26.19	18.72311	0	0	28	9.02	1.755	0.195	9	1	1.30965	0
1	2	200	1.98	24.34	22.89907	0	0	28	9.98	1.631	0.163	10	1	1.217	0
1	2	220	3.97	27.14	31.17717	0	0	28	20	1.818	0.091	11	1	1.3569	0
1	2	240	5.95	27.15	43.60766	0	0	28	29.98	1.819	0.061	12	1	1.3577	0
1	2	260	7.94	26.61	60.20784	0	0	28	40.01	1.783	0.045	13	1	1.33055	0
1	2	280	9.92	26.67	80.93999	0	0	28	49.99	1.787	0.036	14	1	1.33365	0
1	2	300	11.91	27.41	105.85832	0	0	28	60.01	1.837	0.031	15	1	1.3706	0
1	2	320	13.89	28.16	134.90549	0	0	28	69.99	1.887	0.027	16	1	1.408	0
1	2	340	15.88	28.89	168.16553	0	0	28	80.02	1.936	0.024	17	1	1.44455	0
1	2	360	17.86	29.81	205.52378	0	0	28	90	1.997	0.022	18	1	1.4904	0
1	3	380	19.85	30.57	247.43105	0	0	28	100.02	2.048	0.02	19	1	1.52835	0
1	3	400	39.69	46.15	330.3369	0	0	28	200	3.092	0.015	20	1	2.30725	0
1	3	420	59.54	57.03	454.80523	0	0	28	300.02	3.821	0.013	21	1	2.85125	0
1	3	440	79.38	66.38	620.72059	0	0	28	400	4.447	0.011	22	1	3.3189	0
1	3	460	99.23	74.94	828.18901	0	0	28	500.02	5.021	0.01	23	1	3.7468	0
1	3	480	119.07	83	1077.20892	0	0	28	599.99	5.561	0.009	24	1	4.1499	0
1	3	500	138.92	90.83	1367.77012	0	0	28	700.02	6.086	0.009	25	1	4.54145	0
1	3	520	158.76	97.95	1700.03909	0	0	28	799.99	6.563	0.008	26	1	4.89765	0
1	3	540	178.61	105.42	2073.7873	0	0	28	900.02	7.063	0.008	27	1	5.2709	0
1	3	560	198.45	112.39	2488.99275	0	0	28	999.99	7.53	0.008	28	1	5.6194	0

1	4	570	198.45	109.86	2701.19477	0	0	28	999.99	7.36	0.007	29	1	5.4928	0
1	4	580	198.45	108.78	2908.90745	0	0	28	999.99	7.288	0.007	30	1	5.4391	0
1	4	590	198.45	107.88	3116.72381	0	0	28	999.99	7.228	0.007	31	1	5.39375	0
1	4	600	198.45	107.07	3324.33282	0	0	28	999.99	7.174	0.007	32	1	5.3534	0
1	4	610	198.45	106.36	3532.14917	0	0	28	999.99	7.126	0.007	33	1	5.3179	0
1	4	620	198.45	105.75	3740.17287	0	0	28	999.99	7.085	0.007	34	1	5.28725	0
1	5	640	198.45	105.11	4160.68997	0	0	28	999.99	7.042	0.007	35	1	5.2554	0
1	5	660	178.61	94.6	4534.89685	0	0	28	900.02	6.338	0.007	36	1	4.73015	0
1	5	680	158.76	84.66	4867.55146	0	0	28	799.99	5.672	0.007	37	1	4.23285	0
1	5	700	138.92	75.36	5158.89412	0	0	28	700.02	5.049	0.007	38	1	3.7682	0
1	5	720	119.07	65.84	5408.79839	0	0	28	599.99	4.412	0.007	39	1	3.2922	0
1	5	740	99.23	56.35	5616.94383	0	0	28	500.02	3.775	0.008	40	1	2.8175	0
1	5	760	79.38	46.67	5783.4231	0	0	28	400	3.127	0.008	41	1	2.33345	0
1	5	780	59.54	36.76	5908.37053	0	0	28	300.02	2.463	0.008	42	1	1.83775	0
1	5	800	39.69	25.91	5991.88191	0	0	28	200	1.736	0.009	43	1	1.2955	0
1	5	820	19.85	14.12	6033.74756	0	0	28	100.02	0.946	0.009	44	1	0.706	0
1	6	840	17.86	14.1	6071.44118	0	0	28	90	0.945	0.01	45	1	0.70505	0
1	6	860	15.88	13.6	6104.71221	0	0	28	80.02	0.911	0.011	46	1	0.68005	0
1	6	880	13.89	12.8	6133.83164	0	0	28	69.99	0.858	0.012	47	1	0.64005	0
1	6	900	11.9	11.99	6158.79002	0	0	28	59.96	0.804	0.013	48	1	0.5997	0
1	6	920	9.92	10.95	6179.61721	0	0	28	49.99	0.734	0.015	49	1	0.5475	0
1	6	940	7.93	9.78	6196.26451	0	0	28	39.96	0.655	0.016	50	1	0.4888	0
1	6	960	5.95	8.65	6208.7492	0	0	28	29.98	0.579	0.019	51	1	0.4323	0
1	6	980	3.96	7.6	6217.08149	0	0	28	19.95	0.509	0.026	52	1	0.38015	0
1	6	1000	1.98	5.23	6221.25823	0	0	28	9.98	0.35	0.035	53	1	0.26135	0
1	7	1020	1.79	6.66	6225.02893	0	0	28	9.02	0.446	0.049	54	1	0.33295	0
1	7	1040	1.59	7.67	6228.36294	0	0	28	8.01	0.514	0.064	55	1	0.38325	0
1	7	1060	1.39	8.39	6231.28227	0	0	28	7	0.562	0.08	56	1	0.41955	0
1	7	1080	1.19	9.18	6233.78455	0	0	28	6	0.615	0.103	57	1	0.4589	0
1	7	1100	0.99	9.69	6235.87135	0	0	28	4.99	0.649	0.13	58	1	0.48425	0
1	7	1120	0.8	10.26	6237.54111	0	0	28	4.03	0.687	0.17	59	1	0.5129	0
1	7	1140	0.6	10.83	6238.79617	0	0	28	3.02	0.726	0.24	60	1	0.54155	0
1	7	1160	0.4	11.3	6239.63262	0	0	28	2.02	0.757	0.375	61	1	0.56485	0
1	7	1180	0.2	11.07	6240.05438	0	0	28	1.01	0.742	0.735	62	1	0.55345	0

2004.02.05 189-5 wt%-U [sonicated] DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	17.08	0.41076	0	0	28	1.01	1.144	1.133	1	1	0.85385	0
1	1	40	0.4	18.96	1.24171	0	0	28	2.02	1.27	0.629	2	1	0.948	0
1	1	60	0.6	19.25	2.49207	0	0	28	3.02	1.289	0.427	3	1	0.96225	0
1	1	80	0.8	18.86	4.15554	0	0	28	4.03	1.264	0.314	4	1	0.94325	0
1	1	100	1	18.32	6.23685	0	0	28	5.04	1.228	0.244	5	1	0.91605	0
1	1	120	1.19	17.63	8.73598	0	0	28	6	1.181	0.197	6	1	0.8813	0
1	1	140	1.39	17.08	11.64824	0	0	28	7	1.144	0.163	7	1	0.8539	0
1	1	160	1.59	16.45	14.9799	0	0	28	8.01	1.102	0.138	8	1	0.82255	0
1	1	180	1.79	16.12	18.72468	0	0	28	9.02	1.08	0.12	9	1	0.8059	0
1	2	200	1.98	15.77	22.89593	0	0	28	9.98	1.056	0.106	10	1	0.78835	0
1	2	220	3.97	18.76	31.17795	0	0	28	20	1.257	0.063	11	1	0.9382	0
1	2	240	5.95	19.77	43.6108	0	0	28	29.98	1.325	0.044	12	1	0.9887	0
1	2	260	7.94	20.57	60.20077	0	0	28	40.01	1.378	0.034	13	1	1.02855	0

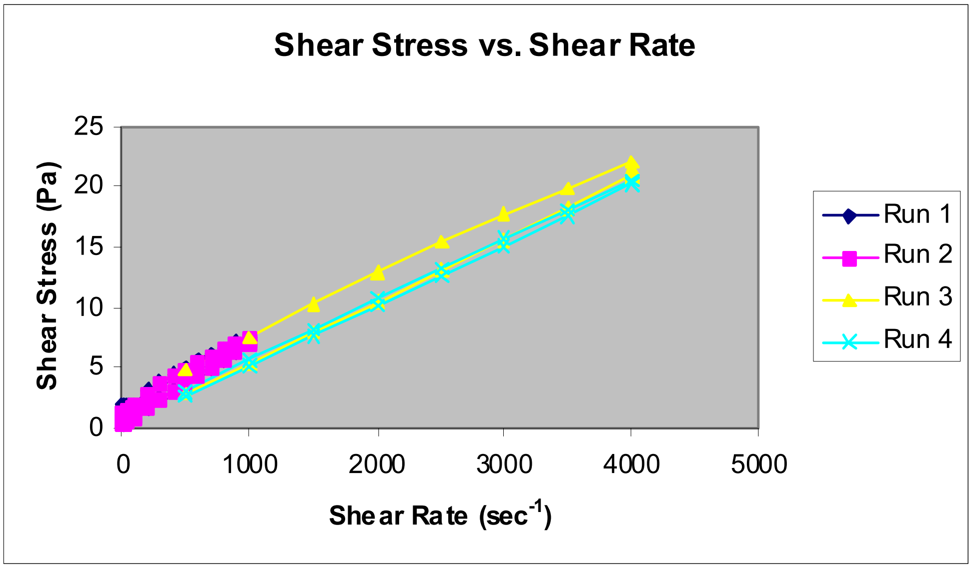
1	2	280	9.92	21.22	80.94942	0	0	28	49.99	1.422	0.028	14	1	1.0612	0
1	2	300	11.91	22.35	105.84261	0	0	28	60.01	1.498	0.025	15	1	1.11755	0
1	2	320	13.89	23.47	134.91805	0	0	28	69.99	1.572	0.022	16	1	1.1733	0
1	2	340	15.88	24.41	168.14668	0	0	28	80.02	1.636	0.02	17	1	1.22065	0
1	2	360	17.86	25.47	205.49393	0	0	28	90	1.706	0.019	18	1	1.2734	0
1	3	380	19.85	26.54	247.41142	0	0	28	100.02	1.778	0.018	19	1	1.32675	0
1	3	400	39.69	41.64	330.30627	0	0	28	200	2.79	0.014	20	1	2.082	0
1	3	420	59.54	53.42	454.57746	0	0	28	300.02	3.579	0.012	21	1	2.67085	0
1	3	440	79.38	63.31	620.57608	0	0	28	400	4.242	0.011	22	1	3.16535	0
1	3	460	99.23	72.27	828.03429	0	0	28	500.02	4.842	0.01	23	1	3.61325	0
1	3	480	119.07	80.48	1077.29375	0	0	28	599.99	5.392	0.009	24	1	4.0239	0
1	3	500	138.92	88.25	1367.9272	0	0	28	700.02	5.913	0.008	25	1	4.4125	0
1	3	520	158.76	95.5	1699.95741	0	0	28	799.99	6.398	0.008	26	1	4.7748	0
1	3	540	178.61	103.04	2073.70562	0	0	28	900.02	6.903	0.008	27	1	5.15185	0
1	3	560	198.45	110.24	2489.09878	0	0	28	999.99	7.386	0.007	28	1	5.51205	0
1	4	570	198.45	108.03	2700.98821	0	0	28	999.99	7.238	0.007	29	1	5.4015	0
1	4	580	198.45	107.04	2908.80456	0	0	28	999.99	7.171	0.007	30	1	5.35185	0
1	4	590	198.45	106.2	3116.62092	0	0	28	999.99	7.115	0.007	31	1	5.30995	0
1	4	600	198.45	105.44	3324.22993	0	0	28	999.99	7.065	0.007	32	1	5.27205	0
1	4	610	198.45	104.76	3532.25441	0	0	28	999.99	7.019	0.007	33	1	5.2379	0
1	4	620	198.45	104.17	3740.07077	0	0	28	999.99	6.979	0.007	34	1	5.2083	0
1	5	640	198.45	103.52	4160.17239	0	0	28	999.99	6.936	0.007	35	1	5.17605	0
1	5	660	178.61	93.2	4534.8458	0	0	28	900.02	6.245	0.007	36	1	4.66015	0
1	5	680	158.76	83.24	4867.51062	0	0	28	799.99	5.577	0.007	37	1	4.1621	0
1	5	700	138.92	73.95	5158.78102	0	0	28	700.02	4.955	0.007	38	1	3.6975	0
1	5	720	119.07	64.49	5408.67508	0	0	28	599.99	4.321	0.007	39	1	3.22455	0
1	5	740	99.23	55.1	5616.70585	0	0	28	500.02	3.691	0.007	40	1	2.75485	0
1	5	760	79.38	45.52	5783.32022	0	0	28	400	3.05	0.008	41	1	2.2761	0
1	5	780	59.54	35.59	5908.33047	0	0	28	300.02	2.385	0.008	42	1	1.7797	0
1	5	800	39.69	24.99	5991.80023	0	0	28	200	1.674	0.008	43	1	1.2496	0
1	5	820	19.85	13.61	6033.66588	0	0	28	100.02	0.912	0.009	44	1	0.68055	0
1	6	840	17.86	13.33	6071.33986	0	0	28	90	0.893	0.01	45	1	0.6665	0
1	6	860	15.88	12.62	6104.61875	0	0	28	80.02	0.846	0.011	46	1	0.6311	0
1	6	880	13.89	11.73	6133.74603	0	0	28	69.99	0.786	0.011	47	1	0.58645	0
1	6	900	11.9	10.79	6158.69734	0	0	28	59.96	0.723	0.012	48	1	0.53925	0
1	6	920	9.92	9.67	6179.52924	0	0	28	49.99	0.648	0.013	49	1	0.48365	0
1	6	940	7.93	8.49	6196.1679	0	0	28	39.96	0.569	0.014	50	1	0.4243	0
1	6	960	5.95	7.27	6208.65416	0	0	28	29.98	0.487	0.016	51	1	0.36365	0
1	6	980	3.96	6.09	6216.98645	0	0	28	19.95	0.408	0.02	52	1	0.3045	0
1	6	1000	1.98	3.86	6221.1632	0	0	28	9.98	0.258	0.026	53	1	0.1929	0
1	7	1020	1.79	4.49	6224.93311	0	0	28	9.02	0.301	0.033	54	1	0.2247	0
1	7	1040	1.59	5.04	6228.2687	0	0	28	8.01	0.338	0.042	55	1	0.2521	0
1	7	1060	1.39	5.5	6231.18724	0	0	28	7	0.368	0.053	56	1	0.2748	0
1	7	1080	1.19	5.92	6233.69109	0	0	28	6	0.397	0.066	57	1	0.29605	0
1	7	1100	0.99	6.12	6235.7771	0	0	28	4.99	0.41	0.082	58	1	0.30585	0
1	7	1120	0.8	6.41	6237.44686	0	0	28	4.03	0.429	0.106	59	1	0.32025	0
1	7	1140	0.6	6.92	6238.70114	0	0	28	3.02	0.464	0.154	60	1	0.3461	0
1	7	1160	0.4	7.22	6239.53916	0	0	28	2.02	0.484	0.24	61	1	0.3612	0
1	7	1180	0.2	6.94	6239.96092	0	0	28	1.01	0.465	0.46	62	1	0.3468	0

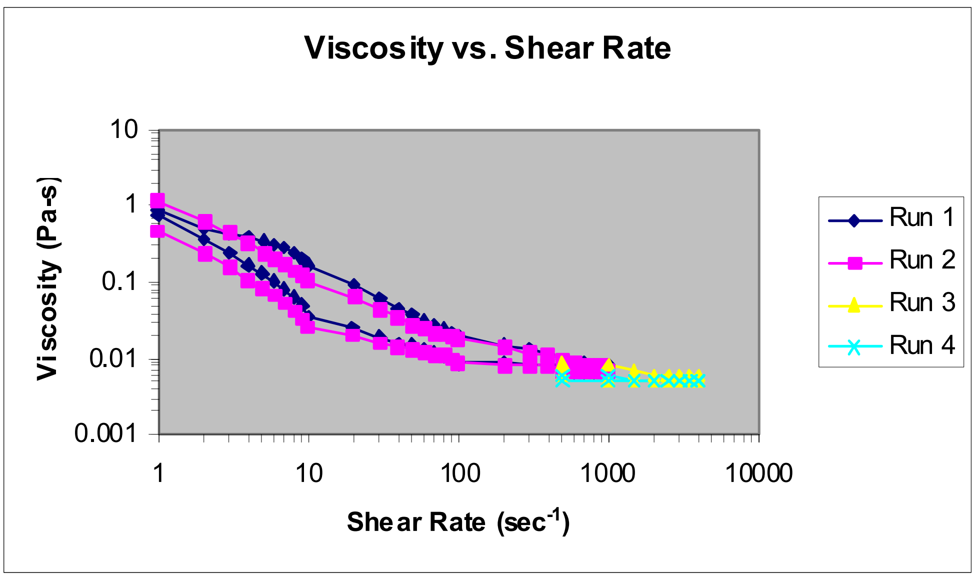
2004.02.05 189-5 wt%-U [sonicated] DG 500-4000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.28	70.84	207.66791	0	0	28	500.27	4.746	0.009	1	1	3.54195	0
1	1	40	198.46	112.22	621.85313	0	0	28	1000.04	7.519	0.008	2	1	5.61085	0
1	1	60	297.68	153.61	1243.54604	0	0	28	1500.01	10.292	0.007	3	1	7.68035	0
1	1	80	396.91	193.24	2073.21318	0	0	28	2000.03	12.947	0.006	4	1	9.66175	0
1	1	100	496.13	230.13	3111.16711	0	0	28	2500	15.419	0.006	5	1	11.50635	0
1	1	120	595.36	264.28	4355.48363	0	0	28	3000.02	17.707	0.006	6	1	13.214	0
1	1	140	694.58	296.6	5808.50322	0	0	28	3499.99	19.872	0.006	7	1	14.82985	0
1	1	160	793.81	328.55	7468.92291	0	0	28	4000.01	22.013	0.006	8	1	16.4275	0
1	2	180	793.81	322.04	9148.26283	0	0	28	4000.01	21.576	0.005	9	1	16.1018	0
1	2	200	793.81	316.62	10812.89382	0	0	28	4000.01	21.214	0.005	10	1	15.83105	0
1	2	220	793.81	312.85	12475.03273	0	0	28	4000.01	20.961	0.005	11	1	15.64245	0
1	3	240	793.81	310.94	14154.2093	0	0	28	4000.01	20.833	0.005	12	1	15.5472	0
1	3	260	694.58	271.71	15611.69937	0	0	28	3499.99	18.204	0.005	13	1	13.5854	0
1	3	280	595.36	232.97	16860.02142	0	0	28	3000.02	15.609	0.005	14	1	11.6487	0
1	3	300	496.13	194.42	17900.835	0	0	28	2500	13.026	0.005	15	1	9.7212	0
1	3	320	396.91	156.38	18733.78195	0	0	28	2000.03	10.478	0.005	16	1	7.8191	0
1	3	340	297.68	118.55	19359.22121	0	0	28	1500.01	7.943	0.005	17	1	5.92765	0
1	3	360	198.46	80.19	19776.29277	0	0	28	1000.04	5.372	0.005	18	1	4.0093	0
1	3	380	99.23	42.15	19985.80872	0	0	28	500.02	2.824	0.006	19	1	2.1077	0

2004.02.05 189-5 wt%-U [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	43.75	207.76295	0	0	28	500.37	2.931	0.006	1	1	2.18725	0
1	1	40	198.46	83.36	621.53505	0	0	28	1000.04	5.585	0.006	2	1	4.168	0
1	1	60	297.68	122.16	1243.69606	0	0	28	1500.01	8.185	0.005	3	1	6.108	0
1	1	80	396.91	160.08	2073.62315	0	0	28	2000.03	10.725	0.005	4	1	8.00385	0
1	1	100	496.13	197.12	3111.05716	0	0	28	2500	13.207	0.005	5	1	9.8561	0
1	1	120	595.36	233.69	4356.30909	0	0	28	3000.02	15.657	0.005	6	1	11.6844	0
1	1	140	694.58	270.48	5808.65088	0	0	28	3499.99	18.122	0.005	7	1	13.52405	0
1	1	160	793.81	307.12	7470.73089	0	0	28	4000.01	20.577	0.005	8	1	15.35605	0
1	2	180	793.81	305.58	9150.5664	0	0	28	4000.01	20.474	0.005	9	1	15.2788	0
1	2	200	793.81	302.31	10813.53235	0	0	28	4000.01	20.254	0.005	10	1	15.11525	0
1	2	220	793.81	300.88	12476.91455	0	0	28	4000.01	20.159	0.005	11	1	15.04395	0
1	3	240	793.81	300.45	14156.92442	0	0	28	4000.01	20.13	0.005	12	1	15.02265	0
1	3	260	694.58	262.71	15613.99823	0	0	28	3499.99	17.602	0.005	13	1	13.13565	0
1	3	280	595.36	225.16	16862.31714	0	0	28	3000.02	15.086	0.005	14	1	11.258	0
1	3	300	496.13	187.85	17902.61549	0	0	28	2500	12.586	0.005	15	1	9.3925	0
1	3	320	396.91	151.21	18736.39183	0	0	28	2000.03	10.131	0.005	16	1	7.56045	0
1	3	340	297.68	114.53	19360.99857	0	0	28	1500.01	7.673	0.005	17	1	5.72625	0
1	3	360	198.46	77.45	19778.18244	0	0	28	1000.04	5.189	0.005	18	1	3.8725	0
1	3	380	99.23	40.68	19987.80128	0	0	28	500.02	2.726	0.005	19	1	2.03405	0





E-2.1.13 META/5wt%/U/N

2004.02.06 META-5 wt%-U DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	3.34	0.41548	0	0	28	1.01	0.224	0.222	1	1	0.1672	0
1	1	40	0.4	8.82	1.24564	0	0	28	2.02	0.591	0.293	2	1	0.44125	0
1	1	60	0.6	13.73	2.48736	0	0	28	3.02	0.92	0.305	3	1	0.68625	0
1	1	80	0.8	10.58	4.16104	0	0	28	4.03	0.709	0.176	4	1	0.52885	0
1	1	100	1	14.41	6.23763	0	0	28	5.04	0.966	0.192	5	1	0.7207	0
1	1	120	1.19	21.55	8.7352	0	0	28	6	1.444	0.241	6	1	1.07725	0
1	1	140	1.39	10.17	11.6506	0	0	28	7	0.681	0.097	7	1	0.50855	0
1	1	160	1.59	10.37	14.97833	0	0	28	8.01	0.695	0.087	8	1	0.51835	0
1	1	180	1.79	17.71	18.7286	0	0	28	9.02	1.187	0.132	9	1	0.8855	0
1	2	200	1.98	11.84	22.903	0	0	28	9.98	0.793	0.079	10	1	0.59205	0

1	2	220	3.97	11.55	31.18502	0	0	28	20	0.774	0.039	11	1	0.57755	0
1	2	240	5.95	11.83	43.62258	0	0	28	29.98	0.792	0.026	12	1	0.59125	0
1	2	260	7.94	9.87	60.19763	0	0	28	40.01	0.661	0.017	13	1	0.49365	0
1	2	280	9.92	10.3	80.9667	0	0	28	49.99	0.69	0.014	14	1	0.51485	0
1	2	300	11.91	8.92	105.86617	0	0	28	60.01	0.598	0.01	15	1	0.44615	0
1	2	320	13.89	7.52	134.90784	0	0	28	69.99	0.504	0.007	16	1	0.3758	0
1	2	340	15.88	7.69	168.16867	0	0	28	80.02	0.515	0.006	17	1	0.3843	0
1	2	360	17.86	7.35	205.54498	0	0	28	90	0.493	0.005	18	1	0.36765	0
1	3	380	19.85	7.57	247.47425	0	0	28	100.02	0.507	0.005	19	1	0.3785	0
1	3	400	39.69	10.82	330.37145	0	0	28	200	0.725	0.004	20	1	0.54085	0
1	3	420	59.54	13.91	454.69606	0	0	28	300.02	0.932	0.003	21	1	0.6957	0
1	3	440	79.38	17.13	620.64441	0	0	28	400	1.148	0.003	22	1	0.85655	0
1	3	460	99.23	20.72	828.21729	0	0	28	500.02	1.388	0.003	23	1	1.036	0
1	3	480	119.07	23.99	1077.22777	0	0	28	599.99	1.607	0.003	24	1	1.19925	0
1	3	500	138.92	27.64	1367.70728	0	0	28	700.02	1.852	0.003	25	1	1.38185	0
1	3	520	158.76	31.07	1700.14276	0	0	28	799.99	2.082	0.003	26	1	1.55345	0
1	3	540	178.61	34.81	2073.61059	0	0	28	900.02	2.333	0.003	27	1	1.7407	0
1	3	560	198.45	38.5	2488.80818	0	0	28	999.99	2.579	0.003	28	1	1.92485	0
1	4	570	198.45	38.26	2700.59316	0	0	28	999.99	2.563	0.003	29	1	1.9128	0
1	4	580	198.45	38.15	2908.92866	0	0	28	999.99	2.556	0.003	30	1	1.90745	0
1	4	590	198.45	38.09	3116.43321	0	0	28	999.99	2.552	0.003	31	1	1.90435	0
1	4	600	198.45	38	3323.93855	0	0	28	999.99	2.546	0.003	32	1	1.89985	0
1	4	610	198.45	37.95	3532.27405	0	0	28	999.99	2.543	0.003	33	1	1.89745	0
1	4	620	198.45	37.92	3739.98594	0	0	28	999.99	2.541	0.003	34	1	1.8962	0
1	5	640	198.45	37.84	4159.98311	0	0	28	999.99	2.535	0.003	35	1	1.8921	0
1	5	660	178.61	33.86	4534.83323	0	0	28	900.02	2.268	0.003	36	1	1.69285	0
1	5	680	158.76	29.94	4867.48705	0	0	28	799.99	2.006	0.003	37	1	1.49685	0
1	5	700	138.92	26.41	5158.68206	0	0	28	700.02	1.769	0.003	38	1	1.3203	0
1	5	720	119.07	22.7	5408.38841	0	0	28	599.99	1.521	0.003	39	1	1.13495	0
1	5	740	99.23	19.22	5616.67836	0	0	28	500.02	1.288	0.003	40	1	0.96115	0
1	5	760	79.38	15.65	5783.16628	0	0	28	400	1.049	0.003	41	1	0.78265	0
1	5	780	59.54	11.92	5908.1137	0	0	28	300.02	0.799	0.003	42	1	0.5962	0
1	5	800	39.69	8.03	5991.60231	0	0	28	200	0.538	0.003	43	1	0.4015	0
1	5	820	19.85	4.47	6033.49781	0	0	28	100.02	0.3	0.003	44	1	0.2237	0
1	6	840	17.86	4.68	6071.17021	0	0	28	90	0.314	0.003	45	1	0.23425	0
1	6	860	15.88	4.48	6104.4389	0	0	28	80.02	0.3	0.004	46	1	0.22415	0
1	6	880	13.89	4.54	6133.58109	0	0	28	69.99	0.304	0.004	47	1	0.2272	0
1	6	900	11.9	4.33	6158.53084	0	0	28	59.96	0.29	0.005	48	1	0.21635	0
1	6	920	9.92	3.84	6179.34153	0	0	28	49.99	0.257	0.005	49	1	0.1921	0
1	6	940	7.93	3.94	6195.97705	0	0	28	39.96	0.264	0.007	50	1	0.19705	0
1	6	960	5.95	3.89	6208.46959	0	0	28	29.98	0.261	0.009	51	1	0.19455	0
1	6	980	3.96	3.95	6216.80895	0	0	28	19.95	0.265	0.013	52	1	0.1974	0
1	6	1000	1.98	3.67	6220.9857	0	0	28	9.98	0.246	0.025	53	1	0.1834	0
1	7	1020	1.79	3.79	6224.7564	0	0	28	9.02	0.254	0.028	54	1	0.18945	0
1	7	1040	1.59	4.87	6228.09041	0	0	28	8.01	0.326	0.041	55	1	0.24335	0
1	7	1060	1.39	4.65	6231.00974	0	0	28	7	0.311	0.044	56	1	0.23235	0
1	7	1080	1.19	5.85	6233.51437	0	0	28	6	0.392	0.065	57	1	0.29245	0
1	7	1100	0.99	5.15	6235.60117	0	0	28	4.99	0.345	0.069	58	1	0.25725	0
1	7	1120	0.8	5.94	6237.27015	0	0	28	4.03	0.398	0.099	59	1	0.297	0
1	7	1140	0.6	6.65	6238.52207	0	0	28	3.02	0.445	0.147	60	1	0.33235	0

1	7	1160	0.4	6.41	6239.36088	0	0	28	2.02	0.43	0.213	61	1	0.3206	0
1	7	1180	0.2	11.5	6239.78185	0	0	28	1.01	0.771	0.763	62	1	0.5752	0

2004.02.06 META-5 wt%-U DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	7.16	0.4139	0	0	28	1.01	0.48	0.475	1	1	0.358	0
1	1	40	0.4	5.49	1.24643	0	0	28	2.02	0.368	0.182	2	1	0.27435	0
1	1	60	0.6	6.03	2.496	0	0	28	3.02	0.404	0.134	3	1	0.30165	0
1	1	80	0.8	5.37	4.16104	0	0	28	4.03	0.36	0.089	4	1	0.2685	0
1	1	100	1	5.96	6.24156	0	0	28	5.04	0.399	0.079	5	1	0.29785	0
1	1	120	1.19	4.91	8.73991	0	0	28	6	0.329	0.055	6	1	0.2454	0
1	1	140	1.39	5.76	11.65295	0	0	28	7	0.386	0.055	7	1	0.28775	0
1	1	160	1.59	4.66	14.98461	0	0	28	8.01	0.312	0.039	8	1	0.23295	0
1	1	180	1.79	4.53	18.73175	0	0	28	9.02	0.304	0.034	9	1	0.22655	0
1	2	200	1.98	4.07	22.90614	0	0	28	9.98	0.272	0.027	10	1	0.20325	0
1	2	220	3.97	4.54	31.18345	0	0	28	20	0.304	0.015	11	1	0.2269	0
1	2	240	5.95	4.36	43.61237	0	0	28	29.98	0.292	0.01	12	1	0.21805	0
1	2	260	7.94	4.42	60.20391	0	0	28	40.01	0.296	0.007	13	1	0.22085	0
1	2	280	9.92	4.63	80.95099	0	0	28	49.99	0.31	0.006	14	1	0.23145	0
1	2	300	11.91	5.26	105.86146	0	0	28	60.01	0.352	0.006	15	1	0.26305	0
1	2	320	13.89	5.38	134.93219	0	0	28	69.99	0.361	0.005	16	1	0.26905	0
1	2	340	15.88	5.47	168.16003	0	0	28	80.02	0.367	0.005	17	1	0.2737	0
1	2	360	17.86	5.83	205.50885	0	0	28	90	0.391	0.004	18	1	0.29155	0
1	3	380	19.85	6.2	247.42713	0	0	28	100.02	0.415	0.004	19	1	0.30985	0
1	3	400	39.69	10.56	330.31412	0	0	28	200	0.708	0.004	20	1	0.52815	0
1	3	420	59.54	14.09	454.71098	0	0	28	300.02	0.944	0.003	21	1	0.70445	0
1	3	440	79.38	17.41	620.49361	0	0	28	400	1.166	0.003	22	1	0.8703	0
1	3	460	99.23	21.06	828.16074	0	0	28	500.02	1.411	0.003	23	1	1.0529	0
1	3	480	119.07	24.42	1077.22306	0	0	28	599.99	1.636	0.003	24	1	1.22095	0
1	3	500	138.92	28.05	1367.77483	0	0	28	700.02	1.88	0.003	25	1	1.4027	0
1	3	520	158.76	31.45	1699.79483	0	0	28	799.99	2.107	0.003	26	1	1.57265	0
1	3	540	178.61	35.23	2073.71976	0	0	28	900.02	2.36	0.003	27	1	1.7613	0
1	3	560	198.45	38.91	2488.8341	0	0	28	999.99	2.607	0.003	28	1	1.94555	0
1	4	570	198.45	38.65	2700.72275	0	0	28	999.99	2.59	0.003	29	1	1.9325	0
1	4	580	198.45	38.56	2908.95458	0	0	28	999.99	2.584	0.003	30	1	1.9282	0
1	4	590	198.45	38.49	3116.45913	0	0	28	999.99	2.579	0.003	31	1	1.92465	0
1	4	600	198.45	38.41	3324.69174	0	0	28	999.99	2.573	0.003	32	1	1.92035	0
1	4	610	198.45	38.34	3532.40442	0	0	28	999.99	2.569	0.003	33	1	1.9168	0
1	4	620	198.45	38.27	3740.22078	0	0	28	999.99	2.564	0.003	34	1	1.9137	0
1	5	640	198.45	38.19	4160.63342	0	0	28	999.99	2.558	0.003	35	1	1.90925	0
1	5	660	178.61	34.16	4534.73427	0	0	28	900.02	2.289	0.003	36	1	1.70795	0
1	5	680	158.76	30.13	4867.73131	0	0	28	799.99	2.019	0.003	37	1	1.5064	0
1	5	700	138.92	26.57	5158.92711	0	0	28	700.02	1.78	0.003	38	1	1.3285	0
1	5	720	119.07	22.77	5408.56041	0	0	28	599.99	1.526	0.003	39	1	1.1385	0
1	5	740	99.23	19.19	5616.64145	0	0	28	500.02	1.286	0.003	40	1	0.95945	0
1	5	760	79.38	15.52	5783.29665	0	0	28	400	1.04	0.003	41	1	0.77585	0
1	5	780	59.54	11.87	5908.24329	0	0	28	300.02	0.795	0.003	42	1	0.5935	0
1	5	800	39.69	7.92	5991.7429	0	0	28	200	0.531	0.003	43	1	0.3962	0
1	5	820	19.85	4.33	6033.60698	0	0	28	100.02	0.29	0.003	44	1	0.2163	0
1	6	840	17.86	4.33	6071.27938	0	0	28	90	0.29	0.003	45	1	0.21645	0

1	6	860	15.88	4.03	6104.53943	0	0	28	80.02	0.27	0.003	46	1	0.20165	0
1	6	880	13.89	3.95	6133.65806	0	0	28	69.99	0.264	0.004	47	1	0.19725	0
1	6	900	11.9	3.69	6158.63372	0	0	28	59.96	0.247	0.004	48	1	0.1847	0
1	6	920	9.92	3.21	6179.44913	0	0	28	49.99	0.215	0.004	49	1	0.1603	0
1	6	940	7.93	3.12	6196.08387	0	0	28	39.96	0.209	0.005	50	1	0.15575	0
1	6	960	5.95	3.05	6208.57641	0	0	28	29.98	0.204	0.007	51	1	0.15245	0
1	6	980	3.96	3.12	6216.91498	0	0	28	19.95	0.209	0.01	52	1	0.1559	0
1	6	1000	1.98	2.57	6221.08937	0	0	28	9.98	0.172	0.017	53	1	0.12855	0
1	7	1020	1.79	2.82	6224.85614	0	0	28	9.02	0.189	0.021	54	1	0.14115	0
1	7	1040	1.59	3.47	6228.1933	0	0	28	8.01	0.233	0.029	55	1	0.17355	0
1	7	1060	1.39	3.82	6231.11341	0	0	28.1	7	0.256	0.037	56	1	0.1911	0
1	7	1080	1.19	4.12	6233.61647	0	0	28.1	6	0.276	0.046	57	1	0.2058	0
1	7	1100	0.99	3.42	6235.70171	0	0	28.1	4.99	0.229	0.046	58	1	0.17115	0
1	7	1120	0.8	4.46	6237.37303	0	0	28.1	4.03	0.299	0.074	59	1	0.22295	0
1	7	1140	0.6	5.13	6238.62339	0	0	28.1	3.02	0.343	0.114	60	1	0.2563	0
1	7	1160	0.4	5.97	6239.46376	0	0	28	2.02	0.4	0.198	61	1	0.2984	0
1	7	1180	0.2	4.99	6239.88552	0	0	28	1.01	0.334	0.331	62	1	0.2493	0

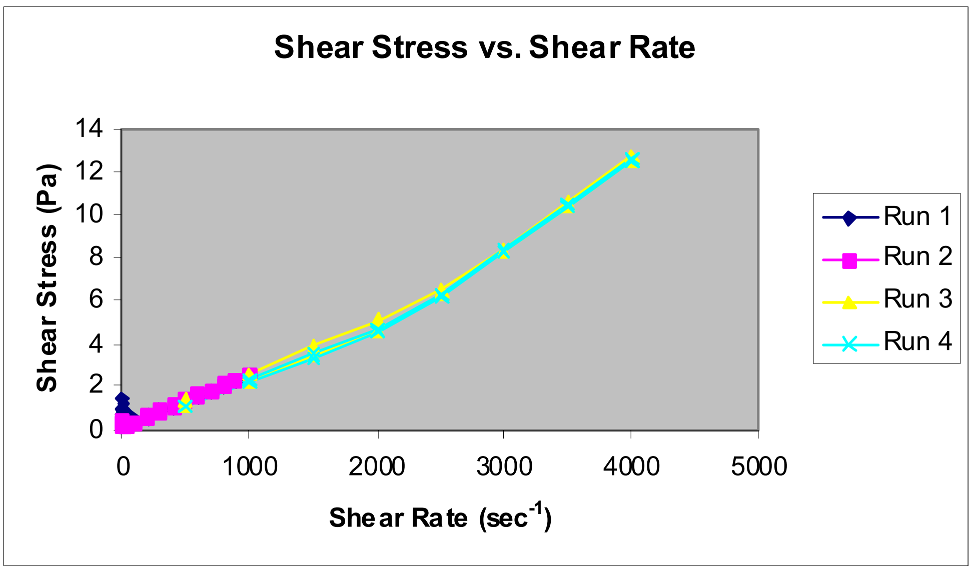
2004.02.06 META-5 wt%-U DG 500-4000 s-1 run 1.txt

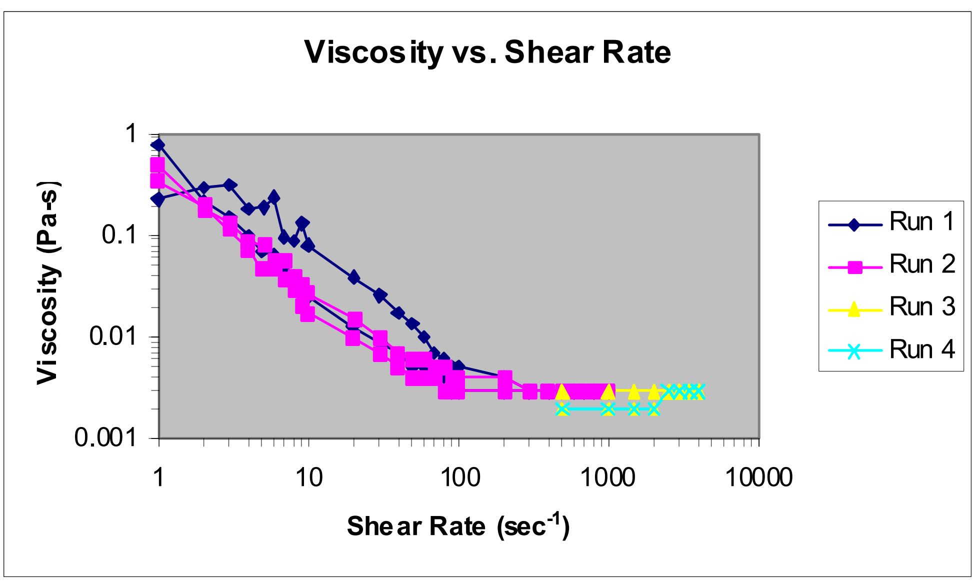
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	20.96	207.67106	0	0	28	500.02	1.404	0.003	1	1	1.04775	0
1	1	40	198.46	39.43	621.49813	0	0	28	1000.04	2.642	0.003	2	1	1.9716	0
1	1	60	297.68	58.18	1243.81936	0	0	28	1500.01	3.898	0.003	3	1	2.9092	0
1	1	80	396.91	76.09	2073.75039	0	0	28	2000.03	5.098	0.003	4	1	3.80445	0
1	1	100	496.13	96.25	3110.92835	0	0	28	2500	6.448	0.003	5	1	4.8123	0
1	1	120	595.36	124.17	4355.55746	0	0	28	3000.02	8.319	0.003	6	1	6.20835	0
1	1	140	694.58	158.18	5808.57627	0	0	28	3499.99	10.598	0.003	7	1	7.9088	0
1	1	160	793.81	190.26	7469.41221	0	0	28	4000.01	12.747	0.003	8	1	9.5129	0
1	2	180	793.81	188.28	9148.79611	0	0	28	4000.01	12.614	0.003	9	1	9.41375	0
1	2	200	793.81	188.96	10812.17989	0	0	28	4000.01	12.66	0.003	10	1	9.44795	0
1	2	220	793.81	188.35	12474.73271	0	0	28	4000.01	12.619	0.003	11	1	9.4173	0
1	3	240	793.81	187.25	14155.15413	0	0	28	4000.01	12.546	0.003	12	1	9.36255	0
1	3	260	694.58	155.46	15610.87942	0	0	28	3499.99	10.416	0.003	13	1	7.77295	0
1	3	280	595.36	123.83	16859.45829	0	0	28	3000.02	8.296	0.003	14	1	6.1914	0
1	3	300	496.13	93.7	17900.53262	0	0	28	2500	6.278	0.003	15	1	4.6849	0
1	3	320	396.91	68.03	18733.10808	0	0	28	2000.03	4.558	0.002	16	1	3.4015	0
1	3	340	297.68	50.92	19358.92826	0	0	28	1500.01	3.412	0.002	17	1	2.54605	0
1	3	360	198.46	33.76	19776.13098	0	0	28	1000.04	2.262	0.002	18	1	1.68775	0
1	3	380	99.23	17.13	19985.54719	0	0	28	500.02	1.148	0.002	19	1	0.85665	0

2004.02.06 META-5 wt%-U DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	16.88	207.77944	0	0	28	500.42	1.131	0.002	1	1	0.8439	0
1	1	40	198.46	34.56	621.45179	0	0	28	1000.04	2.315	0.002	2	1	1.7278	0
1	1	60	297.68	52.15	1243.51227	0	0	28	1500.01	3.494	0.002	3	1	2.6073	0
1	1	80	396.91	69.66	2073.85956	0	0	28	2000.03	4.667	0.002	4	1	3.48275	0
1	1	100	496.13	93.56	3110.82782	0	0	28	2500	6.269	0.003	5	1	4.6782	0
1	1	120	595.36	123.89	4356.75755	0	0	28	3000.02	8.301	0.003	6	1	6.19455	0
1	1	140	694.58	156.64	5809.77321	0	0	28	3499.99	10.495	0.003	7	1	7.8319	0
1	1	160	793.81	187.71	7471.02542	0	0	28	4000.01	12.577	0.003	8	1	9.38555	0

1	2	180	793.81	186.56	9150.4643	0	0	28	4000.01	12.499	0.003	9	1	9.3278	0
1	2	200	793.81	186.87	10814.26198	0	0	28	4000.01	12.52	0.003	10	1	9.3434	0
1	2	220	793.81	186.71	12475.56759	0	0	28	4000.01	12.51	0.003	11	1	9.33545	0
1	3	240	793.81	186.27	14155.57353	0	0	28	4000.01	12.48	0.003	12	1	9.3136	0
1	3	260	694.58	154.75	15612.69918	0	0	28	3499.99	10.369	0.003	13	1	7.7377	0
1	3	280	595.36	123.46	16861.64327	0	0	28	3000.02	8.272	0.003	14	1	6.1728	0
1	3	300	496.13	93.4	17901.85052	0	0	28	2500	6.258	0.003	15	1	4.6699	0
1	3	320	396.91	67.37	18734.83046	0	0	28	2000.03	4.514	0.002	16	1	3.3684	0
1	3	340	297.68	50.4	19359.82283	0	0	28	1500.01	3.376	0.002	17	1	2.51975	0
1	3	360	198.46	33.4	19777.28551	0	0	28	1000.04	2.238	0.002	18	1	1.6702	0
1	3	380	99.23	17.01	19986.80932	0	0	28.1	500.02	1.14	0.002	19	1	0.85055	0





E-2.1.14 META/5wt%/U/S

2004.02.04 META-5 wt%-U [sonicated] DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41626	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.24878	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49757	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16182	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.24313	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.73991	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65531	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.98383	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.73253	0	0	28	9.02	0	0	9	1	0	0
1	2	200	1.98	0	22.90378	0	0	28	9.98	0	0	10	1	0	0
1	2	220	3.97	1.96	31.18109	0	0	28	20	0.132	0.007	11	1	0.098	0
1	2	240	5.95	2.32	43.61787	0	0	28	29.98	0.155	0.005	12	1	0.116	0
1	2	260	7.94	2.62	60.21726	0	0	28	40.01	0.176	0.004	13	1	0.131	0
1	2	280	9.92	2.96	80.97062	0	0	28	49.99	0.198	0.004	14	1	0.148	0
1	2	300	11.91	3.65	105.85832	0	0	28	60.01	0.244	0.004	15	1	0.182	0
1	2	320	13.89	4.1	134.94319	0	0	28	69.99	0.275	0.004	16	1	0.205	0
1	2	340	15.88	4.42	168.14589	0	0	28	80.02	0.296	0.004	17	1	0.221	0
1	2	360	17.86	4.96	205.51278	0	0	28	90	0.332	0.004	18	1	0.248	0
1	3	380	19.85	5.35	247.43184	0	0	28	100	0.358	0.004	19	1	0.267	0
1	3	400	39.69	10.38	330.31805	0	0	28	200	0.695	0.003	20	1	0.519	0
1	3	420	59.54	15.1	454.68349	0	0	28	300	1.012	0.003	21	1	0.755	0
1	3	440	79.38	19.61	620.50853	0	0	28	400	1.314	0.003	22	1	0.981	0
1	3	460	99.23	24.17	828.23692	0	0	28	500	1.62	0.003	23	1	1.209	0
1	3	480	119.1	28.52	1077.1846	0	0	28	600	1.911	0.003	24	1	1.426	0
1	3	500	138.9	32.84	1367.8816	0	0	28	700	2.2	0.003	25	1	1.642	0
1	3	520	158.8	36.89	1700.1514	0	0	28	800	2.472	0.003	26	1	1.845	0
1	3	540	178.6	41.25	2073.9106	0	0	28	900	2.764	0.003	27	1	2.062	0
1	3	560	198.5	45.46	2489.003	0	0	28	1000	3.046	0.003	28	1	2.273	0
1	4	570	198.5	45.09	2700.9961	0	0	28	1000	3.021	0.003	29	1	2.254	0
1	4	580	198.5	44.91	2908.6051	0	0	28	1000	3.009	0.003	30	1	2.246	0
1	4	590	198.5	44.81	3116.9406	0	0	28	1000	3.002	0.003	31	1	2.24	0
1	4	600	198.5	44.72	3324.4459	0	0	28	1000	2.996	0.003	32	1	2.236	0
1	4	610	198.5	44.56	3532.1586	0	0	28	1000	2.985	0.003	33	1	2.228	0
1	4	620	198.5	44.45	3739.975	0	0	28	1000	2.978	0.003	34	1	2.222	0
1	5	640	198.5	44.38	4159.9713	0	0	28	1000	2.974	0.003	35	1	2.219	0
1	5	660	178.6	39.62	4534.3534	0	0	28	900	2.654	0.003	36	1	1.981	0
1	5	680	158.8	34.99	4867.2671	0	0	28	800	2.344	0.003	37	1	1.749	0
1	5	700	138.9	30.79	5158.8266	0	0	28	700	2.063	0.003	38	1	1.539	0
1	5	720	119.1	26.35	5408.3358	0	0	28	600	1.765	0.003	39	1	1.317	0
1	5	740	99.23	22.17	5616.5833	0	0	28	500	1.486	0.003	40	1	1.109	0
1	5	760	79.38	17.59	5783.1239	0	0	28	400	1.179	0.003	41	1	0.88	0
1	5	780	59.54	13.37	5908.0501	0	0	28	300	0.896	0.003	42	1	0.668	0
1	5	800	39.69	8.8	5991.5599	0	0	28	200	0.59	0.003	43	1	0.44	0
1	5	820	19.85	4.49	6033.4036	0	0	28	100	0.301	0.003	44	1	0.225	0
1	6	840	17.86	4.36	6071.0964	0	0	28	90	0.292	0.003	45	1	0.218	0
1	6	860	15.88	3.63	6104.3556	0	0	28	80.02	0.243	0.003	46	1	0.181	0
1	6	880	13.89	3.46	6133.4994	0	0	28	69.99	0.232	0.003	47	1	0.173	0
1	6	900	11.9	3.07	6158.4499	0	0	28	59.96	0.206	0.003	48	1	0.153	0

1	6	920	9.92	2.41	6179.2449	0	0	28	49.99	0.161	0.003	49	1	0.121	0
1	6	940	7.93	2.14	6195.8922	0	0	28	39.96	0.143	0.004	50	1	0.107	0
1	6	960	5.95	1.82	6208.3824	0	0	28	29.98	0.122	0.004	51	1	0.091	0
1	6	980	3.96	1.41	6216.7249	0	0	28	19.95	0.094	0.005	52	1	0.07	0
1	6	1000	1.98	0	6220.8993	0	0	28	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6224.6708	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.0056	0	0	28	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6230.9257	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6233.428	0	0	28	6	0	0	57	1	0	0
1	7	1100	0.99	0	6235.5156	0	0	28	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.1853	0	0	28	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6238.4396	0	0	28	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.2776	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6239.6986	0	0	28	1.01	0	0	62	1	0	0

2004.02.04 META-5 wt%-U [sonicated] DG 1-1000 s-1
run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	0	0.41626	0	0	28	1.01	0	0	1	1	0	0
1	1	40	0.4	0	1.248	0	0	28	2.02	0	0	2	1	0	0
1	1	60	0.6	0	2.49757	0	0	28	3.02	0	0	3	1	0	0
1	1	80	0.8	0	4.16261	0	0	28	4.03	0	0	4	1	0	0
1	1	100	1	0	6.24234	0	0	28	5.04	0	0	5	1	0	0
1	1	120	1.19	0	8.74227	0	0	28	6	0	0	6	1	0	0
1	1	140	1.39	0	11.65452	0	0	28	7	0	0	7	1	0	0
1	1	160	1.59	0	14.98461	0	0	28	8.01	0	0	8	1	0	0
1	1	180	1.79	0	18.73018	0	0	28	9.02	0	0	9	1	0	0
1	2	200	1.98	0	22.90378	0	0	28	9.98	0	0	10	1	0	0
1	2	220	3.97	1.66	31.18109	0	0	28	20	0.111	0.006	11	1	0.083	0
1	2	240	5.95	2.16	43.6218	0	0	28	29.98	0.145	0.005	12	1	0.108	0
1	2	260	7.94	2.54	60.19684	0	0	28	40.01	0.17	0.004	13	1	0.127	0
1	2	280	9.92	2.93	80.94471	0	0	28	49.99	0.196	0.004	14	1	0.146	0
1	2	300	11.91	3.64	105.86775	0	0	28	60.01	0.244	0.004	15	1	0.182	0
1	2	320	13.89	4.16	134.90784	0	0	28	69.99	0.279	0.004	16	1	0.208	0
1	2	340	15.88	4.4	168.12704	0	0	28	80.02	0.295	0.004	17	1	0.22	0
1	2	360	17.86	4.97	205.50257	0	0	28	90	0.333	0.004	18	1	0.249	0
1	3	380	19.85	5.38	247.42163	0	0	28	100	0.361	0.004	19	1	0.269	0
1	3	400	39.69	10.37	330.30784	0	0	28	200	0.695	0.003	20	1	0.519	0
1	3	420	59.54	15.28	454.7047	0	0	28	300	1.024	0.003	21	1	0.764	0
1	3	440	79.38	19.76	620.62163	0	0	28	400	1.324	0.003	22	1	0.988	0
1	3	460	99.23	24.32	828.01858	0	0	28	500	1.629	0.003	23	1	1.216	0
1	3	480	119.1	28.64	1077.278	0	0	28	600	1.919	0.003	24	1	1.432	0
1	3	500	138.9	33	1367.6005	0	0	28	700	2.211	0.003	25	1	1.65	0
1	3	520	158.8	37.05	1700.12	0	0	28	800	2.482	0.003	26	1	1.853	0
1	3	540	178.6	41.47	2073.5776	0	0	28	900	2.779	0.003	27	1	2.074	0
1	3	560	198.5	45.68	2489.2001	0	0	28	1000	3.061	0.003	28	1	2.284	0
1	4	570	198.5	45.45	2701.0895	0	0	28	1000	3.045	0.003	29	1	2.273	0
1	4	580	198.5	45.24	2909.3221	0	0	28	1000	3.031	0.003	30	1	2.262	0
1	4	590	198.5	45.05	3117.0348	0	0	28	1000	3.018	0.003	31	1	2.253	0
1	4	600	198.5	44.91	3324.5394	0	0	28	1000	3.009	0.003	32	1	2.246	0
1	4	610	198.5	44.76	3532.3557	0	0	28	1000	2.999	0.003	33	1	2.238	0
1	4	620	198.5	44.67	3740.0684	0	0	28	1000	2.993	0.003	34	1	2.234	0

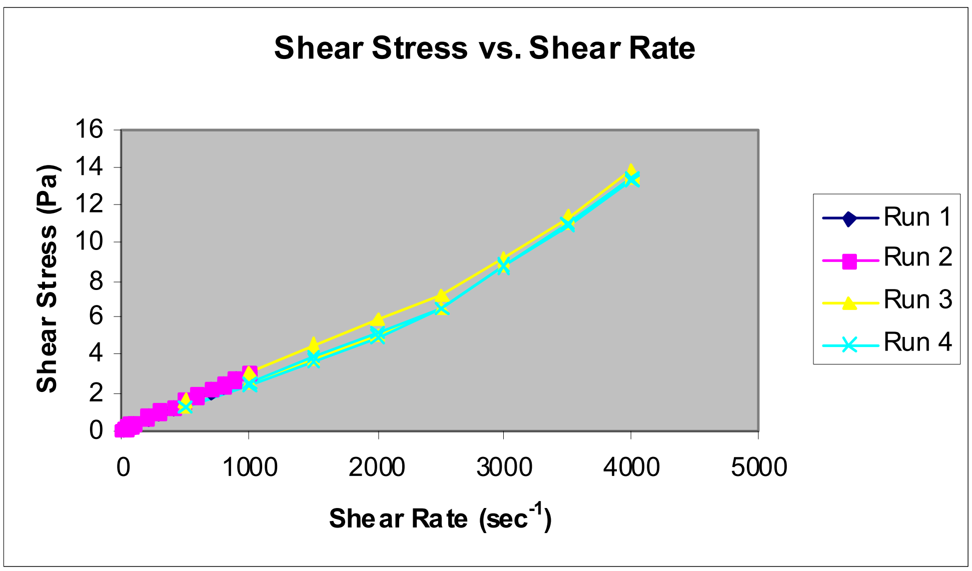
1	5	640	198.5	44.55	4160.5839	0	0	28	1000	2.985	0.003	35	1	2.228	0
1	5	660	178.6	39.78	4534.8733	0	0	28	900	2.665	0.003	36	1	1.989	0
1	5	680	158.8	35.18	4867.5263	0	0	28	800	2.357	0.003	37	1	1.759	0
1	5	700	138.9	30.97	5158.6499	0	0	28	700	2.075	0.003	38	1	1.548	0
1	5	720	119.1	26.47	5408.5942	0	0	28	600	1.774	0.003	39	1	1.324	0
1	5	740	99.23	22.33	5616.5731	0	0	28	500	1.496	0.003	40	1	1.117	0
1	5	760	79.38	17.77	5783.1757	0	0	28	400	1.191	0.003	41	1	0.889	0
1	5	780	59.54	13.43	5908.1333	0	0	28	300	0.9	0.003	42	1	0.672	0
1	5	800	39.69	8.77	5991.6329	0	0	28	200	0.588	0.003	43	1	0.439	0
1	5	820	19.85	4.46	6033.5182	0	0	28	100	0.299	0.003	44	1	0.223	0
1	6	840	17.86	4.18	6071.1899	0	0	28	90	0.28	0.003	45	1	0.209	0
1	6	860	15.88	3.69	6104.4907	0	0	28	80.02	0.247	0.003	46	1	0.184	0
1	6	880	13.89	3.43	6133.5882	0	0	28	69.99	0.23	0.003	47	1	0.172	0
1	6	900	11.9	3.03	6158.5497	0	0	28	59.96	0.203	0.003	48	1	0.151	0
1	6	920	9.92	2.34	6179.3659	0	0	28	49.99	0.157	0.003	49	1	0.117	0
1	6	940	7.93	2.05	6196.0171	0	0	28	39.96	0.137	0.003	50	1	0.102	0
1	6	960	5.95	1.82	6208.5002	0	0	28	29.98	0.122	0.004	51	1	0.091	0
1	6	980	3.96	1.4	6216.8325	0	0	28	19.95	0.094	0.005	52	1	0.07	0
1	6	1000	1.98	0	6221.0085	0	0	28	9.98	0	0	53	1	0	0
1	7	1020	1.79	0	6224.7768	0	0	28	9.02	0	0	54	1	0	0
1	7	1040	1.59	0	6228.114	0	0	28	8.01	0	0	55	1	0	0
1	7	1060	1.39	0	6231.0333	0	0	28	7	0	0	56	1	0	0
1	7	1080	1.19	0	6233.5364	0	0	28	6	0	0	57	1	0	0
1	7	1100	0.99	0	6235.6224	0	0	28	4.99	0	0	58	1	0	0
1	7	1120	0.8	0	6237.2921	0	0	28	4.03	0	0	59	1	0	0
1	7	1140	0.6	0	6238.5472	0	0	28	3.02	0	0	60	1	0	0
1	7	1160	0.4	0	6239.3844	0	0	28	2.02	0	0	61	1	0	0
1	7	1180	0.2	0	6239.807	0	0	28	1.01	0	0	62	1	0	0

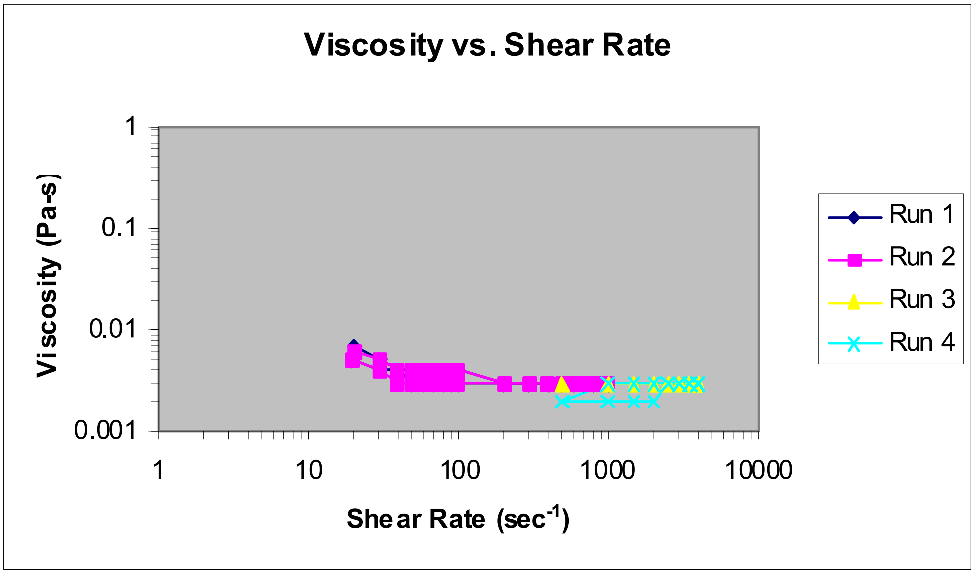
2004.02.04 META-5 wt%-U [sonicated] DG 500-4000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.24	23.11	207.47706	0	0	28	500.1	1.548	0.003	1	1	1.155	0
1	1	40	198.5	46.16	621.66699	0	0	28	1000	3.092	0.003	2	1	2.308	0
1	1	60	297.7	68.01	1243.4157	0	0	28	1500	4.557	0.003	3	1	3.401	0
1	1	80	396.9	88.87	2073.9711	0	0	28	2000	5.954	0.003	4	1	4.444	0
1	1	100	496.1	108.2	3111.4601	0	0	28	2500	7.247	0.003	5	1	5.408	0
1	1	120	595.4	136.5	4356.6625	0	0	28	3000	9.143	0.003	6	1	6.823	0
1	1	140	694.6	168.9	5808.2252	0	0	28	3500	11.32	0.003	7	1	8.444	0
1	1	160	793.8	205.4	7471.1362	0	0	28	4000	13.76	0.003	8	1	10.27	0
1	2	180	793.8	204.4	9152.2377	0	0	28	4000	13.69	0.003	9	1	10.22	0
1	2	200	793.8	203.4	10814.789	0	0	28	4000	13.63	0.003	10	1	10.17	0
1	2	220	793.8	202.1	12476.925	0	0	28	4000	13.54	0.003	11	1	10.1	0
1	3	240	793.8	200.7	14156.101	0	0	28	4000	13.45	0.003	12	1	10.04	0
1	3	260	694.6	165	15613.955	0	0	28	3500	11.05	0.003	13	1	8.25	0
1	3	280	595.4	131.5	16861.913	0	0	28	3000	8.808	0.003	14	1	6.573	0
1	3	300	496.1	96.93	17903.047	0	0	28	2500	6.494	0.003	15	1	4.846	0
1	3	320	396.9	76.57	18735.39	0	0	28	2000	5.13	0.003	16	1	3.828	0
1	3	340	297.7	57.32	19361.365	0	0	28	1500	3.84	0.003	17	1	2.866	0
1	3	360	198.5	37.73	19778.563	0	0	28	1000	2.528	0.003	18	1	1.886	0
1	3	380	99.23	18.93	19988.031	0	0	28	500	1.268	0.003	19	1	0.946	0

2004.02.04 META-5 wt%-U [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	18.66	207.72132	0	0	28	500.4	1.25	0.002	1	1	0.933	0
1	1	40	198.5	38.2	622.0165	0	0	28	1000	2.559	0.003	2	1	1.91	0
1	1	60	297.7	57.96	1243.7133	0	0	28	1500	3.884	0.003	3	1	2.898	0
1	1	80	396.9	77.5	2072.9697	0	0	28	2000	5.192	0.003	4	1	3.875	0
1	1	100	496.1	97.07	3110.1987	0	0	28	2500	6.504	0.003	5	1	4.853	0
1	1	120	595.4	131.1	4356.0719	0	0	28	3000	8.782	0.003	6	1	6.554	0
1	1	140	694.6	164	5807.999	0	0	28	3500	10.99	0.003	7	1	8.198	0
1	1	160	793.8	199.7	7470.0837	0	0	28	4000	13.38	0.003	8	1	9.983	0
1	2	180	793.8	199.1	9150.7133	0	0	28	4000	13.34	0.003	9	1	9.956	0
1	2	200	793.8	198.3	10812.437	0	0	28	4000	13.29	0.003	10	1	9.916	0
1	2	220	793.8	197.4	12474.57	0	0	28	4000	13.23	0.003	11	1	9.87	0
1	3	240	793.8	196.9	14153.332	0	0	28	4000	13.2	0.003	12	1	9.847	0
1	3	260	694.6	162.5	15611.186	0	0	28	3500	10.89	0.003	13	1	8.125	0
1	3	280	595.4	129.4	16859.454	0	0	28	3000	8.673	0.003	14	1	6.472	0
1	3	300	496.1	96.38	17899.756	0	0	28	2500	6.458	0.003	15	1	4.819	0
1	3	320	396.9	74.38	18732.569	0	0	28	2000	4.983	0.002	16	1	3.719	0
1	3	340	297.7	55.69	19358.233	0	0	28	1500	3.731	0.002	17	1	2.785	0
1	3	360	198.5	36.6	19775.641	0	0	28	1000	2.452	0.002	18	1	1.83	0
1	3	380	99.23	18.44	19985.209	0	0	28	500	1.236	0.002	19	1	0.922	0





E-2.1.15 META/10wt%/U/N

2004.02.09 META-10 wt%-U DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.19	47.71	0.39034	0	0	28	0.96	3.196	3.329	1	1	2.38525	0
1	1	40	0.4	109.43	1.21187	0	0	28	2.02	7.332	3.63	2	1	5.47135	0
1	1	60	0.6	108.28	2.46694	0	0	28	3.02	7.255	2.402	3	1	5.41385	0
1	1	80	0.79	122.95	4.10999	0	0	28	3.98	8.238	2.07	4	1	6.14765	0
1	1	100	0.99	163.9	6.17637	0	0	28	4.99	10.982	2.201	5	1	8.19515	0
1	1	120	1.21	114.24	8.70378	0	0	28	6.1	7.654	1.255	6	1	5.71205	0
1	1	140	1.39	92.9	11.62546	0	0	28.1	7	6.225	0.889	7	1	4.6452	0
1	1	160	1.59	103.18	14.96184	0	0	28.1	8.01	6.913	0.863	8	1	5.1592	0
1	1	180	1.78	74.04	18.69405	0	0	28.1	8.97	4.961	0.553	9	1	3.70205	0
1	2	200	1.99	68.31	22.88964	0	0	28	10.03	4.577	0.456	10	1	3.4153	0
1	2	220	3.95	86.04	31.14339	0	0	28	19.9	5.764	0.29	11	1	4.30185	0
1	2	240	5.96	75.12	43.5786	0	0	28	30.03	5.033	0.168	12	1	3.7562	0
1	2	260	7.94	57.61	60.17642	0	0	28	40.01	3.86	0.096	13	1	2.8803	0
1	2	280	9.92	45.28	80.93292	0	0	28	49.99	3.034	0.061	14	1	2.2641	0
1	2	300	11.91	39.77	105.83476	0	0	28	60.01	2.665	0.044	15	1	1.9885	0
1	2	320	13.89	35.77	134.89135	0	0	28	69.99	2.397	0.034	16	1	1.78845	0
1	2	340	15.88	34.34	168.1349	0	0	28	80.02	2.301	0.029	17	1	1.71715	0
1	2	360	17.86	23.37	205.49393	0	0	28	90	1.566	0.017	18	1	1.16855	0
1	3	380	19.85	21.5	247.42241	0	0	28	100.02	1.44	0.014	19	1	1.0748	0
1	3	400	39.69	25.9	330.24658	0	0	28	200	1.735	0.009	20	1	1.29505	0
1	3	420	59.54	26.36	454.74711	0	0	28	300.02	1.766	0.006	21	1	1.31775	0
1	3	440	79.38	28.42	620.74808	0	0	28	400	1.904	0.005	22	1	1.42105	0
1	3	460	99.23	31.12	828.21729	0	0	28	500.02	2.085	0.004	23	1	1.55575	0
1	3	480	119.07	35.15	1077.17515	0	0	28	599.99	2.355	0.004	24	1	1.75745	0
1	3	500	138.92	38.82	1367.72692	0	0	28	700.02	2.601	0.004	25	1	1.94115	0
1	3	520	158.76	42.53	1700.16319	0	0	28	799.99	2.849	0.004	26	1	2.1264	0
1	3	540	178.61	46.61	2074.00486	0	0	28	900.02	3.123	0.003	27	1	2.33025	0
1	3	560	198.45	50.65	2488.7964	0	0	28	999.99	3.393	0.003	28	1	2.53235	0

1	4	570	198.45	49.85	2700.47849	0	0	28	999.99	3.34	0.003	29	1	2.4923	0
1	4	580	198.45	49.51	2908.60664	0	0	28	999.99	3.317	0.003	30	1	2.47525	0
1	4	590	198.45	49.28	3116.83769	0	0	28	999.99	3.301	0.003	31	1	2.4638	0
1	4	600	198.45	49.12	3324.13568	0	0	28	999.99	3.291	0.003	32	1	2.4562	0
1	4	610	198.45	49.11	3532.36751	0	0	28	999.99	3.29	0.003	33	1	2.45555	0
1	4	620	198.45	48.8	3739.87206	0	0	28	999.99	3.27	0.003	34	1	2.43995	0
1	5	640	198.45	48.6	4160.07657	0	0	28	999.99	3.256	0.003	35	1	2.4301	0
1	5	660	178.61	43.55	4534.65652	0	0	28	900.02	2.918	0.003	36	1	2.1774	0
1	5	680	158.76	38.67	4867.47606	0	0	28	799.99	2.591	0.003	37	1	1.9333	0
1	5	700	138.92	34.29	5158.73468	0	0	28	700.02	2.298	0.003	38	1	1.7146	0
1	5	720	119.07	29.71	5408.3782	0	0	28	599.99	1.991	0.003	39	1	1.48545	0
1	5	740	99.23	25.25	5616.46081	0	0	28	500.02	1.691	0.003	40	1	1.2623	0
1	5	760	79.38	20.53	5783.04219	0	0	28	400	1.375	0.003	41	1	1.02635	0
1	5	780	59.54	16.11	5908.02102	0	0	28	300.02	1.08	0.004	42	1	0.8057	0
1	5	800	39.69	11.65	5991.55126	0	0	28	200	0.78	0.004	43	1	0.58245	0
1	5	820	19.85	7.83	6033.40513	0	0	28	100.02	0.524	0.005	44	1	0.39125	0
1	6	840	17.86	10.32	6071.09717	0	0	28	90	0.692	0.008	45	1	0.5161	0
1	6	860	15.88	9.83	6104.37528	0	0	28	80.02	0.658	0.008	46	1	0.4913	0
1	6	880	13.89	10.01	6133.49627	0	0	28	69.99	0.67	0.01	47	1	0.50035	0
1	6	900	11.9	9.33	6158.47272	0	0	28	59.96	0.625	0.01	48	1	0.46645	0
1	6	920	9.92	9.22	6179.26692	0	0	28	49.99	0.618	0.012	49	1	0.46095	0
1	6	940	7.93	9.49	6195.91736	0	0	28	39.96	0.636	0.016	50	1	0.47445	0
1	6	960	5.95	8.55	6208.40362	0	0	28	29.98	0.573	0.019	51	1	0.42745	0
1	6	980	3.96	8.57	6216.73827	0	0	28	19.95	0.574	0.029	52	1	0.42855	0
1	6	1000	1.98	8.74	6220.90559	0	0	28	9.98	0.585	0.059	53	1	0.4368	0
1	7	1020	1.79	7.54	6224.67943	0	0	28	9.02	0.505	0.056	54	1	0.3771	0
1	7	1040	1.59	12.25	6228.01266	0	0	28	8.01	0.821	0.102	55	1	0.61255	0
1	7	1060	1.39	7.47	6230.93434	0	0	28	7	0.501	0.072	56	1	0.3737	0
1	7	1080	1.19	12.36	6233.43662	0	0	28	6	0.828	0.138	57	1	0.61815	0
1	7	1100	0.99	8.82	6235.52421	0	0	28	4.99	0.591	0.118	58	1	0.44115	0
1	7	1120	0.8	6.82	6237.19475	0	0	28	4.03	0.457	0.113	59	1	0.3408	0
1	7	1140	0.6	11.15	6238.44432	0	0	28	3.02	0.747	0.247	60	1	0.5575	0
1	7	1160	0.4	18.03	6239.28155	0	0	28	2.02	1.208	0.598	61	1	0.90145	0
1	7	1180	0.2	17.91	6239.70409	0	0	28	1.01	1.2	1.188	62	1	0.89555	0

2004.02.09 META-10 wt%-U DG 1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	19.22	0.40998	0	0	28	1.01	1.288	1.275	1	1	0.9609	0
1	1	40	0.4	13.51	1.24486	0	0	28	2.02	0.905	0.448	2	1	0.6754	0
1	1	60	0.6	8.62	2.49521	0	0	28	3.02	0.578	0.191	3	1	0.43115	0
1	1	80	0.8	8.7	4.15947	0	0	28	4.03	0.583	0.145	4	1	0.43515	0
1	1	100	1	15.65	6.23685	0	0	28	5.04	1.049	0.208	5	1	0.7826	0
1	1	120	1.19	10.31	8.73755	0	0	28	6	0.691	0.115	6	1	0.51545	0
1	1	140	1.39	11.28	11.64981	0	0	28	7	0.756	0.108	7	1	0.5639	0
1	1	160	1.59	11.78	14.98226	0	0	28	8.01	0.789	0.099	8	1	0.58895	0
1	1	180	1.79	12.2	18.72546	0	0	28	9.02	0.817	0.091	9	1	0.60995	0
1	2	200	1.98	10.03	22.89985	0	0	28	9.98	0.672	0.067	10	1	0.5014	0
1	2	220	3.97	13.07	31.17167	0	0	28	20	0.876	0.044	11	1	0.65345	0
1	2	240	5.95	12.46	43.62023	0	0	28	29.98	0.835	0.028	12	1	0.6232	0
1	2	260	7.94	11.33	60.1992	0	0	28	40.01	0.759	0.019	13	1	0.5666	0

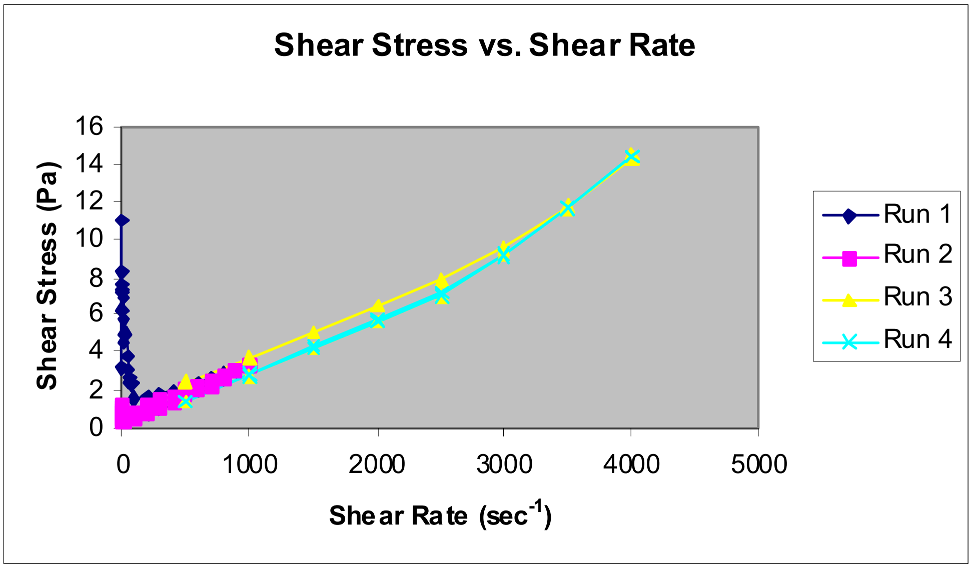
1	2	280	9.92	12.05	80.93999	0	0	28	49.99	0.808	0.016	14	1	0.60265	0
1	2	300	11.91	11.59	105.84575	0	0	28	60.01	0.777	0.013	15	1	0.5797	0
1	2	320	13.89	11.77	134.93062	0	0	28	69.99	0.788	0.011	16	1	0.58835	0
1	2	340	15.88	12.17	168.1239	0	0	28	80.02	0.815	0.01	17	1	0.6085	0
1	2	360	17.86	11.94	205.50885	0	0	28	90	0.8	0.009	18	1	0.59675	0
1	3	380	19.85	12.22	247.45776	0	0	28	100.02	0.819	0.008	19	1	0.6109	0
1	3	400	39.69	18.22	330.21909	0	0	28	200	1.221	0.006	20	1	0.9109	0
1	3	420	59.54	22.47	454.67799	0	0	28	300.02	1.505	0.005	21	1	1.12345	0
1	3	440	79.38	25.9	620.62634	0	0	28	400	1.735	0.004	22	1	1.29485	0
1	3	460	99.23	29.44	828.20001	0	0	28	500.02	1.973	0.004	23	1	1.47205	0
1	3	480	119.07	33.44	1077.09583	0	0	28	599.99	2.24	0.004	24	1	1.6718	0
1	3	500	138.92	37.6	1367.79289	0	0	28	700.02	2.519	0.004	25	1	1.8802	0
1	3	520	158.76	41.55	1699.9904	0	0	28	799.99	2.784	0.003	26	1	2.07755	0
1	3	540	178.61	46	2073.64514	0	0	28	900.02	3.082	0.003	27	1	2.30015	0
1	3	560	198.45	50.36	2489.16318	0	0	28	999.99	3.374	0.003	28	1	2.5179	0
1	4	570	198.45	49.89	2700.84527	0	0	28	999.99	3.343	0.003	29	1	2.49455	0
1	4	580	198.45	49.52	2909.0771	0	0	28	999.99	3.318	0.003	30	1	2.47615	0
1	4	590	198.45	49.33	3117.20526	0	0	28	999.99	3.305	0.003	31	1	2.46665	0
1	4	600	198.45	49.15	3324.50325	0	0	28	999.99	3.293	0.003	32	1	2.45765	0
1	4	610	198.45	49.02	3532.73429	0	0	28	999.99	3.284	0.003	33	1	2.45095	0
1	4	620	198.45	48.88	3740.3433	0	0	28	999.99	3.275	0.003	34	1	2.44385	0
1	5	640	198.45	48.72	4160.54781	0	0	28	999.99	3.264	0.003	35	1	2.43585	0
1	5	660	178.61	43.52	4535.0233	0	0	28	900.02	2.916	0.003	36	1	2.1762	0
1	5	680	158.76	38.65	4867.59387	0	0	28	799.99	2.589	0.003	37	1	1.9323	0
1	5	700	138.92	33.98	5158.93575	0	0	28	700.02	2.276	0.003	38	1	1.69875	0
1	5	720	119.07	29.33	5408.64131	0	0	28	599.99	1.965	0.003	39	1	1.46645	0
1	5	740	99.23	24.84	5616.73412	0	0	28	500.02	1.664	0.003	40	1	1.2421	0
1	5	760	79.38	20.07	5783.41996	0	0	28	400	1.345	0.003	41	1	1.00345	0
1	5	780	59.54	15.58	5908.33597	0	0	28	300.02	1.044	0.003	42	1	0.77915	0
1	5	800	39.69	11.03	5991.81437	0	0	28	200	0.739	0.004	43	1	0.5514	0
1	5	820	19.85	6.6	6033.72086	0	0	28	100.02	0.442	0.004	44	1	0.33	0
1	6	840	17.86	7.62	6071.42233	0	0	28	90	0.51	0.006	45	1	0.38075	0
1	6	860	15.88	7.84	6104.69886	0	0	28	80.02	0.525	0.007	46	1	0.39215	0
1	6	880	13.89	7.98	6133.81122	0	0	28	69.99	0.535	0.008	47	1	0.3991	0
1	6	900	11.9	7.68	6158.76096	0	0	28	59.96	0.514	0.009	48	1	0.3838	0
1	6	920	9.92	7.25	6179.56537	0	0	28	49.99	0.485	0.01	49	1	0.3623	0
1	6	940	7.93	7.2	6196.2221	0	0	28	39.96	0.483	0.012	50	1	0.3602	0
1	6	960	5.95	6.55	6208.70836	0	0	28	29.98	0.439	0.015	51	1	0.32735	0
1	6	980	3.96	6.09	6217.03986	0	0	28	19.95	0.408	0.02	52	1	0.3044	0
1	6	1000	1.98	6.85	6221.21896	0	0	28	9.98	0.459	0.046	53	1	0.34255	0
1	7	1020	1.79	5.27	6224.99123	0	0	28	9.02	0.353	0.039	54	1	0.26355	0
1	7	1040	1.59	8.67	6228.32603	0	0	28	8.01	0.581	0.073	55	1	0.4335	0
1	7	1060	1.39	4.82	6231.24536	0	0	28	7	0.323	0.046	56	1	0.24105	0
1	7	1080	1.19	8.57	6233.74763	0	0	28	6	0.574	0.096	57	1	0.4283	0
1	7	1100	0.99	4.92	6235.83522	0	0	28	4.99	0.33	0.066	58	1	0.246	0
1	7	1120	0.8	5.59	6237.50419	0	0	28	4.03	0.375	0.093	59	1	0.27965	0
1	7	1140	0.6	10.03	6238.7569	0	0	28.1	3.02	0.672	0.223	60	1	0.5013	0
1	7	1160	0.4	9.83	6239.59649	0	0	28	2.02	0.658	0.326	61	1	0.4914	0
1	7	1180	0.2	8.73	6240.01747	0	0	28.1	1.01	0.585	0.579	62	1	0.4366	0

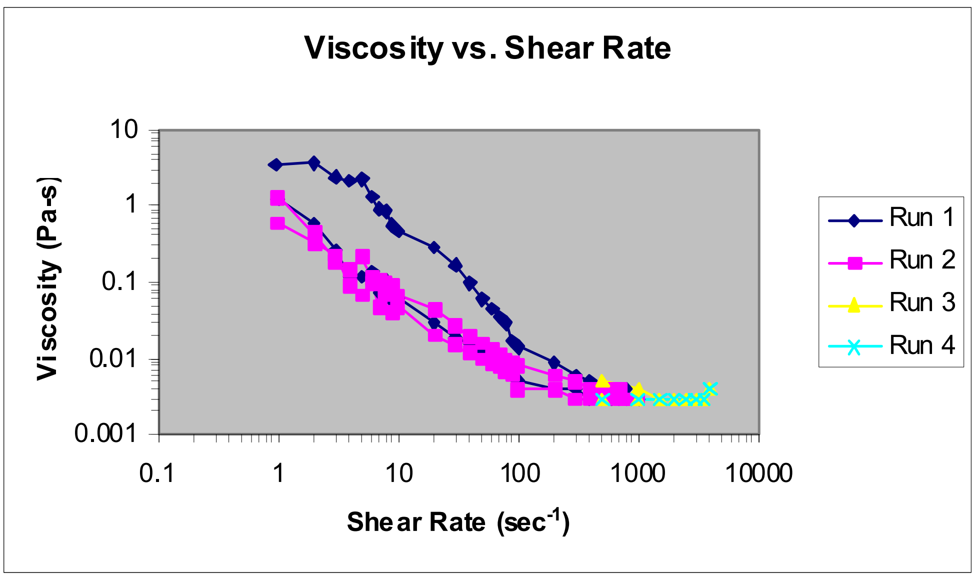
2004.02.09 META-10 wt%-U DG 500-4000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.24	36.54	207.61765	0	0	28.1	500.07	2.448	0.005	1	1	1.8268	0
1	1	40	198.46	54.61	621.80837	0	0	28.1	1000.04	3.659	0.004	2	1	2.73025	0
1	1	60	297.68	75.86	1243.24445	0	0	28.1	1500.01	5.082	0.003	3	1	3.79275	0
1	1	80	396.91	97.06	2073.53912	0	0	28.1	2000.03	6.503	0.003	4	1	4.85295	0
1	1	100	496.13	117.26	3110.24898	0	0	28.1	2500	7.856	0.003	5	1	5.86305	0
1	1	120	595.36	142.49	4355.50327	0	0	28.1	3000.02	9.547	0.003	6	1	7.12465	0
1	1	140	694.58	173.88	5809.97506	0	0	28.1	3499.99	11.65	0.003	7	1	8.6942	0
1	1	160	793.81	213.54	7470.39239	0	0	28.1	4000.01	14.307	0.004	8	1	10.677	0
1	2	180	793.81	214.18	9151.07927	0	0	28.1	4000.01	14.35	0.004	9	1	10.709	0
1	2	200	793.81	215.93	10814.04442	0	0	28	4000.01	14.468	0.004	10	1	10.79665	0
1	2	220	793.81	216.05	12476.59646	0	0	28	4000.01	14.476	0.004	11	1	10.8027	0
1	3	240	793.81	215.07	14158.2698	0	0	28	4000.01	14.41	0.004	12	1	10.7537	0
1	3	260	694.58	174.92	15614.3548	0	0	28	3499.99	11.72	0.003	13	1	8.74615	0
1	3	280	595.36	137.51	16862.05246	0	0	28	3000.02	9.213	0.003	14	1	6.87545	0
1	3	300	496.13	105.12	17902.61157	0	0	28	2500	7.043	0.003	15	1	5.25615	0
1	3	320	396.91	83.8	18736.45544	0	0	28	2000.03	5.615	0.003	16	1	4.19005	0
1	3	340	297.68	62.62	19361.74312	0	0	28	1500.01	4.196	0.003	17	1	3.131	0
1	3	360	198.46	41.51	19778.72279	0	0	28	1000.04	2.781	0.003	18	1	2.0757	0
1	3	380	99.23	21.08	19988.28665	0	0	28	500.02	1.413	0.003	19	1	1.0542	0

2004.02.09 META-10 wt%-U DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	21.08	207.61843	0	0	28	500.02	1.412	0.003	1	1	1.0541	0
1	1	40	198.46	42.74	621.91361	0	0	28	1000.04	2.864	0.003	2	1	2.13705	0
1	1	60	297.68	64.31	1242.98684	0	0	28	1500.01	4.309	0.003	3	1	3.2154	0
1	1	80	396.91	86.08	2073.48807	0	0	28	2000.03	5.767	0.003	4	1	4.30385	0
1	1	100	496.13	107.77	3110.19793	0	0	28	2500	7.22	0.003	5	1	5.3884	0
1	1	120	595.36	135.23	4355.44986	0	0	28	3000.02	9.06	0.003	6	1	6.76155	0
1	1	140	694.58	174.64	5809.19516	0	0	28	3499.99	11.701	0.003	7	1	8.73175	0
1	1	160	793.81	214.78	7469.61641	0	0	28	4000.01	14.39	0.004	8	1	10.73905	0
1	2	180	793.81	214.53	9151.54422	0	0	28	4000.01	14.373	0.004	9	1	10.72645	0
1	2	200	793.81	214.98	10814.09783	0	0	28	4000.01	14.404	0.004	10	1	10.74895	0
1	2	220	793.81	215.1	12476.23361	0	0	28	4000.01	14.411	0.004	11	1	10.7548	0
1	3	240	793.81	214.72	14155.828	0	0	28	4000.01	14.386	0.004	12	1	10.7359	0
1	3	260	694.58	174.7	15611.86352	0	0	28	3499.99	11.705	0.003	13	1	8.7349	0
1	3	280	595.36	137.25	16861.74223	0	0	28	3000.02	9.196	0.003	14	1	6.8626	0
1	3	300	496.13	104.91	17901.25675	0	0	28	2500	7.029	0.003	15	1	5.24545	0
1	3	320	396.91	83.65	18734.85716	0	0	28	2000.03	5.604	0.003	16	1	4.1824	0
1	3	340	297.68	62.53	19360.35218	0	0	28	1500.01	4.189	0.003	17	1	3.1263	0
1	3	360	198.46	41.44	19777.64208	0	0	28	1000.04	2.776	0.003	18	1	2.0719	0
1	3	380	99.23	21.07	19986.94677	0	0	28	500.02	1.412	0.003	19	1	1.05345	0





E-2.1.16 META/10wt%/U/S

2004.02.14 META-10 wt%-U [sonicated] DG 0.1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	29.28	0.03377	0	0	28	0.1	1.962	19.62	1	1	1.46415	0
1	1	40	0.04	18.2	0.11702	0	0	28	0.2	1.22	6.1	2	1	0.91025	0
1	1	60	0.06	21.42	0.24112	0	0	28	0.3	1.435	4.783	3	1	1.07105	0
1	1	80	0.08	23.06	0.40841	0	0	28	0.4	1.545	3.863	4	1	1.15305	0
1	1	100	0.1	25.1	0.61654	0	0	28	0.5	1.682	3.364	5	1	1.2551	0
1	1	120	0.12	26.81	0.86708	0	0	28	0.6	1.796	2.993	6	1	1.3406	0
1	1	140	0.14	29.73	1.15925	0	0	28	0.71	1.992	2.806	7	1	1.48665	0
1	1	160	0.16	32.91	1.49226	0	0	28	0.81	2.205	2.722	8	1	1.64545	0
1	1	180	0.18	35	1.86925	0	0	28	0.91	2.345	2.577	9	1	1.7499	0
1	2	200	0.2	37.05	2.28944	0	0	28	1.01	2.483	2.458	10	1	1.8527	0

1	2	220	0.4	49.72	3.11567	0	0	28	2.02	3.331	1.649	11	1	2.48595	0
1	2	240	0.6	69.33	4.36053	0	0	28	3.02	4.645	1.538	12	1	3.4667	0
1	2	260	0.8	68.83	6.02557	0	0	28	4.03	4.611	1.144	13	1	3.4413	0
1	2	280	1	79.97	8.09667	0	0	28	5.04	5.358	1.063	14	1	3.9987	0
1	2	300	1.2	74.7	10.61151	0	0	28	6.05	5.005	0.827	15	1	3.73495	0
1	2	320	1.39	44.22	13.51984	0	0	28	7	2.963	0.423	16	1	2.2111	0
1	2	340	1.59	66.73	16.84993	0	0	28	8.01	4.471	0.558	17	1	3.33665	0
1	2	360	1.79	48.94	20.59864	0	0	28	9.02	3.279	0.364	18	1	2.44705	0
1	3	380	1.98	59.65	24.77146	0	0	28	9.98	3.996	0.4	19	1	2.98235	0
1	3	400	3.97	73.18	33.03699	0	0	28	20	4.903	0.245	20	1	3.65915	0
1	3	420	5.95	84.13	45.46749	0	0	28	29.98	5.636	0.188	21	1	4.20625	0
1	3	440	7.94	91.37	62.06295	0	0	28	40.01	6.122	0.153	22	1	4.56845	0
1	3	460	9.92	79.21	82.81788	0	0	28	49.99	5.307	0.106	23	1	3.96065	0
1	3	480	11.91	67.26	107.73071	0	0	28	60.01	4.507	0.075	24	1	3.3631	0
1	3	500	13.89	60.28	136.80065	0	0	28	69.99	4.039	0.058	25	1	3.01395	0
1	3	520	15.88	56.82	169.99551	0	0	28	80.02	3.807	0.048	26	1	2.8412	0
1	3	540	17.86	55.62	207.40952	0	0	28	90	3.726	0.041	27	1	2.7808	0
1	4	560	19.85	56.36	249.34899	0	0	28	100.02	3.776	0.038	28	1	2.818	0
1	4	580	39.69	79.47	332.14017	0	0	28	200	5.324	0.027	29	1	3.97345	0
1	4	600	59.54	91.17	456.55588	0	0	28	300.02	6.108	0.02	30	1	4.55855	0
1	4	620	79.38	99.69	622.51365	0	0	28	400	6.679	0.017	31	1	4.98425	0
1	4	640	99.23	107.04	830.03391	0	0	28	500.02	7.172	0.014	32	1	5.352	0
1	4	660	119.07	114.07	1078.99178	0	0	28	599.99	7.643	0.013	33	1	5.7036	0
1	4	680	138.92	121.08	1369.6158	0	0	28	700.02	8.112	0.012	34	1	6.0541	0
1	4	700	158.76	127.53	1701.88478	0	0	28	799.99	8.544	0.011	35	1	6.37645	0
1	4	720	178.61	134.94	2075.92358	0	0	28	900.02	9.041	0.01	36	1	6.74685	0
1	4	740	198.45	141.52	2490.70414	0	0	28	999.99	9.482	0.009	37	1	7.07615	0
1	5	750	198.45	136.97	2702.59356	0	0	28	999.99	9.177	0.009	38	1	6.84835	0
1	5	760	198.45	135.31	2910.4107	0	0	28	999.99	9.066	0.009	39	1	6.76545	0
1	5	770	198.45	133.93	3118.12339	0	0	28	999.99	8.973	0.009	40	1	6.6963	0
1	5	780	198.45	132.74	3326.25154	0	0	28	999.99	8.893	0.009	41	1	6.6368	0
1	5	790	198.45	131.64	3534.0679	0	0	28	999.99	8.82	0.009	42	1	6.58195	0
1	5	800	198.45	130.66	3741.98871	0	0	28	999.99	8.754	0.009	43	1	6.53275	0
1	6	820	198.45	129.61	4162.08955	0	0	28	999.99	8.684	0.009	44	1	6.4806	0
1	6	840	178.61	116.6	4536.95145	0	0	28	900.02	7.812	0.009	45	1	5.82975	0
1	6	860	158.76	104.47	4869.44034	0	0	28	799.99	6.999	0.009	46	1	5.2233	0
1	6	880	138.92	93.04	5160.70996	0	0	28	700.02	6.234	0.009	47	1	4.6519	0
1	6	900	119.07	81.39	5410.35583	0	0	28	599.99	5.453	0.009	48	1	4.0693	0
1	6	920	99.23	69.72	5618.5429	0	0	28	500.02	4.671	0.009	49	1	3.48575	0
1	6	940	79.38	57.65	5785.10464	0	0	28	400	3.863	0.01	50	1	2.88255	0
1	6	960	59.54	44.98	5910.20993	0	0	28	300.02	3.014	0.01	51	1	2.24895	0
1	6	980	39.69	31.05	5993.64906	0	0	28	200	2.08	0.01	52	1	1.55225	0
1	6	1000	19.85	15.32	6035.54691	0	0	28	100.02	1.027	0.01	53	1	0.76615	0
1	7	1020	17.86	15.3	6073.23188	0	0	28	90	1.025	0.011	54	1	0.76505	0
1	7	1040	15.88	14.77	6106.53591	0	0	28	80.02	0.99	0.012	55	1	0.73865	0
1	7	1060	13.89	13.83	6135.65062	0	0	28	69.99	0.926	0.013	56	1	0.69135	0
1	7	1080	11.9	12.73	6160.60036	0	0	28	59.96	0.853	0.014	57	1	0.63665	0
1	7	1100	9.92	11.39	6181.42284	0	0	28	49.99	0.763	0.015	58	1	0.56935	0
1	7	1120	7.93	9.7	6198.05364	0	0	28	39.96	0.65	0.016	59	1	0.48485	0
1	7	1140	5.95	7.92	6210.54305	0	0	28	29.98	0.53	0.018	60	1	0.39585	0

1	7	1160	3.96	6.06	6218.88319	0	0	28	19.95	0.406	0.02	61	1	0.3031	0
1	7	1180	1.98	3.09	6223.05994	0	0	28	9.98	0.207	0.021	62	1	0.1544	0
1	8	1200	1.79	3.95	6226.83063	0	0	28	9.02	0.265	0.029	63	1	0.19755	0
1	8	1220	1.59	4.44	6230.16386	0	0	28	8.01	0.298	0.037	64	1	0.22205	0
1	8	1240	1.39	5.01	6233.0824	0	0	28	7	0.336	0.048	65	1	0.2506	0
1	8	1260	1.19	5.39	6235.58625	0	0	28	6	0.361	0.06	66	1	0.2694	0
1	8	1280	0.99	5.86	6237.67227	0	0	28	4.99	0.392	0.079	67	1	0.29275	0
1	8	1300	0.8	6.15	6239.3436	0	0	28	4.03	0.412	0.102	68	1	0.3077	0
1	8	1320	0.6	6.38	6240.59631	0	0	28	3.02	0.427	0.141	69	1	0.3189	0
1	8	1340	0.4	6.64	6241.43354	0	0	28	2.02	0.445	0.22	70	1	0.3319	0
1	8	1360	0.2	5.78	6241.85687	0	0	28	1.01	0.387	0.383	71	1	0.2889	0
1	9	1380	0.18	8.25	6242.23386	0	0	28	0.91	0.553	0.608	72	1	0.41235	0
1	9	1400	0.16	9.86	6242.56923	0	0	28	0.81	0.66	0.815	73	1	0.4928	0
1	9	1420	0.14	10.52	6242.86297	0	0	28	0.71	0.705	0.993	74	1	0.52615	0
1	9	1440	0.12	10.57	6243.11429	0	0	28	0.6	0.708	1.18	75	1	0.5284	0
1	9	1460	0.1	9.25	6243.32399	0	0	28	0.5	0.62	1.24	76	1	0.46255	0
1	9	1480	0.08	7.77	6243.49364	0	0	28	0.4	0.52	1.3	77	1	0.38825	0
1	9	1500	0.06	6.55	6243.6193	0	0	28	0.3	0.439	1.463	78	1	0.32755	0
1	9	1520	0.04	5.54	6243.70413	0	0	28	0.2	0.371	1.855	79	1	0.27715	0
1	9	1540	0.02	4.5	6243.74654	0	0	28	0.1	0.301	3.01	80	1	0.22495	0

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	4.45	0.03848	0	0	28	0.1	0.298	2.98	1	2	0.2224	0
1	1	40	0.04	5.85	0.12095	0	0	28	0.2	0.392	1.96	2	2	0.2923	0
1	1	60	0.06	6.33	0.24662	0	0	28	0.3	0.424	1.413	3	2	0.3163	0
1	1	80	0.08	6.41	0.4139	0	0	28	0.4	0.43	1.075	4	2	0.32065	0
1	1	100	0.1	7.05	0.62282	0	0	28	0.5	0.473	0.946	5	2	0.3527	0
1	1	120	0.12	8.11	0.87336	0	0	28	0.6	0.543	0.905	6	2	0.40535	0
1	1	140	0.14	9.36	1.16632	0	0	28	0.71	0.627	0.883	7	2	0.4678	0
1	1	160	0.16	10.39	1.5009	0	0	28	0.81	0.696	0.859	8	2	0.51955	0
1	1	180	0.18	11.75	1.8771	0	0	28	0.91	0.787	0.865	9	2	0.58755	0
1	2	200	0.2	12.78	2.29729	0	0	28	1.01	0.856	0.848	10	2	0.63895	0
1	2	220	0.4	18.26	3.12824	0	0	28	2.02	1.223	0.605	11	2	0.9129	0
1	2	240	0.6	23.83	4.37467	0	0	28	3.02	1.596	0.528	12	2	1.19125	0
1	2	260	0.8	29.92	6.03736	0	0	28	4.03	2.005	0.498	13	2	1.49605	0
1	2	280	1	33.51	8.11866	0	0	28	5.04	2.245	0.445	14	2	1.67565	0
1	2	300	1.19	40.57	10.6123	0	0	28	6	2.718	0.453	15	2	2.0287	0
1	2	320	1.39	36.67	13.5332	0	0	28	7	2.457	0.351	16	2	1.8336	0
1	2	340	1.59	24.89	16.8625	0	0	28	8.01	1.668	0.208	17	2	1.24445	0
1	2	360	1.79	21.03	20.60963	0	0	28	9.02	1.409	0.156	18	2	1.0513	0
1	3	380	1.98	20	24.78245	0	0	28	9.98	1.34	0.134	19	2	0.99995	0
1	3	400	3.97	25.95	33.05741	0	0	28	20	1.738	0.087	20	2	1.29725	0
1	3	420	5.95	27.49	45.49183	0	0	28	29.98	1.842	0.061	21	2	1.3745	0
1	3	440	7.94	28.21	62.09829	0	0	28	40.01	1.89	0.047	22	2	1.41055	0
1	3	460	9.92	29.41	82.83594	0	0	28	49.99	1.971	0.039	23	2	1.4706	0
1	3	480	11.91	30.94	107.73542	0	0	28	60.01	2.073	0.035	24	2	1.5468	0
1	3	500	13.89	32.44	136.80458	0	0	28	69.99	2.174	0.031	25	2	1.62215	0
1	3	520	15.88	33.95	170.01357	0	0	28	80.02	2.275	0.028	26	2	1.69755	0
1	3	540	17.86	35.41	207.40009	0	0	28	90	2.372	0.026	27	2	1.7704	0

1	4	560	19.85	36.85	249.34899	0	0	28	100.02	2.469	0.025	28	2	1.8425	0
1	4	580	39.69	57.89	332.15981	0	0	28	200	3.878	0.019	29	2	2.89435	0
1	4	600	59.54	70.96	456.56609	0	0	28	300.02	4.754	0.016	30	2	3.54795	0
1	4	620	79.38	82	622.59533	0	0	28	400	5.494	0.014	31	2	4.1	0
1	4	640	99.23	91.69	829.85563	0	0	28	500.02	6.143	0.012	32	2	4.5847	0
1	4	660	119.07	101.04	1079.05147	0	0	28	599.99	6.77	0.011	33	2	5.05205	0
1	4	680	138.92	109.5	1369.67471	0	0	28	700.02	7.337	0.01	34	2	5.4751	0
1	4	700	158.76	117.24	1701.77796	0	0	28	799.99	7.855	0.01	35	2	5.86205	0
1	4	720	178.61	125.47	2075.51596	0	0	28	900.02	8.406	0.009	36	2	6.2735	0
1	4	740	198.45	133.44	2491.02301	0	0	28	999.99	8.94	0.009	37	2	6.67185	0
1	5	750	198.45	130.32	2702.91244	0	0	28	999.99	8.732	0.009	38	2	6.5162	0
1	5	760	198.45	128.99	2910.6259	0	0	28	999.99	8.642	0.009	39	2	6.44955	0
1	5	770	198.45	127.87	3118.54672	0	0	28	999.99	8.567	0.009	40	2	6.39325	0
1	5	780	198.45	126.89	3326.46674	0	0	28	999.99	8.502	0.009	41	2	6.3447	0
1	5	790	198.45	126.02	3534.69857	0	0	28	999.99	8.444	0.008	42	2	6.3012	0
1	5	800	198.45	125.23	3742.20391	0	0	28	999.99	8.39	0.008	43	2	6.26125	0
1	6	820	198.45	124.43	4162.40763	0	0	28	999.99	8.337	0.008	44	2	6.2213	0
1	6	840	178.61	112.09	4537.16586	0	0	28	900.02	7.51	0.008	45	2	5.60435	0
1	6	860	158.76	100.43	4869.91472	0	0	28	799.99	6.729	0.008	46	2	5.02155	0
1	6	880	138.92	89.46	5161.12229	0	0	28	700.02	5.994	0.009	47	2	4.47305	0
1	6	900	119.07	78.1	5410.81922	0	0	28	599.99	5.233	0.009	48	2	3.905	0
1	6	920	99.23	66.72	5619.06911	0	0	28	500.02	4.47	0.009	49	2	3.33575	0
1	6	940	79.38	54.97	5785.42351	0	0	28	400	3.683	0.009	50	2	2.7487	0
1	6	960	59.54	42.69	5910.53901	0	0	28	300.02	2.86	0.01	51	2	2.13425	0
1	6	980	39.69	29.41	5993.92473	0	0	28	200	1.971	0.01	52	2	1.47065	0
1	6	1000	19.85	14.59	6035.84301	0	0	28	100.02	0.977	0.01	53	2	0.7293	0
1	7	1020	17.86	14.41	6073.51777	0	0	28	90	0.965	0.011	54	2	0.72035	0
1	7	1040	15.88	13.69	6106.81315	0	0	28	80.02	0.917	0.011	55	2	0.6843	0
1	7	1060	13.89	12.62	6135.92629	0	0	28	69.99	0.846	0.012	56	2	0.63115	0
1	7	1080	11.9	11.5	6160.91374	0	0	28	59.96	0.771	0.013	57	2	0.575	0
1	7	1100	9.92	10.18	6181.69459	0	0	28	49.99	0.682	0.014	58	2	0.50895	0
1	7	1120	7.93	8.61	6198.3411	0	0	28	39.96	0.577	0.014	59	2	0.43065	0
1	7	1140	5.95	6.98	6210.84464	0	0	28	29.98	0.467	0.016	60	2	0.34875	0
1	7	1160	3.96	5.23	6219.17693	0	0	28	19.95	0.35	0.018	61	2	0.2615	0
1	7	1180	1.98	2.61	6223.35289	0	0	28	9.98	0.175	0.018	62	2	0.13025	0
1	8	1200	1.79	3.01	6227.12123	0	0	28	9.02	0.202	0.022	63	2	0.15045	0
1	8	1220	1.59	3.36	6230.4576	0	0	28	8.01	0.225	0.028	64	2	0.16775	0
1	8	1240	1.39	3.73	6233.37693	0	0	28	7	0.25	0.036	65	2	0.18665	0
1	8	1260	1.19	3.91	6235.87921	0	0	28	6	0.262	0.044	66	2	0.19545	0
1	8	1280	0.99	3.97	6237.96601	0	0	28	4.99	0.266	0.053	67	2	0.1984	0
1	8	1300	0.8	4.13	6239.63498	0	0	28	4.03	0.277	0.069	68	2	0.2064	0
1	8	1320	0.6	4.04	6240.89083	0	0	28	3.02	0.271	0.09	69	2	0.2022	0
1	8	1340	0.4	3.87	6241.72807	0	0	28	2.02	0.259	0.128	70	2	0.19345	0
1	8	1360	0.2	2.99	6242.14982	0	0	28	1.01	0.2	0.198	71	2	0.14955	0
1	9	1380	0.18	4.81	6242.52839	0	0	28	0.91	0.322	0.354	72	2	0.2405	0
1	9	1400	0.16	6.35	6242.86297	0	0	28	0.81	0.425	0.525	73	2	0.31725	0
1	9	1420	0.14	7.54	6243.15592	0	0	28	0.71	0.505	0.711	74	2	0.377	0
1	9	1440	0.12	8	6243.40725	0	0	28	0.6	0.536	0.893	75	2	0.3998	0
1	9	1460	0.1	7.69	6243.61773	0	0	28	0.5	0.515	1.03	76	2	0.38425	0
1	9	1480	0.08	7	6243.78581	0	0	28	0.4	0.469	1.172	77	2	0.35	0

1	9	1500	0.06	6.09	6243.91226	0	0	28	0.3	0.408	1.36	78	2	0.3047	0
1	9	1520	0.04	4.82	6243.9963	0	0	28	0.2	0.323	1.615	79	2	0.2412	0
1	9	1540	0.02	3.76	6244.03949	0	0	28	0.1	0.252	2.52	80	2	0.188	0

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	4.1	0.03848	0	0	28	0.1	0.274	2.74	1	3	0.2048	0
1	1	40	0.04	4.68	0.12174	0	0	28	0.2	0.314	1.57	2	3	0.2342	0
1	1	60	0.06	5.28	0.2474	0	0	28	0.3	0.354	1.18	3	3	0.26415	0
1	1	80	0.08	5.51	0.4139	0	0	28	0.4	0.369	0.923	4	3	0.2757	0
1	1	100	0.1	5.97	0.62361	0	0	28	0.5	0.4	0.8	5	3	0.2987	0
1	1	120	0.12	6.92	0.87415	0	0	28	0.6	0.464	0.773	6	3	0.3462	0
1	1	140	0.14	7.87	1.1671	0	0	28	0.71	0.527	0.742	7	3	0.3934	0
1	1	160	0.16	9.13	1.5009	0	0	28	0.81	0.612	0.756	8	3	0.4566	0
1	1	180	0.18	10.03	1.8771	0	0	28	0.91	0.672	0.738	9	3	0.5015	0
1	2	200	0.2	10.79	2.29886	0	0	28	1.01	0.723	0.716	10	3	0.5397	0
1	2	220	0.4	16.07	3.12903	0	0	28	2.02	1.076	0.533	11	3	0.80335	0
1	2	240	0.6	21.88	4.37624	0	0	28	3.02	1.466	0.485	12	3	1.0941	0
1	2	260	0.8	26.96	6.03893	0	0	28	4.03	1.807	0.448	13	3	1.3482	0
1	2	280	1	27.49	8.12102	0	0	28	5.04	1.842	0.365	14	3	1.3745	0
1	2	300	1.19	30.71	10.61623	0	0	28	6	2.058	0.343	15	3	1.53545	0
1	2	320	1.39	27.04	13.53241	0	0	28	7	1.812	0.259	16	3	1.35195	0
1	2	340	1.59	18.33	16.86564	0	0	28	8.01	1.228	0.153	17	3	0.9164	0
1	2	360	1.79	16.12	20.61042	0	0	28	9.02	1.08	0.12	18	3	0.80585	0
1	3	380	1.98	15.51	24.78638	0	0	28	9.98	1.039	0.104	19	3	0.77535	0
1	3	400	3.97	21.37	33.06212	0	0	28	20	1.432	0.072	20	3	1.0687	0
1	3	420	5.95	23.36	45.49654	0	0	28	29.98	1.565	0.052	21	3	1.1681	0
1	3	440	7.94	24.55	62.09986	0	0	28	40.01	1.645	0.041	22	3	1.22755	0
1	3	460	9.92	25.95	82.8273	0	0	28	49.99	1.739	0.035	23	3	1.2977	0
1	3	480	11.91	27.54	107.74485	0	0	28	60.01	1.845	0.031	24	3	1.377	0
1	3	500	13.89	28.98	136.82029	0	0	28	69.99	1.942	0.028	25	3	1.449	0
1	3	520	15.88	30.54	169.99786	0	0	28	80.02	2.046	0.026	26	3	1.52685	0
1	3	540	17.86	32.04	207.4103	0	0	28	90	2.147	0.024	27	3	1.6022	0
1	4	560	19.85	33.49	249.33878	0	0	28	100.02	2.244	0.022	28	3	1.6747	0
1	4	580	39.69	53.51	332.18101	0	0	28	200	3.585	0.018	29	3	2.67565	0
1	4	600	59.54	66.54	456.60772	0	0	28	300.02	4.458	0.015	30	3	3.3272	0
1	4	620	79.38	77.49	622.51287	0	0	28	400	5.191	0.013	31	3	3.87425	0
1	4	640	99.23	87.52	830.03313	0	0	28	500.02	5.864	0.012	32	3	4.3759	0
1	4	660	119.07	96.83	1079.17713	0	0	28	599.99	6.487	0.011	33	3	4.84135	0
1	4	680	138.92	105.36	1369.79016	0	0	28	700.02	7.059	0.01	34	3	5.26815	0
1	4	700	158.76	113.76	1701.64366	0	0	28	799.99	7.622	0.01	35	3	5.6878	0
1	4	720	178.61	122.27	2075.57801	0	0	28	900.02	8.192	0.009	36	3	6.1133	0
1	4	740	198.45	130.39	2490.77325	0	0	28	999.99	8.736	0.009	37	3	6.5197	0
1	5	750	198.45	127.49	2702.97527	0	0	28	999.99	8.542	0.009	38	3	6.37445	0
1	5	760	198.45	126.29	2910.89529	0	0	28	999.99	8.461	0.008	39	3	6.31445	0
1	5	770	198.45	125.25	3118.81611	0	0	28	999.99	8.392	0.008	40	3	6.26265	0
1	5	780	198.45	124.31	3326.11331	0	0	28	999.99	8.328	0.008	41	3	6.21525	0
1	5	790	198.45	123.48	3534.34593	0	0	28	999.99	8.273	0.008	42	3	6.1741	0
1	5	800	198.45	122.78	3741.85048	0	0	28	999.99	8.226	0.008	43	3	6.1389	0
1	6	820	198.45	122.05	4162.15945	0	0	28	999.99	8.178	0.008	44	3	6.1027	0

1	6	840	178.61	109.97	4536.63572	0	0	28	900.02	7.368	0.008	45	3	5.4986	0
1	6	860	158.76	98.48	4869.37515	0	0	28	799.99	6.598	0.008	46	3	4.92385	0
1	6	880	138.92	87.59	5160.64399	0	0	28	700.02	5.868	0.008	47	3	4.3793	0
1	6	900	119.07	76.41	5410.35191	0	0	28	599.99	5.12	0.009	48	3	3.82065	0
1	6	920	99.23	65.26	5618.49734	0	0	28	500.02	4.372	0.009	49	3	3.26295	0
1	6	940	79.38	53.76	5785.07008	0	0	28	400	3.602	0.009	50	3	2.68795	0
1	6	960	59.54	41.6	5910.15417	0	0	28	300.02	2.787	0.009	51	3	2.0802	0
1	6	980	39.69	28.7	5993.59251	0	0	28	200	1.923	0.01	52	3	1.43515	0
1	6	1000	19.85	14.33	6035.49036	0	0	28	100.02	0.96	0.01	53	3	0.7166	0
1	7	1020	17.86	14.16	6073.19183	0	0	28	90	0.948	0.011	54	3	0.7078	0
1	7	1040	15.88	13.41	6106.44402	0	0	28	80.02	0.898	0.011	55	3	0.6703	0
1	7	1060	13.89	12.2	6135.587	0	0	28	69.99	0.817	0.012	56	3	0.6098	0
1	7	1080	11.9	11.11	6160.53832	0	0	28	59.96	0.744	0.012	57	3	0.5554	0
1	7	1100	9.92	9.73	6181.35922	0	0	28	49.99	0.652	0.013	58	3	0.48645	0
1	7	1120	7.93	8.21	6198.00259	0	0	28	39.96	0.55	0.014	59	3	0.4104	0
1	7	1140	5.95	6.57	6210.48571	0	0	28	29.98	0.44	0.015	60	3	0.3284	0
1	7	1160	3.96	4.97	6218.82664	0	0	28	19.95	0.333	0.017	61	3	0.2487	0
1	7	1180	1.98	2.45	6223.0026	0	0	28	9.98	0.164	0.016	62	3	0.1226	0
1	8	1200	1.79	2.83	6226.77408	0	0	28	9.02	0.19	0.021	63	3	0.14165	0
1	8	1220	1.59	3.08	6230.1081	0	0	28	8.01	0.206	0.026	64	3	0.15395	0
1	8	1240	1.39	3.27	6233.02821	0	0	28	7	0.219	0.031	65	3	0.1634	0
1	8	1260	1.19	3.46	6235.53127	0	0	28	6	0.232	0.039	66	3	0.1732	0
1	8	1280	0.99	3.28	6237.61729	0	0	28	4.99	0.219	0.044	67	3	0.16375	0
1	8	1300	0.8	3.23	6239.28705	0	0	28	4.03	0.216	0.054	68	3	0.1614	0
1	8	1320	0.6	3.28	6240.54133	0	0	28	3.02	0.22	0.073	69	3	0.16415	0
1	8	1340	0.4	3.02	6241.37935	0	0	28	2.02	0.202	0.1	70	3	0.1508	0
1	8	1360	0.2	2.11	6241.80189	0	0	28	1.01	0.141	0.14	71	3	0.1053	0
1	9	1380	0.18	3.25	6242.17967	0	0	28	0.91	0.218	0.24	72	3	0.16235	0
1	9	1400	0.16	4.62	6242.51503	0	0	28	0.81	0.309	0.381	73	3	0.2309	0
1	9	1420	0.14	5.62	6242.80799	0	0	28	0.71	0.376	0.53	74	3	0.2809	0
1	9	1440	0.12	6.43	6243.05932	0	0	28	0.6	0.431	0.718	75	3	0.3214	0
1	9	1460	0.1	6.29	6243.26902	0	0	28	0.5	0.421	0.842	76	3	0.3144	0
1	9	1480	0.08	6.27	6243.43631	0	0	28	0.4	0.42	1.05	77	3	0.3133	0
1	9	1500	0.06	5.62	6243.56276	0	0	28	0.3	0.377	1.257	78	3	0.2811	0
1	9	1520	0.04	4.64	6243.64758	0	0	28	0.2	0.311	1.555	79	3	0.23205	0
1	9	1540	0.02	3.51	6243.68999	0	0	28	0.1	0.235	2.35	80	3	0.1757	0

2004.02.14 META-10 wt%-U [sonicated] DG 0.1-1000 s-1 run 4.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	3.59	0.03848	0	0	28	0.1	0.24	2.4	1	4	0.17925	0
1	1	40	0.04	4.81	0.12174	0	0	28	0.2	0.322	1.61	2	4	0.2403	0
1	1	60	0.06	5.18	0.2474	0	0	28	0.3	0.347	1.157	3	4	0.2588	0
1	1	80	0.08	5.17	0.41469	0	0	28	0.4	0.346	0.865	4	4	0.25855	0
1	1	100	0.1	5.68	0.62361	0	0	28	0.5	0.38	0.76	5	4	0.28375	0
1	1	120	0.12	6.48	0.87415	0	0	28	0.6	0.434	0.723	6	4	0.32395	0
1	1	140	0.14	7.53	1.16632	0	0	28	0.71	0.505	0.711	7	4	0.3765	0
1	1	160	0.16	8.18	1.50168	0	0	28	0.81	0.548	0.677	8	4	0.40905	0
1	1	180	0.18	9.13	1.87789	0	0	28	0.91	0.611	0.671	9	4	0.45625	0
1	2	200	0.2	9.69	2.29886	0	0	28	1.01	0.649	0.643	10	4	0.48465	0
1	2	220	0.4	14.89	3.12981	0	0	28	2.02	0.997	0.494	11	4	0.7444	0

1	2	240	0.6	20.65	4.37624	0	0	28	3.02	1.383	0.458	12	4	1.03225	0
1	2	260	0.8	24.81	6.0405	0	0	28	4.03	1.662	0.412	13	4	1.2404	0
1	2	280	1	23.24	8.12337	0	0	28	5.04	1.557	0.309	14	4	1.1621	0
1	2	300	1.19	24.24	10.61937	0	0	28	6	1.624	0.271	15	4	1.21175	0
1	2	320	1.39	21.94	13.53555	0	0	28	7	1.47	0.21	16	4	1.09695	0
1	2	340	1.59	15.55	16.86485	0	0	28	8.01	1.042	0.13	17	4	0.77755	0
1	2	360	1.79	13.87	20.61277	0	0	28	9.02	0.929	0.103	18	4	0.69335	0
1	3	380	1.98	13.5	24.78717	0	0	28	9.98	0.905	0.091	19	4	0.6751	0
1	3	400	3.97	19.03	33.06683	0	0	28	20	1.275	0.064	20	4	0.95155	0
1	3	420	5.95	21.23	45.49733	0	0	28	29.98	1.422	0.047	21	4	1.06155	0
1	3	440	7.94	22.52	62.08337	0	0	28	40.01	1.509	0.038	22	4	1.1259	0
1	3	460	9.92	23.83	82.84615	0	0	28	49.99	1.597	0.032	23	4	1.19155	0
1	3	480	11.91	25.45	107.75663	0	0	28	60.01	1.705	0.028	24	4	1.27265	0
1	3	500	13.89	26.96	136.80379	0	0	28	69.99	1.806	0.026	25	4	1.348	0
1	3	520	15.88	28.33	170.01357	0	0	28	80.02	1.898	0.024	26	4	1.4164	0
1	3	540	17.86	29.91	207.42758	0	0	28	90	2.004	0.022	27	4	1.49535	0
1	4	560	19.85	31.33	249.36549	0	0	28	100.02	2.099	0.021	28	4	1.56645	0
1	4	580	39.69	50.66	332.2085	0	0	28	200	3.394	0.017	29	4	2.5328	0
1	4	600	59.54	63.46	456.64463	0	0	28	300.02	4.252	0.014	30	4	3.1729	0
1	4	620	79.38	74.46	622.64403	0	0	28	400	4.989	0.012	31	4	3.7228	0
1	4	640	99.23	84.37	830.16429	0	0	28	500.02	5.653	0.011	32	4	4.21855	0
1	4	660	119.07	93.53	1079.16299	0	0	28	599.99	6.267	0.01	33	4	4.6767	0
1	4	680	138.92	102.66	1369.72419	0	0	28	700.02	6.878	0.01	34	4	5.1328	0
1	4	700	158.76	111.17	1702.07563	0	0	28	799.99	7.448	0.009	35	4	5.5585	0
1	4	720	178.61	119.93	2075.61571	0	0	28	900.02	8.035	0.009	36	4	5.9964	0
1	4	740	198.45	128.21	2490.91541	0	0	28	999.99	8.59	0.009	37	4	6.4105	0
1	5	750	198.45	125.51	2703.01375	0	0	28	999.99	8.409	0.008	38	4	6.2753	0
1	5	760	198.45	124.43	2910.83011	0	0	28	999.99	8.337	0.008	39	4	6.22135	0
1	5	770	198.45	123.45	3118.75013	0	0	28	999.99	8.271	0.008	40	4	6.17225	0
1	5	780	198.45	122.58	3326.67016	0	0	28	999.99	8.213	0.008	41	4	6.1292	0
1	5	790	198.45	121.8	3534.07104	0	0	28	999.99	8.161	0.008	42	4	6.08995	0
1	5	800	198.45	121.12	3742.1992	0	0	28	999.99	8.115	0.008	43	4	6.056	0
1	6	820	198.45	120.34	4162.40371	0	0	28	999.99	8.062	0.008	44	4	6.01675	0
1	6	840	178.61	108.36	4537.07947	0	0	28	900.02	7.26	0.008	45	4	5.41795	0
1	6	860	158.76	96.85	4869.921	0	0	28	799.99	6.489	0.008	46	4	4.84245	0
1	6	880	138.92	86.04	5161.05554	0	0	28	700.02	5.764	0.008	47	4	4.3018	0
1	6	900	119.07	74.85	5410.69041	0	0	28	599.99	5.015	0.008	48	4	3.74235	0
1	6	920	99.23	63.72	5619.03377	0	0	28	500.02	4.269	0.009	49	4	3.1858	0
1	6	940	79.38	52.37	5785.42901	0	0	28	400	3.509	0.009	50	4	2.61865	0
1	6	960	59.54	40.51	5910.54451	0	0	28	300.02	2.714	0.009	51	4	2.0253	0
1	6	980	39.69	27.85	5993.96243	0	0	28	200	1.866	0.009	52	4	1.39235	0
1	6	1000	19.85	13.9	6035.83908	0	0	28	100.02	0.932	0.009	53	4	0.69515	0
1	7	1020	17.86	13.59	6073.53976	0	0	28	90	0.911	0.01	54	4	0.6795	0
1	7	1040	15.88	12.79	6106.81001	0	0	28	80.02	0.857	0.011	55	4	0.6395	0
1	7	1060	13.89	11.62	6135.94671	0	0	28	69.99	0.779	0.011	56	4	0.581	0
1	7	1080	11.9	10.48	6160.91609	0	0	28	59.96	0.702	0.012	57	4	0.52395	0
1	7	1100	9.92	9.15	6181.71265	0	0	28	49.99	0.613	0.012	58	4	0.45765	0
1	7	1120	7.93	7.73	6198.36073	0	0	28	39.96	0.518	0.013	59	4	0.38625	0
1	7	1140	5.95	6.08	6210.84464	0	0	28	29.98	0.408	0.014	60	4	0.30415	0
1	7	1160	3.96	4.52	6219.18164	0	0	28	19.95	0.303	0.015	61	4	0.22585	0

1	7	1180	1.98	2.15	6223.3576	0	0	28	9.98	0.144	0.014	62	4	0.10775	0
1	8	1200	1.79	2.41	6227.12751	0	0	28	9.02	0.162	0.018	63	4	0.12055	0
1	8	1220	1.59	2.63	6230.46467	0	0	28	8.01	0.176	0.022	64	4	0.1315	0
1	8	1240	1.39	2.78	6233.384	0	0	28	7	0.186	0.027	65	4	0.139	0
1	8	1260	1.19	2.88	6235.88549	0	0	28	6	0.193	0.032	66	4	0.144	0
1	8	1280	0.99	2.79	6237.97229	0	0	28	4.99	0.187	0.037	67	4	0.1395	0
1	8	1300	0.8	2.67	6239.64362	0	0	28	4.03	0.179	0.044	68	4	0.1337	0
1	8	1320	0.6	2.55	6240.89711	0	0	28	3.02	0.171	0.057	69	4	0.12745	0
1	8	1340	0.4	2.33	6241.73513	0	0	28	2.02	0.156	0.077	70	4	0.1167	0
1	8	1360	0.2	1.6	6242.15689	0	0	28	1.01	0.107	0.106	71	4	0.08015	0
1	9	1380	0.18	2.5	6242.53545	0	0	28	0.91	0.167	0.184	72	4	0.1249	0
1	9	1400	0.16	3.43	6242.87082	0	0	28	0.81	0.23	0.284	73	4	0.17155	0
1	9	1420	0.14	4.24	6243.16377	0	0	28	0.71	0.284	0.4	74	4	0.21175	0
1	9	1440	0.12	4.77	6243.4151	0	0	28	0.6	0.32	0.533	75	4	0.2385	0
1	9	1460	0.1	4.95	6243.6248	0	0	28	0.5	0.331	0.662	76	4	0.2473	0
1	9	1480	0.08	5.02	6243.79288	0	0	28	0.4	0.336	0.84	77	4	0.25085	0
1	9	1500	0.06	5.07	6243.91854	0	0	28	0.3	0.34	1.133	78	4	0.25365	0
1	9	1520	0.04	4.24	6244.00336	0	0	28	0.2	0.284	1.42	79	4	0.21175	0
1	9	1540	0.02	3.19	6244.04578	0	0	28	0.1	0.214	2.14	80	4	0.1595	0

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	3.59	0.03848	0	0	28	0.1	0.24	2.4	1	4	0.17925	0
1	1	40	0.04	4.81	0.12174	0	0	28	0.2	0.322	1.61	2	4	0.2403	0
1	1	60	0.06	5.18	0.2474	0	0	28	0.3	0.347	1.157	3	4	0.2588	0
1	1	80	0.08	5.17	0.41469	0	0	28	0.4	0.346	0.865	4	4	0.25855	0
1	1	100	0.1	5.68	0.62361	0	0	28	0.5	0.38	0.76	5	4	0.28375	0
1	1	120	0.12	6.48	0.87415	0	0	28	0.6	0.434	0.723	6	4	0.32395	0
1	1	140	0.14	7.53	1.16632	0	0	28	0.71	0.505	0.711	7	4	0.3765	0
1	1	160	0.16	8.18	1.50168	0	0	28	0.81	0.548	0.677	8	4	0.40905	0
1	1	180	0.18	9.13	1.87789	0	0	28	0.91	0.611	0.671	9	4	0.45625	0
1	2	200	0.2	9.69	2.29886	0	0	28	1.01	0.649	0.643	10	4	0.48465	0
1	2	220	0.4	14.89	3.12981	0	0	28	2.02	0.997	0.494	11	4	0.7444	0
1	2	240	0.6	20.65	4.37624	0	0	28	3.02	1.383	0.458	12	4	1.03225	0
1	2	260	0.8	24.81	6.0405	0	0	28	4.03	1.662	0.412	13	4	1.2404	0
1	2	280	1	23.24	8.12337	0	0	28	5.04	1.557	0.309	14	4	1.1621	0
1	2	300	1.19	24.24	10.61937	0	0	28	6	1.624	0.271	15	4	1.21175	0
1	2	320	1.39	21.94	13.53555	0	0	28	7	1.47	0.21	16	4	1.09695	0
1	2	340	1.59	15.55	16.86485	0	0	28	8.01	1.042	0.13	17	4	0.77755	0
1	2	360	1.79	13.87	20.61277	0	0	28	9.02	0.929	0.103	18	4	0.69335	0
1	3	380	1.98	13.5	24.78717	0	0	28	9.98	0.905	0.091	19	4	0.6751	0
1	3	400	3.97	19.03	33.06683	0	0	28	20	1.275	0.064	20	4	0.95155	0
1	3	420	5.95	21.23	45.49733	0	0	28	29.98	1.422	0.047	21	4	1.06155	0
1	3	440	7.94	22.52	62.08337	0	0	28	40.01	1.509	0.038	22	4	1.1259	0
1	3	460	9.92	23.83	82.84615	0	0	28	49.99	1.597	0.032	23	4	1.19155	0
1	3	480	11.91	25.45	107.75663	0	0	28	60.01	1.705	0.028	24	4	1.27265	0
1	3	500	13.89	26.96	136.80379	0	0	28	69.99	1.806	0.026	25	4	1.348	0
1	3	520	15.88	28.33	170.01357	0	0	28	80.02	1.898	0.024	26	4	1.4164	0
1	3	540	17.86	29.91	207.42758	0	0	28	90	2.004	0.022	27	4	1.49535	0
1	4	560	19.85	31.33	249.36549	0	0	28	100.02	2.099	0.021	28	4	1.56645	0

1	4	580	39.69	50.66	332.2085	0	0	28	200	3.394	0.017	29	4	2.5328	0
1	4	600	59.54	63.46	456.64463	0	0	28	300.02	4.252	0.014	30	4	3.1729	0
1	4	620	79.38	74.46	622.64403	0	0	28	400	4.989	0.012	31	4	3.7228	0
1	4	640	99.23	84.37	830.16429	0	0	28	500.02	5.653	0.011	32	4	4.21855	0
1	4	660	119.07	93.53	1079.16299	0	0	28	599.99	6.267	0.01	33	4	4.6767	0
1	4	680	138.92	102.66	1369.72419	0	0	28	700.02	6.878	0.01	34	4	5.1328	0
1	4	700	158.76	111.17	1702.07563	0	0	28	799.99	7.448	0.009	35	4	5.5585	0
1	4	720	178.61	119.93	2075.61571	0	0	28	900.02	8.035	0.009	36	4	5.9964	0
1	4	740	198.45	128.21	2490.91541	0	0	28	999.99	8.59	0.009	37	4	6.4105	0
1	5	750	198.45	125.51	2703.01375	0	0	28	999.99	8.409	0.008	38	4	6.2753	0
1	5	760	198.45	124.43	2910.83011	0	0	28	999.99	8.337	0.008	39	4	6.22135	0
1	5	770	198.45	123.45	3118.75013	0	0	28	999.99	8.271	0.008	40	4	6.17225	0
1	5	780	198.45	122.58	3326.67016	0	0	28	999.99	8.213	0.008	41	4	6.1292	0
1	5	790	198.45	121.8	3534.07104	0	0	28	999.99	8.161	0.008	42	4	6.08995	0
1	5	800	198.45	121.12	3742.1992	0	0	28	999.99	8.115	0.008	43	4	6.056	0
1	6	820	198.45	120.34	4162.40371	0	0	28	999.99	8.062	0.008	44	4	6.01675	0
1	6	840	178.61	108.36	4537.07947	0	0	28	900.02	7.26	0.008	45	4	5.41795	0
1	6	860	158.76	96.85	4869.921	0	0	28	799.99	6.489	0.008	46	4	4.84245	0
1	6	880	138.92	86.04	5161.05554	0	0	28	700.02	5.764	0.008	47	4	4.3018	0
1	6	900	119.07	74.85	5410.69041	0	0	28	599.99	5.015	0.008	48	4	3.74235	0
1	6	920	99.23	63.72	5619.03377	0	0	28	500.02	4.269	0.009	49	4	3.1858	0
1	6	940	79.38	52.37	5785.42901	0	0	28	400	3.509	0.009	50	4	2.61865	0
1	6	960	59.54	40.51	5910.54451	0	0	28	300.02	2.714	0.009	51	4	2.0253	0
1	6	980	39.69	27.85	5993.96243	0	0	28	200	1.866	0.009	52	4	1.39235	0
1	6	1000	19.85	13.9	6035.83908	0	0	28	100.02	0.932	0.009	53	4	0.69515	0
1	7	1020	17.86	13.59	6073.53976	0	0	28	90	0.911	0.01	54	4	0.6795	0
1	7	1040	15.88	12.79	6106.81001	0	0	28	80.02	0.857	0.011	55	4	0.6395	0
1	7	1060	13.89	11.62	6135.94671	0	0	28	69.99	0.779	0.011	56	4	0.581	0
1	7	1080	11.9	10.48	6160.91609	0	0	28	59.96	0.702	0.012	57	4	0.52395	0
1	7	1100	9.92	9.15	6181.71265	0	0	28	49.99	0.613	0.012	58	4	0.45765	0
1	7	1120	7.93	7.73	6198.36073	0	0	28	39.96	0.518	0.013	59	4	0.38625	0
1	7	1140	5.95	6.08	6210.84464	0	0	28	29.98	0.408	0.014	60	4	0.30415	0
1	7	1160	3.96	4.52	6219.18164	0	0	28	19.95	0.303	0.015	61	4	0.22585	0
1	7	1180	1.98	2.15	6223.3576	0	0	28	9.98	0.144	0.014	62	4	0.10775	0
1	8	1200	1.79	2.41	6227.12751	0	0	28	9.02	0.162	0.018	63	4	0.12055	0
1	8	1220	1.59	2.63	6230.46467	0	0	28	8.01	0.176	0.022	64	4	0.1315	0
1	8	1240	1.39	2.78	6233.384	0	0	28	7	0.186	0.027	65	4	0.139	0
1	8	1260	1.19	2.88	6235.88549	0	0	28	6	0.193	0.032	66	4	0.144	0
1	8	1280	0.99	2.79	6237.97229	0	0	28	4.99	0.187	0.037	67	4	0.1395	0
1	8	1300	0.8	2.67	6239.64362	0	0	28	4.03	0.179	0.044	68	4	0.1337	0
1	8	1320	0.6	2.55	6240.89711	0	0	28	3.02	0.171	0.057	69	4	0.12745	0
1	8	1340	0.4	2.33	6241.73513	0	0	28	2.02	0.156	0.077	70	4	0.1167	0
1	8	1360	0.2	1.6	6242.15689	0	0	28	1.01	0.107	0.106	71	4	0.08015	0
1	9	1380	0.18	2.5	6242.53545	0	0	28	0.91	0.167	0.184	72	4	0.1249	0
1	9	1400	0.16	3.43	6242.87082	0	0	28	0.81	0.23	0.284	73	4	0.17155	0
1	9	1420	0.14	4.24	6243.16377	0	0	28	0.71	0.284	0.4	74	4	0.21175	0
1	9	1440	0.12	4.77	6243.4151	0	0	28	0.6	0.32	0.533	75	4	0.2385	0
1	9	1460	0.1	4.95	6243.6248	0	0	28	0.5	0.331	0.662	76	4	0.2473	0
1	9	1480	0.08	5.02	6243.79288	0	0	28	0.4	0.336	0.84	77	4	0.25085	0
1	9	1500	0.06	5.07	6243.91854	0	0	28	0.3	0.34	1.133	78	4	0.25365	0

1	9	1520	0.04	4.24	6244.00336	0	0	28	0.2	0.284	1.42	79	4	0.21175	0
1	9	1540	0.02	3.19	6244.04578	0	0	28	0.1	0.214	2.14	80	4	0.1595	0

2004.02.14 META-10 wt%-U [sonicated] DG 0.1-1000 s-1 run 6.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	3.28	0.03848	0	0	28	0.1	0.22	2.2	1	6	0.16415	0
1	1	40	0.04	4.58	0.12252	0	0	28	0.2	0.307	1.535	2	6	0.22875	0
1	1	60	0.06	4.82	0.2474	0	0	28	0.3	0.323	1.077	3	6	0.2409	0
1	1	80	0.08	4.79	0.41469	0	0	28	0.4	0.321	0.803	4	6	0.2396	0
1	1	100	0.1	5	0.62361	0	0	28	0.5	0.335	0.67	5	6	0.2498	0
1	1	120	0.12	5.93	0.87415	0	0	28	0.6	0.397	0.662	6	6	0.29645	0
1	1	140	0.14	6.69	1.1671	0	0	28	0.71	0.448	0.631	7	6	0.3346	0
1	1	160	0.16	7.33	1.50168	0	0	28	0.81	0.491	0.606	8	6	0.36655	0
1	1	180	0.18	8.22	1.87789	0	0	28	0.91	0.551	0.605	9	6	0.4109	0
1	2	200	0.2	8.57	2.29965	0	0	28	1.01	0.574	0.568	10	6	0.42835	0
1	2	220	0.4	13.68	3.12981	0	0	28	2.02	0.916	0.453	11	6	0.68395	0
1	2	240	0.6	18.62	4.37702	0	0	28	3.02	1.248	0.413	12	6	0.931	0
1	2	260	0.8	22.56	6.04128	0	0	28	4.03	1.512	0.375	13	6	1.128	0
1	2	280	1	21.61	8.12259	0	0	28	5.04	1.448	0.287	14	6	1.0805	0
1	2	300	1.19	16.68	10.62251	0	0	28	6	1.118	0.186	15	6	0.8342	0
1	2	320	1.39	13.16	13.53634	0	0	28	7	0.882	0.126	16	6	0.6581	0
1	2	340	1.59	11.17	16.86643	0	0	28	8.01	0.748	0.093	17	6	0.5583	0
1	2	360	1.79	10.66	20.61435	0	0	28	9.02	0.714	0.079	18	6	0.533	0
1	3	380	1.98	10.65	24.79031	0	0	28	9.98	0.714	0.072	19	6	0.53265	0
1	3	400	3.97	15.95	33.05976	0	0	28	20	1.069	0.053	20	6	0.7977	0
1	3	420	5.95	18.16	45.50675	0	0	28	29.98	1.217	0.041	21	6	0.9082	0
1	3	440	7.94	19.64	62.08337	0	0	28	40.01	1.316	0.033	22	6	0.982	0
1	3	460	9.92	20.94	82.83594	0	0	28	49.99	1.403	0.028	23	6	1.0469	0
1	3	480	11.91	22.43	107.72914	0	0	28	60.01	1.503	0.025	24	6	1.1217	0
1	3	500	13.89	23.91	136.80458	0	0	28	69.99	1.602	0.023	25	6	1.1957	0
1	3	520	15.88	25.28	170.04027	0	0	28	80.02	1.694	0.021	26	6	1.26405	0
1	3	540	17.86	26.78	207.41737	0	0	28	90	1.794	0.02	27	6	1.3391	0
1	4	560	19.85	28.11	249.34507	0	0	28	100.02	1.883	0.019	28	6	1.40545	0
1	4	580	39.69	46.56	332.20772	0	0	28	200	3.12	0.016	29	6	2.328	0
1	4	600	59.54	59.14	456.603	0	0	28	300.02	3.962	0.013	30	6	2.95675	0
1	4	620	79.38	69.95	622.55057	0	0	28	400	4.686	0.012	31	6	3.4973	0
1	4	640	99.23	80.1	830.1635	0	0	28	500.02	5.367	0.011	32	6	4.0052	0
1	4	660	119.07	89.18	1078.99649	0	0	28	599.99	5.975	0.01	33	6	4.45915	0
1	4	680	138.92	98.3	1369.84828	0	0	28	700.02	6.586	0.009	34	6	4.9151	0
1	4	700	158.76	107.02	1702.034	0	0	28	799.99	7.17	0.009	35	6	5.35095	0
1	4	720	178.61	115.93	2075.69896	0	0	28	900.02	7.767	0.009	36	6	5.7963	0
1	4	740	198.45	124.46	2491.00887	0	0	28	999.99	8.338	0.008	37	6	6.22275	0
1	5	750	198.45	122.16	2703.10643	0	0	28	999.99	8.184	0.008	38	6	6.10775	0
1	5	760	198.45	121.23	2911.02724	0	0	28	999.99	8.123	0.008	39	6	6.0617	0
1	5	770	198.45	120.39	3118.8436	0	0	28	999.99	8.066	0.008	40	6	6.0195	0
1	5	780	198.45	119.64	3326.76441	0	0	28	999.99	8.016	0.008	41	6	5.98185	0
1	5	790	198.45	118.98	3534.06083	0	0	28	999.99	7.971	0.008	42	6	5.9488	0
1	5	800	198.45	118.35	3742.29266	0	0	28	999.99	7.93	0.008	43	6	5.91755	0
1	6	820	198.45	117.71	4162.49717	0	0	28	999.99	7.887	0.008	44	6	5.8856	0
1	6	840	178.61	106.01	4536.97501	0	0	28	900.02	7.103	0.008	45	6	5.3005	0

1	6	860	158.76	94.71	4869.71209	0	0	28	799.99	6.346	0.008	46	6	4.73555	0
1	6	880	138.92	84.02	5161.19062	0	0	28	700.02	5.63	0.008	47	6	4.2012	0
1	6	900	119.07	73.05	5410.648	0	0	28	599.99	4.894	0.008	48	6	3.65245	0
1	6	920	99.23	62.13	5619.0432	0	0	28	500.02	4.163	0.008	49	6	3.1067	0
1	6	940	79.38	50.98	5785.45022	0	0	28	400	3.416	0.009	50	6	2.54895	0
1	6	960	59.54	39.36	5910.44005	0	0	28	300.02	2.637	0.009	51	6	1.96815	0
1	6	980	39.69	27.09	5993.97186	0	0	28	200	1.815	0.009	52	6	1.3546	0
1	6	1000	19.85	13.67	6035.81787	0	0	28	100.02	0.916	0.009	53	6	0.6836	0
1	7	1020	17.86	13.22	6073.52877	0	0	28	90	0.886	0.01	54	6	0.66085	0
1	7	1040	15.88	12.39	6106.79823	0	0	28	80.02	0.83	0.01	55	6	0.6195	0
1	7	1060	13.89	11.21	6135.91137	0	0	28	69.99	0.751	0.011	56	6	0.5607	0
1	7	1080	11.9	10.06	6160.87368	0	0	28	59.96	0.674	0.011	57	6	0.50305	0
1	7	1100	9.92	8.66	6181.67966	0	0	28	49.99	0.58	0.012	58	6	0.43285	0
1	7	1120	7.93	7.27	6198.32382	0	0	28	39.96	0.487	0.012	59	6	0.3637	0
1	7	1140	5.95	5.74	6210.82265	0	0	28	29.98	0.385	0.013	60	6	0.28705	0
1	7	1160	3.96	4.26	6219.15415	0	0	28	19.95	0.286	0.014	61	6	0.21315	0
1	7	1180	1.98	2.01	6223.32854	0	0	28	9.98	0.135	0.014	62	6	0.1004	0
1	8	1200	1.79	2.32	6227.0961	0	0	28	9.02	0.156	0.017	63	6	0.1162	0
1	8	1220	1.59	2.66	6230.43168	0	0	28	8.01	0.178	0.022	64	6	0.13285	0
1	8	1240	1.39	2.74	6233.35258	0	0	28	7	0.184	0.026	65	6	0.13705	0
1	8	1260	1.19	2.49	6235.85407	0	0	28	6	0.167	0.028	66	6	0.1246	0
1	8	1280	0.99	2.35	6237.94088	0	0	28	4.99	0.157	0.031	67	6	0.11725	0
1	8	1300	0.8	2.38	6239.61063	0	0	28	4.03	0.159	0.039	68	6	0.11895	0
1	8	1320	0.6	2.1	6240.86648	0	0	28	3.02	0.141	0.047	69	6	0.1052	0
1	8	1340	0.4	1.87	6241.70372	0	0	28	2.02	0.125	0.062	70	6	0.0933	0
1	8	1360	0.2	1.19	6242.12548	0	0	28	1.01	0.08	0.079	71	6	0.0596	0
1	9	1380	0.18	1.82	6242.50404	0	0	28	0.91	0.122	0.134	72	6	0.09095	0
1	9	1400	0.16	2.33	6242.84019	0	0	28	0.81	0.156	0.193	73	6	0.11665	0
1	9	1420	0.14	2.84	6243.13236	0	0	28	0.71	0.19	0.268	74	6	0.1418	0
1	9	1440	0.12	3.32	6243.38368	0	0	28	0.6	0.222	0.37	75	6	0.166	0
1	9	1460	0.1	3.58	6243.59417	0	0	28	0.5	0.24	0.48	76	6	0.17895	0
1	9	1480	0.08	3.83	6243.76146	0	0	28	0.4	0.256	0.64	77	6	0.19135	0
1	9	1500	0.06	4.16	6243.88712	0	0	28	0.3	0.279	0.93	78	6	0.20815	0
1	9	1520	0.04	4.04	6243.97195	0	0	28	0.2	0.271	1.355	79	6	0.20195	0
1	9	1540	0.02	3.19	6244.01436	0	0	28	0.1	0.214	2.14	80	6	0.15965	0

2004.02.14 META-10 wt%-U [sonicated] DG 0.1-1000 s-1 run 7.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	3.64	0.03848	0	0	28	0.1	0.244	2.44	1	7	0.18185	0
1	1	40	0.04	4.7	0.12252	0	0	28	0.2	0.315	1.575	2	7	0.23515	0
1	1	60	0.06	4.79	0.2474	0	0	28	0.3	0.321	1.07	3	7	0.2394	0
1	1	80	0.08	5.03	0.41469	0	0	28	0.4	0.337	0.843	4	7	0.25165	0
1	1	100	0.1	5.54	0.62361	0	0	28	0.5	0.371	0.742	5	7	0.2769	0
1	1	120	0.12	6.18	0.87415	0	0	28	0.6	0.414	0.69	6	7	0.30875	0
1	1	140	0.14	6.9	1.16632	0	0	28	0.71	0.462	0.651	7	7	0.345	0
1	1	160	0.16	7.58	1.50168	0	0	28	0.81	0.508	0.627	8	7	0.379	0
1	1	180	0.18	8.13	1.87867	0	0	28	0.91	0.545	0.599	9	7	0.40645	0
1	2	200	0.2	8.79	2.29965	0	0	28	1.01	0.589	0.583	10	7	0.43945	0
1	2	220	0.4	14.14	3.1306	0	0	28	2.02	0.947	0.469	11	7	0.707	0
1	2	240	0.6	18.98	4.37702	0	0	28	3.02	1.271	0.421	12	7	0.94875	0

1	2	260	0.8	20.19	6.04207	0	0	28	4.03	1.353	0.336	13	7	1.0095	0
1	2	280	1	17.6	8.12337	0	0	28	5.04	1.179	0.234	14	7	0.88005	0
1	2	300	1.19	15.77	10.6233	0	0	28	6	1.057	0.176	15	7	0.7885	0
1	2	320	1.39	12.17	13.53791	0	0	28	7	0.816	0.117	16	7	0.6087	0
1	2	340	1.59	10.34	16.86878	0	0	28	8.01	0.693	0.087	17	7	0.51715	0
1	2	360	1.79	10.09	20.61277	0	0	28	9.02	0.676	0.075	18	7	0.5047	0
1	3	380	1.98	9.96	24.78795	0	0	28	9.98	0.668	0.067	19	7	0.4982	0
1	3	400	3.97	15.24	33.06448	0	0	28	20	1.021	0.051	20	7	0.76205	0
1	3	420	5.95	17.37	45.49497	0	0	28	29.98	1.164	0.039	21	7	0.8686	0
1	3	440	7.94	18.86	62.08572	0	0	28	40.01	1.263	0.032	22	7	0.94285	0
1	3	460	9.92	20	82.85008	0	0	28	49.99	1.34	0.027	23	7	0.99995	0
1	3	480	11.91	21.43	107.73071	0	0	28	60.01	1.436	0.024	24	7	1.07155	0
1	3	500	13.89	22.96	136.79044	0	0	28	69.99	1.538	0.022	25	7	1.1481	0
1	3	520	15.88	24.28	170.01043	0	0	28	80.02	1.627	0.02	26	7	1.2141	0
1	3	540	17.86	25.72	207.40559	0	0	28	90	1.723	0.019	27	7	1.2858	0
1	4	560	19.85	27.04	249.3647	0	0	28	100.02	1.812	0.018	28	7	1.352	0
1	4	580	39.69	45.04	332.18651	0	0	28	200	3.018	0.015	29	7	2.2521	0
1	4	600	59.54	57.43	456.46791	0	0	28	300.02	3.847	0.013	30	7	2.87125	0
1	4	620	79.38	68.19	622.50737	0	0	28	400	4.568	0.011	31	7	3.40925	0
1	4	640	99.23	78.22	829.97579	0	0	28	500.02	5.241	0.01	32	7	3.9109	0
1	4	660	119.07	87.39	1079.23525	0	0	28	599.99	5.855	0.01	33	7	4.36955	0
1	4	680	138.92	96.55	1369.79644	0	0	28	700.02	6.469	0.009	34	7	4.8275	0
1	4	700	158.76	105.38	1701.89813	0	0	28	799.99	7.061	0.009	35	7	5.26915	0
1	4	720	178.61	114.32	2075.72959	0	0	28	900.02	7.659	0.009	36	7	5.71575	0
1	4	740	198.45	122.95	2491.03872	0	0	28	999.99	8.238	0.008	37	7	6.1476	0
1	5	750	198.45	120.87	2703.34441	0	0	28	999.99	8.098	0.008	38	7	6.0435	0
1	5	760	198.45	119.97	2911.26443	0	0	28	999.99	8.038	0.008	39	7	5.9986	0
1	5	770	198.45	119.18	3119.08079	0	0	28	999.99	7.985	0.008	40	7	5.9589	0
1	5	780	198.45	118.49	3326.89714	0	0	28	999.99	7.939	0.008	41	7	5.9246	0
1	5	790	198.45	117.83	3534.19513	0	0	28	999.99	7.895	0.008	42	7	5.89145	0
1	5	800	198.45	117.28	3742.21883	0	0	28	999.99	7.858	0.008	43	7	5.8639	0
1	6	820	198.45	116.65	4162.5278	0	0	28	999.99	7.815	0.008	44	7	5.8324	0
1	6	840	178.61	105.1	4537.09832	0	0	28	900.02	7.042	0.008	45	7	5.255	0
1	6	860	158.76	93.9	4870.0019	0	0	28	799.99	6.291	0.008	46	7	4.69475	0
1	6	880	138.92	83.26	5161.19926	0	0	28	700.02	5.579	0.008	47	7	4.1632	0
1	6	900	119.07	72.36	5410.96923	0	0	28	599.99	4.848	0.008	48	7	3.61815	0
1	6	920	99.23	61.54	5618.89633	0	0	28	500.02	4.123	0.008	49	7	3.0769	0
1	6	940	79.38	50.53	5785.62536	0	0	28	400	3.385	0.008	50	7	2.5263	0
1	6	960	59.54	39.06	5910.48089	0	0	28	300.02	2.617	0.009	51	7	1.95285	0
1	6	980	39.69	26.9	5994.00249	0	0	28	200	1.802	0.009	52	7	1.3448	0
1	6	1000	19.85	13.48	6035.87913	0	0	28	100.02	0.903	0.009	53	7	0.67375	0
1	7	1020	17.86	13.03	6073.5861	0	0	28	90	0.873	0.01	54	7	0.6517	0
1	7	1040	15.88	12.2	6106.86499	0	0	28	80.02	0.817	0.01	55	7	0.60975	0
1	7	1060	13.89	11.03	6135.95614	0	0	28	69.99	0.739	0.011	56	7	0.55145	0
1	7	1080	11.9	9.9	6160.91374	0	0	28	59.96	0.663	0.011	57	7	0.495	0
1	7	1100	9.92	8.56	6181.73935	0	0	28	49.99	0.574	0.011	58	7	0.42815	0
1	7	1120	7.93	7.16	6198.3788	0	0	28	39.96	0.48	0.012	59	7	0.3582	0
1	7	1140	5.95	5.63	6210.87605	0	0	28	29.98	0.377	0.013	60	7	0.28165	0
1	7	1160	3.96	4.23	6219.20756	0	0	28	19.95	0.283	0.014	61	7	0.21135	0
1	7	1180	1.98	2.02	6223.38352	0	0	28	9.98	0.135	0.014	62	7	0.10095	0

1	8	1200	1.79	2.15	6227.15422	0	0	28	9.02	0.144	0.016	63	7	0.10745	0
1	8	1220	1.59	2.29	6230.4898	0	0	28	8.01	0.153	0.019	64	7	0.1144	0
1	8	1240	1.39	2.45	6233.40677	0	0	28	7	0.164	0.023	65	7	0.12245	0
1	8	1260	1.19	2.48	6235.91141	0	0	28	6	0.166	0.028	66	7	0.124	0
1	8	1280	0.99	2.31	6237.99664	0	0	28	4.99	0.154	0.031	67	7	0.11525	0
1	8	1300	0.8	2.19	6239.66797	0	0	28	4.03	0.147	0.036	68	7	0.10965	0
1	8	1320	0.6	2.13	6240.92225	0	0	28	3.02	0.142	0.047	69	7	0.1063	0
1	8	1340	0.4	1.74	6241.75948	0	0	28	2.02	0.117	0.058	70	7	0.08705	0
1	8	1360	0.2	1.12	6242.18124	0	0	28	1.01	0.075	0.074	71	7	0.0561	0
1	9	1380	0.18	1.57	6242.56059	0	0	28	0.91	0.105	0.115	72	7	0.0785	0
1	9	1400	0.16	2.09	6242.89595	0	0	28	0.81	0.14	0.173	73	7	0.1046	0
1	9	1420	0.14	2.63	6243.18969	0	0	28	0.71	0.176	0.248	74	7	0.13155	0
1	9	1440	0.12	2.8	6243.44023	0	0	28	0.6	0.188	0.313	75	7	0.1401	0
1	9	1460	0.1	3.22	6243.64993	0	0	28	0.5	0.215	0.43	76	7	0.16075	0
1	9	1480	0.08	3.34	6243.81801	0	0	28	0.4	0.224	0.56	77	7	0.16705	0
1	9	1500	0.06	3.7	6243.94367	0	0	28	0.3	0.248	0.827	78	7	0.18515	0
1	9	1520	0.04	3.23	6244.02771	0	0	28	0.2	0.217	1.085	79	7	0.1617	0
1	9	1540	0.02	2.57	6244.07012	0	0	28	0.1	0.172	1.72	80	7	0.1283	0

2004.02.14 META-10 wt%-U [sonicated] DG 0.1-1000 s-1 run 8.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	3.28	0.03848	0	0	28	0.1	0.22	2.2	1	8	0.1642	0
1	1	40	0.04	4.31	0.12174	0	0	28	0.2	0.289	1.445	2	8	0.2153	0
1	1	60	0.06	4.68	0.2474	0	0	28	0.3	0.314	1.047	3	8	0.23425	0
1	1	80	0.08	4.72	0.41469	0	0	28	0.4	0.316	0.79	4	8	0.2361	0
1	1	100	0.1	5.18	0.62361	0	0	28	0.5	0.347	0.694	5	8	0.25885	0
1	1	120	0.12	5.72	0.87415	0	0	28	0.6	0.384	0.64	6	8	0.2862	0
1	1	140	0.14	6.56	1.1671	0	0	28	0.71	0.439	0.618	7	8	0.32795	0
1	1	160	0.16	7.22	1.50168	0	0	28	0.81	0.484	0.598	8	8	0.36085	0
1	1	180	0.18	7.76	1.87789	0	0	28	0.91	0.52	0.571	9	8	0.38815	0
1	2	200	0.2	8.42	2.29886	0	0	28	1.01	0.564	0.558	10	8	0.4209	0
1	2	220	0.4	13.72	3.1306	0	0	28	2.02	0.919	0.455	11	8	0.68595	0
1	2	240	0.6	17.98	4.37781	0	0	28	3.02	1.205	0.399	12	8	0.8989	0
1	2	260	0.8	17.72	6.04364	0	0	28	4.03	1.187	0.295	13	8	0.886	0
1	2	280	1	15.51	8.12573	0	0	28	5.04	1.039	0.206	14	8	0.77525	0
1	2	300	1.19	14.58	10.6233	0	0	28	6	0.977	0.163	15	8	0.7288	0
1	2	320	1.39	11.51	13.53791	0	0	28	7	0.771	0.11	16	8	0.5756	0
1	2	340	1.59	9.96	16.868	0	0	28	8.01	0.667	0.083	17	8	0.4978	0
1	2	360	1.79	9.55	20.61199	0	0	28	9.02	0.64	0.071	18	8	0.4776	0
1	3	380	1.98	9.6	24.78638	0	0	28	9.98	0.643	0.064	19	8	0.47985	0
1	3	400	3.97	14.61	33.06212	0	0	28	20	0.979	0.049	20	8	0.73055	0
1	3	420	5.95	16.73	45.50675	0	0	28	29.98	1.121	0.037	21	8	0.83645	0
1	3	440	7.94	18.05	62.09279	0	0	28	40.01	1.21	0.03	22	8	0.90265	0
1	3	460	9.92	19.35	82.83987	0	0	28	49.99	1.297	0.026	23	8	0.9677	0
1	3	480	11.91	20.82	107.75113	0	0	28	60.01	1.395	0.023	24	8	1.04115	0
1	3	500	13.89	22.36	136.78337	0	0	28	69.99	1.498	0.021	25	8	1.11785	0
1	3	520	15.88	23.65	170.02692	0	0	28	80.02	1.584	0.02	26	8	1.18225	0
1	3	540	17.86	24.97	207.3836	0	0	28	90	1.673	0.019	27	8	1.24845	0
1	4	560	19.85	26.3	249.29087	0	0	28	100.02	1.762	0.018	28	8	1.31485	0
1	4	580	39.69	43.95	332.12289	0	0	28	200	2.944	0.015	29	8	2.1973	0

1	4	600	59.54	56.17	456.54881	0	0	28	300.02	3.763	0.013	30	8	2.80845	0
1	4	620	79.38	66.79	622.58041	0	0	28	400	4.475	0.011	31	8	3.3397	0
1	4	640	99.23	76.69	830.09989	0	0	28	500.02	5.139	0.01	32	8	3.83475	0
1	4	660	119.07	86.13	1079.1088	0	0	28	599.99	5.771	0.01	33	8	4.3066	0
1	4	680	138.92	95.5	1369.73204	0	0	28	700.02	6.399	0.009	34	8	4.77515	0
1	4	700	158.76	104.29	1702.09448	0	0	28	799.99	6.987	0.009	35	8	5.21435	0
1	4	720	178.61	113.21	2075.56152	0	0	28	900.02	7.585	0.008	36	8	5.66025	0
1	4	740	198.45	121.8	2490.87064	0	0	28	999.99	8.16	0.008	37	8	6.08975	0
1	5	750	198.45	119.8	2702.9792	0	0	28	999.99	8.026	0.008	38	8	5.98975	0
1	5	760	198.45	119.02	2910.89922	0	0	28	999.99	7.974	0.008	39	8	5.95105	0
1	5	770	198.45	118.22	3118.82082	0	0	28	999.99	7.921	0.008	40	8	5.91115	0
1	5	780	198.45	117.64	3326.74085	0	0	28	999.99	7.882	0.008	41	8	5.8819	0
1	5	790	198.45	117.05	3534.14094	0	0	28	999.99	7.842	0.008	42	8	5.8526	0
1	5	800	198.45	116.5	3742.16621	0	0	28	999.99	7.806	0.008	43	8	5.82505	0
1	6	820	198.45	115.89	4162.47439	0	0	28	999.99	7.764	0.008	44	8	5.79435	0
1	6	840	178.61	104.37	4536.96166	0	0	28	900.02	6.993	0.008	45	8	5.21845	0
1	6	860	158.76	93.28	4869.95949	0	0	28	799.99	6.25	0.008	46	8	4.6641	0
1	6	880	138.92	82.75	5161.15607	0	0	28	700.02	5.545	0.008	47	8	4.1377	0
1	6	900	119.07	71.95	5410.80116	0	0	28	599.99	4.82	0.008	48	8	3.59735	0
1	6	920	99.23	61.13	5618.83349	0	0	28	500.02	4.096	0.008	49	8	3.0566	0
1	6	940	79.38	50.13	5785.5209	0	0	28	400	3.359	0.008	50	8	2.5067	0
1	6	960	59.54	38.68	5910.49974	0	0	28	300.02	2.591	0.009	51	8	1.93395	0
1	6	980	39.69	26.58	5993.99071	0	0	28	200	1.781	0.009	52	8	1.3289	0
1	6	1000	19.85	13.38	6035.84615	0	0	28	100.02	0.896	0.009	53	8	0.66885	0
1	7	1020	17.86	12.99	6073.5107	0	0	28	90	0.87	0.01	54	8	0.64935	0
1	7	1040	15.88	12.16	6106.82258	0	0	28	80.02	0.815	0.01	55	8	0.6079	0
1	7	1060	13.89	10.93	6135.91373	0	0	28	69.99	0.733	0.01	56	8	0.54665	0
1	7	1080	11.9	9.88	6160.90274	0	0	28	59.96	0.662	0.011	57	8	0.4939	0
1	7	1100	9.92	8.53	6181.70323	0	0	28	49.99	0.571	0.011	58	8	0.4264	0
1	7	1120	7.93	7.17	6198.35838	0	0	28	39.96	0.48	0.012	59	8	0.35845	0
1	7	1140	5.95	5.63	6210.83678	0	0	28	29.98	0.377	0.013	60	8	0.2813	0
1	7	1160	3.96	4.15	6219.17693	0	0	28	19.95	0.278	0.014	61	8	0.20735	0
1	7	1180	1.98	2.07	6223.35132	0	0	28	9.98	0.139	0.014	62	8	0.1035	0
1	8	1200	1.79	2.13	6227.12123	0	0	28	9.02	0.143	0.016	63	8	0.10655	0
1	8	1220	1.59	2.28	6230.45682	0	0	28	8.01	0.153	0.019	64	8	0.114	0
1	8	1240	1.39	2.33	6233.37614	0	0	28	7	0.156	0.022	65	8	0.1166	0
1	8	1260	1.19	2.4	6235.87999	0	0	28	6	0.161	0.027	66	8	0.1198	0
1	8	1280	0.99	2.17	6237.96679	0	0	28	4.99	0.146	0.029	67	8	0.1087	0
1	8	1300	0.8	2.08	6239.63576	0	0	28	4.03	0.14	0.035	68	8	0.1042	0
1	8	1320	0.6	2.06	6240.89162	0	0	28	3.02	0.138	0.046	69	8	0.10315	0
1	8	1340	0.4	1.84	6241.72807	0	0	28	2.02	0.124	0.061	70	8	0.0922	0
1	8	1360	0.2	1.21	6242.15061	0	0	28	1.01	0.081	0.08	71	8	0.06045	0
1	9	1380	0.18	1.51	6242.52917	0	0	28	0.91	0.101	0.111	72	8	0.0754	0
1	9	1400	0.16	1.97	6242.86454	0	0	28	0.81	0.132	0.163	73	8	0.0984	0
1	9	1420	0.14	2.33	6243.15749	0	0	28	0.71	0.156	0.22	74	8	0.11655	0
1	9	1440	0.12	2.67	6243.40882	0	0	28	0.6	0.179	0.298	75	8	0.13335	0
1	9	1460	0.1	2.92	6243.61852	0	0	28	0.5	0.196	0.392	76	8	0.14605	0
1	9	1480	0.08	2.92	6243.78659	0	0	28	0.4	0.196	0.49	77	8	0.14615	0
1	9	1500	0.06	3.29	6243.91226	0	0	28	0.3	0.22	0.733	78	8	0.16435	0
1	9	1520	0.04	3.19	6243.9963	0	0	28	0.2	0.214	1.07	79	8	0.15965	0

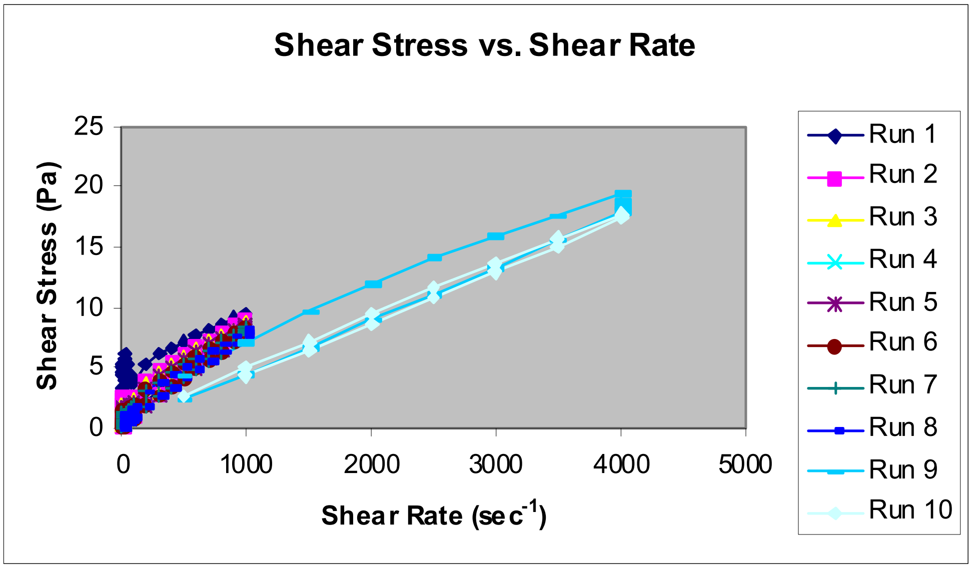
1	9	1540	0.02	2.67	6244.03871	0	0	28	0.1	0.179	1.79	80	8	0.13355	0

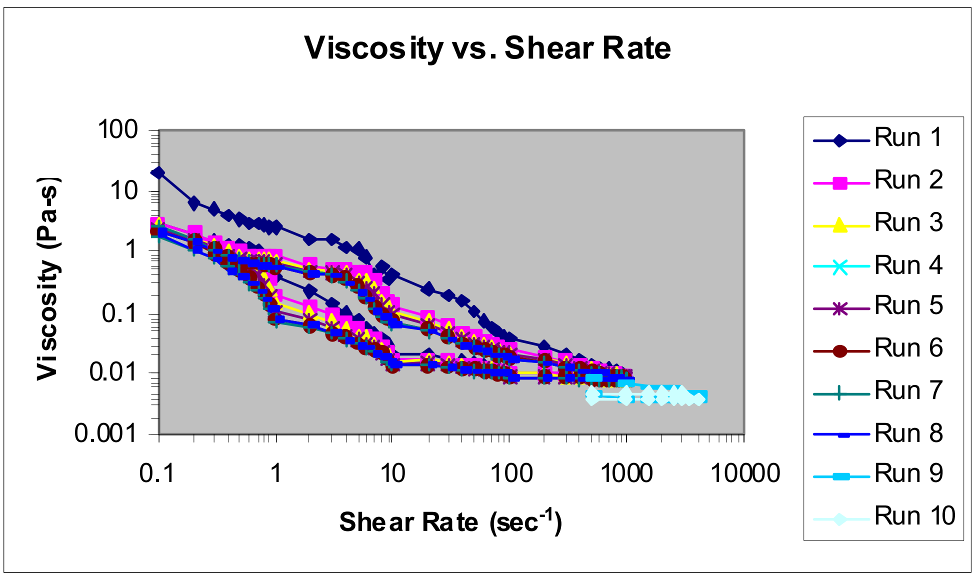
2004.02.11 META-10 wt%-U [sonicated] DG 500-4000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.23	65.31	207.61137	0	0	28.1	500.02	4.376	0.009	1	1	3.2654	0
1	1	40	198.46	106.39	621.64265	0	0	28.1	1000.04	7.128	0.007	2	1	5.3193	0
1	1	60	297.68	143.44	1243.33634	0	0	28.1	1500.01	9.611	0.006	3	1	7.1722	0
1	1	80	396.91	177.94	2073.42052	0	0	28.1	2000.03	11.922	0.006	4	1	8.89695	0
1	1	100	496.13	209.04	3110.8561	0	0	28.1	2500	14.006	0.006	5	1	10.45195	0
1	1	120	595.36	236.55	4355.74596	0	0	28.1	3000.02	15.849	0.005	6	1	11.8273	0
1	1	140	694.58	262.2	5808.4506	0	0	28	3499.99	17.567	0.005	7	1	13.10975	0
1	1	160	793.81	288.84	7470.53768	0	0	28	4000.01	19.352	0.005	8	1	14.44195	0
1	2	180	793.81	280.19	9151.15467	0	0	28	4000.01	18.772	0.005	9	1	14.00925	0
1	2	200	793.81	274.5	10812.0448	0	0	28	4000.01	18.392	0.005	10	1	13.72515	0
1	2	220	793.81	270.71	12475.427	0	0	28	4000.01	18.138	0.005	11	1	13.53555	0
1	3	240	793.81	267.86	14156.27097	0	0	28	4000.01	17.947	0.004	12	1	13.39305	0
1	3	260	694.58	231.81	15613.03219	0	0	28	3499.99	15.532	0.004	13	1	11.5907	0
1	3	280	595.36	197.98	16861.61107	0	0	27.9	3000.02	13.265	0.004	14	1	9.89895	0
1	3	300	496.13	164.87	17901.28424	0	0	27.9	2500	11.046	0.004	15	1	8.24355	0
1	3	320	396.91	132.28	18734.27989	0	0	27.9	2000.03	8.862	0.004	16	1	6.61375	0
1	3	340	297.68	99.82	19359.41049	0	0	27.9	1500.01	6.688	0.004	17	1	4.991	0
1	3	360	198.46	66.93	19776.66033	0	0	27.9	1000.04	4.485	0.004	18	1	3.3467	0
1	3	380	99.23	34.27	19986.18179	0	0	27.9	500.02	2.296	0.005	19	1	1.71345	0

2004.02.11 META-10 wt%-U [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.31	39.27	207.66085	0	0	27.9	500.42	2.631	0.005	1	1	1.96355	0
1	1	40	198.46	73.57	622.10839	0	0	27.9	1000.04	4.929	0.005	2	1	3.6787	0
1	1	60	297.68	107.2	1243.54447	0	0	27.9	1500.01	7.182	0.005	3	1	5.36	0
1	1	80	396.91	140.11	2073.62787	0	0	28	2000.03	9.388	0.005	4	1	7.0056	0
1	1	100	496.13	172.33	3111.26843	0	0	28	2500	11.546	0.005	5	1	8.6165	0
1	1	120	595.36	203.48	4355.5339	0	0	28	3000.02	13.633	0.005	6	1	10.17375	0
1	1	140	694.58	234.1	5808.91713	0	0	28	3499.99	15.684	0.004	7	1	11.70485	0
1	1	160	793.81	264.77	7470.58638	0	0	28	4000.01	17.739	0.004	8	1	13.23835	0
1	2	180	793.81	262.7	9150.84129	0	0	28	4000.01	17.601	0.004	9	1	13.1349	0
1	2	200	793.81	262.11	10813.81038	0	0	28	4000.01	17.561	0.004	10	1	13.1053	0
1	2	220	793.81	260.52	12476.77868	0	0	28	4000.01	17.455	0.004	11	1	13.0258	0
1	3	240	793.81	258.29	14156.78619	0	0	28	4000.01	17.305	0.004	12	1	12.9143	0
1	3	260	694.58	225.07	15612.82249	0	0	28	3499.99	15.08	0.004	13	1	11.2536	0
1	3	280	595.36	192.85	16861.45242	0	0	28	3000.02	12.921	0.004	14	1	9.64265	0
1	3	300	496.13	160.67	17902.52517	0	0	28	2500	10.765	0.004	15	1	8.03325	0
1	3	320	396.91	129.03	18735.52161	0	0	27.9	2000.03	8.645	0.004	16	1	6.4517	0
1	3	340	297.68	97.33	19360.64906	0	0	27.9	1500.01	6.521	0.004	17	1	4.8665	0
1	3	360	198.46	65.25	19778.05127	0	0	27.9	1000.04	4.372	0.004	18	1	3.2626	0
1	3	380	99.23	33.3	19987.37009	0	0	27.9	500.02	2.231	0.004	19	1	1.6649	0





E-2.1.17 META/15wt%/U/N

2004.02.09 META-15 wt%-U DG 1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.17	194.7	0.33929	0	0	28	0.86	13.04	15.167	1	1	9.7347	0
1	1	40	0.4	234	1.17574	0	0	28	2.02	15.68	7.761	2	1	11.7	0
1	1	60	0.6	217.4	2.42688	0	0	28	3.02	14.57	4.824	3	1	10.871	0
1	1	80	0.8	200.6	4.10135	0	0	28	4.03	13.44	3.335	4	1	10.03	0
1	1	100	1	229.3	6.17323	0	0	28	5.04	15.36	3.048	5	1	11.464	0
1	1	120	1.19	229.4	8.6653	0	0	28	6	15.37	2.561	6	1	11.469	0
1	1	140	1.41	145.5	11.60897	0	0	28	7.1	9.745	1.373	7	1	7.2723	0
1	1	160	1.6	135.4	14.94456	0	0	28	8.06	9.074	1.126	8	1	6.7716	0
1	1	180	1.77	130.1	18.66342	0	0	28	8.92	8.715	0.977	9	1	6.5036	0
1	2	200	2.01	122.9	22.86687	0	0	28	10.13	8.231	0.813	10	1	6.1427	0
1	2	220	3.97	113.3	31.15046	0	0	28	20	7.588	0.379	11	1	5.6628	0

1	2	240	5.95	102.2	43.58803	0	0	28	29.98	6.847	0.228	12	1	5.1094	0
1	2	260	7.94	80.92	60.17721	0	0	28	40.01	5.421	0.135	13	1	4.0458	0
1	2	280	9.92	72.29	80.92821	0	0	28	49.99	4.844	0.097	14	1	3.6147	0
1	2	300	11.91	66.84	105.83476	0	0	28	60.01	4.478	0.075	15	1	3.3419	0
1	2	320	13.9	56.79	134.89449	0	0	28	70.04	3.805	0.054	16	1	2.8397	0
1	2	340	15.88	49.63	168.09798	0	0	28	80.02	3.325	0.042	17	1	2.4815	0
1	2	360	17.86	48.27	205.50964	0	0	28	90	3.234	0.036	18	1	2.4134	0
1	3	380	19.85	41.05	247.42477	0	0	28	100	2.75	0.027	19	1	2.0526	0
1	3	400	39.69	53.48	330.29213	0	0	28	200	3.583	0.018	20	1	2.674	0
1	3	420	59.54	59.75	454.72983	0	0	28	300	4.003	0.013	21	1	2.9873	0
1	3	440	79.38	63.55	620.60514	0	0	28	400	4.258	0.011	22	1	3.1773	0
1	3	460	99.23	67.98	828.26127	0	0	28	500	4.555	0.009	23	1	3.3989	0
1	3	480	119.1	73.41	1077.1453	0	0	28	600	4.918	0.008	24	1	3.6703	0
1	3	500	138.9	80.34	1367.7803	0	0	28	700	5.383	0.008	25	1	4.0169	0
1	3	520	158.8	86.97	1699.893	0	0	28	800	5.827	0.007	26	1	4.3486	0
1	3	540	178.6	94.39	2074.0983	0	0	28	900	6.324	0.007	27	1	4.7197	0
1	3	560	198.5	101.6	2489.3053	0	0	28	1000	6.805	0.007	28	1	5.0782	0
1	4	570	198.5	99.35	2701.2058	0	0	28	1000	6.656	0.007	29	1	4.9675	0
1	4	580	198.5	98.76	2909.6449	0	0	28	1000	6.617	0.007	30	1	4.9378	0
1	4	590	198.5	97.94	3117.2532	0	0	28	1000	6.562	0.007	31	1	4.8968	0
1	4	600	198.5	97.25	3324.7585	0	0	28	1000	6.516	0.007	32	1	4.8625	0
1	4	610	198.5	96.77	3532.4712	0	0	28	1000	6.484	0.006	33	1	4.8386	0
1	4	620	198.5	96.37	3740.9104	0	0	28	1000	6.457	0.006	34	1	4.8185	0
1	5	640	198.5	95.96	4161.3238	0	0	28	1000	6.429	0.006	35	1	4.798	0
1	5	660	178.6	85.96	4535.4364	0	0	28	900	5.76	0.006	36	1	4.2982	0
1	5	680	158.8	76.49	4868.1845	0	0	28	800	5.125	0.006	37	1	3.8243	0
1	5	700	138.9	68.04	5159.3803	0	0	28	700	4.558	0.007	38	1	3.4018	0
1	5	720	119.1	58.91	5409.1503	0	0	28	600	3.947	0.007	39	1	2.9455	0
1	5	740	99.23	50.19	5617.3357	0	0	28	500	3.362	0.007	40	1	2.5093	0
1	5	760	79.38	41.55	5783.826	0	0	28	400	2.784	0.007	41	1	2.0774	0
1	5	780	59.54	32.65	5908.8881	0	0	28	300	2.187	0.007	42	1	1.6323	0
1	5	800	39.69	27.93	5992.3265	0	0	28	200	1.871	0.009	43	1	1.3966	0
1	5	820	19.85	15.95	6034.1913	0	0	28	100	1.068	0.011	44	1	0.7973	0
1	6	840	17.86	18.35	6071.8653	0	0	28	90	1.23	0.014	45	1	0.9177	0
1	6	860	15.88	20.22	6105.134	0	0	28	80.02	1.355	0.017	46	1	1.011	0
1	6	880	13.89	19.35	6134.2644	0	0	28	69.99	1.296	0.019	47	1	0.9674	0
1	6	900	11.9	16.17	6159.222	0	0	28	59.96	1.083	0.018	48	1	0.8084	0
1	6	920	9.92	16.66	6180.0429	0	0	28	49.99	1.116	0.022	49	1	0.8332	0
1	6	940	7.93	14.65	6196.6831	0	0	28	39.96	0.981	0.025	50	1	0.7325	0
1	6	960	5.95	13.77	6209.1835	0	0	28	29.98	0.923	0.031	51	1	0.6886	0
1	6	980	3.96	13.91	6217.5158	0	0	28	19.95	0.932	0.047	52	1	0.6957	0
1	6	1000	1.98	13.22	6221.6894	0	0	28	9.98	0.886	0.089	53	1	0.6611	0
1	7	1020	1.79	12.74	6225.4578	0	0	28	9.02	0.854	0.095	54	1	0.6371	0
1	7	1040	1.59	16.84	6228.7941	0	0	28	8.01	1.128	0.141	55	1	0.8418	0
1	7	1060	1.39	12.75	6231.7111	0	0	28	7	0.855	0.122	56	1	0.6377	0
1	7	1080	1.19	17.95	6234.2165	0	0	28	6	1.203	0.201	57	1	0.8977	0
1	7	1100	0.99	18.79	6236.3057	0	0	28	4.99	1.259	0.252	58	1	0.9394	0
1	7	1120	0.8	14.04	6237.9699	0	0	28	4.03	0.941	0.233	59	1	0.7021	0
1	7	1140	0.6	18.28	6239.2258	0	0	28	3.02	1.225	0.406	60	1	0.914	0
1	7	1160	0.4	18	6240.0638	0	0	28	2.02	1.206	0.597	61	1	0.9	0
1	7	1180	0.2	15.86	6240.4832	0	0	28	1.01	1.063	1.052	62	1	0.7932	0

2004.02.09 META-15 wt%-U DG 1-
1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.2	18.48	0.40919	0	0	28	1.01	1.238	1.226	1	1	0.924	0
1	1	40	0.4	22.9	1.24329	0	0	28	2.02	1.534	0.759	2	1	1.1451	0
1	1	60	0.6	21.89	2.4905	0	0	28	3.02	1.466	0.485	3	1	1.0944	0
1	1	80	0.8	24.01	4.15554	0	0	28	4.03	1.609	0.399	4	1	1.2007	0
1	1	100	1	24.08	6.23685	0	0	28	5.04	1.613	0.32	5	1	1.2039	0
1	1	120	1.19	17.68	8.7352	0	0	28	6	1.185	0.198	6	1	0.8842	0
1	1	140	1.39	20.07	11.64903	0	0	28	7	1.345	0.192	7	1	1.0034	0
1	1	160	1.59	18.18	14.9799	0	0	28	8.01	1.218	0.152	8	1	0.9091	0
1	1	180	1.79	19.54	18.72468	0	0	28	9.02	1.309	0.145	9	1	0.9771	0
1	2	200	1.98	16.19	22.90064	0	0	28	9.98	1.085	0.109	10	1	0.8095	0
1	2	220	3.97	22.49	31.17167	0	0	28	20	1.507	0.075	11	1	1.1245	0
1	2	240	5.95	20.83	43.61159	0	0	28	29.98	1.396	0.047	12	1	1.0417	0
1	2	260	7.94	19.45	60.20627	0	0	28	40.01	1.303	0.033	13	1	0.9723	0
1	2	280	9.92	19.84	80.95806	0	0	28	49.99	1.329	0.027	14	1	0.992	0
1	2	300	11.91	20.16	105.86303	0	0	28	60.01	1.351	0.023	15	1	1.008	0
1	2	320	13.89	21.53	134.89528	0	0	28	69.99	1.443	0.021	16	1	1.0766	0
1	2	340	15.88	21.87	168.13097	0	0	28	80.02	1.465	0.018	17	1	1.0935	0
1	2	360	17.86	22.59	205.53556	0	0	28	90	1.513	0.017	18	1	1.1294	0
1	3	380	19.85	23.45	247.48446	0	0	28	100	1.571	0.016	19	1	1.1723	0
1	3	400	39.69	38.2	330.33847	0	0	28	200	2.559	0.013	20	1	1.91	0
1	3	420	59.54	47.25	454.63087	0	0	28	300	3.166	0.011	21	1	2.3624	0
1	3	440	79.38	55.32	620.58864	0	0	28	400	3.706	0.009	22	1	2.7659	0
1	3	460	99.23	62.5	828.10812	0	0	28	500	4.187	0.008	23	1	3.1248	0
1	3	480	119.1	69.92	1077.4304	0	0	28	600	4.685	0.008	24	1	3.496	0
1	3	500	138.9	77.43	1367.8463	0	0	28	700	5.188	0.007	25	1	3.8716	0
1	3	520	158.8	84.8	1700.1977	0	0	28	800	5.681	0.007	26	1	4.2398	0
1	3	540	178.6	92.56	2073.946	0	0	28	900	6.202	0.007	27	1	4.6281	0
1	3	560	198.5	100.2	2489.1522	0	0	28	1000	6.712	0.007	28	1	5.0092	0
1	4	570	198.5	98.31	2701.1461	0	0	28	1000	6.587	0.007	29	1	4.9156	0
1	4	580	198.5	97.64	2908.8588	0	0	28	1000	6.542	0.007	30	1	4.8822	0
1	4	590	198.5	97.09	3117.1943	0	0	28	1000	6.505	0.007	31	1	4.8545	0
1	4	600	198.5	96.55	3324.5951	0	0	28	1000	6.469	0.006	32	1	4.8276	0
1	4	610	198.5	96.17	3532.2042	0	0	28	1000	6.443	0.006	33	1	4.8086	0
1	4	620	198.5	95.85	3740.6433	0	0	28	1000	6.422	0.006	34	1	4.7925	0
1	5	640	198.5	95.43	4160.536	0	0	28	1000	6.394	0.006	35	1	4.7715	0
1	5	660	178.6	85.53	4535.0139	0	0	28	900	5.73	0.006	36	1	4.2763	0
1	5	680	158.8	76.08	4867.8342	0	0	28	800	5.098	0.006	37	1	3.8042	0
1	5	700	138.9	67.28	5159.0206	0	0	28	700	4.508	0.006	38	1	3.3642	0
1	5	720	119.1	58.37	5409.0293	0	0	28	600	3.911	0.007	39	1	2.9184	0
1	5	740	99.23	49.57	5617.0593	0	0	28	500	3.321	0.007	40	1	2.4784	0
1	5	760	79.38	40.78	5783.7153	0	0	28	400	2.732	0.007	41	1	2.0391	0
1	5	780	59.54	31.72	5908.5794	0	0	28	300	2.126	0.007	42	1	1.5862	0
1	5	800	39.69	22.39	5992.112	0	0	28	200	1.5	0.008	43	1	1.1193	0
1	5	820	19.85	12.43	6033.9667	0	0	28	100	0.833	0.008	44	1	0.6215	0
1	6	840	17.86	13.06	6071.6658	0	0	28	90	0.875	0.01	45	1	0.6528	0
1	6	860	15.88	13.14	6104.9282	0	0	28	80.02	0.881	0.011	46	1	0.6571	0
1	6	880	13.89	12.64	6134.0625	0	0	28	69.99	0.847	0.012	47	1	0.6318	0
1	6	900	11.9	12.41	6159.0194	0	0	28	59.96	0.831	0.014	48	1	0.6203	0
1	6	920	9.92	11.63	6179.8301	0	0	28	49.99	0.779	0.016	49	1	0.5813	0

1	6	940	7.93	11.61	6196.4734	0	0	28	39.96	0.778	0.019	50	1	0.5807	0
1	6	960	5.95	10.84	6208.9699	0	0	28	29.98	0.726	0.024	51	1	0.5421	0
1	6	980	3.96	9.41	6217.2943	0	0	28	19.95	0.631	0.032	52	1	0.4706	0
1	6	1000	1.98	9	6221.4727	0	0	28	9.98	0.603	0.06	53	1	0.4499	0
1	7	1020	1.79	9.39	6225.2394	0	0	28	9.02	0.629	0.07	54	1	0.4697	0
1	7	1040	1.59	11.17	6228.5797	0	0	28	8.01	0.748	0.093	55	1	0.5584	0
1	7	1060	1.39	11.73	6231.4959	0	0	28	7	0.786	0.112	56	1	0.5863	0
1	7	1080	1.19	13.47	6233.9998	0	0	28	6	0.902	0.15	57	1	0.6733	0
1	7	1100	0.99	8.61	6236.0858	0	0	28	4.99	0.577	0.116	58	1	0.4305	0
1	7	1120	0.8	14.42	6237.7555	0	0	28	4.03	0.966	0.24	59	1	0.721	0
1	7	1140	0.6	13.74	6239.0075	0	0	28	3.02	0.92	0.305	60	1	0.6869	0
1	7	1160	0.4	14.32	6239.8494	0	0	28	2.02	0.96	0.475	61	1	0.7162	0
1	7	1180	0.2	9.23	6240.2704	0	0	28	1.01	0.618	0.612	62	1	0.4616	0

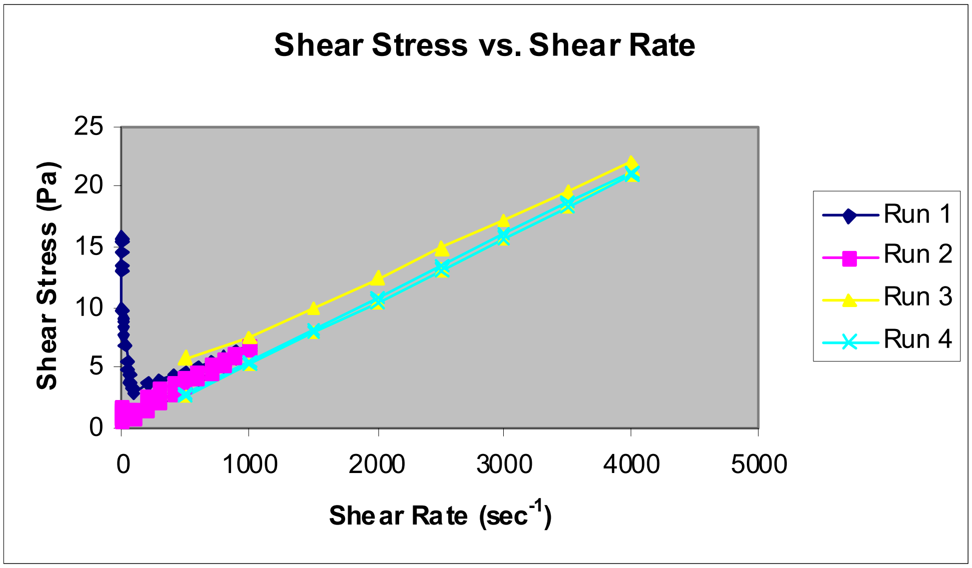
2004.02.09 META-15 wt%-U DG 500-4000 s-1 run 1.txt

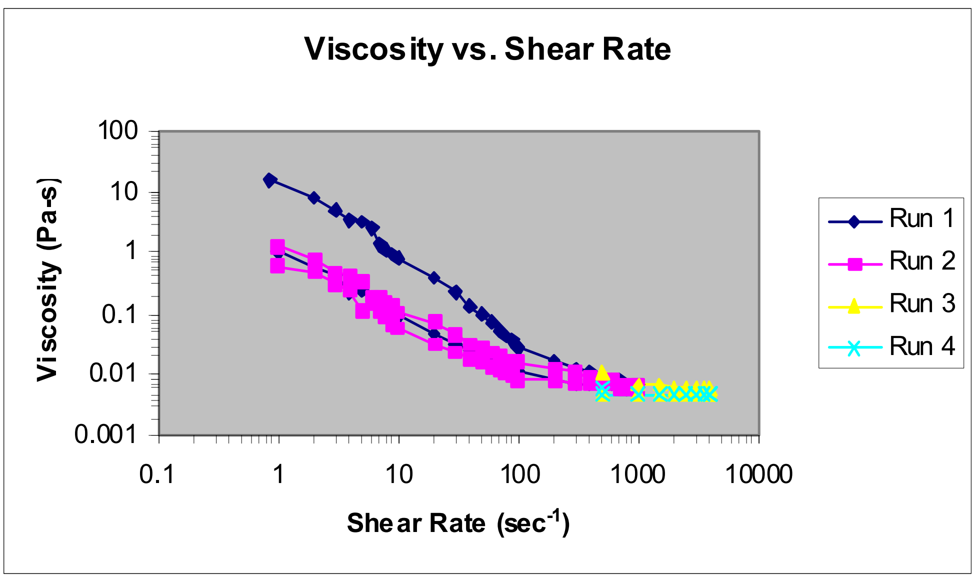
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	85.6	207.56503	0	0	28	500.4	5.735	0.011	1	1	4.28	0
1	1	40	198.5	111.7	621.75182	0	0	28	1000	7.486	0.007	2	1	5.5867	0
1	1	60	297.7	149	1243.4447	0	0	28	1500	9.985	0.007	3	1	7.4517	0
1	1	80	396.9	186.3	2073.9436	0	0	28	2000	12.48	0.006	4	1	9.3151	0
1	1	100	496.1	221.7	3110.3377	0	0	28	2500	14.85	0.006	5	1	11.085	0
1	1	120	595.4	256	4356.5266	0	0	28	3000	17.15	0.006	6	1	12.798	0
1	1	140	694.6	292.2	5808.0885	0	0	28	3500	19.57	0.006	7	1	14.607	0
1	1	160	793.8	329.3	7470.584	0	0	28	4000	22.06	0.006	8	1	16.465	0
1	2	180	793.8	320	9151.2348	0	0	28	4000	21.44	0.005	9	1	15.999	0
1	2	200	793.8	313.8	10812.953	0	0	28	4000	21.02	0.005	10	1	15.689	0
1	2	220	793.8	316.3	12477.167	0	0	28	4000	21.19	0.005	11	1	15.816	0
1	3	240	793.8	316.7	14157.592	0	0	28	4000	21.22	0.005	12	1	15.837	0
1	3	260	694.6	275.5	15613.679	0	0	28	3500	18.46	0.005	13	1	13.773	0
1	3	280	595.4	235.1	16862.313	0	0	28	3000	15.75	0.005	14	1	11.755	0
1	3	300	496.1	195.7	17902.869	0	0	28	2500	13.11	0.005	15	1	9.785	0
1	3	320	396.9	156.7	18735.45	0	0	28	2000	10.5	0.005	16	1	7.8354	0
1	3	340	297.7	118	19361.202	0	0	28	1500	7.905	0.005	17	1	5.8991	0
1	3	360	198.5	79.02	19778.279	0	0	28	1000	5.295	0.005	18	1	3.9512	0
1	3	380	99.23	40.53	19987.798	0	0	28	500	2.715	0.005	19	1	2.0264	0

2004.02.09 META-15 wt%-U DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.24	41.41	207.73467	0	0	28	500.1	2.774	0.006	1	1	2.0705	0
1	1	40	198.5	81.76	621.66228	0	0	28	1000	5.478	0.005	2	1	4.0881	0
1	1	60	297.7	121.6	1243.8233	0	0	28	1500	8.148	0.005	3	1	6.0809	0
1	1	80	396.9	161	2073.5423	0	0	28	2000	10.79	0.005	4	1	8.0518	0
1	1	100	496.1	200.3	3109.7283	0	0	28	2500	13.42	0.005	5	1	10.015	0
1	1	120	595.4	239.4	4356.2251	0	0	28	3000	16.04	0.005	6	1	11.97	0
1	1	140	694.6	278.3	5808.1514	0	0	28	3500	18.64	0.005	7	1	13.913	0
1	1	160	793.8	316.6	7469.4028	0	0	28	4000	21.21	0.005	8	1	15.831	0
1	2	180	793.8	313.6	9149.6443	0	0	28	4000	21.01	0.005	9	1	15.68	0
1	2	200	793.8	313.2	10813.444	0	0	28	4000	20.98	0.005	10	1	15.66	0
1	2	220	793.8	313.7	12475.578	0	0	28	4000	21.02	0.005	11	1	15.685	0
1	3	240	793.8	313.6	14156.42	0	0	28	4000	21.01	0.005	12	1	15.678	0
1	3	260	694.6	273.6	15611.414	0	0	28	3500	18.33	0.005	13	1	13.68	0

1	3	280	595.4	234.3	16861.294	0	0	28	3000	15.7	0.005	14	1	11.715	0
1	3	300	496.1	195.3	17901.539	0	0	28	2500	13.09	0.005	15	1	9.7656	0
1	3	320	396.9	156.5	18734.329	0	0	28	2000	10.49	0.005	16	1	7.8253	0
1	3	340	297.7	117.7	19359.924	0	0	28	1500	7.888	0.005	17	1	5.8865	0
1	3	360	198.5	78.78	19777.001	0	0	28	1000	5.278	0.005	18	1	3.9388	0
1	3	380	99.23	40.26	19986.413	0	0	28	500	2.697	0.005	19	1	2.013	0





E-2.1.18 META/15wt%/U/S

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0	56.61	0.00079	0	0	27.9	0	3.793	0	1	1	2.8307	0
1	1	40	0.05	102.75	0.09346	0	0	27.9	0.25	6.884	27.536	2	1	5.13745	0

1	1	60	0.06	106.66	0.20735	0	0	27.9	0.3	7.146	23.82	3	1	5.33285	0
1	1	80	0.08	130.31	0.36521	0	0	28	0.4	8.731	21.827	4	1	6.5154	0
1	1	100	0.09	167.24	0.55606	0	0	27.9	0.45	11.205	24.9	5	1	8.36175	0
1	1	120	0.11	233.74	0.78304	0	0	27.9	0.55	15.661	28.475	6	1	11.6872	0
1	1	140	0.13	305.84	1.05558	0	0	28	0.66	20.491	31.047	7	1	15.29185	0
1	1	160	0.15	367.95	1.36581	0	0	28	0.76	24.652	32.437	8	1	18.39725	0
1	1	180	0.17	426.93	1.72159	0	0	27.9	0.86	28.604	33.26	9	1	21.34635	0
1	2	200	0.19	476.06	2.13079	0	0	27.9	0.96	31.896	33.225	10	1	23.8031	0
1	2	220	0.4	525.21	2.95781	0	0	27.9	2.02	35.189	17.42	11	1	26.26035	0
1	2	240	0.6	517.18	4.20895	0	0	27.9	3.02	34.651	11.474	12	1	25.8588	0
1	2	260	0.82	517.62	5.91326	0	0	28	4.13	34.681	8.397	13	1	25.8811	0
1	2	280	1.02	367.27	8.03698	0	0	27.9	5.14	24.607	4.787	14	1	18.3633	0
1	2	300	1.2	252.33	10.54397	0	0	28	6.05	16.906	2.794	15	1	12.61665	0
1	2	320	1.39	235.5	13.46251	0	0	28	7	15.778	2.254	16	1	11.77495	0
1	2	340	1.59	251.06	16.78317	0	0	28	8.01	16.821	2.1	17	1	12.55295	0
1	2	360	1.8	226.37	20.54366	0	0	28	9.07	15.166	1.672	18	1	11.31825	0
1	3	380	1.98	212.96	24.71962	0	0	28	9.98	14.268	1.43	19	1	10.6481	0
1	3	400	3.98	243.83	32.99693	0	0	28	20.06	16.337	0.814	20	1	12.1917	0
1	3	420	5.96	208.15	45.44	0	0	28	30.03	13.946	0.464	21	1	10.40735	0
1	3	440	7.94	173.21	62.03703	0	0	28	40.01	11.605	0.29	22	1	8.6604	0
1	3	460	9.92	163.03	82.79982	0	0	28	49.99	10.923	0.219	23	1	8.15135	0
1	3	480	11.91	154	107.70636	0	0	28	60.01	10.318	0.172	24	1	7.69995	0
1	3	500	13.89	146.38	136.74018	0	0	28	69.99	9.807	0.14	25	1	7.31875	0
1	3	520	15.88	142.36	169.98372	0	0	28	80.02	9.538	0.119	26	1	7.1179	0
1	3	540	17.86	138.85	207.34197	0	0	28	90	9.303	0.103	27	1	6.94265	0
1	4	560	19.85	135.94	249.26024	0	0	28	100.02	9.108	0.091	28	1	6.79685	0
1	4	580	39.7	194.48	332.15981	0	0	28	200.05	13.03	0.065	29	1	9.7241	0
1	4	600	59.54	217.87	456.52132	0	0	28	300.02	14.598	0.049	30	1	10.8937	0
1	4	620	79.38	239.37	622.47595	0	0	28	400	16.038	0.04	31	1	11.96865	0
1	4	640	99.23	248.75	829.997	0	0	28	500.02	16.666	0.033	32	1	12.4375	0
1	4	660	119.07	249.13	1079.19441	0	0	28	599.99	16.692	0.028	33	1	12.4566	0
1	4	680	138.92	253.93	1369.68335	0	0	28	700.02	17.013	0.024	34	1	12.69625	0
1	4	700	158.76	261.08	1701.69157	0	0	27.9	799.99	17.492	0.022	35	1	13.05375	0
1	4	720	178.61	269.71	2075.82305	0	0	28	900.02	18.071	0.02	36	1	13.4856	0
1	4	740	198.45	278.15	2490.82116	0	0	28	999.99	18.636	0.019	37	1	13.9074	0
1	5	750	198.45	266.68	2702.81583	0	0	28	999.99	17.867	0.018	38	1	13.33385	0
1	5	760	198.45	262.35	2910.63297	0	0	28	999.99	17.577	0.018	39	1	13.11745	0
1	5	770	198.45	261.93	3118.44854	0	0	28	999.99	17.549	0.018	40	1	13.09645	0
1	5	780	198.45	261.79	3326.26568	0	0	28	999.99	17.54	0.018	41	1	13.0895	0
1	5	790	198.45	255.6	3534.29174	0	0	27.9	999.99	17.125	0.017	42	1	12.7801	0
1	5	800	198.45	251.05	3742.0052	0	0	27.9	999.99	16.82	0.017	43	1	12.55225	0
1	6	820	198.45	247.34	4162.62597	0	0	27.9	999.99	16.572	0.017	44	1	12.3671	0
1	6	840	178.61	221.8	4537.01114	0	0	27.9	900.02	14.86	0.017	45	1	11.08975	0
1	6	860	158.76	199.92	4869.5126	0	0	27.9	799.99	13.395	0.017	46	1	9.9962	0
1	6	880	138.92	179.91	5160.77358	0	0	27.9	700.02	12.054	0.017	47	1	8.99545	0
1	6	900	119.07	160.22	5410.66999	0	0	27.9	599.99	10.735	0.018	48	1	8.01085	0
1	6	920	99.23	140.56	5618.60966	0	0	27.9	500.02	9.418	0.019	49	1	7.02815	0
1	6	940	79.38	120.37	5785.30885	0	0	27.9	400	8.065	0.02	50	1	6.0186	0
1	6	960	59.54	98.8	5910.23742	0	0	27.9	300.02	6.62	0.022	51	1	4.9402	0
1	6	980	39.69	74.76	5993.71032	0	0	27.9	200	5.009	0.025	52	1	3.7381	0

1	6	1000	19.85	45.45	6035.60974	0	0	27.9	100.02	3.045	0.03	53	1	2.2725	0
1	7	1020	17.86	52.84	6073.31985	0	0	27.9	90	3.54	0.039	54	1	2.6418	0
1	7	1040	15.88	55	6106.5956	0	0	28	80.02	3.685	0.046	55	1	2.75005	0
1	7	1060	13.89	55.75	6135.68753	0	0	28	69.99	3.735	0.053	56	1	2.78765	0
1	7	1080	11.9	55.67	6160.68047	0	0	28	59.96	3.73	0.062	57	1	2.78365	0
1	7	1100	9.92	54.99	6181.48567	0	0	28	49.99	3.684	0.074	58	1	2.74925	0
1	7	1120	7.93	54.01	6198.12826	0	0	28	39.96	3.619	0.091	59	1	2.7004	0
1	7	1140	5.95	52.44	6210.6098	0	0	28	29.98	3.513	0.117	60	1	2.622	0
1	7	1160	3.96	53.41	6218.94759	0	0	28	19.95	3.578	0.179	61	1	2.6704	0
1	7	1180	1.97	50.31	6223.12198	0	0	28	9.93	3.371	0.339	62	1	2.51535	0
1	8	1200	1.79	66.79	6226.89189	0	0	28	9.02	4.475	0.496	63	1	3.3395	0
1	8	1220	1.59	71.56	6230.22512	0	0	28	8.01	4.794	0.599	64	1	3.5779	0
1	8	1240	1.39	75	6233.14523	0	0	28	7	5.025	0.718	65	1	3.75005	0
1	8	1260	1.19	78.38	6235.64437	0	0	28	6	5.251	0.875	66	1	3.919	0
1	8	1280	0.99	81.64	6237.7296	0	0	28	4.99	5.47	1.096	67	1	4.08175	0
1	8	1300	0.8	83.39	6239.39936	0	0	28	4.03	5.587	1.386	68	1	4.1695	0
1	8	1320	0.6	80.88	6240.65443	0	0	28	3.02	5.419	1.794	69	1	4.0442	0
1	8	1340	0.4	68.37	6241.49951	0	0	28	2.02	4.581	2.268	70	1	3.4186	0
1	8	1360	0.2	47.31	6241.92677	0	0	28	1.01	3.17	3.139	71	1	2.3657	0
1	9	1380	0.18	46.57	6242.3069	0	0	28	0.91	3.12	3.429	72	1	2.32835	0
1	9	1400	0.16	46.19	6242.64305	0	0	28	0.81	3.094	3.82	73	1	2.30925	0
1	9	1420	0.14	47.08	6242.93522	0	0	28	0.71	3.154	4.442	74	1	2.3538	0
1	9	1440	0.12	48.29	6243.18655	0	0	28	0.6	3.235	5.392	75	1	2.4145	0
1	9	1460	0.1	49.16	6243.39625	0	0	28	0.5	3.294	6.588	76	1	2.45805	0
1	9	1480	0.08	49.41	6243.56354	0	0	28	0.4	3.31	8.275	77	1	2.47045	0
1	9	1500	0.06	48.71	6243.6892	0	0	28	0.3	3.264	10.88	78	1	2.4356	0
1	9	1520	0.04	47.52	6243.77481	0	0	28	0.2	3.184	15.92	79	1	2.37605	0
1	9	1540	0.02	44.46	6243.81801	0	0	28	0.1	2.979	29.79	80	1	2.2228	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.01	38.42	0.02356	0	0	28	0.05	2.574	51.48	1	2	1.9211	0
1	1	40	0.04	49.12	0.10681	0	0	28	0.2	3.291	16.455	2	2	2.45575	0
1	1	60	0.06	51.94	0.23012	0	0	28	0.3	3.48	11.6	3	2	2.5972	0
1	1	80	0.08	56.88	0.39584	0	0	28	0.4	3.811	9.528	4	2	2.8438	0
1	1	100	0.1	63.15	0.6024	0	0	28	0.5	4.231	8.462	5	2	3.1575	0
1	1	120	0.12	68.95	0.85137	0	0	28	0.6	4.619	7.698	6	2	3.44735	0
1	1	140	0.14	73.61	1.14354	0	0	28	0.71	4.932	6.946	7	2	3.6806	0
1	1	160	0.16	79.06	1.47655	0	0	28	0.81	5.297	6.54	8	2	3.95315	0
1	1	180	0.18	83.76	1.85197	0	0	28	0.91	5.612	6.167	9	2	4.18785	0
1	2	200	0.2	87.25	2.27216	0	0	28	1.01	5.845	5.787	10	2	4.36225	0
1	2	220	0.4	113.44	3.09604	0	0	28	2.02	7.6	3.762	11	2	5.672	0
1	2	240	0.6	137.54	4.33854	0	0	28	3.02	9.215	3.051	12	2	6.87675	0
1	2	260	0.8	137.13	6.0028	0	0	28	4.03	9.187	2.28	13	2	6.8563	0
1	2	280	1	127.56	8.08803	0	0	28	5.04	8.547	1.696	14	2	6.3781	0
1	2	300	1.19	130.12	10.58167	0	0	28	6	8.718	1.453	15	2	6.50585	0
1	2	320	1.39	154.52	13.48607	0	0	28	7	10.353	1.479	16	2	7.726	0
1	2	340	1.59	171.5	16.81145	0	0	28	8.01	11.49	1.434	17	2	8.57475	0
1	2	360	1.79	177.08	20.55544	0	0	28	9.02	11.864	1.315	18	2	8.85395	0
1	3	380	1.98	189.43	24.72748	0	0	28	9.98	12.692	1.272	19	2	9.4714	0

1	3	400	3.99	184.8	33.02599	0	0	28	20.11	12.382	0.616	20	2	9.23995	0
1	3	420	5.96	108.96	45.47063	0	0	28	30.03	7.3	0.243	21	2	5.4481	0
1	3	440	7.94	86.45	62.07394	0	0	28	40.01	5.792	0.145	22	2	4.3224	0
1	3	460	9.92	84.13	82.79589	0	0	28	49.99	5.637	0.113	23	2	4.20655	0
1	3	480	11.91	85.19	107.71893	0	0	28	60.01	5.708	0.095	24	2	4.25945	0
1	3	500	13.89	87.11	136.75824	0	0	28	69.99	5.837	0.083	25	2	4.3556	0
1	3	520	15.88	89.57	169.99315	0	0	28	80.02	6.001	0.075	26	2	4.4785	0
1	3	540	17.86	92.11	207.36946	0	0	28	90	6.172	0.069	27	2	4.60565	0
1	4	560	19.85	94.55	249.31915	0	0	28	100.02	6.335	0.063	28	2	4.72745	0
1	4	580	39.69	139.42	332.13703	0	0	28	200	9.341	0.047	29	2	6.97095	0
1	4	600	59.54	163.99	456.48834	0	0	28	300.02	10.987	0.037	30	2	8.19955	0
1	4	620	79.38	182.59	622.43433	0	0	28	400	12.233	0.031	31	2	9.1294	0
1	4	640	99.23	195.75	829.90118	0	0	28	500.02	13.115	0.026	32	2	9.78735	0
1	4	660	119.07	206.42	1078.92031	0	0	28	599.99	13.83	0.023	33	2	10.3208	0
1	4	680	138.92	217.74	1369.55376	0	0	28	700.02	14.589	0.021	34	2	10.88695	0
1	4	700	158.76	227.58	1701.98767	0	0	28	799.99	15.248	0.019	35	2	11.3788	0
1	4	720	178.61	239.53	2075.83876	0	0	28	900.02	16.048	0.018	36	2	11.97635	0
1	4	740	198.45	248.44	2490.94054	0	0	28	999.99	16.646	0.017	37	2	12.4221	0
1	5	750	198.45	239.5	2702.83154	0	0	28	999.99	16.046	0.016	38	2	11.97475	0
1	5	760	198.45	236.15	2910.64789	0	0	28	999.99	15.822	0.016	39	2	11.8074	0
1	5	770	198.45	233.33	3118.46503	0	0	28	999.99	15.633	0.016	40	2	11.66655	0
1	5	780	198.45	230.93	3326.17772	0	0	28	999.99	15.472	0.015	41	2	11.5465	0
1	5	790	198.45	228.85	3534.09853	0	0	28	999.99	15.333	0.015	42	2	11.4427	0
1	5	800	198.45	227.02	3742.01934	0	0	28	999.99	15.21	0.015	43	2	11.35095	0
1	6	820	198.45	225.19	4162.53565	0	0	28	999.99	15.088	0.015	44	2	11.25965	0
1	6	840	178.61	203.51	4536.55797	0	0	28	900.02	13.635	0.015	45	2	10.1755	0
1	6	860	158.76	183.61	4869.39164	0	0	28	799.99	12.302	0.015	46	2	9.18065	0
1	6	880	138.92	164.95	5160.66205	0	0	28	700.02	11.051	0.016	47	2	8.24725	0
1	6	900	119.07	146.4	5410.68256	0	0	28	599.99	9.809	0.016	48	2	7.32	0
1	6	920	99.23	127.88	5618.62144	0	0	28	500.02	8.568	0.017	49	2	6.3938	0
1	6	940	79.38	108.77	5785.27979	0	0	28	400	7.287	0.018	50	2	5.43825	0
1	6	960	59.54	88.47	5910.33324	0	0	28	300.02	5.928	0.02	51	2	4.42365	0
1	6	980	39.69	66.17	5993.7221	0	0	28	200	4.433	0.022	52	2	3.3084	0
1	6	1000	19.85	39.33	6035.62152	0	0	28	100.02	2.635	0.026	53	2	1.96645	0
1	7	1020	17.86	44.26	6073.30493	0	0	28	90	2.965	0.033	54	2	2.213	0
1	7	1040	15.88	45.1	6106.60738	0	0	28	80.02	3.021	0.038	55	2	2.25475	0
1	7	1060	13.89	45.11	6135.69853	0	0	28	69.99	3.022	0.043	56	2	2.25555	0
1	7	1080	11.9	44.5	6160.66948	0	0	28	59.96	2.982	0.05	57	2	2.22505	0
1	7	1100	9.92	43.24	6181.46996	0	0	28	49.99	2.897	0.058	58	2	2.16205	0
1	7	1120	7.93	41.8	6198.12276	0	0	28	39.96	2.801	0.07	59	2	2.08995	0
1	7	1140	5.95	39.92	6210.61216	0	0	28	29.98	2.675	0.089	60	2	1.99595	0
1	7	1160	3.96	39.69	6218.94445	0	0	28	19.95	2.659	0.133	61	2	1.9843	0
1	7	1180	1.98	35.74	6223.1212	0	0	28	9.98	2.395	0.24	62	2	1.7872	0
1	8	1200	1.79	48.25	6226.89032	0	0	28	9.02	3.233	0.358	63	2	2.4126	0
1	8	1220	1.59	52.09	6230.22277	0	0	28	8.01	3.49	0.436	64	2	2.60465	0
1	8	1240	1.39	55.38	6233.14052	0	0	28	7	3.71	0.53	65	2	2.76895	0
1	8	1260	1.19	58.03	6235.64359	0	0	28	6	3.888	0.648	66	2	2.90125	0
1	8	1280	0.99	60.88	6237.72882	0	0	28	4.99	4.079	0.817	67	2	3.04405	0
1	8	1300	0.8	62.69	6239.39779	0	0	28	4.03	4.2	1.042	68	2	3.13445	0
1	8	1320	0.6	62.17	6240.65128	0	0	28	3.02	4.165	1.379	69	2	3.10835	0

1	8	1340	0.4	56.32	6241.49245	0	0	28	2.02	3.773	1.868	70	2	2.81585	0
1	8	1360	0.2	39.8	6241.92049	0	0	28	1.01	2.666	2.64	71	2	1.9898	0
1	9	1380	0.18	38.87	6242.30062	0	0	28	0.91	2.604	2.862	72	2	1.9434	0
1	9	1400	0.16	37.69	6242.63599	0	0	28	0.81	2.525	3.117	73	2	1.8844	0
1	9	1420	0.14	36.96	6242.92972	0	0	28	0.71	2.476	3.487	74	2	1.8479	0
1	9	1440	0.12	37.33	6243.18105	0	0	28	0.6	2.501	4.168	75	2	1.86655	0
1	9	1460	0.1	37.81	6243.38997	0	0	28	0.5	2.533	5.066	76	2	1.8905	0
1	9	1480	0.08	38.17	6243.55804	0	0	28	0.4	2.558	6.395	77	2	1.90865	0
1	9	1500	0.06	38.38	6243.68371	0	0	28	0.3	2.572	8.573	78	2	1.91905	0
1	9	1520	0.04	38.49	6243.76774	0	0	28	0.2	2.579	12.895	79	2	1.92445	0
1	9	1540	0.02	36.53	6243.81094	0	0	28	0.1	2.448	24.48	80	2	1.82675	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 3.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.01	31.75	0.02749	0	0	28	0.05	2.127	42.54	1	3	1.58735	0
1	1	40	0.04	41.21	0.10917	0	0	28	0.2	2.761	13.805	2	3	2.0606	0
1	1	60	0.06	44.1	0.23326	0	0	28	0.3	2.955	9.85	3	3	2.20515	0
1	1	80	0.08	48.99	0.39898	0	0	28	0.4	3.282	8.205	4	3	2.4496	0
1	1	100	0.1	53.53	0.60633	0	0	28	0.5	3.586	7.172	5	3	2.6763	0
1	1	120	0.12	58.45	0.8553	0	0	28	0.6	3.916	6.527	6	3	2.92255	0
1	1	140	0.14	62.84	1.14747	0	0	28	0.71	4.21	5.93	7	3	3.14185	0
1	1	160	0.16	65.97	1.48126	0	0	28	0.81	4.42	5.457	8	3	3.29845	0
1	1	180	0.18	68.62	1.85668	0	0	28	0.91	4.598	5.053	9	3	3.431	0
1	2	200	0.2	70.3	2.27765	0	0	28	1.01	4.71	4.663	10	3	3.515	0
1	2	220	0.4	85.69	3.10389	0	0	28	2.02	5.741	2.842	11	3	4.28435	0
1	2	240	0.6	111.55	4.34168	0	0	28	3.02	7.474	2.475	12	3	5.5774	0
1	2	260	0.8	120.36	6.0083	0	0	28	4.03	8.064	2.001	13	3	6.0182	0
1	2	280	1	129.54	8.08567	0	0	28	5.04	8.679	1.722	14	3	6.4771	0
1	2	300	1.19	134.38	10.57774	0	0	28	6	9.003	1.501	15	3	6.71895	0
1	2	320	1.39	153.72	13.48607	0	0	28	7	10.299	1.471	16	3	7.68575	0
1	2	340	1.59	161.15	16.81537	0	0	28	8.01	10.797	1.348	17	3	8.05765	0
1	2	360	1.79	165.26	20.56329	0	0	28	9.02	11.072	1.227	18	3	8.263	0
1	3	380	1.98	161.06	24.7369	0	0	28	9.98	10.791	1.081	19	3	8.0529	0
1	3	400	3.99	143.69	33.03071	0	0	28	20.11	9.627	0.479	20	3	7.1847	0
1	3	420	5.96	100.17	45.48241	0	0	28	30.03	6.711	0.223	21	3	5.0084	0
1	3	440	7.94	83.84	62.06452	0	0	28	40.01	5.617	0.14	22	3	4.19215	0
1	3	460	9.92	78.22	82.81867	0	0	28	49.99	5.24	0.105	23	3	3.9108	0
1	3	480	11.91	78.04	107.73542	0	0	28	60.01	5.229	0.087	24	3	3.9022	0
1	3	500	13.89	79.79	136.7606	0	0	28	69.99	5.346	0.076	25	3	3.9897	0
1	3	520	15.88	82.33	169.99551	0	0	28	80.02	5.516	0.069	26	3	4.11655	0
1	3	540	17.86	84.81	207.37103	0	0	28	90	5.682	0.063	27	3	4.2406	0
1	4	560	19.85	87.15	249.28773	0	0	28	100.02	5.839	0.058	28	3	4.35745	0
1	4	580	39.69	128.73	332.18965	0	0	28	200	8.625	0.043	29	3	6.43635	0
1	4	600	59.54	152.53	456.58258	0	0	28	300.02	10.219	0.034	30	3	7.62635	0
1	4	620	79.38	169.65	622.37307	0	0	28	400	11.366	0.028	31	3	8.48235	0
1	4	640	99.23	184.17	830.08889	0	0	28	500.02	12.339	0.025	32	3	9.20855	0
1	4	660	119.07	198.17	1078.9101	0	0	28	599.99	13.277	0.022	33	3	9.90835	0
1	4	680	138.92	208.9	1369.53334	0	0	28	700.02	13.996	0.02	34	3	10.44475	0
1	4	700	158.76	219.63	1701.80153	0	0	28	799.99	14.715	0.018	35	3	10.9817	0
1	4	720	178.61	230.36	2075.55916	0	0	28	900.02	15.434	0.017	36	3	11.51785	0

1	4	740	198.45	240.57	2490.76461	0	0	28	999.99	16.118	0.016	37	3	12.02865	0
1	5	750	198.45	232.65	2702.7585	0	0	28	999.99	15.587	0.016	38	3	11.63225	0
1	5	760	198.45	229.65	2910.47197	0	0	28	999.99	15.386	0.015	39	3	11.48245	0
1	5	770	198.45	227.09	3118.39356	0	0	28	999.99	15.215	0.015	40	3	11.3543	0
1	5	780	198.45	224.86	3326.10624	0	0	28	999.99	15.065	0.015	41	3	11.2428	0
1	5	790	198.45	222.9	3534.02627	0	0	28	999.99	14.934	0.015	42	3	11.14475	0
1	5	800	198.45	221.17	3741.9463	0	0	28	999.99	14.818	0.015	43	3	11.05845	0
1	6	820	198.45	219.43	4162.36051	0	0	28	999.99	14.702	0.015	44	3	10.97165	0
1	6	840	178.61	198.12	4536.84856	0	0	28	900.02	13.274	0.015	45	3	9.9061	0
1	6	860	158.76	178.65	4869.76471	0	0	28	799.99	11.969	0.015	46	3	8.9324	0
1	6	880	138.92	160.25	5161.0359	0	0	28	700.02	10.736	0.015	47	3	8.0123	0
1	6	900	119.07	141.81	5410.56868	0	0	28	599.99	9.501	0.016	48	3	7.0906	0
1	6	920	99.23	123.48	5618.81936	0	0	28	500.02	8.273	0.017	49	3	6.17385	0
1	6	940	79.38	104.57	5785.22716	0	0	28	400	7.006	0.018	50	3	5.22855	0
1	6	960	59.54	84.68	5910.2814	0	0	28	300.02	5.673	0.019	51	3	4.2339	0
1	6	980	39.69	62.81	5993.81556	0	0	28	200	4.208	0.021	52	3	3.1405	0
1	6	1000	19.85	36.98	6035.66315	0	0	28	100.02	2.477	0.025	53	3	1.84875	0
1	7	1020	17.86	40.69	6073.3442	0	0	28	90	2.726	0.03	54	3	2.0347	0
1	7	1040	15.88	40.89	6106.61523	0	0	28	80.02	2.74	0.034	55	3	2.0446	0
1	7	1060	13.89	40.45	6135.75743	0	0	28	69.99	2.71	0.039	56	3	2.0224	0
1	7	1080	11.9	39.37	6160.72131	0	0	28	59.96	2.638	0.044	57	3	1.9686	0
1	7	1100	9.92	37.89	6181.5108	0	0	28	49.99	2.539	0.051	58	3	1.8945	0
1	7	1120	7.93	36.17	6198.17617	0	0	28	39.96	2.424	0.061	59	3	1.8087	0
1	7	1140	5.95	33.86	6210.66007	0	0	28	29.98	2.269	0.076	60	3	1.69295	0
1	7	1160	3.96	32.75	6218.99079	0	0	28	19.95	2.194	0.11	61	3	1.63745	0
1	7	1180	1.98	28.15	6223.16832	0	0	28	9.98	1.886	0.189	62	3	1.40745	0
1	8	1200	1.79	38.3	6226.93745	0	0	28	9.02	2.566	0.284	63	3	1.91485	0
1	8	1220	1.59	41.47	6230.27146	0	0	28	8.01	2.779	0.347	64	3	2.07355	0
1	8	1240	1.39	44.2	6233.19157	0	0	28	7	2.962	0.423	65	3	2.2101	0
1	8	1260	1.19	46.39	6235.69228	0	0	28	6	3.108	0.518	66	3	2.31965	0
1	8	1280	0.99	48.54	6237.77908	0	0	28	4.99	3.252	0.652	67	3	2.42705	0
1	8	1300	0.8	50.58	6239.44805	0	0	28	4.03	3.389	0.841	68	3	2.52895	0
1	8	1320	0.6	50.41	6240.70155	0	0	28	3.02	3.377	1.118	69	3	2.52045	0
1	8	1340	0.4	46.9	6241.54114	0	0	28	2.02	3.142	1.555	70	3	2.34485	0
1	8	1360	0.2	33.36	6241.9684	0	0	28	1.01	2.235	2.213	71	3	1.6678	0
1	9	1380	0.18	33.44	6242.34696	0	0	28	0.91	2.24	2.462	72	3	1.6719	0
1	9	1400	0.16	32.75	6242.68232	0	0	28	0.81	2.195	2.71	73	3	1.6377	0
1	9	1420	0.14	31.94	6242.97685	0	0	28	0.71	2.14	3.014	74	3	1.597	0
1	9	1440	0.12	31.5	6243.22896	0	0	28	0.6	2.11	3.517	75	3	1.57495	0
1	9	1460	0.1	30.82	6243.43866	0	0	28	0.5	2.065	4.13	76	3	1.5412	0
1	9	1480	0.08	30.43	6243.60595	0	0	28	0.4	2.039	5.098	77	3	1.5214	0
1	9	1500	0.06	29.52	6243.7324	0	0	28	0.3	1.978	6.593	78	3	1.47595	0
1	9	1520	0.04	28.69	6243.81644	0	0	28	0.2	1.922	9.61	79	3	1.4343	0
1	9	1540	0.02	27.09	6243.86042	0	0	28	0.1	1.815	18.15	80	3	1.3547	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 4.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	24.8	0.03063	0	0	28	0.1	1.662	16.62	1	4	1.2401	0
1	1	40	0.04	31.13	0.1131	0	0	28	0.2	2.086	10.43	2	4	1.5564	0
1	1	60	0.06	33.91	0.2364	0	0	28	0.3	2.272	7.573	3	4	1.69545	0

1	1	80	0.08	38.13	0.40291	0	0	28	0.4	2.555	6.388	4	4	1.9064	0
1	1	100	0.1	41.78	0.61104	0	0	28	0.5	2.799	5.598	5	4	2.089	0
1	1	120	0.12	45.66	0.86001	0	0	28	0.6	3.059	5.098	6	4	2.2832	0
1	1	140	0.14	49.54	1.15218	0	0	28	0.71	3.319	4.675	7	4	2.477	0
1	1	160	0.16	52.93	1.48597	0	0	28	0.81	3.547	4.379	8	4	2.64665	0
1	1	180	0.18	55.1	1.86139	0	0	28	0.91	3.692	4.057	9	4	2.7552	0
1	2	200	0.2	56.69	2.28315	0	0	28	1.01	3.798	3.76	10	4	2.8346	0
1	2	220	0.4	68.18	3.11018	0	0	28	2.02	4.568	2.261	11	4	3.4089	0
1	2	240	0.6	83.02	4.35346	0	0	28	3.02	5.562	1.842	12	4	4.15075	0
1	2	260	0.8	96.11	6.01458	0	0	28	4.03	6.439	1.598	13	4	4.80545	0
1	2	280	1	111.38	8.08803	0	0	28	5.04	7.462	1.481	14	4	5.56875	0
1	2	300	1.19	132.97	10.58088	0	0	28	6	8.909	1.485	15	4	6.6485	0
1	2	320	1.39	150.32	13.48764	0	0	28	7	10.072	1.439	16	4	7.51605	0
1	2	340	1.59	153.4	16.82009	0	0	28	8.01	10.278	1.283	17	4	7.6702	0
1	2	360	1.79	161.7	20.56172	0	0	28	9.02	10.834	1.201	18	4	8.08495	0
1	3	380	1.99	146.66	24.74318	0	0	28	10.03	9.826	0.98	19	4	7.3328	0
1	3	400	3.98	134.45	33.03385	0	0	28	20.06	9.008	0.449	20	4	6.7225	0
1	3	420	5.95	105.13	45.46906	0	0	28	29.98	7.044	0.235	21	4	5.25655	0
1	3	440	7.94	89.02	62.05274	0	0	28	40.01	5.964	0.149	22	4	4.45095	0
1	3	460	9.92	79.46	82.8116	0	0	28	49.99	5.324	0.107	23	4	3.9732	0
1	3	480	11.91	74.67	107.72914	0	0	28	60.01	5.003	0.083	24	4	3.73325	0
1	3	500	13.89	74.78	136.76767	0	0	28	69.99	5.01	0.072	25	4	3.73885	0
1	3	520	15.88	76.57	169.98608	0	0	28	80.02	5.13	0.064	26	4	3.82855	0
1	3	540	17.86	79.07	207.39067	0	0	28	90	5.297	0.059	27	4	3.95335	0
1	4	560	19.85	81.61	249.31758	0	0	28	100.02	5.468	0.055	28	4	4.08045	0
1	4	580	39.69	121.3	332.10561	0	0	28	200	8.127	0.041	29	4	6.06505	0
1	4	600	59.54	144.55	456.5818	0	0	28	300.02	9.685	0.032	30	4	7.2274	0
1	4	620	79.38	162.56	622.57884	0	0	28	400	10.892	0.027	31	4	8.12815	0
1	4	640	99.23	177.07	830.03627	0	0	28	500.02	11.863	0.024	32	4	8.85325	0
1	4	660	119.07	190.06	1079.16849	0	0	28	599.99	12.734	0.021	33	4	9.5029	0
1	4	680	138.92	203.64	1369.86477	0	0	28	700.02	13.644	0.019	34	4	10.1822	0
1	4	700	158.76	215.06	1701.63345	0	0	28	799.99	14.409	0.018	35	4	10.75305	0
1	4	720	178.61	225.97	2075.38087	0	0	28	900.02	15.14	0.017	36	4	11.2986	0
1	4	740	198.45	236.37	2491.09605	0	0	28	999.99	15.837	0.016	37	4	11.8186	0
1	5	750	198.45	229.93	2703.08915	0	0	28	999.99	15.406	0.015	38	4	11.4967	0
1	5	760	198.45	227.12	2911.42622	0	0	28	999.99	15.217	0.015	39	4	11.35585	0
1	5	770	198.45	224.86	3119.13969	0	0	28	999.99	15.066	0.015	40	4	11.24305	0
1	5	780	198.45	222.49	3326.85237	0	0	28	999.99	14.907	0.015	41	4	11.12465	0
1	5	790	198.45	220.55	3534.7724	0	0	28	999.99	14.777	0.015	42	4	11.02725	0
1	5	800	198.45	218.84	3742.58875	0	0	28	999.99	14.662	0.015	43	4	10.9418	0
1	6	820	198.45	217.13	4163.00297	0	0	28	999.99	14.547	0.015	44	4	10.85625	0
1	6	840	178.61	196.1	4537.49102	0	0	28	900.02	13.139	0.015	45	4	9.80495	0
1	6	860	158.76	176.73	4870.08594	0	0	28	799.99	11.841	0.015	46	4	8.8364	0
1	6	880	138.92	158.34	5161.57468	0	0	28	700.02	10.609	0.015	47	4	7.917	0
1	6	900	119.07	139.89	5411.02421	0	0	28	599.99	9.372	0.016	48	4	6.9944	0
1	6	920	99.23	121.51	5619.17122	0	0	28	500.02	8.141	0.016	49	4	6.07565	0
1	6	940	79.38	102.58	5785.91203	0	0	28	400	6.873	0.017	50	4	5.12885	0
1	6	960	59.54	82.72	5910.89244	0	0	28	300.02	5.542	0.018	51	4	4.136	0
1	6	980	39.69	61.13	5994.28131	0	0	28	200	4.095	0.02	52	4	3.0563	0
1	6	1000	19.85	35.6	6036.17052	0	0	28	100.02	2.385	0.024	53	4	1.7798	0

1	7	1020	17.86	38.57	6073.84057	0	0	28	90	2.584	0.029	54	4	1.92865	0
1	7	1040	15.88	38.53	6107.13517	0	0	28	80.02	2.581	0.032	55	4	1.92635	0
1	7	1060	13.89	37.79	6136.25616	0	0	28	69.99	2.532	0.036	56	4	1.88955	0
1	7	1080	11.9	36.48	6161.20669	0	0	28	59.96	2.444	0.041	57	4	1.82375	0
1	7	1100	9.92	34.71	6182.00717	0	0	28	49.99	2.326	0.047	58	4	1.7356	0
1	7	1120	7.93	32.71	6198.66704	0	0	28	39.96	2.192	0.055	59	4	1.63565	0
1	7	1140	5.95	30.29	6211.15958	0	0	28	29.98	2.03	0.068	60	4	1.51465	0
1	7	1160	3.96	28.45	6219.4958	0	0	28	19.95	1.906	0.096	61	4	1.4224	0
1	7	1180	1.98	23.54	6223.67333	0	0	28	9.98	1.577	0.158	62	4	1.17695	0
1	8	1200	1.79	32.18	6227.44167	0	0	28	9.02	2.156	0.239	63	4	1.6088	0
1	8	1220	1.59	34.88	6230.77726	0	0	28	8.01	2.337	0.292	64	4	1.74405	0
1	8	1240	1.39	37.11	6233.69266	0	0	28	7	2.487	0.355	65	4	1.85565	0
1	8	1260	1.19	39.04	6236.19651	0	0	28	6	2.616	0.436	66	4	1.9522	0
1	8	1280	0.99	40.85	6238.28174	0	0	28.1	4.99	2.737	0.548	67	4	2.04245	0
1	8	1300	0.8	42.72	6239.95149	0	0	28.1	4.03	2.862	0.71	68	4	2.13595	0
1	8	1320	0.6	43	6241.20656	0	0	28	3.02	2.881	0.954	69	4	2.15005	0
1	8	1340	0.4	40.59	6242.04458	0	0	28.1	2.02	2.72	1.347	70	4	2.0295	0
1	8	1360	0.2	29.22	6242.47105	0	0	28.1	1.01	1.957	1.938	71	4	1.46075	0
1	9	1380	0.18	28.66	6242.8504	0	0	28	0.91	1.92	2.11	72	4	1.4328	0
1	9	1400	0.16	27.93	6243.18576	0	0	28	0.81	1.871	2.31	73	4	1.39655	0
1	9	1420	0.14	28.36	6243.47872	0	0	28	0.71	1.9	2.676	74	4	1.41815	0
1	9	1440	0.12	28.79	6243.73083	0	0	28	0.6	1.929	3.215	75	4	1.43945	0
1	9	1460	0.1	28.4	6243.94053	0	0	28	0.5	1.903	3.806	76	4	1.42015	0
1	9	1480	0.08	27.48	6244.10939	0	0	28	0.4	1.841	4.603	77	4	1.37395	0
1	9	1500	0.06	26.57	6244.23506	0	0	28	0.3	1.78	5.933	78	4	1.3284	0
1	9	1520	0.04	24.73	6244.31988	0	0	28	0.2	1.657	8.285	79	4	1.23655	0
1	9	1540	0.02	23.71	6244.36308	0	0	28	0.1	1.589	15.89	80	4	1.1856	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 5.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.01	30.27	0.02985	0	0	28	0.05	2.028	40.56	1	1	1.5135	0
1	1	40	0.04	29.2	0.11388	0	0	28.1	0.2	1.956	9.78	2	1	1.46	0
1	1	60	0.06	32	0.23719	0	0	28.1	0.3	2.144	7.147	3	1	1.59975	0
1	1	80	0.08	36.87	0.40291	0	0	28	0.4	2.47	6.175	4	1	1.8435	0
1	1	100	0.1	42.92	0.60947	0	0	28.1	0.5	2.876	5.752	5	1	2.14605	0
1	1	120	0.12	49.41	0.85923	0	0	28.1	0.6	3.311	5.518	6	1	2.4706	0
1	1	140	0.14	51.75	1.15139	0	0	28.1	0.71	3.467	4.883	7	1	2.58755	0
1	1	160	0.16	53.99	1.48519	0	0	28.1	0.81	3.617	4.465	8	1	2.6994	0
1	1	180	0.18	56.57	1.86061	0	0	28.1	0.91	3.79	4.165	9	1	2.8283	0
1	2	200	0.2	59.96	2.28158	0	0	28.1	1.01	4.017	3.977	10	1	2.9981	0
1	2	220	0.4	76.72	3.10782	0	0	28.1	2.02	5.14	2.545	11	1	3.83585	0
1	2	240	0.6	88.09	4.35425	0	0	28.1	3.02	5.902	1.954	12	1	4.4046	0
1	2	260	0.8	97.46	6.01615	0	0	28.1	4.03	6.53	1.62	13	1	4.873	0
1	2	280	1	98.59	8.09667	0	0	28.1	5.04	6.606	1.311	14	1	4.9295	0
1	2	300	1.19	117.99	10.58245	0	0	28	6	7.906	1.318	15	1	5.8997	0
1	2	320	1.39	144.29	13.49157	0	0	28.1	7	9.667	1.381	16	1	7.21425	0
1	2	340	1.59	142.73	16.82323	0	0	28.1	8.01	9.563	1.194	17	1	7.13665	0
1	2	360	1.79	148.73	20.56251	0	0	28.1	9.02	9.965	1.105	18	1	7.43665	0
1	3	380	1.99	148.55	24.74554	0	0	28.1	10.03	9.953	0.992	19	1	7.42765	0
1	3	400	3.98	121.33	33.04013	0	0	28.1	20.06	8.129	0.405	20	1	6.0665	0

1	3	420	5.95	87.89	45.48476	0	0	28.1	29.98	5.889	0.196	21	1	4.39465	0
1	3	440	7.94	76.44	62.0708	0	0	28.1	40.01	5.121	0.128	22	1	3.8218	0
1	3	460	9.92	72.72	82.81945	0	0	28.1	49.99	4.873	0.097	23	1	3.6362	0
1	3	480	11.91	72.71	107.70636	0	0	28	60.01	4.872	0.081	24	1	3.63555	0
1	3	500	13.89	72.82	136.7818	0	0	28	69.99	4.879	0.07	25	1	3.6408	0
1	3	520	15.88	74.14	169.98451	0	0	28	80.02	4.968	0.062	26	1	3.7072	0
1	3	540	17.86	76.68	207.38831	0	0	28	90	5.138	0.057	27	1	3.83415	0
1	4	560	19.85	79.21	249.30501	0	0	28.1	100.02	5.307	0.053	28	1	3.96065	0
1	4	580	39.69	118.71	332.21714	0	0	28.1	200	7.953	0.04	29	1	5.9353	0
1	4	600	59.54	141.81	456.45535	0	0	28.1	300.02	9.501	0.032	30	1	7.0904	0
1	4	620	79.38	158.72	622.6079	0	0	28.1	400	10.634	0.027	31	1	7.93595	0
1	4	640	99.23	173.73	830.02292	0	0	28.1	500.02	11.64	0.023	32	1	8.6863	0
1	4	660	119.07	187.31	1079.09388	0	0	28.1	599.99	12.549	0.021	33	1	9.36525	0
1	4	680	138.92	200.54	1369.86163	0	0	28.1	700.02	13.436	0.019	34	1	10.0269	0
1	4	700	158.76	214.45	1701.79681	0	0	28.1	799.99	14.368	0.018	35	1	10.7223	0
1	4	720	178.61	226.21	2075.82462	0	0	28.1	900.02	15.156	0.017	36	1	11.31065	0
1	4	740	198.45	238.04	2491.02929	0	0	28.1	999.99	15.949	0.016	37	1	11.90205	0
1	5	750	198.45	231.27	2702.81583	0	0	28.1	999.99	15.495	0.015	38	1	11.5634	0
1	5	760	198.45	228.51	2910.63297	0	0	28.1	999.99	15.31	0.015	39	1	11.4256	0
1	5	770	198.45	226.26	3118.96847	0	0	28.1	999.99	15.159	0.015	40	1	11.31305	0
1	5	780	198.45	224.13	3326.47381	0	0	28.1	999.99	15.017	0.015	41	1	11.2065	0
1	5	790	198.45	222.17	3534.29174	0	0	28.1	999.99	14.885	0.015	42	1	11.10835	0
1	5	800	198.45	220.38	3742.21176	0	0	28.1	999.99	14.765	0.015	43	1	11.0189	0
1	6	820	198.45	218.53	4162.6244	0	0	28.1	999.99	14.642	0.015	44	1	10.9267	0
1	6	840	178.61	197.23	4537.11403	0	0	28.1	900.02	13.214	0.015	45	1	9.8614	0
1	6	860	158.76	177.53	4869.93592	0	0	28.1	799.99	11.895	0.015	46	1	8.87665	0
1	6	880	138.92	158.79	5161.05239	0	0	28.1	700.02	10.639	0.015	47	1	7.93955	0
1	6	900	119.07	140.01	5410.81215	0	0	28.1	599.99	9.381	0.016	48	1	7.0005	0
1	6	920	99.23	121.28	5618.95916	0	0	28.1	500.02	8.125	0.016	49	1	6.06375	0
1	6	940	79.38	102.09	5785.44079	0	0	28.1	400	6.84	0.017	50	1	5.1044	0
1	6	960	59.54	81.92	5910.57828	0	0	28.1	300.02	5.489	0.018	51	1	4.0962	0
1	6	980	39.69	60.08	5993.97657	0	0	28.1	200	4.026	0.02	52	1	3.00415	0
1	6	1000	19.85	34.67	6035.85557	0	0	28.1	100.02	2.323	0.023	53	1	1.73365	0
1	7	1020	17.86	37.01	6073.54683	0	0	28.1	90	2.479	0.028	54	1	1.85025	0
1	7	1040	15.88	36.63	6106.84143	0	0	28.1	80.02	2.454	0.031	55	1	1.83125	0
1	7	1060	13.89	35.76	6135.95457	0	0	28.1	69.99	2.396	0.034	56	1	1.7878	0
1	7	1080	11.9	34.27	6160.89881	0	0	28.1	59.96	2.296	0.038	57	1	1.71345	0
1	7	1100	9.92	32.34	6181.7315	0	0	28.1	49.99	2.167	0.043	58	1	1.6171	0
1	7	1120	7.93	30.27	6198.37801	0	0	28.1	39.96	2.028	0.051	59	1	1.5137	0
1	7	1140	5.95	27.61	6210.8627	0	0	28.1	29.98	1.85	0.062	60	1	1.38045	0
1	7	1160	3.96	25.58	6219.19028	0	0	28.1	19.95	1.714	0.086	61	1	1.27915	0
1	7	1180	1.98	20.27	6223.36938	0	0	28.1	9.98	1.358	0.136	62	1	1.0135	0
1	8	1200	1.79	27.83	6227.13772	0	0	28.1	9.02	1.865	0.207	63	1	1.3915	0
1	8	1220	1.59	30.32	6230.47252	0	0	28.1	8.01	2.032	0.254	64	1	1.51615	0
1	8	1240	1.39	32.12	6233.39263	0	0	28.1	7	2.152	0.307	65	1	1.60595	0
1	8	1260	1.19	33.85	6235.89413	0	0	28.1	6	2.268	0.378	66	1	1.6925	0
1	8	1280	0.99	35.2	6237.98093	0	0	28.1	4.99	2.359	0.473	67	1	1.7601	0
1	8	1300	0.8	36.63	6239.6499	0	0	28.1	4.03	2.454	0.609	68	1	1.83145	0
1	8	1320	0.6	37.3	6240.90497	0	0	28.1	3.02	2.499	0.827	69	1	1.86505	0
1	8	1340	0.4	35.88	6241.7422	0	0	28.1	2.02	2.404	1.19	70	1	1.79415	0

1	8	1360	0.2	26.53	6242.16789	0	0	28.1	1.01	1.778	1.76	71	1	1.3265	0
1	9	1380	0.18	26.08	6242.54802	0	0	28.1	0.91	1.747	1.92	72	1	1.3039	0
1	9	1400	0.16	24.42	6242.88339	0	0	28.1	0.81	1.636	2.02	73	1	1.2212	0
1	9	1420	0.14	24.14	6243.17712	0	0	28.1	0.71	1.617	2.277	74	1	1.2068	0
1	9	1440	0.12	24.58	6243.42845	0	0	28.1	0.6	1.647	2.745	75	1	1.2291	0
1	9	1460	0.1	25.26	6243.63815	0	0	28.1	0.5	1.692	3.384	76	1	1.2628	0
1	9	1480	0.08	25.43	6243.80544	0	0	28.1	0.4	1.704	4.26	77	1	1.2715	0
1	9	1500	0.06	25.38	6243.93189	0	0	28.1	0.3	1.7	5.667	78	1	1.26885	0
1	9	1520	0.04	23.72	6244.01593	0	0	28.1	0.2	1.589	7.945	79	1	1.18595	0
1	9	1540	0.02	22.71	6244.05913	0	0	28.1	0.1	1.522	15.22	80	1	1.13555	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 6.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	21.76	0.0322	0	0	28.1	0.1	1.458	14.58	1	2	1.0881	0
1	1	40	0.04	26.38	0.11388	0	0	28.1	0.2	1.768	8.84	2	2	1.31915	0
1	1	60	0.06	29.97	0.23798	0	0	28.1	0.3	2.008	6.693	3	2	1.4987	0
1	1	80	0.08	33.7	0.40369	0	0	28.1	0.4	2.258	5.645	4	2	1.68505	0
1	1	100	0.1	38.76	0.61104	0	0	28.1	0.5	2.597	5.194	5	2	1.93815	0
1	1	120	0.12	43.5	0.8608	0	0	28.1	0.6	2.915	4.858	6	2	2.1751	0
1	1	140	0.14	48.69	1.15139	0	0	28.1	0.71	3.262	4.594	7	2	2.43425	0
1	1	160	0.16	54.43	1.4844	0	0	28.1	0.81	3.647	4.502	8	2	2.72135	0
1	1	180	0.18	57.99	1.86061	0	0	28.1	0.91	3.885	4.269	9	2	2.8994	0
1	2	200	0.2	59.41	2.28158	0	0	28.1	1.01	3.98	3.941	10	2	2.97045	0
1	2	220	0.4	73.51	3.11096	0	0	28.1	2.02	4.925	2.438	11	2	3.6753	0
1	2	240	0.6	82.7	4.35425	0	0	28.1	3.02	5.541	1.835	12	2	4.1352	0
1	2	260	0.8	98.96	6.01615	0	0	28.1	4.03	6.63	1.645	13	2	4.94775	0
1	2	280	1	99.85	8.09746	0	0	28.1	5.04	6.69	1.327	14	2	4.9926	0
1	2	300	1.19	107.08	10.59031	0	0	28.1	6	7.174	1.196	15	2	5.35405	0
1	2	320	1.39	127.55	13.4955	0	0	28.1	7	8.546	1.221	16	2	6.3774	0
1	2	340	1.59	141.26	16.82401	0	0	28.1	8.01	9.465	1.182	17	2	7.06315	0
1	2	360	1.79	142.16	20.56565	0	0	28.1	9.02	9.525	1.056	18	2	7.10785	0
1	3	380	1.99	137.43	24.74868	0	0	28.1	10.03	9.207	0.918	19	2	6.87125	0
1	3	400	3.98	109.72	33.0417	0	0	28.1	20.06	7.351	0.366	20	2	5.486	0
1	3	420	5.95	87.82	45.48869	0	0	28.1	29.98	5.884	0.196	21	2	4.39085	0
1	3	440	7.94	78.42	62.07159	0	0	28.1	40.01	5.254	0.131	22	2	3.9211	0
1	3	460	9.92	73.81	82.81552	0	0	28.1	49.99	4.945	0.099	23	2	3.69035	0
1	3	480	11.91	72.56	107.7205	0	0	28.1	60.01	4.861	0.081	24	2	3.62785	0
1	3	500	13.89	71.49	136.76845	0	0	28.1	69.99	4.79	0.068	25	2	3.57455	0
1	3	520	15.88	71.32	169.99472	0	0	28.1	80.02	4.779	0.06	26	2	3.5661	0
1	3	540	17.86	73.67	207.39695	0	0	28.1	90	4.936	0.055	27	2	3.6836	0
1	4	560	19.85	76.25	249.30501	0	0	28.1	100.02	5.109	0.051	28	2	3.81235	0
1	4	580	39.69	115.07	332.18572	0	0	28.1	200	7.71	0.039	29	2	5.7535	0
1	4	600	59.54	137.68	456.57866	0	0	28.1	300.02	9.225	0.031	30	2	6.8842	0
1	4	620	79.38	155.19	622.4414	0	0	28.1	400	10.398	0.026	31	2	7.75955	0
1	4	640	99.23	170.47	830.11638	0	0	28.1	500.02	11.422	0.023	32	2	8.5237	0
1	4	660	119.07	185.87	1079.18656	0	0	28.1	599.99	12.453	0.021	33	2	9.29325	0
1	4	680	138.92	199.03	1369.81922	0	0	28.1	700.02	13.335	0.019	34	2	9.95125	0
1	4	700	158.76	210.35	1701.75519	0	0	28.1	799.99	14.094	0.018	35	2	10.5177	0
1	4	720	178.61	222.93	2075.783	0	0	28.1	900.02	14.936	0.017	36	2	11.14635	0
1	4	740	198.45	234.83	2491.08034	0	0	28.1	999.99	15.734	0.016	37	2	11.74155	0

1	5	750	198.45	228.29	2702.86688		0	0	28.1	999.99	15.296	0.015	38	2	11.4146	0
1	5	760	198.45	225.71	2910.68402		0	0	28.1	999.99	15.123	0.015	39	2	11.2857	0
1	5	770	198.45	223.45	3119.0211		0	0	28.1	999.99	14.971	0.015	40	2	11.17235	0
1	5	780	198.45	221.49	3326.73299		0	0	28.1	999.99	14.84	0.015	41	2	11.07465	0
1	5	790	198.45	219.75	3534.6538		0	0	28.1	999.99	14.723	0.015	42	2	10.9875	0
1	5	800	198.45	218.17	3741.84734		0	0	28.1	999.99	14.617	0.015	43	2	10.9085	0
1	6	820	198.45	216.58	4162.25919		0	0	28.1	999.99	14.511	0.015	44	2	10.8289	0
1	6	840	178.61	195.59	4536.64593		0	0	28.1	900.02	13.104	0.015	45	2	9.7794	0
1	6	860	158.76	175.99	4869.1466		0	0	28.1	799.99	11.791	0.015	46	2	8.7994	0
1	6	880	138.92	157.38	5160.63535		0	0	28.1	700.02	10.544	0.015	47	2	7.869	0
1	6	900	119.07	138.66	5410.16812		0	0	28.1	599.99	9.29	0.015	48	2	6.93295	0
1	6	920	99.23	119.95	5618.52248		0	0	28.1	500.02	8.037	0.016	49	2	5.9976	0
1	6	940	79.38	100.65	5785.09679		0	0	28.1	400	6.743	0.017	50	2	5.03225	0
1	6	960	59.54	80.55	5910.11018		0	0	28.1	300.02	5.397	0.018	51	2	4.0273	0
1	6	980	39.69	58.83	5993.58152		0	0	28.1	200	3.942	0.02	52	2	2.94165	0
1	6	1000	19.85	33.66	6035.4181		0	0	28.1	100.02	2.255	0.023	53	2	1.68295	0
1	7	1020	17.86	35.53	6073.10229		0	0	28.1	90	2.381	0.026	54	2	1.77665	0
1	7	1040	15.88	34.95	6106.39689		0	0	28.1	80.02	2.342	0.029	55	2	1.7474	0
1	7	1060	13.89	33.9	6135.50218		0	0	28.1	69.99	2.271	0.032	56	2	1.6948	0
1	7	1080	11.9	32.41	6160.48412		0	0	28.1	59.96	2.172	0.036	57	2	1.6207	0
1	7	1100	9.92	30.32	6181.28932		0	0	28.1	49.99	2.031	0.041	58	2	1.51595	0
1	7	1120	7.93	28.12	6197.93741		0	0	28.1	39.96	1.884	0.047	59	2	1.40615	0
1	7	1140	5.95	25.33	6210.41503		0	0	28.1	29.98	1.697	0.057	60	2	1.2663	0
1	7	1160	3.96	23.08	6218.75753		0	0	28.1	19.95	1.546	0.077	61	2	1.1538	0
1	7	1180	1.98	17.68	6222.9327		0	0	28.1	9.98	1.185	0.119	62	2	0.884	0
1	8	1200	1.79	24.36	6226.70104		0	0	28.1	9.02	1.632	0.181	63	2	1.21815	0
1	8	1220	1.59	26.76	6230.0382		0	0	28.1	8.01	1.793	0.224	64	2	1.3378	0
1	8	1240	1.39	28.23	6232.95752		0	0	28.1	7	1.891	0.27	65	2	1.41125	0
1	8	1260	1.19	29.72	6235.45823		0	0	28.1	6	1.991	0.332	66	2	1.48575	0
1	8	1280	0.99	31.02	6237.54503		0	0	28.1	4.99	2.078	0.416	67	2	1.55085	0
1	8	1300	0.8	32.35	6239.21479		0	0	28.1	4.03	2.167	0.538	68	2	1.6175	0
1	8	1320	0.6	32.96	6240.46829		0	0	28.1	3.02	2.208	0.731	69	2	1.64805	0
1	8	1340	0.4	32.23	6241.30631		0	0	28.1	2.02	2.159	1.069	70	2	1.61145	0
1	8	1360	0.2	24.89	6241.73121		0	0	28.1	1.01	1.667	1.65	71	2	1.24425	0
1	9	1380	0.18	25.73	6242.11134		0	0	28.1	0.91	1.724	1.895	72	2	1.2867	0
1	9	1400	0.16	23.91	6242.4467		0	0	28.1	0.81	1.602	1.978	73	2	1.19525	0
1	9	1420	0.14	22.93	6242.74044		0	0	28.1	0.71	1.536	2.163	74	2	1.14655	0
1	9	1440	0.12	22.94	6242.99177		0	0	28.1	0.6	1.537	2.562	75	2	1.1472	0
1	9	1460	0.1	23.2	6243.20147		0	0	28.1	0.5	1.554	3.108	76	2	1.15975	0
1	9	1480	0.08	23.76	6243.36876		0	0	28.1	0.4	1.592	3.98	77	2	1.18795	0
1	9	1500	0.06	23.69	6243.49521		0	0	28.1	0.3	1.587	5.29	78	2	1.1846	0
1	9	1520	0.04	23.53	6243.57925		0	0	28.1	0.2	1.576	7.88	79	2	1.1764	0
1	9	1540	0.02	21.85	6243.62245		0	0	28.1	0.1	1.464	14.64	80	2	1.09255	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 7.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	22.05	0.03142	0	0	28.1	0.1	1.477	14.77	1	3	1.1026	0
1	1	40	0.04	27.48	0.11388	0	0	28.1	0.2	1.841	9.205	2	3	1.3739	0
1	1	60	0.06	30.45	0.23719	0	0	28.1	0.3	2.04	6.8	3	3	1.5227	0
1	1	80	0.08	34.88	0.40291	0	0	28.1	0.4	2.337	5.843	4	3	1.74385	0

1	1	100	0.1	39.8	0.61025	0	0	28.1	0.5	2.667	5.334	5	3	1.99015	0
1	1	120	0.12	44.42	0.86001	0	0	28.1	0.6	2.976	4.96	6	3	2.2211	0
1	1	140	0.14	48.72	1.15218	0	0	28.1	0.71	3.264	4.597	7	3	2.4359	0
1	1	160	0.16	53.36	1.48597	0	0	28.1	0.81	3.575	4.414	8	3	2.6679	0
1	1	180	0.18	58.09	1.86061	0	0	28.1	0.91	3.892	4.277	9	3	2.90435	0
1	2	200	0.2	62.39	2.2808	0	0	28.1	1.01	4.18	4.139	10	3	3.11965	0
1	2	220	0.4	74.54	3.10939	0	0	28.1	2.02	4.994	2.472	11	3	3.7269	0
1	2	240	0.6	89.69	4.35268	0	0	28.1	3.02	6.009	1.99	12	3	4.4846	0
1	2	260	0.8	98.01	6.01458	0	0	28.1	4.03	6.567	1.63	13	3	4.90065	0
1	2	280	1	105.76	8.09667	0	0	28.1	5.04	7.086	1.406	14	3	5.28815	0
1	2	300	1.19	101.82	10.59188	0	0	28.1	6	6.822	1.137	15	3	5.0908	0
1	2	320	1.39	115.77	13.50021	0	0	28.1	7	7.757	1.108	16	3	5.7887	0
1	2	340	1.59	130.28	16.8248	0	0	28.1	8.01	8.729	1.09	17	3	6.51385	0
1	2	360	1.79	133.45	20.57508	0	0	28.1	9.02	8.941	0.991	18	3	6.6725	0
1	3	380	1.98	122	24.75575	0	0	28.1	9.98	8.174	0.819	19	3	6.09985	0
1	3	400	3.98	104.39	33.0362	0	0	28.1	20.06	6.994	0.349	20	3	5.21935	0
1	3	420	5.95	84.89	45.48084	0	0	28.1	29.98	5.687	0.19	21	3	4.24425	0
1	3	440	7.94	75.88	62.08101	0	0	28.1	40.01	5.084	0.127	22	3	3.79405	0
1	3	460	9.92	72.16	82.82495	0	0	28.1	49.99	4.835	0.097	23	3	3.608	0
1	3	480	11.91	70.66	107.73621	0	0	28.1	60.01	4.734	0.079	24	3	3.53295	0
1	3	500	13.89	68.63	136.79123	0	0	28.1	69.99	4.598	0.066	25	3	3.4313	0
1	3	520	15.88	69.22	169.97666	0	0	28.1	80.02	4.638	0.058	26	3	3.4611	0
1	3	540	17.86	71.67	207.37025	0	0	28.1	90	4.802	0.053	27	3	3.5836	0
1	4	560	19.85	74.26	249.27674	0	0	28.1	100.02	4.975	0.05	28	3	3.71285	0
1	4	580	39.69	112.7	332.13781	0	0	28.1	200	7.551	0.038	29	3	5.635	0
1	4	600	59.54	135.38	456.55117	0	0	28.1	300.02	9.071	0.03	30	3	6.7692	0
1	4	620	79.38	153.09	622.53879	0	0	28.1	400	10.257	0.026	31	3	7.65445	0
1	4	640	99.23	168.06	830.00564	0	0	28.1	500.02	11.26	0.023	32	3	8.4028	0
1	4	660	119.07	182.53	1079.01298	0	0	28.1	599.99	12.229	0.02	33	3	9.12645	0
1	4	680	138.92	196.99	1369.71869	0	0	28.1	700.02	13.199	0.019	34	3	9.8497	0
1	4	700	158.76	210.47	1701.73712	0	0	28.1	799.99	14.101	0.018	35	3	10.52335	0
1	4	720	178.61	222.61	2075.67147	0	0	28.1	900.02	14.915	0.017	36	3	11.13025	0
1	4	740	198.45	234.58	2490.77247	0	0	28.1	999.99	15.717	0.016	37	3	11.7292	0
1	5	750	198.45	228.15	2702.76714	0	0	28.1	999.99	15.286	0.015	38	3	11.40765	0
1	5	760	198.45	225.61	2910.58428	0	0	28.1	999.99	15.116	0.015	39	3	11.2807	0
1	5	770	198.45	223.41	3118.29696	0	0	28.1	999.99	14.969	0.015	40	3	11.17055	0
1	5	780	198.45	221.48	3326.73692	0	0	28.1	999.99	14.839	0.015	41	3	11.0738	0
1	5	790	198.45	219.76	3533.93045	0	0	28.1	999.99	14.724	0.015	42	3	10.988	0
1	5	800	198.45	218.27	3741.85048	0	0	28.1	999.99	14.624	0.015	43	3	10.91345	0
1	6	820	198.45	216.71	4162.36758	0	0	28.1	999.99	14.519	0.015	44	3	10.83535	0
1	6	840	178.61	195.76	4536.75275	0	0	28.1	900.02	13.116	0.015	45	3	9.78775	0
1	6	860	158.76	176.15	4869.25341	0	0	28.1	799.99	11.802	0.015	46	3	8.8077	0
1	6	880	138.92	157.37	5160.74216	0	0	28.1	700.02	10.544	0.015	47	3	7.8684	0
1	6	900	119.07	138.49	5410.5137	0	0	28.1	599.99	9.279	0.015	48	3	6.9244	0
1	6	920	99.23	119.63	5618.5052	0	0	28.1	500.02	8.015	0.016	49	3	5.9814	0
1	6	940	79.38	100.27	5785.03788	0	0	28.1	400	6.718	0.017	50	3	5.01345	0
1	6	960	59.54	80.11	5910.17459	0	0	28.1	300.02	5.367	0.018	51	3	4.0054	0
1	6	980	39.69	58.25	5993.62628	0	0	28.1	200	3.902	0.02	52	3	2.91225	0
1	6	1000	19.85	32.99	6035.48408	0	0	28.1	100.02	2.21	0.022	53	3	1.6496	0
1	7	1020	17.86	34.6	6073.16827	0	0	28.1	90	2.319	0.026	54	3	1.73025	0

1	7	1040	15.88	33.91	6106.46208	0	0	28.1	80.02	2.272	0.028	55	3	1.6956	0
1	7	1060	13.89	32.78	6135.56815	0	0	28.1	69.99	2.196	0.031	56	3	1.63905	0
1	7	1080	11.9	31.16	6160.52339	0	0	28.1	59.96	2.088	0.035	57	3	1.55795	0
1	7	1100	9.92	29.01	6181.34037	0	0	28.1	49.99	1.943	0.039	58	3	1.4503	0
1	7	1120	7.93	26.65	6197.98689	0	0	28.1	39.96	1.785	0.045	59	3	1.3324	0
1	7	1140	5.95	23.85	6210.47786	0	0	28.1	29.98	1.598	0.053	60	3	1.1925	0
1	7	1160	3.96	21.49	6218.81486	0	0	28.1	19.95	1.44	0.072	61	3	1.0746	0
1	7	1180	1.98	15.97	6222.99004	0	0	28.1	9.98	1.07	0.107	62	3	0.79835	0
1	8	1200	1.79	22.15	6226.75838	0	0	28.1	9.02	1.484	0.165	63	3	1.10735	0
1	8	1220	1.59	24.17	6230.09318	0	0	28.1	8.01	1.619	0.202	64	3	1.20835	0
1	8	1240	1.39	25.67	6233.01172	0	0	28.1	7	1.72	0.246	65	3	1.28325	0
1	8	1260	1.19	26.84	6235.51557	0	0	28.1	6	1.798	0.3	66	3	1.3418	0
1	8	1280	0.99	28.04	6237.60158	0	0	28.1	4.99	1.879	0.377	67	3	1.40215	0
1	8	1300	0.8	29.18	6239.27134	0	0	28.1	4.03	1.955	0.485	68	3	1.4591	0
1	8	1320	0.6	29.7	6240.52484	0	0	28.1	3.02	1.99	0.659	69	3	1.48475	0
1	8	1340	0.4	29.4	6241.36285	0	0	28.1	2.02	1.97	0.975	70	3	1.4701	0
1	8	1360	0.2	23.42	6241.78697	0	0	28.1	1.01	1.569	1.553	71	3	1.17085	0
1	9	1380	0.18	24.78	6242.16632	0	0	28.1	0.91	1.66	1.824	72	3	1.23905	0
1	9	1400	0.16	23.33	6242.50247	0	0	28.1	0.81	1.563	1.93	73	3	1.1663	0
1	9	1420	0.14	22.38	6242.79621	0	0	28.1	0.71	1.5	2.113	74	3	1.11915	0
1	9	1440	0.12	22.51	6243.04753	0	0	28.1	0.6	1.508	2.513	75	3	1.1253	0
1	9	1460	0.1	22.39	6243.25724	0	0	28.1	0.5	1.5	3	76	3	1.1195	0
1	9	1480	0.08	22.6	6243.42531	0	0	28.1	0.4	1.514	3.785	77	3	1.1302	0
1	9	1500	0.06	22.44	6243.55097	0	0	28.1	0.3	1.503	5.01	78	3	1.1219	0
1	9	1520	0.04	21.53	6243.6358	0	0	28.1	0.2	1.443	7.215	79	3	1.0766	0
1	9	1540	0.02	20.06	6243.67742	0	0	28.1	0.1	1.344	13.44	80	3	1.0028	0

2004.02.13 META-15 wt%-U [sonicated] DG 0.1-1000 s-1 run 8.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	20.69	0.0322	0	0	28.1	0.1	1.386	13.86	1	4	1.0346	0
1	1	40	0.04	25.34	0.11467	0	0	28.1	0.2	1.698	8.49	2	4	1.26715	0
1	1	60	0.06	27.2	0.23955	0	0	28.1	0.3	1.822	6.073	3	4	1.3598	0
1	1	80	0.08	30.65	0.40527	0	0	28.1	0.4	2.053	5.132	4	4	1.53245	0
1	1	100	0.1	34.97	0.61261	0	0	28.1	0.5	2.343	4.686	5	4	1.7483	0
1	1	120	0.12	38.99	0.86237	0	0	28.1	0.6	2.613	4.355	6	4	1.9497	0
1	1	140	0.14	43.02	1.15454	0	0	28.1	0.71	2.882	4.059	7	4	2.15095	0
1	1	160	0.16	47.34	1.48754	0	0	28.1	0.81	3.172	3.916	8	4	2.36685	0
1	1	180	0.18	50.25	1.86375	0	0	28.1	0.91	3.366	3.699	9	4	2.51225	0
1	2	200	0.2	51.95	2.28394	0	0	28.1	1.01	3.48	3.446	10	4	2.59725	0
1	2	220	0.4	62.66	3.11332	0	0	28.1	2.02	4.198	2.078	11	4	3.13295	0
1	2	240	0.6	72.13	4.3566	0	0	28.1	3.02	4.833	1.6	12	4	3.6065	0
1	2	260	0.8	92.54	6.01458	0	0	28.1	4.03	6.2	1.538	13	4	4.6272	0
1	2	280	1	108.97	8.09117	0	0	28.1	5.04	7.301	1.449	14	4	5.44845	0
1	2	300	1.19	115.02	10.58952	0	0	28.1	6	7.706	1.284	15	4	5.7509	0
1	2	320	1.39	126.17	13.4955	0	0	28.1	7	8.454	1.208	16	4	6.30865	0
1	2	340	1.59	134.4	16.82637	0	0	28.1	8.01	9.005	1.124	17	4	6.71985	0
1	2	360	1.79	122.77	20.57743	0	0	28.1	9.02	8.226	0.912	18	4	6.13855	0
1	3	380	1.99	109.55	24.75889	0	0	28.1	10.03	7.34	0.732	19	4	5.47735	0
1	3	400	3.98	94.89	33.04563	0	0	28.1	20.06	6.358	0.317	20	4	4.7447	0
1	3	420	5.95	85.11	45.49183	0	0	28.1	29.98	5.702	0.19	21	4	4.25535	0

1	3	440	7.94	79.27	62.07551	0	0	28.1	40.01	5.311	0.133	22	4	3.9634	0
1	3	460	9.92	74.51	82.82338	0	0	28.1	49.99	4.992	0.1	23	4	3.72555	0
1	3	480	11.91	69.69	107.71736	0	0	28.1	60.01	4.669	0.078	24	4	3.4847	0
1	3	500	13.89	66.99	136.77081	0	0	28.1	69.99	4.488	0.064	25	4	3.34955	0
1	3	520	15.88	67.57	170.0065	0	0	28.1	80.02	4.527	0.057	26	4	3.3783	0
1	3	540	17.86	69.97	207.39145	0	0	28.1	90	4.688	0.052	27	4	3.49845	0
1	4	560	19.85	72.51	249.31836	0	0	28.1	100.02	4.858	0.049	28	4	3.62535	0
1	4	580	39.69	111.12	332.19986	0	0	28.1	200	7.445	0.037	29	4	5.55615	0
1	4	600	59.54	134.28	456.53153	0	0	28.1	300.02	8.997	0.03	30	4	6.71385	0
1	4	620	79.38	151.65	622.60162	0	0	28.1	400	10.16	0.025	31	4	7.58235	0
1	4	640	99.23	166.98	830.11952	0	0	28.1	500.02	11.187	0.022	32	4	8.3488	0
1	4	660	119.07	181.97	1079.07582	0	0	28.1	599.99	12.192	0.02	33	4	9.09865	0
1	4	680	138.92	195.92	1369.76032	0	0	28.1	700.02	13.127	0.019	34	4	9.79595	0
1	4	700	158.76	209.24	1701.61303	0	0	28.1	799.99	14.019	0.018	35	4	10.46205	0
1	4	720	178.61	222.1	2075.37066	0	0	28.1	900.02	14.881	0.017	36	4	11.1049	0
1	4	740	198.45	234.57	2490.9806	0	0	28.1	999.99	15.716	0.016	37	4	11.7285	0
1	5	750	198.45	228.42	2702.87081	0	0	28.1	999.99	15.304	0.015	38	4	11.42095	0
1	5	760	198.45	226	2910.68716	0	0	28.1	999.99	15.142	0.015	39	4	11.30005	0
1	5	770	198.45	223.85	3119.02424	0	0	28.1	999.99	14.998	0.015	40	4	11.1926	0
1	5	780	198.45	222	3326.73692	0	0	28.1	999.99	14.874	0.015	41	4	11.0999	0
1	5	790	198.45	220.28	3534.7614	0	0	28.1	999.99	14.759	0.015	42	4	11.014	0
1	5	800	198.45	218.8	3741.85126	0	0	28.1	999.99	14.659	0.015	43	4	10.9399	0
1	6	820	198.45	217.27	4162.47125	0	0	28.1	999.99	14.557	0.015	44	4	10.86355	0
1	6	840	178.61	196.27	4536.38911	0	0	28.1	900.02	13.15	0.015	45	4	9.81335	0
1	6	860	158.76	176.51	4869.47175	0	0	28.1	799.99	11.826	0.015	46	4	8.8255	0
1	6	880	138.92	157.68	5160.5144	0	0	28.1	700.02	10.564	0.015	47	4	7.8839	0
1	6	900	119.07	138.75	5410.41003	0	0	28.1	599.99	9.296	0.015	48	4	6.93735	0
1	6	920	99.23	119.83	5618.51619	0	0	28.1	500.02	8.028	0.016	49	4	5.9913	0
1	6	940	79.38	100.29	5785.0905	0	0	28.1	400	6.719	0.017	50	4	5.01455	0
1	6	960	59.54	79.82	5910.08191	0	0	28.1	300.02	5.348	0.018	51	4	3.99095	0
1	6	980	39.69	57.93	5993.53204	0	0	28.1	200	3.881	0.019	52	4	2.8963	0
1	6	1000	19.85	32.76	6035.42203	0	0	28.1	100.02	2.195	0.022	53	4	1.6381	0
1	7	1020	17.86	34.15	6073.11486	0	0	28.1	90	2.288	0.025	54	4	1.7074	0
1	7	1040	15.88	33.33	6106.37726	0	0	28.1	80.02	2.233	0.028	55	4	1.66665	0
1	7	1060	13.89	32.03	6135.52653	0	0	28.1	69.99	2.146	0.031	56	4	1.6014	0
1	7	1080	11.9	30.3	6160.46606	0	0	28.1	59.96	2.03	0.034	57	4	1.51485	0
1	7	1100	9.92	28.12	6181.27204	0	0	28.1	49.99	1.884	0.038	58	4	1.4062	0
1	7	1120	7.93	25.87	6197.92877	0	0	28.1	39.96	1.733	0.043	59	4	1.2936	0
1	7	1140	5.95	23.04	6210.42602	0	0	28.1	29.98	1.544	0.052	60	4	1.15205	0
1	7	1160	3.96	20.31	6218.75753	0	0	28.1	19.95	1.361	0.068	61	4	1.01565	0
1	7	1180	1.98	14.83	6222.93663	0	0	28.1	9.98	0.993	0.099	62	4	0.7414	0
1	8	1200	1.79	20.39	6226.70575	0	0	28.1	9.02	1.366	0.151	63	4	1.01965	0
1	8	1220	1.59	22.22	6230.04056	0	0	28.1	8.01	1.489	0.186	64	4	1.11095	0
1	8	1240	1.39	23.59	6232.95909	0	0	28.1	7	1.581	0.226	65	4	1.17965	0
1	8	1260	1.19	24.68	6235.46294	0	0	28.1	6	1.653	0.276	66	4	1.23395	0
1	8	1280	0.99	25.73	6237.54975	0	0	28.1	4.99	1.724	0.345	67	4	1.28625	0
1	8	1300	0.8	26.75	6239.2195	0	0	28.1	4.03	1.792	0.445	68	4	1.33725	0
1	8	1320	0.6	27.27	6240.473	0	0	28.1	3.02	1.827	0.605	69	4	1.3637	0
1	8	1340	0.4	27.14	6241.31023	0	0	28.1	2.02	1.818	0.9	70	4	1.35695	0
1	8	1360	0.2	22.14	6241.73356	0	0	28.1	1.01	1.484	1.469	71	4	1.10715	0

1	9	1380	0.18	24.3	6242.11291	0	0	28.1	0.91	1.628	1.789	72	4	1.21505	0
1	9	1400	0.16	22.72	6242.44906	0	0	28.1	0.81	1.522	1.879	73	4	1.1361	0
1	9	1420	0.14	21.73	6242.74201	0	0	28.1	0.71	1.456	2.051	74	4	1.0867	0
1	9	1440	0.12	21.92	6242.99413	0	0	28.1	0.6	1.469	2.448	75	4	1.0962	0
1	9	1460	0.1	22.42	6243.20304	0	0	28.1	0.5	1.502	3.004	76	4	1.12095	0
1	9	1480	0.08	22.34	6243.3719	0	0	28.1	0.4	1.497	3.743	77	4	1.11705	0
1	9	1500	0.06	21.93	6243.49835	0	0	28.1	0.3	1.469	4.897	78	4	1.0965	0
1	9	1520	0.04	21.18	6243.58239	0	0	28.1	0.2	1.419	7.095	79	4	1.05895	0
1	9	1540	0.02	19.24	6243.6248	0	0	28.1	0.1	1.289	12.89	80	4	0.96215	0

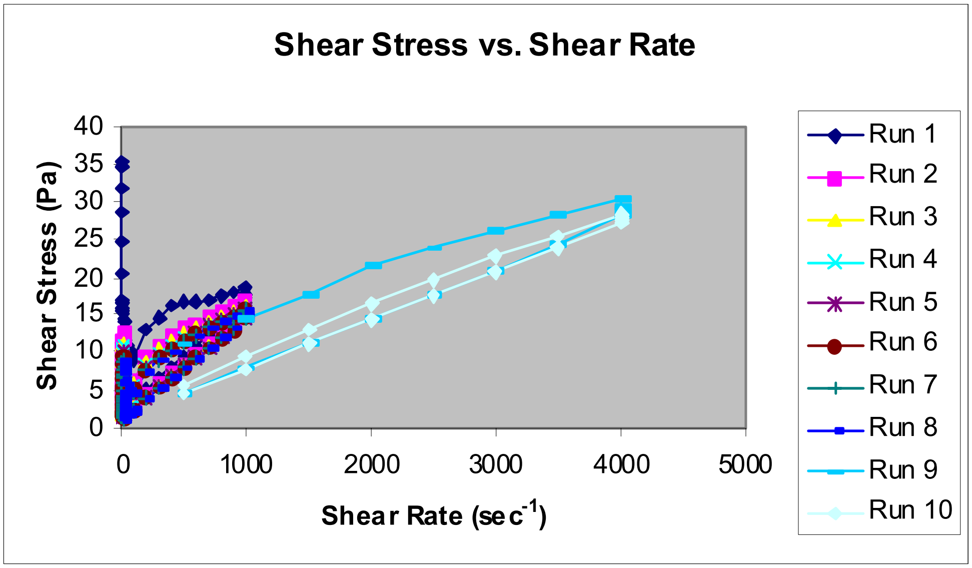
2004.02.11 META-15 wt%-U [sonicated] DG 500-4000 s-1 run 1.txt

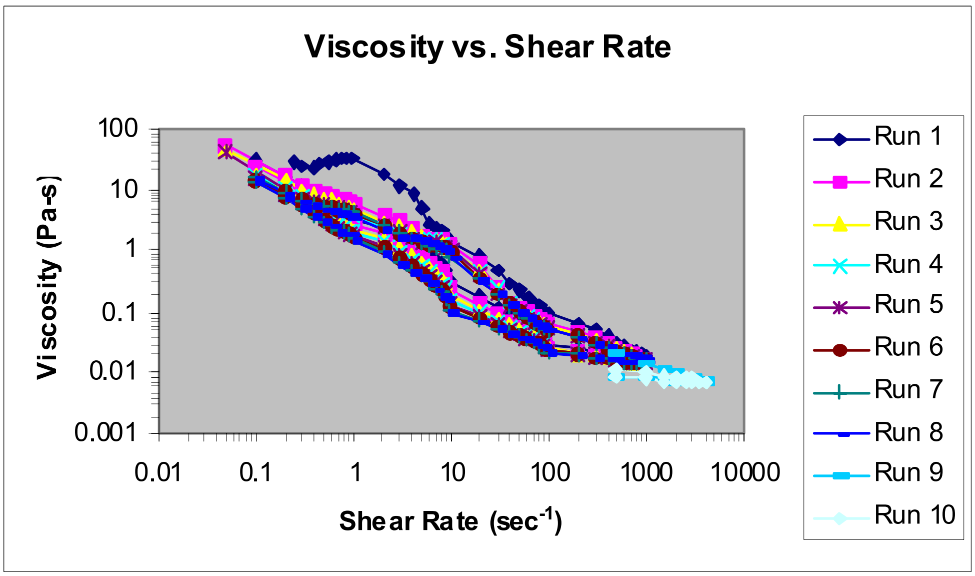
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.26	164.86	207.19589	0	0	28	500.17	11.045	0.022	1	1	8.24275	0
1	1	40	198.46	215.79	621.6395	0	0	28	1000.04	14.458	0.014	2	1	10.7894	0
1	1	60	297.68	265.81	1243.79737	0	0	28	1500.01	17.809	0.012	3	1	13.29055	0
1	1	80	396.91	319.41	2072.6846	0	0	28	2000.03	21.4	0.011	4	1	15.9705	0
1	1	100	496.13	354.09	3110.37622	0	0	28	2500	23.724	0.009	5	1	17.70445	0
1	1	120	595.36	390.1	4356.30202	0	0	28	3000.02	26.137	0.009	6	1	19.5052	0
1	1	140	694.58	422.82	5809.31847	0	0	28	3499.99	28.329	0.008	7	1	21.14085	0
1	1	160	793.81	455.81	7468.41632	0	0	28.1	4000.01	30.539	0.008	8	1	22.79025	0
1	2	180	793.81	438.02	9150.18391	0	0	28	4000.01	29.348	0.007	9	1	21.90115	0
1	2	200	793.81	429.17	10812.73752	0	0	28	4000.01	28.754	0.007	10	1	21.45855	0
1	2	220	793.81	423.13	12475.28799	0	0	28	4000.01	28.349	0.007	11	1	21.1563	0
1	3	240	793.81	418.48	14154.46691	0	0	28	4000.01	28.038	0.007	12	1	20.92385	0
1	3	260	694.58	364.94	15612.74002	0	0	28	3499.99	24.451	0.007	13	1	18.24675	0
1	3	280	595.36	314.14	16860.12745	0	0	28	3000.02	21.047	0.007	14	1	15.707	0
1	3	300	496.13	264.77	17901.98403	0	0	28	2500	17.739	0.007	15	1	13.23825	0
1	3	320	396.91	216.71	18734.87994	0	0	28	2000.03	14.52	0.007	16	1	10.8357	0
1	3	340	297.68	168.36	19359.69716	0	0	28	1500.01	11.28	0.008	17	1	8.41795	0
1	3	360	198.46	119.11	19776.958	0	0	28.1	1000.04	7.981	0.008	18	1	5.9556	0
1	3	380	99.23	67.61	19986.47945	0	0	28.1	500.02	4.53	0.009	19	1	3.3807	0

2004.02.11 META-15 wt%-U [sonicated] DG 500-4000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.3	83.41	207.58937	0	0	28.1	500.37	5.588	0.011	1	1	4.17025	0
1	1	40	198.46	142.05	621.82486	0	0	28	1000.04	9.517	0.01	2	1	7.10255	0
1	1	60	297.68	194.92	1243.77538	0	0	28.1	1500.01	13.06	0.009	3	1	9.74605	0
1	1	80	396.91	245.73	2073.64829	0	0	28.1	2000.03	16.464	0.008	4	1	12.2867	0
1	1	100	496.13	293.9	3111.39017	0	0	28.1	2500	19.692	0.008	5	1	14.69525	0
1	1	120	595.36	338.69	4355.70512	0	0	28.1	3000.02	22.692	0.008	6	1	16.93445	0
1	1	140	694.58	381.48	5808.35792	0	0	28.1	3499.99	25.559	0.007	7	1	19.07405	0
1	1	160	793.81	423.11	7469.17973	0	0	28	4000.01	28.348	0.007	8	1	21.1554	0
1	2	180	793.81	414.93	9150.54598	0	0	28	4000.01	27.8	0.007	9	1	20.74655	0
1	2	200	793.81	411.27	10813.10195	0	0	28	4000.01	27.555	0.007	10	1	20.5637	0
1	2	220	793.81	408.89	12473.98816	0	0	28	4000.01	27.396	0.007	11	1	20.4446	0
1	3	240	793.81	406.81	14153.99881	0	0	28	4000.01	27.256	0.007	12	1	20.34025	0
1	3	260	694.58	356.05	15610.34692	0	0	28.1	3499.99	23.855	0.007	13	1	17.80245	0
1	3	280	595.36	307.41	16858.98077	0	0	28.1	3000.02	20.597	0.007	14	1	15.3707	0
1	3	300	496.13	259.79	17899.54066	0	0	28.1	2500	17.406	0.007	15	1	12.9897	0
1	3	320	396.91	212.79	18732.74679	0	0	28.1	2000.03	14.257	0.007	16	1	10.63965	0

1	3	340	297.68	165.04	19357.61664	0	0	28.1	1500.01	11.057	0.007	17	1	8.25175	0
1	3	360	198.46	116.47	19775.39584	0	0	28.1	1000.04	7.803	0.008	18	1	5.8234	0
1	3	380	99.23	65.91	19984.81362	0	0	28.1	500.02	4.416	0.009	19	1	3.29535	0





E-2.1.19 187/20wt%/D/N

2004.01.21 187-20 wt%-D [not sonicated] 0.1-1000 s-1 CC-45 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	0	0.16572	2.043	0	28	0.1	0	0	1	1	0	0
1	1	40	0.16	0	0.49402	6.0903	0	28	0.21	0	0	2	1	0	0
1	1	60	0.24	0	0.98567	12.152	0	28	0.31	0	0	3	1	0	0
1	1	80	0.31	0	1.63913	20.207	0	28	0.4	0	0	4	1	0	0
1	1	100	0.39	0	2.45594	30.277	0	28	0.5	0	0	5	1	0	0
1	1	120	0.47	0	3.43298	42.322	0	28	0.61	0	0	6	1	0	0

1	1	140	0.54	0	4.57416	56.391	0	28	0.7	0	0	7	1	0	0
1	1	160	0.62	0	5.87635	72.444	0	28	0.8	0	0	8	1	0	0
1	1	180	0.7	0	7.34033	90.493	0	28	0.9	0	0	9	1	0	0
1	2	200	0.77	0	8.96453	0	0	28	0.99	0	0	10	1	0	0
1	2	220	1.55	0	12.18938	0	0	28	2	0	0	11	1	0	0
1	2	240	2.32	0	17.03921	0	0	28	3	0	0	12	1	0	0
1	2	260	3.09	0	23.50697	0	0	28	3.99	0	0	13	1	0	0
1	2	280	3.87	0	31.60128	0	0	28	5	0	0	14	1	0	0
1	2	300	4.65	0	41.32294	0	0	28	6	0	0	15	1	0	0
1	2	320	5.42	0	52.67273	0	0	28	7	0	0	16	1	0	0
1	2	340	6.2	0	65.62709	0	0	28	8	0	0	17	1	0	0
1	2	360	6.97	0	80.21036	0	0	28	9	0	0	18	1	0	0
1	3	380	7.75	0	96.57727	0	0	28	10.01	0	0	19	1	0	0
1	3	400	15.5	0	128.92468	0	0	28	20.01	0	0	20	1	0	0
1	3	420	23.24	0	177.48899	0	0	28	30	0	0	21	1	0	0
1	3	440	30.99	0	242.22622	0	0	28	40.01	0	0	22	1	0	0
1	3	460	38.73	0	323.23297	0	0	28	50	0	0	23	1	0	0
1	3	480	46.48	0	420.52574	0	0	28	60.01	0	0	24	1	0	0
1	3	500	54.22	0	533.94273	0	0	28	70	0	0	25	1	0	0
1	3	520	61.96	0	663.66852	0	0	28	79.99	0	0	26	1	0	0
1	3	540	69.71	0	809.5201	0	0	28	90	0	0	27	1	0	0
1	4	560	77.46	0	973.09419	0	0	28	100	0	0	28	1	0	0
1	4	580	154.9	3.13	1296.423	0	0	28	200	0.613	0.003	29	1	0.1565	0
1	4	600	232.4	6.92	1782.1446	0	0	28	300	1.355	0.005	30	1	0.3459	0
1	4	620	309.8	12.5	2429.4855	0	0	28	400	2.451	0.006	31	1	0.6259	0
1	4	640	387.3	19.4	3239.9889	0	0	28	500	3.788	0.008	32	1	0.9674	0
1	4	660	464.8	27.3	4211.3427	0	0	28	600	5.347	0.009	33	1	1.3654	0
1	4	680	542.2	35.6	5346.2249	0	0	28	700	6.977	0.01	34	1	1.7818	0
1	4	700	619.7	43.3	6643.0516	0	0	28	800	8.48	0.011	35	1	2.1656	0
1	4	720	697.1	50.3	8101.8242	0	0	28	900	9.847	0.011	36	1	2.5145	0
1	4	740	774.6	57.4	9722.381	0	0	28	1000	11.24	0.011	37	1	2.8706	0
1	5	750	774.6	56.6	10549.469	0	0	28	1000	11.08	0.011	38	1	2.8285	0
1	5	760	774.6	56.2	11361.834	0	0	28	1000	10.99	0.011	39	1	2.8073	0
1	5	770	774.6	55.1	12172.984	0	0	28	1000	10.78	0.011	40	1	2.7538	0
1	5	780	774.6	54.2	12984.133	0	0	28	1000	10.61	0.011	41	1	2.7104	0
1	5	790	774.6	54	13794.064	0	0	28	1000	10.57	0.011	42	1	2.6984	0
1	5	800	774.6	54.9	14606.025	0	0	28	1000	10.75	0.011	43	1	2.7462	0
1	6	820	774.6	54.6	16247.789	0	0	28	1000	10.69	0.011	44	1	2.7299	0
1	6	840	697.1	46.7	17707.651	0	0	28	900	9.143	0.01	45	1	2.3347	0
1	6	860	619.7	39.1	19006.501	0	0	28	800	7.656	0.01	46	1	1.955	0
1	6	880	542.2	31.8	20143.933	0	0	28	700	6.223	0.009	47	1	1.589	0
1	6	900	464.8	25.7	21118.406	0	0	28	600	5.034	0.008	48	1	1.2855	0
1	6	920	387.3	19.6	21931.066	0	0	28	500	3.837	0.008	49	1	0.98	0
1	6	940	309.8	13.7	22581.422	0	0	28	400	2.682	0.007	50	1	0.6849	0
1	6	960	232.4	8.29	23069.022	0	0	28	300	1.622	0.005	51	1	0.4143	0
1	6	980	154.9	3.57	23394.929	0	0	28	200	0.699	0.003	52	1	0.1785	0
1	6	1000	77.46	0	23558.373	0	0	28	100	0	0	53	1	0	0
1	7	1020	69.71	0	23705.801	0	0	28	90	0	0	54	1	0	0
1	7	1040	61.97	0	23835.661	0	0	28	80	0	0	55	1	0	0
1	7	1060	54.22	0	23949.418	0	0	28	70	0	0	56	1	0	0

1	7	1080	46.48	0	24046.868	0	0	28	60.01	0	0	57	1	0	0
1	7	1100	38.73	0	24128.097	0	0	28	50	0	0	58	1	0	0
1	7	1120	30.99	0	24193.092	0	0	28	40.01	0	0	59	1	0	0
1	7	1140	23.24	0	24241.903	0	0	28	30	0	0	60	1	0	0
1	7	1160	15.5	0	24274.469	0	0	28	20.01	0	0	61	1	0	0
1	7	1180	7.75	0	24290.802	0	0	28	10.01	0	0	62	1	0	0
1	8	1200	6.97	0	24305.5	0	0	28	9	0	0	63	1	0	0
1	8	1220	6.2	0	24318.499	0	0	28	8	0	0	64	1	0	0
1	8	1240	5.42	0	24329.85	0	0	28	7	0	0	65	1	0	0
1	8	1260	4.64	0	24339.593	0	0	28	5.99	0	0	66	1	0	0
1	8	1280	3.87	0	24347.704	0	0	28	5	0	0	67	1	0	0
1	8	1300	3.09	0	24354.202	0	0	28	3.99	0	0	68	1	0	0
1	8	1320	2.32	0	24359.07	0	0	28	3	0	0	69	1	0	0
1	8	1340	1.54	0	24362.318	0	0	28	1.99	0	0	70	1	0	0
1	8	1360	0.77	0	24363.942	0	0	28	0.99	0	0	71	1	0	0
1	9	1380	0.7	0	24365.416	18.174	0	28	0.9	0	0	72	1	0	0
1	9	1400	0.62	0	24366.72	34.257	0	28	0.8	0	0	73	1	0	0
1	9	1420	0.55	0	24367.863	48.345	0	28	0.71	0	0	74	1	0	0
1	9	1440	0.47	0	24368.843	60.428	0	28	0.61	0	0	75	1	0	0
1	9	1460	0.39	0	24369.66	70.498	0	28	0.5	0	0	76	1	0	0
1	9	1480	0.31	0	24370.317	78.593	0	28	0.4	0	0	77	1	0	0
1	9	1500	0.24	0	24370.81	84.673	0	28	0.31	0	0	78	1	0	0
1	9	1520	0.16	0	24371.141	88.75	0	28	0.21	0	0	79	1	0	0
1	9	1540	0.08	0	24371.309	90.832	0	28	0.1	0	0	80	1	0	0

2004.01.21 187-20 wt%-D [not sonicated] 0.1-1000 s-1
CC-45 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	0	0.16493	2.0333	0	28	0.1	0	0	1	1	0	0
1	1	40	0.16	0	0.4948	6.1	0	28	0.21	0	0	2	1	0	0
1	1	60	0.24	0	0.98489	12.142	0	28	0.31	0	0	3	1	0	0
1	1	80	0.31	0	1.63834	20.198	0	28	0.4	0	0	4	1	0	0
1	1	100	0.39	0	2.45358	30.248	0	28	0.5	0	0	5	1	0	0
1	1	120	0.47	0	3.43298	42.322	0	28	0.61	0	0	6	1	0	0
1	1	140	0.54	0	4.57337	56.381	0	28	0.7	0	0	7	1	0	0
1	1	160	0.62	0	5.87478	72.425	0	28	0.8	0	0	8	1	0	0
1	1	180	0.7	0	7.34112	90.502	0	28	0.9	0	0	9	1	0	0
1	2	200	0.77	0	8.96453	0	0	28	0.99	0	0	10	1	0	0
1	2	220	1.55	0	12.18859	0	0	28	2	0	0	11	1	0	0
1	2	240	2.32	0	17.03686	0	0	28	3	0	0	12	1	0	0
1	2	260	3.09	0	23.51246	0	0	28	3.99	0	0	13	1	0	0
1	2	280	3.87	0	31.60285	0	0	28	5	0	0	14	1	0	0
1	2	300	4.65	0	41.3198	0	0	28	6	0	0	15	1	0	0
1	2	320	5.42	0	52.66959	0	0	28	7	0	0	16	1	0	0
1	2	340	6.2	0	65.63965	0	0	28	8	0	0	17	1	0	0
1	2	360	6.97	0	80.22371	0	0	28	9	0	0	18	1	0	0
1	3	380	7.75	0	96.59376	0	0	28	10.01	0	0	19	1	0	0
1	3	400	15.5	0	128.9341	0	0	28	20.01	0	0	20	1	0	0
1	3	420	23.24	0	177.49449	0	0	28	30	0	0	21	1	0	0
1	3	440	30.99	0	242.22779	0	0	28	40.01	0	0	22	1	0	0
1	3	460	38.73	0	323.2746	0	0	28	50	0	0	23	1	0	0

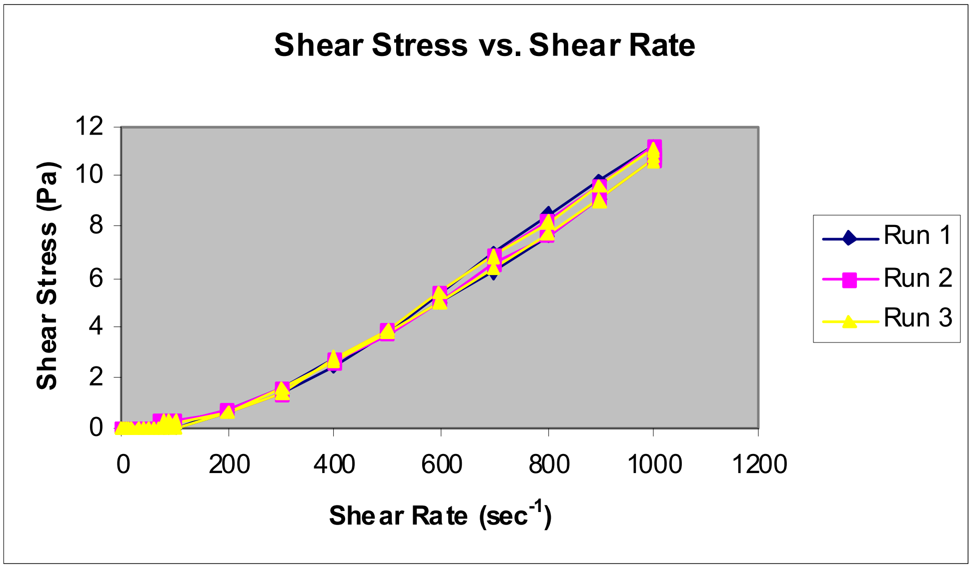
1	3	480	46.48	0	420.4739	0	0	28	60.01	0	0	24	1	0	0
1	3	500	54.22	1.02	533.90739	0	0	28	70	0.2	0.003	25	1	0.0511	0
1	3	520	61.96	1.16	663.62925	0	0	28	79.99	0.227	0.003	26	1	0.0579	0
1	3	540	69.71	1.4	809.407	0	0	28	90	0.274	0.003	27	1	0.0699	0
1	4	560	77.46	1.49	972.94103	0	0	28	100	0.293	0.003	28	1	0.0747	0
1	4	580	154.9	3.34	1296.4732	0	0	28	200	0.654	0.003	29	1	0.167	0
1	4	600	232.4	6.78	1782.2349	0	0	28	300	1.328	0.004	30	1	0.3391	0
1	4	620	309.8	13.9	2429.6167	0	0	28	400	2.715	0.007	31	1	0.6933	0
1	4	640	387.3	20	3239.5122	0	0	28	500	3.916	0.008	32	1	1	0
1	4	660	464.8	27.5	4211.0678	0	0	28	600	5.39	0.009	33	1	1.3764	0
1	4	680	542.2	34.9	5346.1935	0	0	28	700	6.827	0.01	34	1	1.7433	0
1	4	700	619.7	42.2	6642.3306	0	0	28	800	8.254	0.01	35	1	2.1077	0
1	4	720	697.1	49.3	8099.9676	0	0	28	900	9.647	0.011	36	1	2.4636	0
1	4	740	774.6	57.1	9721.3349	0	0	28	1000	11.18	0.011	37	1	2.8549	0
1	5	750	774.6	56.4	10548.384	0	0	28	1000	11.05	0.011	38	1	2.8221	0
1	5	760	774.6	55.5	11360.343	0	0	28	1000	10.87	0.011	39	1	2.7749	0
1	5	770	774.6	54.6	12172.303	0	0	28	1000	10.7	0.011	40	1	2.732	0
1	5	780	774.6	54.5	12983.046	0	0	28	1000	10.68	0.011	41	1	2.727	0
1	5	790	774.6	55.5	13795.817	0	0	28	1000	10.86	0.011	42	1	2.7737	0
1	5	800	774.6	54.9	14606.156	0	0	28	1000	10.75	0.011	43	1	2.744	0
1	6	820	774.6	54.3	16245.892	0	0	28	1000	10.64	0.011	44	1	2.7168	0
1	6	840	697.1	46.2	17708.35	0	0	28	900	9.043	0.01	45	1	2.3094	0
1	6	860	619.7	38.8	19006.835	0	0	28	800	7.595	0.009	46	1	1.9395	0
1	6	880	542.2	33.1	20143.456	0	0	28	700	6.479	0.009	47	1	1.6546	0
1	6	900	464.8	25.4	21118.13	0	0	28	600	4.972	0.008	48	1	1.2697	0
1	6	920	387.3	19	21931.188	0	0	28	500	3.722	0.007	49	1	0.9506	0
1	6	940	309.8	13.4	22581.741	0	0	28	400	2.63	0.007	50	1	0.6717	0
1	6	960	232.4	8.27	23069.344	0	0	28	300	1.618	0.005	51	1	0.4133	0
1	6	980	154.9	3.49	23395.129	0	0	28	200	0.683	0.003	52	1	0.1744	0
1	6	1000	77.46	1.1	23558.613	0	0	28	100	0.214	0.002	53	1	0.0548	0
1	7	1020	69.71	1.03	23705.71	0	0	28	90	0.202	0.002	54	1	0.0515	0
1	7	1040	61.97	0	23835.574	0	0	28	80	0	0	55	1	0	0
1	7	1060	54.22	0	23949.245	0	0	28	70	0	0	56	1	0	0
1	7	1080	46.48	0	24046.797	0	0	28	60.01	0	0	57	1	0	0
1	7	1100	38.73	0	24128.01	0	0	28	50	0	0	58	1	0	0
1	7	1120	30.99	0	24193.034	0	0	28	40.01	0	0	59	1	0	0
1	7	1140	23.24	0	24241.833	0	0	28	30	0	0	60	1	0	0
1	7	1160	15.5	0	24274.391	0	0	28	20.01	0	0	61	1	0	0
1	7	1180	7.75	0	24290.719	0	0	28	10.01	0	0	62	1	0	0
1	8	1200	6.97	0	24305.43	0	0	28	9	0	0	63	1	0	0
1	8	1220	6.2	0	24318.418	0	0	28	8	0	0	64	1	0	0
1	8	1240	5.42	0	24329.772	0	0	28	7	0	0	65	1	0	0
1	8	1260	4.64	0	24339.517	0	0	28	5.99	0	0	66	1	0	0
1	8	1280	3.87	0	24347.629	0	0	28	5	0	0	67	1	0	0
1	8	1300	3.09	0	24354.123	0	0	28	3.99	0	0	68	1	0	0
1	8	1320	2.32	0	24358.993	0	0	28	3	0	0	69	1	0	0
1	8	1340	1.54	0	24362.239	0	0	28	1.99	0	0	70	1	0	0
1	8	1360	0.77	0	24363.864	0	0	28	0.99	0	0	71	1	0	0
1	9	1380	0.7	0	24365.339	18.184	0	28	0.9	0	0	72	1	0	0
1	9	1400	0.62	0	24366.643	34.266	0	28	0.8	0	0	73	1	0	0

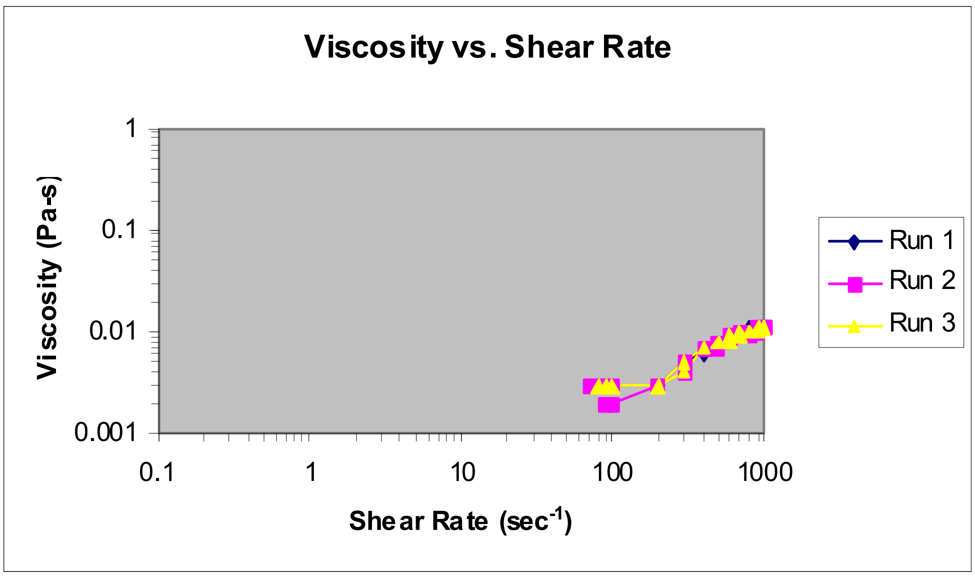
1	9	1420	0.55	0	24367.786	48.354	0	28	0.71	0	0	74	1	0	0
1	9	1440	0.47	0	24368.766	60.438	0	28	0.61	0	0	75	1	0	0
1	9	1460	0.39	0	24369.584	70.518	0	28	0.5	0	0	76	1	0	0
1	9	1480	0.31	0	24370.24	78.603	0	28	0.4	0	0	77	1	0	0
1	9	1500	0.24	0	24370.733	84.683	0	28	0.31	0	0	78	1	0	0
1	9	1520	0.16	0	24371.064	88.759	0	28	0.21	0	0	79	1	0	0
1	9	1540	0.08	0	24371.233	90.841	0	28	0.1	0	0	80	1	0	0

2004.01.21 187-20 wt%-D [not sonicated] 0.1-1000 s-1
CC-45 run 3.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	0	0.16572	2.043	0	28	0.1	0	0	1	1	0	0
1	1	40	0.16	0	0.49402	6.0903	0	28	0.21	0	0	2	1	0	0
1	1	60	0.24	0	0.98567	12.152	0	28	0.31	0	0	3	1	0	0
1	1	80	0.31	0	1.63991	20.217	0	28	0.4	0	0	4	1	0	0
1	1	100	0.39	0	2.45437	30.258	0	28	0.5	0	0	5	1	0	0
1	1	120	0.47	0	3.43298	42.322	0	28	0.61	0	0	6	1	0	0
1	1	140	0.54	0	4.57416	56.391	0	28	0.7	0	0	7	1	0	0
1	1	160	0.62	0	5.87556	72.435	0	28	0.8	0	0	8	1	0	0
1	1	180	0.7	0	7.3419	90.512	0	28	0.9	0	0	9	1	0	0
1	2	200	0.77	0	8.96532	0	0	28	0.99	0	0	10	1	0	0
1	2	220	1.55	0	12.19016	0	0	28	2	0	0	11	1	0	0
1	2	240	2.32	0	17.03686	0	0	28	3	0	0	12	1	0	0
1	2	260	3.09	0	23.50854	0	0	28	3.99	0	0	13	1	0	0
1	2	280	3.87	0	31.60442	0	0	28	5	0	0	14	1	0	0
1	2	300	4.65	0	41.3253	0	0	28	6	0	0	15	1	0	0
1	2	320	5.42	0	52.67351	0	0	28	7	0	0	16	1	0	0
1	2	340	6.2	0	65.63023	0	0	28	8	0	0	17	1	0	0
1	2	360	6.97	0	80.22135	0	0	28	9	0	0	18	1	0	0
1	3	380	7.75	0	96.58748	0	0	28	10.01	0	0	19	1	0	0
1	3	400	15.5	0	128.93175	0	0	28	20.01	0	0	20	1	0	0
1	3	420	23.24	0	177.47956	0	0	28	30	0	0	21	1	0	0
1	3	440	30.99	0	242.22936	0	0	28	40.01	0	0	22	1	0	0
1	3	460	38.73	0	323.33743	0	0	28	50	0	0	23	1	0	0
1	3	480	46.48	0	420.48333	0	0	28	60.01	0	0	24	1	0	0
1	3	500	54.22	0	534.00949	0	0	28	70	0	0	25	1	0	0
1	3	520	61.96	1.08	663.54207	0	0	28	79.99	0.212	0.003	26	1	0.0541	0
1	3	540	69.71	1.32	809.53502	0	0	28	90	0.258	0.003	27	1	0.066	0
1	4	560	77.46	1.4	973.23556	0	0	28	100	0.273	0.003	28	1	0.0698	0
1	4	580	154.9	3.27	1296.3617	0	0	28	200	0.639	0.003	29	1	0.1633	0
1	4	600	232.4	6.77	1782.1226	0	0	28	300	1.325	0.004	30	1	0.3383	0
1	4	620	309.8	14.4	2429.6669	0	0	28	400	2.82	0.007	31	1	0.7201	0
1	4	640	387.3	19.9	3239.1564	0	0	28	500	3.898	0.008	32	1	0.9953	0
1	4	660	464.8	27.5	4211.239	0	0	28	600	5.381	0.009	33	1	1.3741	0
1	4	680	542.2	34.8	5345.2306	0	0	28	700	6.808	0.01	34	1	1.7386	0
1	4	700	619.7	41.8	6641.4093	0	0	28	800	8.185	0.01	35	1	2.0902	0
1	4	720	697.1	49	8100.9108	0	0	28	900	9.593	0.011	36	1	2.4497	0
1	4	740	774.6	56.9	9723.0887	0	0	28	1000	11.15	0.011	37	1	2.8464	0
1	5	750	774.6	56.3	10551.353	0	0	28	1000	11.02	0.011	38	1	2.8131	0
1	5	760	774.6	55.2	11363.313	0	0	28	1000	10.81	0.011	39	1	2.7605	0
1	5	770	774.6	54.5	12174.868	0	0	28	1000	10.67	0.011	40	1	2.7245	0

1	5	780	774.6	54.1	12983.583	0	0	28	1000	10.58	0.011	41	1	2.7024	0
1	5	790	774.6	54.2	13796.354	0	0	28	1000	10.61	0.011	42	1	2.7104	0
1	5	800	774.6	55.3	14606.286	0	0	28	1000	10.82	0.011	43	1	2.7628	0
1	6	820	774.6	54.2	16246.43	0	0	28	1000	10.62	0.011	44	1	2.7107	0
1	6	840	697.1	46.4	17709.252	0	0	28	900	9.075	0.01	45	1	2.3175	0
1	6	860	619.7	39.2	19008.062	0	0	28	800	7.679	0.01	46	1	1.9611	0
1	6	880	542.2	32.3	20144.642	0	0	28	700	6.326	0.009	47	1	1.6155	0
1	6	900	464.8	25.5	21119.6	0	0	28	600	4.991	0.008	48	1	1.2745	0
1	6	920	387.3	19.5	21931.447	0	0	28	500	3.821	0.008	49	1	0.9758	0
1	6	940	309.8	13.5	22582.006	0	0	28	400	2.634	0.007	50	1	0.6726	0
1	6	960	232.4	8.09	23069.771	0	0	28	300	1.583	0.005	51	1	0.4043	0
1	6	980	154.9	3.44	23395.804	0	0	28	200	0.674	0.003	52	1	0.1721	0
1	6	1000	77.46	0	23559.168	0	0	28	100	0	0	53	1	0	0
1	7	1020	69.71	0	23706.6	0	0	28	90	0	0	54	1	0	0
1	7	1040	61.97	0	23836.46	0	0	28	80	0	0	55	1	0	0
1	7	1060	54.22	0	23950.277	0	0	28	70	0	0	56	1	0	0
1	7	1080	46.48	0	24047.63	0	0	28	60.01	0	0	57	1	0	0
1	7	1100	38.73	0	24128.944	0	0	28	50	0	0	58	1	0	0
1	7	1120	30.99	0	24193.887	0	0	28	40.01	0	0	59	1	0	0
1	7	1140	23.24	0	24242.67	0	0	28	30	0	0	60	1	0	0
1	7	1160	15.5	0	24275.236	0	0	28	20.01	0	0	61	1	0	0
1	7	1180	7.75	0	24291.593	0	0	28	10.01	0	0	62	1	0	0
1	8	1200	6.97	0	24306.29	0	0	28	9	0	0	63	1	0	0
1	8	1220	6.2	0	24319.268	0	0	28	8	0	0	64	1	0	0
1	8	1240	5.42	0	24330.634	0	0	28	7	0	0	65	1	0	0
1	8	1260	4.64	0	24340.375	0	0	28	5.99	0	0	66	1	0	0
1	8	1280	3.87	0	24348.495	0	0	28	5	0	0	67	1	0	0
1	8	1300	3.09	0	24354.986	0	0	28	3.99	0	0	68	1	0	0
1	8	1320	2.32	0	24359.858	0	0	28	3	0	0	69	1	0	0
1	8	1340	1.54	0	24363.103	0	0	28	1.99	0	0	70	1	0	0
1	8	1360	0.77	0	24364.727	0	0	28	0.99	0	0	71	1	0	0
1	9	1380	0.7	0	24366.2	18.164	0	28	0.9	0	0	72	1	0	0
1	9	1400	0.62	0	24367.505	34.247	0	28	0.8	0	0	73	1	0	0
1	9	1420	0.55	0	24368.648	48.335	0	28	0.71	0	0	74	1	0	0
1	9	1440	0.47	0	24369.628	60.419	0	28	0.61	0	0	75	1	0	0
1	9	1460	0.39	0	24370.446	70.498	0	28	0.5	0	0	76	1	0	0
1	9	1480	0.31	0	24371.101	78.583	0	28	0.4	0	0	77	1	0	0
1	9	1500	0.24	0	24371.595	84.664	0	28	0.31	0	0	78	1	0	0
1	9	1520	0.16	0	24371.925	88.74	0	28	0.21	0	0	79	1	0	0
1	9	1540	0.08	0	24372.094	90.822	0	28	0.1	0	0	80	1	0	0





E-2.1.20 187/20wt%/D/S

2004.02.02 187-20 wt%-D [sonicated] CC-45 0.1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	59.57	0.16179	1.99459	0.171	28	0.1	11.664	116.64	1	1	2.97865	5.847818349
1	1	40	0.16	10.48	0.49009	6.04188	2.94438	28	0.21	2.052	9.771	2	1	0.5239	0.339629387
1	1	60	0.24	12.66	0.98018	12.08376	4.87641	28	0.31	2.478	7.994	3	1	0.63285	0.205068621
1	1	80	0.31	15.84	1.63284	20.12992	6.48933	28	0.4	3.102	7.755	4	1	0.79205	0.154098973
1	1	100	0.39	18.17	2.44887	30.19003	8.4875	28	0.5	3.557	7.114	5	1	0.90825	0.117820353
1	1	120	0.47	19.12	3.42669	42.24475	11.28332	28	0.61	3.744	6.138	6	1	0.9561	0.088626397
1	1	140	0.54	18.81	4.56709	56.30374	15.29161	28	0.7	3.682	5.26	7	1	0.94025	0.065395301
1	1	160	0.62	16.02	5.87085	72.37669	23.07194	28	0.8	3.137	3.921	8	1	0.80115	0.043342684
1	1	180	0.7	12.43	7.33719	90.45392	37.16265	28	0.9	2.434	2.704	9	1	0.62165	0.026908729

1	2	200	0.77	11.52	8.96139	0	0	28	0.99	2.255	2.278	10	1	0.57585	0
1	2	220	1.55	18.65	12.18231	0	0	28	2	3.651	1.826	11	1	0.9323	0
1	2	240	2.32	29.11	17.02272	0	0	28	3	5.699	1.9	12	1	1.4553	0
1	2	260	3.09	63.26	23.48262	0	0	28	3.99	12.386	3.104	13	1	3.16295	0
1	2	280	3.87	78.77	31.57301	0	0	28	5	15.423	3.085	14	1	3.93845	0
1	2	300	4.65	66.7	41.30173	0	0	28	6	13.06	2.177	15	1	3.3351	0
1	2	320	5.42	48.15	52.64917	0	0	28	7	9.427	1.347	16	1	2.40725	0
1	2	340	6.2	43.29	65.61766	0	0	28	8	8.476	1.06	17	1	2.16445	0
1	2	360	6.97	41.48	80.19151	0	0	28	9	8.121	0.902	18	1	2.0738	0
1	3	380	7.75	44.54	96.56156	0	0	28	10.01	8.721	0.871	19	1	2.22705	0
1	3	400	15.5	64.22	128.8964	0	0	28	20.01	12.574	0.628	20	1	3.21095	0
1	3	420	23.24	56.89	177.47093	0	0	28	30	11.14	0.371	21	1	2.8447	0
1	3	440	30.99	42.55	242.2702	0	0	28	40.01	8.33	0.208	22	1	2.12725	0
1	3	460	38.73	35.99	323.19213	0	0	28	50	7.047	0.141	23	1	1.79945	0
1	3	480	46.48	35.09	420.46134	0	0	28	60.01	6.871	0.114	24	1	1.75455	0
1	3	500	54.22	33.33	533.90189	0	0	28	70	6.527	0.093	25	1	1.66665	0
1	3	520	61.96	32.63	663.62061	0	0	28	79.99	6.388	0.08	26	1	1.6313	0
1	3	540	69.71	31.52	809.54052	0	0	28	90	6.172	0.069	27	1	1.576	0
1	4	560	77.46	31.37	973.07455	0	0	28	100	6.143	0.061	28	1	1.5687	0
1	4	580	154.92	44.32	1296.76698	0	0	28	200	8.677	0.043	29	1	2.21585	0
1	4	600	232.38	48.61	1781.96162	0	0	28	300	9.517	0.032	30	1	2.43025	0
1	4	620	309.84	52.88	2429.50591	0	0	28	400	10.355	0.026	31	1	2.6442	0
1	4	640	387.3	58.46	3240.01011	0	0	28	500	11.446	0.023	32	1	2.9229	0
1	4	660	464.75	80.51	4210.91382	0	0	28	599.99	15.765	0.026	33	1	4.0257	0
1	4	680	542.21	88.67	5346.64826	0	0	28	699.99	17.361	0.025	34	1	4.43345	0
1	4	700	619.67	105.11	6642.53795	0	0	28	799.99	20.581	0.026	35	1	5.2556	0
1	4	720	697.13	118.73	8100.1749	0	0	28	899.99	23.247	0.026	36	1	5.9365	0
1	4	740	774.59	132.49	9721.09534	0	0	28	1000	25.942	0.026	37	1	6.6245	0
1	5	750	774.59	129.57	10548.55	0	0	28	1000	25.369	0.025	38	1	6.4784	0
1	5	760	774.59	127.91	11360.10428	0	0	28	1000	25.044	0.025	39	1	6.3953	0
1	5	770	774.59	126.53	12172.4683	0	0	28	1000	24.775	0.025	40	1	6.3265	0
1	5	780	774.59	125.35	12983.61653	0	0	28	1000	24.543	0.025	41	1	6.26735	0
1	5	790	774.59	124.27	13793.1437	0	0	28	1000	24.331	0.024	42	1	6.21335	0
1	5	800	774.59	123.26	14605.91691	0	0	28	1000	24.135	0.024	43	1	6.1631	0
1	6	820	774.59	122.25	16247.27734	0	0	28	1000	23.937	0.024	44	1	6.1125	0
1	6	840	697.13	103.21	17709.37142	0	0	28	899.99	20.208	0.022	45	1	5.1604	0
1	6	860	619.67	86.14	19008.54643	0	0	28	799.99	16.867	0.021	46	1	4.30715	0
1	6	880	542.21	70	20145.20921	0	0	28	699.99	13.705	0.02	47	1	3.4998	0
1	6	900	464.75	55.31	21119.88597	0	0	28	599.99	10.829	0.018	48	1	2.7654	0
1	6	920	387.3	40.28	21931.72614	0	0	28	500	7.886	0.016	49	1	2.0139	0
1	6	940	309.84	28.07	22582.7521	0	0	28	400	5.497	0.014	50	1	1.4037	0
1	6	960	232.38	23.54	23070.62259	0	0	28	300	4.61	0.015	51	1	1.17715	0
1	6	980	154.92	19.38	23396.18898	0	0	28	200	3.795	0.019	52	1	0.9692	0
1	6	1000	77.46	15.51	23559.65547	0	0	28	100	3.036	0.03	53	1	0.77525	0
1	7	1020	69.71	16.76	23706.86736	0	0	28	90	3.282	0.036	54	1	0.83815	0
1	7	1040	61.97	16.87	23836.76357	0	0	28	80	3.304	0.041	55	1	0.8436	0
1	7	1060	54.22	16.77	23950.35414	0	0	28	70	3.283	0.047	56	1	0.83825	0
1	7	1080	46.48	16.53	24047.92965	0	0	28	60.01	3.236	0.054	57	1	0.82635	0
1	7	1100	38.73	16.47	24129.1461	0	0	28	50	3.225	0.065	58	1	0.8235	0
1	7	1120	30.99	16.66	24194.14644	0	0	28	40.01	3.261	0.082	59	1	0.8328	0

1	7	1140	23.24	16.65	24242.96208	0	0	28	30	3.26	0.109	60	1	0.8326	0
1	7	1160	15.5	16.51	24275.4917	0	0	28	20.01	3.232	0.162	61	1	0.82525	0
1	7	1180	7.75	16.25	24291.85626	0	0	28	10.01	3.182	0.318	62	1	0.81265	0
1	8	1200	6.97	17.75	24306.56676	0	0	28	9	3.475	0.386	63	1	0.88735	0
1	8	1220	6.2	18.4	24319.55803	0	0	28	8	3.602	0.45	64	1	0.9199	0
1	8	1240	5.42	18.48	24330.90625	0	0	28	7	3.618	0.517	65	1	0.924	0
1	8	1260	4.64	17.88	24340.65147	0	0	28	5.99	3.5	0.584	66	1	0.89375	0
1	8	1280	3.87	17.73	24348.76856	0	0	28	5	3.472	0.694	67	1	0.8865	0
1	8	1300	3.09	17.66	24355.26224	0	0	28	3.99	3.458	0.867	68	1	0.883	0
1	8	1320	2.32	17.74	24360.13092	0	0	28	3	3.473	1.158	69	1	0.88695	0
1	8	1340	1.54	18.03	24363.37697	0	0	28	1.99	3.531	1.774	70	1	0.90165	0
1	8	1360	0.77	18.99	24365.00039	0	0	28	0.99	3.719	3.757	71	1	0.94965	0
1	9	1380	0.7	21.58	24366.47379	18.16437	4.29824	28	0.9	4.226	4.696	72	1	1.07905	0.232653266
1	9	1400	0.62	22.16	24367.77834	34.247	7.89101	28	0.8	4.34	5.425	73	1	1.10815	0.126726429
1	9	1420	0.55	21.97	24368.92109	48.33504	11.23809	28	0.71	4.301	6.058	74	1	1.0984	0.088983065
1	9	1440	0.47	21.71	24369.90127	60.4188	14.21284	27.9	0.61	4.251	6.969	75	1	1.0856	0.070358895
1	9	1460	0.39	20.72	24370.72044	70.51765	17.38172	28	0.5	4.057	8.114	76	1	1.03605	0.057531696
1	9	1480	0.31	18.92	24371.37625	78.60253	21.21525	28	0.4	3.705	9.263	77	1	0.946	0.047135887
1	9	1500	0.24	16.32	24371.87026	84.69283	26.50792	28	0.31	3.195	10.306	78	1	0.8159	0.037724563
1	9	1520	0.16	13.61	24372.20249	88.78852	33.31651	27.9	0.21	2.665	12.69	79	1	0.68055	0.030015142
1	9	1540	0.08	10.79	24372.37135	90.87026	43.00531	27.8	0.1	2.113	21.13	80	1	0.5395	0.023252932

2004.02.02 187-20 wt%-D [sonicated] CC-45 0.1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	10.83	0.16101	1.98491	0.93584	27.8	0.1	2.121	21.21	1	1	0.5416	1.068562303
1	1	40	0.16	13.97	0.48852	6.02251	2.20121	27.8	0.21	2.736	13.029	2	1	0.6987	0.454295634
1	1	60	0.24	16.96	0.97939	12.07408	3.63458	27.8	0.31	3.322	10.716	3	1	0.8482	0.275134834
1	1	80	0.31	19.49	1.63127	20.11055	5.27006	27.9	0.4	3.816	9.54	4	1	0.97455	0.189751151
1	1	100	0.39	21.69	2.4473	30.17067	7.10399	27.9	0.5	4.247	8.494	5	1	1.08455	0.14076585
1	1	120	0.47	23.63	3.42512	42.22538	9.12389	27.9	0.61	4.628	7.587	6	1	1.1817	0.109602329
1	1	140	0.54	25	4.56473	56.27469	11.49636	27.9	0.7	4.895	6.993	7	1	1.25005	0.086984042
1	1	160	0.62	25.6	5.86692	72.32827	14.43102	27.9	0.8	5.012	6.265	8	1	1.27985	0.069295173
1	1	180	0.7	27.01	7.33012	90.36677	17.08902	27.9	0.9	5.288	5.876	9	1	1.35025	0.058517085
1	2	200	0.77	30.51	8.95354	0	0	28	0.99	5.973	6.033	10	1	1.52525	0
1	2	220	1.55	41.41	12.17681	0	0	28	2	8.109	4.055	11	1	2.07065	0
1	2	240	2.32	31.95	17.02665	0	0	28	3	6.256	2.085	12	1	1.5975	0
1	2	260	3.09	24.25	23.50225	0	0	28	3.99	4.748	1.19	13	1	1.2125	0
1	2	280	3.87	24.04	31.59578	0	0	28	5	4.708	0.942	14	1	1.2022	0
1	2	300	4.65	25.79	41.30723	0	0	28	6	5.05	0.842	15	1	1.28955	0
1	2	320	5.42	28.03	52.65938	0	0	28	7	5.488	0.784	16	1	1.4014	0
1	2	340	6.2	30.85	65.61687	0	0	28	8	6.041	0.755	17	1	1.5427	0
1	2	360	6.97	32.78	80.20329	0	0	28	9	6.419	0.713	18	1	1.63915	0
1	3	380	7.75	33.79	96.58198	0	0	28	10.01	6.616	0.661	19	1	1.6895	0
1	3	400	15.5	44.15	128.91683	0	0	28	20.01	8.645	0.432	20	1	2.2075	0
1	3	420	23.24	41.01	177.47328	0	0	28	30	8.029	0.268	21	1	2.0503	0
1	3	440	30.99	38.56	242.2058	0	0	28	40.01	7.551	0.189	22	1	1.9282	0
1	3	460	38.73	37.45	323.22904	0	0	28	50	7.332	0.147	23	1	1.8723	0
1	3	480	46.48	37.44	420.47312	0	0	28	60.01	7.33	0.122	24	1	1.8719	0
1	3	500	54.22	37.55	533.96708	0	0	28	70	7.351	0.105	25	1	1.87725	0
1	3	520	61.96	36.55	663.56013	0	0	28	79.99	7.157	0.089	26	1	1.8277	0

1	3	540	69.71	34.69	809.40307	0	0	28	90	6.792	0.075	27	1	1.73435	0
1	4	560	77.46	33.5	973.01408	0	0	28	100	6.56	0.066	28	1	1.67515	0
1	4	580	154.92	43.2	1296.62718	0	0	28	200	8.459	0.042	29	1	2.1601	0
1	4	600	232.38	38.88	1781.94434	0	0	28	300	7.613	0.025	30	1	1.9442	0
1	4	620	309.84	38	2429.44858	0	0	28	400	7.441	0.019	31	1	1.90005	0
1	4	640	387.3	51.88	3239.78706	0	0	28	500	10.158	0.02	32	1	2.5941	0
1	4	660	464.75	72.48	4211.1785	0	0	28	599.99	14.191	0.024	33	1	3.6239	0
1	4	680	542.21	83.55	5345.45524	0	0	28	699.99	16.359	0.023	34	1	4.17735	0
1	4	700	619.67	93.37	6642.60236	0	0	28	799.99	18.281	0.023	35	1	4.66835	0
1	4	720	697.13	109.47	8099.87331	0	0	28	899.99	21.434	0.024	36	1	5.47335	0
1	4	740	774.59	125.49	9722.45486	0	0	28	1000	24.57	0.025	37	1	6.2743	0
1	5	750	774.59	122.97	10551.93507	0	0	28	1000	24.078	0.024	38	1	6.14855	0
1	5	760	774.59	121.77	11361.46223	0	0	28	1000	23.843	0.024	39	1	6.08865	0
1	5	770	774.59	120.9	12173.42335	0	0	28	1000	23.672	0.024	40	1	6.04495	0
1	5	780	774.59	120.21	12982.94894	0	0	28	1000	23.536	0.024	41	1	6.01025	0
1	5	790	774.59	119.43	13796.12899	0	0	28	1000	23.384	0.023	42	1	5.9714	0
1	5	800	774.59	119.09	14606.05985	0	0	28	1000	23.317	0.023	43	1	5.9543	0
1	6	820	774.59	118.44	16246.20291	0	0	28	1000	23.191	0.023	44	1	5.9222	0
1	6	840	697.13	100.75	17709.02741	0	0	28	899.99	19.728	0.022	45	1	5.0377	0
1	6	860	619.67	84.64	19008.52758	0	0	28	799.99	16.573	0.021	46	1	4.23215	0
1	6	880	542.21	69.17	20144.05467	0	0	28	699.99	13.543	0.019	47	1	3.45845	0
1	6	900	464.75	54.58	21118.97412	0	0	28	599.99	10.687	0.018	48	1	2.72905	0
1	6	920	387.3	38.86	21931.21955	0	0	28	500	7.609	0.015	49	1	1.9431	0
1	6	940	309.84	26.39	22581.59756	0	0	28	400	5.168	0.013	50	1	1.31965	0
1	6	960	232.38	20.96	23069.83405	0	0	28	300	4.104	0.014	51	1	1.0481	0
1	6	980	154.92	16.92	23395.56694	0	0	28	200	3.314	0.017	52	1	0.84615	0
1	6	1000	77.46	13.46	23559.11668	0	0	28	100	2.636	0.026	53	1	0.67315	0
1	7	1020	69.71	15.33	23706.64823	0	0	28	90	3.002	0.033	54	1	0.7667	0
1	7	1040	61.97	15.24	23836.58136	0	0	28	80	2.984	0.037	55	1	0.7619	0
1	7	1060	54.22	15	23950.2002	0	0	28	70	2.936	0.042	56	1	0.74975	0
1	7	1080	46.48	14.9	24047.60921	0	0	28	60.01	2.916	0.049	57	1	0.74475	0
1	7	1100	38.73	14.76	24128.88378	0	0	28	50	2.89	0.058	58	1	0.73795	0
1	7	1120	30.99	15.08	24193.91161	0	0	28	40.01	2.952	0.074	59	1	0.75375	0
1	7	1140	23.24	15.07	24242.66127	0	0	28	30	2.95	0.098	60	1	0.75325	0
1	7	1160	15.5	14.88	24275.23959	0	0	28	20.01	2.913	0.146	61	1	0.7439	0
1	7	1180	7.75	14.66	24291.58058	0	0	28	10.01	2.87	0.287	62	1	0.73295	0
1	8	1200	6.97	16.01	24306.28952	0	0	28	9	3.135	0.348	63	1	0.8005	0
1	8	1220	6.2	16.61	24319.28157	0	0	28	8	3.253	0.407	64	1	0.83065	0
1	8	1240	5.42	16.94	24330.63922	0	0	28	7	3.316	0.474	65	1	0.8468	0
1	8	1260	4.64	16.67	24340.38051	0	0	28	5.99	3.265	0.545	66	1	0.8337	0
1	8	1280	3.87	16.18	24348.49367	0	0	28	5	3.167	0.633	67	1	0.80885	0
1	8	1300	3.09	16.17	24354.99127	0	0	28	3.99	3.167	0.794	68	1	0.8087	0
1	8	1320	2.32	16.56	24359.8576	0	0	28	3	3.242	1.081	69	1	0.82785	0
1	8	1340	1.54	16.46	24363.10365	0	0	28	1.99	3.222	1.619	70	1	0.82285	0
1	8	1360	0.77	17.66	24364.72707	0	0	28	0.99	3.458	3.493	71	1	0.88305	0
1	9	1380	0.7	20.25	24366.20205	18.18373	4.58722	28	0.9	3.964	4.404	72	1	1.01225	0.217997078
1	9	1400	0.62	21.01	24367.50581	34.25668	8.32685	28	0.8	4.114	5.142	73	1	1.05065	0.120093366
1	9	1420	0.55	20.87	24368.64778	48.33504	11.82942	28	0.71	4.086	5.755	74	1	1.0433	0.084534946
1	9	1440	0.47	20.75	24369.62874	60.42848	14.87287	28	0.61	4.063	6.661	75	1	1.03755	0.067236508
1	9	1460	0.39	20.36	24370.44634	70.50796	17.68446	28	0.5	3.987	7.974	76	1	1.01825	0.056546807

1	9	1480	0.31	18.93	24371.10293	78.60253	21.20953	28	0.4	3.706	9.265	77	1	0.9465	0.04714861
1	9	1500	0.24	16.29	24371.59695	84.69283	26.55779	28	0.31	3.189	10.287	78	1	0.81445	0.037653719
1	9	1520	0.16	13.39	24371.92917	88.78853	33.86289	28	0.21	2.622	12.486	79	1	0.6696	0.029530841
1	9	1540	0.08	10.45	24372.09882	90.87995	44.44005	28	0.1	2.045	20.45	80	1	0.52225	0.022502213

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	10.16	0.16179	1.99459	1.00231	28	0.1	1.99	19.9	1	1	0.50805	0.997698775
1	1	40	0.16	13.39	0.4893	6.0322	2.30149	28	0.21	2.621	12.481	2	1	0.6693	0.434501509
1	1	60	0.24	16.31	0.97939	12.07408	3.78142	28	0.31	3.193	10.3	3	1	0.8154	0.26445079
1	1	80	0.31	18.87	1.63206	20.12023	5.44526	28	0.4	3.695	9.237	4	1	0.9435	0.183646012
1	1	100	0.39	21.19	2.4473	30.17067	7.27179	28	0.5	4.149	8.298	5	1	1.0595	0.137517662
1	1	120	0.47	23.12	3.42355	42.20602	9.32317	28	0.61	4.527	7.421	6	1	1.15615	0.107259581
1	1	140	0.54	24.48	4.56395	56.26501	11.73655	28	0.7	4.794	6.849	7	1	1.2242	0.08520393
1	1	160	0.62	25.13	5.86692	72.32827	14.69788	28	0.8	4.921	6.151	8	1	1.2566	0.068037021
1	1	180	0.7	26.98	7.33091	90.37646	17.11027	28	0.9	5.282	5.869	9	1	1.34895	0.058444422
1	2	200	0.77	31.22	8.95275	0	0	28	0.99	6.113	6.175	10	1	1.56095	0
1	2	220	1.55	42.89	12.17289	0	0	28	2	8.398	4.199	11	1	2.1446	0
1	2	240	2.32	32.49	17.02979	0	0	28	3	6.362	2.121	12	1	1.6246	0
1	2	260	3.09	23.33	23.50225	0	0	28	3.99	4.567	1.145	13	1	1.1663	0
1	2	280	3.87	22.06	31.59657	0	0	28	5	4.319	0.864	14	1	1.10295	0
1	2	300	4.65	23.46	41.30802	0	0	28	6	4.594	0.766	15	1	1.17315	0
1	2	320	5.42	25.24	52.64917	0	0	28	7	4.942	0.706	16	1	1.2621	0
1	2	340	6.2	27.75	65.62866	0	0	28	8	5.434	0.679	17	1	1.3876	0
1	2	360	6.97	29.68	80.20408	0	0	28	9	5.81	0.646	18	1	1.48375	0
1	3	380	7.75	30.53	96.57413	0	0	28	10.01	5.978	0.597	19	1	1.52645	0
1	3	400	15.5	40.66	128.90112	0	0	28	20.01	7.962	0.398	20	1	2.0331	0
1	3	420	23.24	41.05	177.4615	0	0	28	30	8.037	0.268	21	1	2.05225	0
1	3	440	30.99	40.08	242.25921	0	0	28	40.01	7.847	0.196	22	1	2.00395	0
1	3	460	38.73	38.48	323.22512	0	0	28	50	7.533	0.151	23	1	1.92375	0
1	3	480	46.48	38.72	420.44484	0	0	28	60.01	7.581	0.126	24	1	1.93595	0
1	3	500	54.22	37.72	533.9388	0	0	28	70	7.386	0.106	25	1	1.8861	0
1	3	520	61.96	36.07	663.69522	0	0	28	79.99	7.063	0.088	26	1	1.80355	0
1	3	540	69.71	34.01	809.46905	0	0	28	90	6.659	0.074	27	1	1.70045	0
1	4	560	77.46	32.22	973.03999	0	0	28	100	6.308	0.063	28	1	1.61075	0
1	4	580	154.92	41.42	1296.65231	0	0	28	200	8.11	0.041	29	1	2.0711	0
1	4	600	232.38	37.29	1782.09042	0	0	28	300	7.301	0.024	30	1	1.86445	0
1	4	620	309.84	35.57	2429.87819	0	0	28	400	6.965	0.017	31	1	1.7785	0
1	4	640	387.3	46.99	3239.36609	0	0	28	500	9.201	0.018	32	1	2.3496	0
1	4	660	464.75	70.22	4210.71747	0	0	28	599.99	13.748	0.023	33	1	3.51085	0
1	4	680	542.21	78.35	5346.12833	0	0	28	699.99	15.34	0.022	34	1	3.9173	0
1	4	700	619.67	88.85	6641.33158	0	0	28	799.99	17.398	0.022	35	1	4.4427	0
1	4	720	697.13	103.01	8100.46628	0	0	28	899.99	20.17	0.022	36	1	5.15065	0
1	4	740	774.59	120.01	9720.97988	0	0	28	1000	23.498	0.023	37	1	6.00045	0
1	5	750	774.59	117.78	10549.24665	0	0	28	1000	23.062	0.023	38	1	5.88905	0
1	5	760	774.59	116.86	11359.17829	0	0	28	1000	22.882	0.023	39	1	5.84315	0
1	5	770	774.59	116.2	12172.7589	0	0	28	1000	22.753	0.023	40	1	5.8102	0
1	5	780	774.59	115.54	12983.0966	0	0	28	1000	22.624	0.023	41	1	5.7772	0
1	5	790	774.59	115.09	13793.83956	0	0	28	1000	22.534	0.023	42	1	5.7543	0
1	5	800	774.59	114.61	14604.58252	0	0	28	1000	22.441	0.022	43	1	5.73065	0

1	6	820	774.59	114.03	16246.75583	0	0	28	1000	22.327	0.022	44	1	5.70145	0
1	6	840	697.13	97.08	17707.71266	0	0	28	899.99	19.008	0.021	45	1	4.85395	0
1	6	860	619.67	81.48	19006.84997	0	0	28	799.99	15.953	0.02	46	1	4.0738	0
1	6	880	542.21	66.6	20143.22922	0	0	28	699.99	13.04	0.019	47	1	3.32985	0
1	6	900	464.75	52.52	21117.90441	0	0	28	599.99	10.284	0.017	48	1	2.62615	0
1	6	920	387.3	38.4	21931.16379	0	0	28	500	7.519	0.015	49	1	1.92	0
1	6	940	309.84	26.62	22581.33917	0	0	28	400	5.212	0.013	50	1	1.33095	0
1	6	960	232.38	20.12	23068.80675	0	0	28	300	3.94	0.013	51	1	1.0062	0
1	6	980	154.92	16.03	23394.54042	0	0	28	200	3.138	0.016	52	1	0.80135	0
1	6	1000	77.46	12.67	23558.01006	0	0	28	100	2.481	0.025	53	1	0.6335	0
1	7	1020	69.71	14.81	23705.43086	0	0	28	90	2.899	0.032	54	1	0.74025	0
1	7	1040	61.97	14.82	23835.29566	0	0	28	80	2.902	0.036	55	1	0.741	0
1	7	1060	54.22	14.53	23949.11714	0	0	28	70	2.846	0.041	56	1	0.72665	0
1	7	1080	46.48	14.33	24046.49787	0	0	28	60.01	2.805	0.047	57	1	0.7164	0
1	7	1100	38.73	14.24	24127.71511	0	0	28	50	2.789	0.056	58	1	0.71215	0
1	7	1120	30.99	14.55	24192.73115	0	0	28	40.01	2.848	0.071	59	1	0.72725	0
1	7	1140	23.24	14.61	24241.54208	0	0	28	30	2.861	0.095	60	1	0.7305	0
1	7	1160	15.5	14.3	24274.12511	0	0	28	20.01	2.801	0.14	61	1	0.7152	0
1	7	1180	7.75	14.04	24290.46924	0	0	28	10.01	2.749	0.275	62	1	0.7021	0
1	8	1200	6.97	15.41	24305.17347	0	0	28	9	3.018	0.335	63	1	0.7706	0
1	8	1220	6.2	15.98	24318.16552	0	0	28	8	3.129	0.391	64	1	0.79915	0
1	8	1240	5.42	16.24	24329.53181	0	0	28	7	3.18	0.454	65	1	0.81205	0
1	8	1260	4.64	16.09	24339.25896	0	0	28	5.99	3.149	0.526	66	1	0.80425	0
1	8	1280	3.87	15.59	24347.37919	0	0	28	5	3.053	0.611	67	1	0.77955	0
1	8	1300	3.09	15.6	24353.87287	0	0	28	3.99	3.054	0.765	68	1	0.78	0
1	8	1320	2.32	15.78	24358.73919	0	0	28	3	3.09	1.03	69	1	0.7891	0
1	8	1340	1.54	15.83	24361.9876	0	0	28	1.99	3.1	1.558	70	1	0.7915	0
1	8	1360	0.77	16.82	24363.61102	0	0	28	0.99	3.294	3.327	71	1	0.84115	0
1	9	1380	0.7	19.12	24365.08521	18.17405	4.85548	28	0.9	3.743	4.159	72	1	0.95585	0.205952993
1	9	1400	0.62	19.82	24366.38897	34.247	8.82427	28	0.8	3.881	4.851	73	1	0.99095	0.113323795
1	9	1420	0.55	19.25	24367.53173	48.33504	12.82096	28	0.71	3.77	5.31	74	1	0.96265	0.077997246
1	9	1440	0.47	18.52	24368.51269	60.42848	16.66532	28	0.61	3.626	5.944	75	1	0.92595	0.060004819
1	9	1460	0.39	17.92	24369.33029	70.50797	20.09346	28	0.5	3.509	7.018	76	1	0.896	0.049767423
1	9	1480	0.31	16.96	24369.98609	78.59285	23.66541	28	0.4	3.321	8.303	77	1	0.84815	0.042255752
1	9	1500	0.24	14.81	24370.48011	84.68315	29.20108	28	0.31	2.9	9.355	78	1	0.74065	0.034245301
1	9	1520	0.16	12.3	24370.81233	88.77884	36.85297	28	0.21	2.409	11.471	79	1	0.61505	0.027134844
1	9	1540	0.08	9.05	24370.98198	90.87026	51.31011	28	0.1	1.771	17.71	80	1	0.4523	0.019489325

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	9.77	0.16179	1.99459	1.04265	28	0.1	1.913	19.13	1	1	0.4886	0.95909435
1	1	40	0.16	12.48	0.4893	6.0322	2.46918	28	0.21	2.443	11.633	2	1	0.62395	0.404993203
1	1	60	0.24	15.15	0.97939	12.07408	4.07083	28	0.31	2.966	9.568	3	1	0.75745	0.245650186
1	1	80	0.31	18	1.63206	20.12023	5.70787	28	0.4	3.525	8.813	4	1	0.90015	0.175196804
1	1	100	0.39	20.3	2.4473	30.17067	7.59201	28	0.5	3.974	7.948	5	1	1.01475	0.131717327
1	1	120	0.47	21.95	3.42512	42.22538	9.82671	28	0.61	4.297	7.044	6	1	1.0974	0.101763442
1	1	140	0.54	22.79	4.56552	56.28437	12.61133	28	0.7	4.463	6.376	7	1	1.13965	0.079293772
1	1	160	0.62	23.15	5.86771	72.33796	15.96159	28	0.8	4.532	5.665	8	1	1.15725	0.062650371
1	1	180	0.7	23.96	7.33169	90.38614	19.26799	28	0.9	4.691	5.212	9	1	1.19785	0.05189955
1	2	200	0.77	27.07	8.95511	0	0	28	0.99	5.3	5.354	10	1	1.35345	0

1	2	220	1.55	38.21	12.17603	0	0	28	2	7.481	3.741	11	1	1.91025	0
1	2	240	2.32	30.04	17.02822	0	0	28	3	5.882	1.961	12	1	1.5021	0
1	2	260	3.09	23.24	23.50304	0	0	28	3.99	4.551	1.141	13	1	1.1622	0
1	2	280	3.87	22.43	31.59735	0	0	28	5	4.393	0.879	14	1	1.1217	0
1	2	300	4.65	24.13	41.3088	0	0	28	6	4.724	0.787	15	1	1.2064	0
1	2	320	5.42	26.34	52.65466	0	0	28	7	5.157	0.737	16	1	1.31685	0
1	2	340	6.2	29.13	65.62394	0	0	28	8	5.703	0.713	17	1	1.45625	0
1	2	360	6.97	31	80.19701	0	0	28	9	6.07	0.674	18	1	1.55	0
1	3	380	7.75	31.88	96.55449	0	0	28	10.01	6.242	0.624	19	1	1.5939	0
1	3	400	15.5	41.54	128.89326	0	0	28	20.01	8.134	0.406	20	1	2.07715	0
1	3	420	23.24	41.51	177.44972	0	0	28	30	8.128	0.271	21	1	2.07555	0
1	3	440	30.99	39.37	242.25999	0	0	28	40.01	7.709	0.193	22	1	1.9686	0
1	3	460	38.73	36.97	323.2424	0	0	28	50	7.239	0.145	23	1	1.8486	0
1	3	480	46.48	36.06	420.46291	0	0	28	60.01	7.06	0.118	24	1	1.8029	0
1	3	500	54.22	35.23	533.87597	0	0	28	70	6.898	0.099	25	1	1.7615	0
1	3	520	61.96	34.67	663.5939	0	0	28	79.99	6.788	0.085	26	1	1.7335	0
1	3	540	69.71	33.16	809.58214	0	0	28	90	6.492	0.072	27	1	1.65785	0
1	4	560	77.46	31.84	973.19393	0	0	28	100	6.235	0.062	28	1	1.5921	0
1	4	580	154.92	42.07	1296.48267	0	0	28	200	8.237	0.041	29	1	2.1033	0
1	4	600	232.38	36.78	1782.40772	0	0	28	300	7.201	0.024	30	1	1.8389	0
1	4	620	309.84	36.14	2429.9528	0	0	28	400	7.075	0.018	31	1	1.8068	0
1	4	640	387.3	52.05	3239.68182	0	0	28	500	10.192	0.02	32	1	2.6026	0
1	4	660	464.75	69.71	4211.76441	0	0	28	599.99	13.649	0.023	33	1	3.48535	0
1	4	680	542.21	77.71	5346.03958	0	0	28	699.99	15.215	0.022	34	1	3.8853	0
1	4	700	619.67	89.05	6642.256	0	0	28	799.99	17.435	0.022	35	1	4.4523	0
1	4	720	697.13	106.05	8100.98543	0	0	28	899.99	20.764	0.023	36	1	5.30235	0
1	4	740	774.59	121.57	9721.09534	0	0	28	1000	23.803	0.024	37	1	6.07845	0
1	5	750	774.59	119.32	10548.54921	0	0	28	1000	23.363	0.023	38	1	5.966	0
1	5	760	774.59	118.36	11360.91481	0	0	28	1000	23.174	0.023	39	1	5.9179	0
1	5	770	774.59	117.73	12173.27805	0	0	28	1000	23.052	0.023	40	1	5.8867	0
1	5	780	774.59	117.07	12982.80443	0	0	28	1000	22.923	0.023	41	1	5.8537	0
1	5	790	774.59	116.52	13793.54818	0	0	28	1000	22.814	0.023	42	1	5.82585	0
1	5	800	774.59	116.09	14606.72587	0	0	28	1000	22.73	0.023	43	1	5.80435	0
1	6	820	774.59	115.57	16248.49235	0	0	28	1000	22.629	0.023	44	1	5.7785	0
1	6	840	697.13	98.34	17709.85679	0	0	28	899.99	19.256	0.021	45	1	4.91715	0
1	6	860	619.67	82.74	19009.31533	0	0	28	799.99	16.2	0.02	46	1	4.13695	0
1	6	880	542.21	67.76	20146.50511	0	0	28	699.99	13.268	0.019	47	1	3.38805	0
1	6	900	464.75	53.5	21121.18266	0	0	28	599.99	10.475	0.017	48	1	2.67485	0
1	6	920	387.3	38.65	21933.46815	0	0	28	500	7.568	0.015	49	1	1.93255	0
1	6	940	309.84	26.72	22583.64274	0	0	28	400	5.231	0.013	50	1	1.33585	0
1	6	960	232.38	19.52	23071.63418	0	0	28	300	3.822	0.013	51	1	0.9761	0
1	6	980	154.92	15.67	23397.40948	0	0	28	200	3.068	0.015	52	1	0.78345	0
1	6	1000	77.46	12.33	23560.79744	0	0	28	100	2.414	0.024	53	1	0.61645	0
1	7	1020	69.71	14.48	23707.93471	0	0	28	90	2.836	0.032	54	1	0.72415	0
1	7	1040	61.97	14.47	23837.92832	0	0	28	80	2.833	0.035	55	1	0.72345	0
1	7	1060	54.22	14.2	23951.52281	0	0	28	70	2.78	0.04	56	1	0.71	0
1	7	1080	46.48	13.99	24049.07869	0	0	28	60.01	2.739	0.046	57	1	0.69945	0
1	7	1100	38.73	13.92	24130.27551	0	0	28	50	2.725	0.055	58	1	0.6958	0
1	7	1120	30.99	14.13	24195.25464	0	0	28	40.01	2.767	0.069	59	1	0.70655	0
1	7	1140	23.24	14.24	24244.07813	0	0	28	30	2.789	0.093	60	1	0.7122	0

1	7	1160	15.5	13.9	24276.62346	0	0	28	20.01	2.722	0.136	61	1	0.6952	0
1	7	1180	7.75	13.62	24292.96445	0	0	28	10.01	2.667	0.266	62	1	0.6811	0
1	8	1200	6.97	15	24307.66789	0	0	28	9	2.936	0.326	63	1	0.74975	0
1	8	1220	6.2	15.59	24320.66309	0	0	28	8	3.052	0.382	64	1	0.77945	0
1	8	1240	5.42	15.94	24332.02073	0	0	28	7	3.121	0.446	65	1	0.79695	0
1	8	1260	4.64	15.94	24341.75731	0	0	28	5.99	3.12	0.521	66	1	0.79685	0
1	8	1280	3.87	15.43	24349.8744	0	0	28	5	3.022	0.604	67	1	0.77165	0
1	8	1300	3.09	15.45	24356.372	0	0	28	3.99	3.025	0.758	68	1	0.7725	0
1	8	1320	2.32	15.73	24361.23912	0	0	28	3	3.079	1.026	69	1	0.7863	0
1	8	1340	1.54	15.68	24364.48517	0	0	28	1.99	3.07	1.543	70	1	0.78405	0
1	8	1360	0.77	16.79	24366.10937	0	0	28	0.99	3.287	3.32	71	1	0.83925	0
1	9	1380	0.7	19.19	24367.58435	18.18373	4.83996	28	0.9	3.757	4.174	72	1	0.9594	0.206613275
1	9	1400	0.62	19.78	24368.88889	34.26637	8.8475	28	0.8	3.873	4.841	73	1	0.989	0.11302627
1	9	1420	0.55	19.31	24370.03165	48.3544	12.7854	28	0.71	3.782	5.327	74	1	0.9657	0.078214185
1	9	1440	0.47	18.79	24371.01104	60.42848	16.42524	28	0.61	3.679	6.031	75	1	0.9395	0.060881889
1	9	1460	0.39	18.19	24371.83021	70.52733	19.79992	28	0.5	3.562	7.124	76	1	0.9096	0.050505244
1	9	1480	0.31	17.45	24372.48602	78.61222	23.0062	28	0.4	3.417	8.542	77	1	0.8726	0.043466525
1	9	1500	0.24	16.29	24372.97925	84.69283	26.54947	28	0.31	3.19	10.29	78	1	0.8146	0.037665526
1	9	1520	0.16	13.84	24373.31068	88.77884	32.7718	28	0.21	2.709	12.9	79	1	0.6918	0.030514028
1	9	1540	0.08	10.39	24373.48112	90.87995	44.65843	28	0.1	2.035	20.35	80	1	0.51955	0.022392178

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	10.89	0.16179	1.99459	0.93555	28	0.1	2.132	21.32	1	1	0.54455	1.068891351
1	1	40	0.16	13.34	0.4893	6.0322	2.30942	28	0.21	2.612	12.438	2	1	0.66695	0.433009516
1	1	60	0.24	16.49	0.97939	12.07408	3.74042	28	0.31	3.228	10.413	3	1	0.8243	0.267349562
1	1	80	0.31	19.83	1.63127	20.11055	5.18046	28	0.4	3.882	9.705	4	1	0.9913	0.19303301
1	1	100	0.39	22.64	2.4473	30.17067	6.80592	28	0.5	4.433	8.866	5	1	1.1321	0.146930777
1	1	120	0.47	24.51	3.42434	42.2157	8.79677	28	0.61	4.799	7.867	6	1	1.2254	0.113678087
1	1	140	0.54	25.31	4.56473	56.27469	11.35486	28	0.7	4.956	7.08	7	1	1.26555	0.088068011
1	1	160	0.62	25.72	5.86614	72.31859	14.36317	28	0.8	5.035	6.294	8	1	1.2858	0.069622486
1	1	180	0.7	27.23	7.33091	90.37646	16.94982	28	0.9	5.332	5.924	9	1	1.36165	0.058997664
1	2	200	0.77	32.23	8.95118	0	0	28	0.99	6.311	6.375	10	1	1.6115	0
1	2	220	1.55	45.72	12.17367	0	0	28	2	8.952	4.476	11	1	2.2861	0
1	2	240	2.32	35.46	17.03057	0	0	28	3	6.942	2.314	12	1	1.77275	0
1	2	260	3.09	25.88	23.50304	0	0	28	3.99	5.067	1.27	13	1	1.29385	0
1	2	280	3.87	24.68	31.59814	0	0	28	5	4.832	0.966	14	1	1.2338	0
1	2	300	4.65	26.39	41.30959	0	0	28	6	5.166	0.861	15	1	1.3193	0
1	2	320	5.42	29.27	52.65231	0	0	28	7	5.73	0.819	16	1	1.4633	0
1	2	340	6.2	32.55	65.62473	0	0	28	8	6.373	0.797	17	1	1.6275	0
1	2	360	6.97	33.9	80.20722	0	0	28	9	6.638	0.738	18	1	1.69515	0
1	3	380	7.75	33.64	96.56549	0	0	28	10.01	6.587	0.658	19	1	1.68205	0
1	3	400	15.5	43.74	128.9129	0	0	28	20.01	8.565	0.428	20	1	2.18715	0
1	3	420	23.24	44.38	177.5102	0	0	28	30	8.689	0.29	21	1	2.2189	0
1	3	440	30.99	41.84	242.29141	0	0	28	40.01	8.192	0.205	22	1	2.09205	0
1	3	460	38.73	39.92	323.2746	0	0	28	50	7.817	0.156	23	1	1.99625	0
1	3	480	46.48	38.17	420.54302	0	0	28	60.01	7.473	0.125	24	1	1.90835	0
1	3	500	54.22	37.17	533.91838	0	0	28	70	7.278	0.104	25	1	1.8586	0
1	3	520	61.96	35.37	663.64181	0	0	28	79.99	6.926	0.087	26	1	1.76865	0
1	3	540	69.71	33.03	809.41642	0	0	28	90	6.467	0.072	27	1	1.65135	0

1	4	560	77.46	31.58	973.02743	0	0	28	100	6.183	0.062	28	1	1.5788	0
1	4	580	154.92	41.24	1296.35622	0	0	28	200	8.074	0.04	29	1	2.06185	0
1	4	600	232.38	37.68	1781.79433	0	0	28	300	7.378	0.025	30	1	1.8841	0
1	4	620	309.84	36.41	2429.62372	0	0	28	400	7.129	0.018	31	1	1.8205	0
1	4	640	387.3	53.79	3239.31346	0	0	28	500	10.533	0.021	32	1	2.6897	0
1	4	660	464.75	69.99	4211.15101	0	0	28	599.99	13.705	0.023	33	1	3.49965	0
1	4	680	542.21	79.25	5345.99481	0	0	28	699.99	15.518	0.022	34	1	3.96265	0
1	4	700	619.67	88.08	6642.1696	0	0	28	799.99	17.247	0.022	35	1	4.4042	0
1	4	720	697.13	103.49	8100.5354	0	0	28	899.99	20.263	0.023	36	1	5.1744	0
1	4	740	774.59	118.83	9722.71326	0	0	28	1000	23.267	0.023	37	1	5.9414	0
1	5	750	774.59	116.7	10551.38136	0	0	28	1000	22.849	0.023	38	1	5.83475	0
1	5	760	774.59	115.74	11363.7501	0	0	28	1000	22.662	0.023	39	1	5.78695	0
1	5	770	774.59	115.1	12173.68096	0	0	28	1000	22.537	0.023	40	1	5.75505	0
1	5	780	774.59	114.54	12986.04812	0	0	28	1000	22.427	0.022	41	1	5.7271	0
1	5	790	774.59	113.98	13797.19635	0	0	28	1000	22.317	0.022	42	1	5.69885	0
1	5	800	774.59	113.51	14607.93931	0	0	28	1000	22.226	0.022	43	1	5.67565	0
1	6	820	774.59	112.94	16249.2966	0	0	28	1000	22.113	0.022	44	1	5.6469	0
1	6	840	697.13	96.07	17710.2597	0	0	28	899.99	18.811	0.021	45	1	4.80365	0
1	6	860	619.67	80.82	19009.35303	0	0	28	799.99	15.824	0.02	46	1	4.0408	0
1	6	880	542.21	66.05	20147.15228	0	0	28	699.99	12.933	0.018	47	1	3.30265	0
1	6	900	464.75	52.13	21120.85515	0	0	28	599.99	10.207	0.017	48	1	2.60655	0
1	6	920	387.3	38.3	21934.15145	0	0	28	500	7.5	0.015	49	1	1.9152	0
1	6	940	309.84	26.77	22584.36923	0	0	28	400	5.242	0.013	50	1	1.3385	0
1	6	960	232.38	19.43	23072.0795	0	0	28	300	3.805	0.013	51	1	0.9717	0
1	6	980	154.92	15.45	23397.77312	0	0	28	200	3.024	0.015	52	1	0.7723	0
1	6	1000	77.46	12.12	23561.36921	0	0	28	100	2.373	0.024	53	1	0.6059	0
1	7	1020	69.71	14.25	23708.61094	0	0	28	90	2.79	0.031	54	1	0.71235	0
1	7	1040	61.97	14.12	23838.37757	0	0	28	80	2.765	0.035	55	1	0.70605	0
1	7	1060	54.22	13.97	23952.11422	0	0	28	70	2.734	0.039	56	1	0.69825	0
1	7	1080	46.48	13.82	24049.49888	0	0	28	60.01	2.707	0.045	57	1	0.6912	0
1	7	1100	38.73	13.75	24130.8135	0	0	28	50	2.692	0.054	58	1	0.68735	0
1	7	1120	30.99	14.04	24195.76043	0	0	28	40.01	2.749	0.069	59	1	0.7019	0
1	7	1140	23.24	14.11	24244.59571	0	0	28	30	2.763	0.092	60	1	0.7055	0
1	7	1160	15.5	13.88	24277.14182	0	0	28	20.01	2.717	0.136	61	1	0.69385	0
1	7	1180	7.75	13.5	24293.48674	0	0	28	10.01	2.644	0.264	62	1	0.6751	0
1	8	1200	6.97	14.79	24308.18625	0	0	28	9	2.895	0.322	63	1	0.7394	0
1	8	1220	6.2	15.33	24321.1791	0	0	28	8	3.001	0.375	64	1	0.76635	0
1	8	1240	5.42	15.62	24332.5391	0	0	28	7	3.059	0.437	65	1	0.78105	0
1	8	1260	4.64	15.62	24342.28039	0	0	28	5.99	3.058	0.511	66	1	0.7808	0
1	8	1280	3.87	15.11	24350.39277	0	0	28	5	2.959	0.592	67	1	0.7557	0
1	8	1300	3.09	15.06	24356.89037	0	0	28	3.99	2.95	0.739	68	1	0.7532	0
1	8	1320	2.32	15.4	24361.75905	0	0	28	3	3.016	1.005	69	1	0.77005	0
1	8	1340	1.54	15.43	24365.00431	0	0	28	1.99	3.021	1.518	70	1	0.77145	0
1	8	1360	0.77	16.51	24366.62616	0	0	28	0.99	3.232	3.265	71	1	0.82535	0
1	9	1380	0.7	18.3	24368.10192	18.19342	5.07912	28	0.9	3.582	3.98	72	1	0.9148	0.196884368
1	9	1400	0.62	18.97	24369.40647	34.27605	9.22639	28	0.8	3.715	4.644	73	1	0.94865	0.108384718
1	9	1420	0.55	18.66	24370.54922	48.36409	13.23593	28	0.71	3.654	5.146	74	1	0.93315	0.075551923
1	9	1440	0.47	17.84	24371.5294	60.44785	17.30542	28	0.61	3.493	5.726	75	1	0.89205	0.057785347
1	9	1460	0.39	17.32	24372.34622	70.51765	20.79553	28	0.5	3.391	6.782	76	1	0.86595	0.048087252
1	9	1480	0.31	16.33	24373.00281	78.61222	24.58936	28	0.4	3.197	7.993	77	1	0.81635	0.040667978

1	9	1500	0.24	14.67	24373.49682	84.70251	29.48224	28	0.31	2.873	9.268	78	1	0.73355	0.033918711
1	9	1520	0.16	12.29	24373.82905	88.79821	36.90697	28	0.21	2.406	11.457	79	1	0.6145	0.027095141
1	9	1540	0.08	9.1	24373.99869	90.88963	51.03289	28	0.1	1.781	17.81	80	1	0.4549	0.019595195

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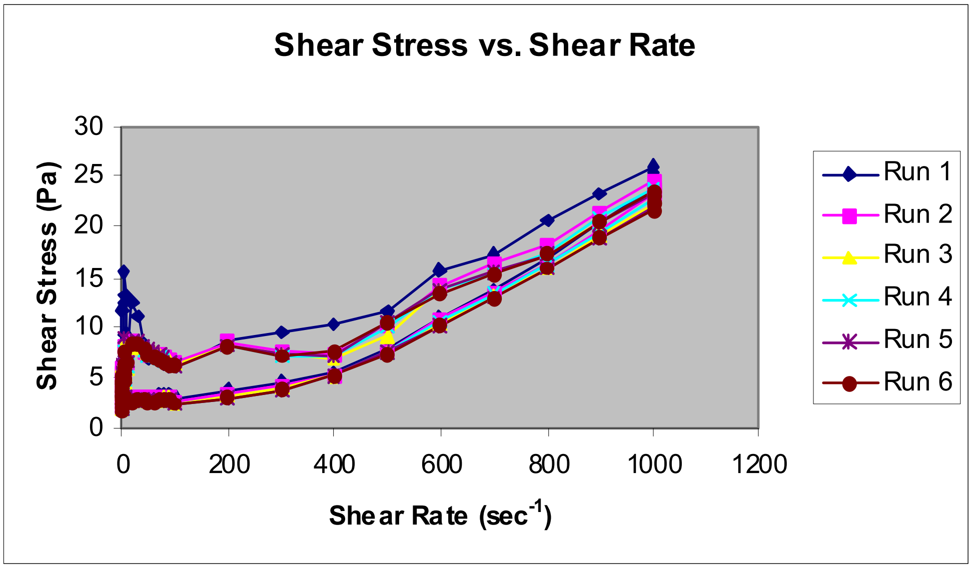
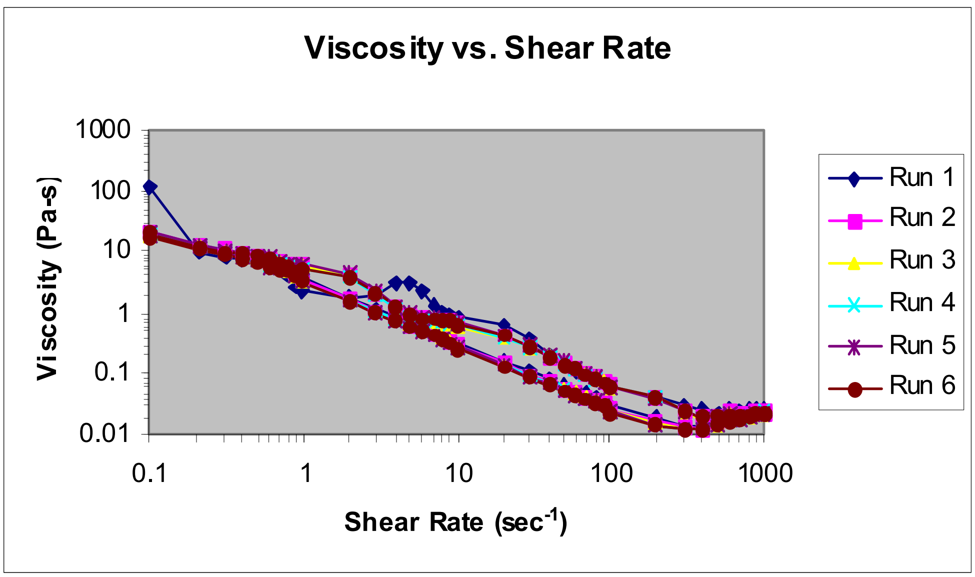
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	10.33	0.16258	2.00428	0.99124	28	0.1	2.022	20.22	1	1	0.51625	1.00884108
1	1	40	0.16	12.4	0.4893	6.0322	2.48443	28	0.21	2.428	11.562	2	1	0.62	0.402506548
1	1	60	0.24	15.42	0.97939	12.07408	4.00069	28	0.31	3.018	9.735	3	1	0.77075	0.249956933
1	1	80	0.31	18.76	1.63206	20.12023	5.47787	28	0.4	3.673	9.183	4	1	0.93805	0.182552585
1	1	100	0.39	21.51	2.4473	30.17067	7.16473	28	0.5	4.211	8.422	5	1	1.07535	0.139572638
1	1	120	0.47	22.87	3.42512	42.22538	9.43162	28	0.61	4.477	7.339	6	1	1.14325	0.106026281
1	1	140	0.54	22.98	4.56473	56.27469	12.50826	28	0.7	4.499	6.427	7	1	1.14885	0.079947131
1	1	160	0.62	21.92	5.86771	72.33796	16.85806	28	0.8	4.291	5.364	8	1	1.09585	0.059318786
1	1	180	0.7	22.65	7.33248	90.39582	20.38237	28	0.9	4.435	4.928	9	1	1.1325	0.049062003
1	2	200	0.77	26.74	8.95275	0	0	28	0.99	5.235	5.288	10	1	1.33685	0
1	2	220	1.55	38.61	12.1776	0	0	28	2	7.56	3.78	11	1	1.93065	0
1	2	240	2.32	31.65	17.02665	0	0	28	3	6.198	2.066	12	1	1.58265	0
1	2	260	3.09	24.27	23.49833	0	0	28	3.99	4.752	1.191	13	1	1.2134	0
1	2	280	3.87	23.42	31.59814	0	0	28	5	4.586	0.917	14	1	1.171	0
1	2	300	4.65	25.02	41.3088	0	0	28	6	4.898	0.816	15	1	1.2508	0
1	2	320	5.42	27.47	52.64838	0	0	28	7	5.379	0.768	16	1	1.3736	0
1	2	340	6.2	30.68	65.62473	0	0	28	8	6.006	0.751	17	1	1.5338	0
1	2	360	6.97	32.86	80.20722	0	0	28	9	6.433	0.715	18	1	1.64285	0
1	3	380	7.75	33.09	96.5702	0	0	28	10.01	6.479	0.647	19	1	1.6545	0
1	3	400	15.5	43.08	128.90426	0	0	28	20.01	8.434	0.421	20	1	2.15385	0
1	3	420	23.24	43.11	177.51334	0	0	28	30	8.441	0.281	21	1	2.1556	0
1	3	440	30.99	39.86	242.24742	0	0	28	40.01	7.804	0.195	22	1	1.99285	0
1	3	460	38.73	36.63	323.26674	0	0	28	50	7.172	0.143	23	1	1.8314	0
1	3	480	46.48	35.61	420.45819	0	0	28	60.01	6.972	0.116	24	1	1.78045	0
1	3	500	54.22	34.35	533.87047	0	0	28	70	6.727	0.096	25	1	1.7177	0
1	3	520	61.96	33.15	663.68658	0	0	28	79.99	6.491	0.081	26	1	1.65745	0
1	3	540	69.71	31.92	809.42428	0	0	28	90	6.249	0.069	27	1	1.59585	0
1	4	560	77.46	31.64	973.03528	0	0	28	100	6.195	0.062	28	1	1.582	0
1	4	580	154.92	41.71	1296.60833	0	0	28	200	8.166	0.041	29	1	2.0854	0
1	4	600	232.38	36.19	1781.7205	0	0	28	300	7.086	0.024	30	1	1.80955	0
1	4	620	309.84	38.53	2429.42737	0	0	28	400	7.544	0.019	31	1	1.92635	0
1	4	640	387.3	53.31	3239.56401	0	0	28	500	10.439	0.021	32	1	2.6657	0
1	4	660	464.75	67.84	4212.41943	0	0	28	599.99	13.283	0.022	33	1	3.3919	0
1	4	680	542.21	78.11	5345.83773	0	0	28	699.99	15.293	0.022	34	1	3.90525	0
1	4	700	619.67	88.78	6642.05729	0	0	28	799.99	17.384	0.022	35	1	4.43915	0
1	4	720	697.13	104.7	8101.51871	0	0	28	899.99	20.499	0.023	36	1	5.2348	0
1	4	740	774.59	119.82	9723.29052	0	0	28	1000	23.461	0.023	37	1	5.99105	0
1	5	750	774.59	117.47	10552.81157	0	0	28	1000	23.001	0.023	38	1	5.8736	0
1	5	760	774.59	114.83	11362.33874	0	0	28	1000	22.484	0.022	39	1	5.7416	0
1	5	770	774.59	114.92	12175.10803	0	0	28	1000	22.501	0.023	40	1	5.74585	0
1	5	780	774.59	114.21	12984.63598	0	0	28	1000	22.363	0.022	41	1	5.71065	0
1	5	790	774.59	113.67	13794.97367	0	0	28	1000	22.257	0.022	42	1	5.68355	0
1	5	800	774.59	113.25	14608.14823	0	0	28	1000	22.175	0.022	43	1	5.66265	0
1	6	820	774.59	110.17	16249.91549	0	0	28	1000	21.571	0.022	44	1	5.5084	0

1	6	840	697.13	95.96	17710.5503	0	0	28	899.99	18.79	0.021	45	1	4.79815	0
1	6	860	619.67	80.7	19009.64677	0	0	28	799.99	15.801	0.02	46	1	4.03495	0
1	6	880	542.21	65.98	20146.5114	0	0	28	699.99	12.919	0.018	47	1	3.299	0
1	6	900	464.75	52.06	21121.91544	0	0	28	599.99	10.193	0.017	48	1	2.6029	0
1	6	920	387.3	38.04	21934.20093	0	0	28	500	7.447	0.015	49	1	1.9018	0
1	6	940	309.84	26.71	22584.74151	0	0	28	400	5.229	0.013	50	1	1.33535	0
1	6	960	232.38	19.43	23072.33554	0	0	28	300	3.804	0.013	51	1	0.9714	0
1	6	980	154.92	15.39	23397.90507	0	0	28	200	3.014	0.015	52	1	0.7697	0
1	6	1000	77.46	11.99	23561.49722	0	0	28	100	2.347	0.023	53	1	0.5994	0
1	7	1020	69.71	14.13	23709.00521	0	0	28	90	2.766	0.031	54	1	0.70635	0
1	7	1040	61.97	14.09	23838.84095	0	0	28	80	2.758	0.034	55	1	0.7044	0
1	7	1060	54.22	13.82	23952.66242	0	0	28	70	2.707	0.039	56	1	0.6912	0
1	7	1080	46.48	13.62	24050.07222	0	0	28	60.01	2.666	0.044	57	1	0.68075	0
1	7	1100	38.73	13.51	24131.34993	0	0	28	50	2.646	0.053	58	1	0.6757	0
1	7	1120	30.99	13.79	24196.29686	0	0	28	40.01	2.699	0.067	59	1	0.68935	0
1	7	1140	23.24	13.93	24245.09601	0	0	28	30	2.727	0.091	60	1	0.6965	0
1	7	1160	15.5	13.66	24277.64526	0	0	28	20.01	2.674	0.134	61	1	0.68275	0
1	7	1180	7.75	13.4	24294.0106	0	0	28	10.01	2.623	0.262	62	1	0.6698	0
1	8	1200	6.97	14.67	24308.70697	0	0	28	9	2.872	0.319	63	1	0.73345	0
1	8	1220	6.2	15.28	24321.70531	0	0	28	8	2.991	0.374	64	1	0.7639	0
1	8	1240	5.42	15.51	24333.05903	0	0	28	7	3.036	0.434	65	1	0.77535	0
1	8	1260	4.64	15.53	24342.79482	0	0	28	5.99	3.04	0.508	66	1	0.77635	0
1	8	1280	3.87	15.23	24350.91034	0	0	28	5	2.981	0.596	67	1	0.76135	0
1	8	1300	3.09	15.05	24357.40559	0	0	28	3.99	2.946	0.738	68	1	0.75225	0
1	8	1320	2.32	15.33	24362.27741	0	0	28	3	3.002	1.001	69	1	0.7666	0
1	8	1340	1.54	15.44	24365.52189	0	0	28	1.99	3.023	1.519	70	1	0.772	0
1	8	1360	0.77	16.4	24367.14452	0	0	28	0.99	3.211	3.243	71	1	0.81985	0
1	9	1380	0.7	18.75	24368.61793	18.16437	4.94672	28	0.9	3.672	4.08	72	1	0.93765	0.202153997
1	9	1400	0.62	19.18	24369.92326	34.25668	9.12295	28	0.8	3.755	4.694	73	1	0.95885	0.109613658
1	9	1420	0.55	18.59	24371.06602	48.34472	13.28516	28	0.71	3.639	5.125	74	1	0.92925	0.075271922
1	9	1440	0.47	17.3	24372.04698	60.43816	17.84415	28	0.61	3.387	5.552	75	1	0.865	0.056040753
1	9	1460	0.39	16.25	24372.86379	70.50796	22.16534	28	0.5	3.181	6.362	76	1	0.8124	0.045115473
1	9	1480	0.31	15.21	24373.52039	78.60253	26.40326	28	0.4	2.977	7.442	77	1	0.76025	0.037874099
1	9	1500	0.24	13.93	24374.01362	84.68315	31.05358	28	0.31	2.727	8.797	78	1	0.69645	0.032202392
1	9	1520	0.16	11.73	24374.34584	88.77884	38.66673	28	0.21	2.296	10.933	79	1	0.58625	0.025862018
1	9	1540	0.08	8.61	24374.51549	90.87026	53.92891	28	0.1	1.685	16.85	80	1	0.4303	0.01854292





E-2.1.21 META/20wt%/U/N

2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	5.47	0.16336	2.01396	1.8822	28	0.1	1.07	10.7	1	1	0.27335	0.531291585
1	1	40	0.16	7	0.49166	6.06125	4.42427	28	0.21	1.37	6.524	2	1	0.34995	0.226025985
1	1	60	0.24	15.86	0.97389	12.0063	3.86552	28	0.31	3.106	10.019	3	1	0.79315	0.258697517
1	1	80	0.31	35.7	1.62185	19.99436	2.86083	28	0.4	6.989	17.473	4	1	1.78485	0.349548573
1	1	100	0.39	59.09	2.43159	29.97702	2.59115	28	0.5	11.569	23.138	5	1	2.95425	0.385928955
1	1	120	0.47	75.15	3.40549	41.98332	2.8531	28	0.61	14.715	24.123	6	1	3.75755	0.35049634
1	1	140	0.54	72.03	4.55138	56.11009	3.97831	28	0.7	14.104	20.149	7	1	3.60165	0.25136299
1	1	160	0.62	48.22	5.86221	72.27018	7.65412	27.9	0.8	9.442	11.803	8	1	2.41115	0.13064863
1	1	180	0.7	32.74	7.33248	90.39582	14.10231	28	0.9	6.41	7.122	9	1	1.6369	0.070910358

1	2	200	0.77	25.6	8.9559	0	0	28	0.99	5.012	5.063	10	1	1.2799	0
1	2	220	1.55	39.81	12.17446	0	0	28	2	7.795	3.898	11	1	1.99045	0
1	2	240	2.32	48.36	17.02115	0	0	28	3	9.47	3.157	12	1	2.4182	0
1	2	260	3.09	84.34	23.47005	0	0	28	3.99	16.514	4.139	13	1	4.217	0
1	2	280	3.84	227.19	31.49761	0	0	27.9	4.96	44.484	8.969	14	1	11.35955	0
1	2	300	4.66	304.03	41.22791	0	0	28	6.02	59.528	9.888	15	1	15.20135	0
1	2	320	5.43	268.03	52.5879	0	0	28	7.01	52.48	7.486	16	1	13.4014	0
1	2	340	6.2	225.77	65.5509	0	0	28	8	44.205	5.526	17	1	11.28835	0
1	2	360	6.97	204.9	80.13496	0	0	28	9	40.12	4.458	18	1	10.2451	0
1	3	380	7.75	189.56	96.51522	0	0	28	10.01	37.116	3.708	19	1	9.47795	0
1	3	400	15.5	234.62	128.81944	0	0	28	20.01	45.939	2.296	20	1	11.7311	0
1	3	420	23.24	217.72	177.37511	0	0	28	30	42.63	1.421	21	1	10.8861	0
1	3	440	30.99	212.91	242.15161	0	0	28	40.01	41.688	1.042	22	1	10.64545	0
1	3	460	38.73	218.06	323.25103	0	0	27.9	50	42.696	0.854	23	1	10.9029	0
1	3	480	46.48	223.12	420.3718	0	0	27.9	60.01	43.686	0.728	24	1	11.1558	0
1	3	500	54.22	227.64	533.86026	0	0	27.9	70	44.572	0.637	25	1	11.38205	0
1	3	520	61.96	232.27	663.58134	0	0	27.9	79.99	45.478	0.569	26	1	11.6135	0
1	3	540	69.71	238.67	809.45962	0	0	27.9	90	46.731	0.519	27	1	11.93325	0
1	4	560	77.46	242.07	973.06984	0	0	28	100	47.398	0.474	28	1	12.1037	0
1	4	580	154.92	333.73	1296.62561	0	0	27.9	200	65.343	0.327	29	1	16.68625	0
1	4	600	232.38	387.29	1781.68987	0	0	28	300	75.832	0.253	30	1	19.36465	0
1	4	620	309.84	416.76	2429.55461	0	0	28	400	81.602	0.204	31	1	20.83805	0
1	4	640	387.3	430.61	3239.28597	0	0	28	500	84.314	0.169	32	1	21.53065	0
1	4	660	464.75	434.9	4212.09899	0	0	28	599.99	85.153	0.142	33	1	21.7448	0
1	4	680	542.21	435.22	5346.33567	0	0	28	699.99	85.216	0.122	34	1	21.7611	0
1	4	700	619.67	436.15	6642.51361	0	0	28	799.99	85.397	0.107	35	1	21.8073	0
1	4	720	697.13	437.54	8101.2454	0	0	28	899.99	85.671	0.095	36	1	21.8772	0
1	4	740	774.59	452.23	9720.98459	0	0	28	1000	88.546	0.089	37	1	22.61145	0
1	5	750	774.59	447.98	10550.44045	0	0	28	1000	87.715	0.088	38	1	22.3992	0
1	5	760	774.59	434.27	11361.18577	0	0	28	1000	85.03	0.085	39	1	21.71355	0
1	5	770	774.59	424.91	12172.33557	0	0	28	1000	83.197	0.083	40	1	21.2453	0
1	5	780	774.59	417.96	12983.0801	0	0	28	1000	81.837	0.082	41	1	20.8981	0
1	5	790	774.59	411.61	13794.63517	0	0	28	1000	80.592	0.081	42	1	20.58025	0
1	5	800	774.59	403.03	14604.16312	0	0	28	1000	78.914	0.079	43	1	20.1517	0
1	6	820	774.59	395.06	16245.93116	0	0	28	1000	77.353	0.077	44	1	19.75295	0
1	6	840	697.13	351.67	17706.93668	0	0	28	899.99	68.856	0.077	45	1	17.58325	0
1	6	860	619.67	313.24	19005.10481	0	0	28	799.99	61.332	0.077	46	1	15.66195	0
1	6	880	542.21	277.7	20143.15068	0	0	28	699.99	54.374	0.078	47	1	13.885	0
1	6	900	464.75	244.17	21117.62717	0	0	28	599.99	47.809	0.08	48	1	12.2086	0
1	6	920	387.3	212.21	21929.46812	0	0	28	500	41.551	0.083	49	1	10.61065	0
1	6	940	309.84	180.57	22579.85162	0	0	28	400	35.356	0.088	50	1	9.0285	0
1	6	960	232.38	148.21	23068.20749	0	0	28	300	29.02	0.097	51	1	7.4106	0
1	6	980	154.92	113.29	23393.76681	0	0	28	200	22.181	0.111	52	1	5.66425	0
1	6	1000	77.46	73.32	23557.30084	0	0	28	100	14.356	0.144	53	1	3.6659	0
1	7	1020	69.71	68.87	23704.74835	0	0	28	90	13.484	0.15	54	1	3.4434	0
1	7	1040	61.97	64.26	23834.67834	0	0	28	80	12.583	0.157	55	1	3.21315	0
1	7	1060	54.22	58.98	23948.32546	0	0	28	70	11.549	0.165	56	1	2.9491	0
1	7	1080	46.48	53.38	24045.73211	0	0	28	60.01	10.451	0.174	57	1	2.6688	0
1	7	1100	38.73	47.19	24127.02788	0	0	28	50	9.239	0.185	58	1	2.35935	0
1	7	1120	30.99	41.32	24192.05728	0	0	28	40.01	8.091	0.202	59	1	2.06605	0

1	7	1140	23.24	33.51	24240.78495	0	0	28	30	6.562	0.219	60	1	1.6757	0
1	7	1160	15.5	24.99	24273.37191	0	0	28	20.01	4.893	0.245	61	1	1.2494	0
1	7	1180	7.75	14.02	24289.73175	0	0	28	10.01	2.746	0.274	62	1	0.7011	0
1	8	1200	6.97	13.63	24304.43991	0	0	28	9	2.669	0.297	63	1	0.68145	0
1	8	1220	6.2	12.69	24317.4194	0	0	28	8	2.484	0.311	64	1	0.6344	0
1	8	1240	5.42	11.61	24328.78803	0	0	28	7	2.273	0.325	65	1	0.5805	0
1	8	1260	4.64	10.6	24338.52461	0	0	28	5.99	2.075	0.346	66	1	0.52985	0
1	8	1280	3.87	9.23	24346.64563	0	0	28	5	1.807	0.361	67	1	0.46155	0
1	8	1300	3.09	8.1	24353.14009	0	0	28	3.99	1.586	0.397	68	1	0.4049	0
1	8	1320	2.32	6.43	24358.00799	0	0	28	3	1.258	0.419	69	1	0.3213	0
1	8	1340	1.54	4.1	24361.25718	0	0	28	1.99	0.803	0.404	70	1	0.205	0
1	8	1360	0.77	2.66	24362.88138	0	0	28	0.99	0.521	0.526	71	1	0.133	0
1	9	1380	0.7	3.61	24364.35557	18.17405	25.70583	28	0.9	0.707	0.786	72	1	0.1805	0.038901621
1	9	1400	0.62	4.01	24365.66012	34.25668	43.63903	28	0.8	0.785	0.981	73	1	0.20055	0.022915239
1	9	1420	0.55	4.32	24366.80209	48.33504	57.13355	28	0.71	0.846	1.192	74	1	0.21595	0.01750283
1	9	1440	0.47	4.7	24367.78227	60.4188	65.67254	28	0.61	0.92	1.508	75	1	0.23495	0.015227049
1	9	1460	0.39	5.83	24368.60065	70.50796	61.79483	28	0.5	1.141	2.282	76	1	0.2914	0.01618257
1	9	1480	0.31	4.36	24369.25646	78.59285	92.13688	28	0.4	0.853	2.133	77	1	0.21795	0.010853405
1	9	1500	0.24	4.11	24369.7489	84.66378	105.17227	28	0.31	0.805	2.597	78	1	0.20555	0.009508198
1	9	1520	0.16	3.63	24370.08034	88.74979	124.82372	28	0.21	0.711	3.386	79	1	0.1815	0.008011287
1	9	1540	0.08	1.85	24370.2492	90.83153	250.91514	28	0.1	0.362	3.62	80	1	0.0924	0.0039854

2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.97	0.16415	2.02364	2.60442	28	0.1	0.777	7.77	1	1	0.1985	0.383961574
1	1	40	0.16	6.66	0.49166	6.06125	4.64819	28	0.21	1.304	6.21	2	1	0.33295	0.215137142
1	1	60	0.24	8.69	0.98253	12.11281	7.11681	28	0.31	1.702	5.49	3	1	0.4347	0.1405124
1	1	80	0.31	10.78	1.6352	20.15896	9.554	28	0.4	2.11	5.275	4	1	0.5388	0.104668098
1	1	100	0.39	12.62	2.45044	30.2094	12.22557	28	0.5	2.471	4.942	5	1	0.63095	0.081795732
1	1	120	0.47	14.5	3.42748	42.25443	14.88356	28	0.61	2.839	4.654	6	1	0.72485	0.067188221
1	1	140	0.54	15.95	4.56788	56.31342	18.02606	28	0.7	3.124	4.463	7	1	0.79765	0.055475231
1	1	160	0.62	17.17	5.87007	72.367	21.52498	27.9	0.8	3.362	4.203	8	1	0.85845	0.04645764
1	1	180	0.7	18.75	7.33483	90.42487	24.63892	28	0.9	3.67	4.078	9	1	0.9373	0.040586179
1	2	200	0.77	19	8.95825	0	0	28	0.99	3.72	3.758	10	1	0.95005	0
1	2	220	1.55	30.37	12.18074	0	0	28	2	5.947	2.974	11	1	1.5187	0
1	2	240	2.32	31.73	17.02665	0	0	28	3	6.213	2.071	12	1	1.5866	0
1	2	260	3.09	29.38	23.50147	0	0	28	3.99	5.752	1.442	13	1	1.46885	0
1	2	280	3.87	27.99	31.59657	0	0	28	5	5.48	1.096	14	1	1.3995	0
1	2	300	4.65	27.55	41.30802	0	0	28	6	5.394	0.899	15	1	1.37745	0
1	2	320	5.42	27.77	52.64995	0	0	28	7	5.438	0.777	16	1	1.3886	0
1	2	340	6.2	28.36	65.61687	0	0	28	8	5.554	0.694	17	1	1.4182	0
1	2	360	6.97	29.28	80.20722	0	0	28	9	5.732	0.637	18	1	1.46375	0
1	3	380	7.75	29.74	96.5812	0	0	28	10.01	5.822	0.582	19	1	1.4868	0
1	3	400	15.5	43.52	128.89091	0	0	28	20.01	8.521	0.426	20	1	2.17605	0
1	3	420	23.24	50.43	177.4505	0	0	28	30	9.875	0.329	21	1	2.5217	0
1	3	440	30.99	52.14	242.2435	0	0	28	40.01	10.21	0.255	22	1	2.60715	0
1	3	460	38.73	54	323.26203	0	0	28	50	10.573	0.211	23	1	2.69995	0
1	3	480	46.48	58.47	420.42756	0	0	28	60.01	11.448	0.191	24	1	2.9234	0
1	3	500	54.22	63.26	533.95294	0	0	28	70	12.386	0.177	25	1	3.16295	0
1	3	520	61.96	68.34	663.6426	0	0	28	79.99	13.38	0.167	26	1	3.4168	0

1	3	540	69.71	71.97	809.4879	0	0	28	90	14.091	0.157	27	1	3.5984	0
1	4	560	77.46	76.44	973.18294	0	0	28	100	14.967	0.15	28	1	3.8221	0
1	4	580	154.92	118.51	1296.09861	0	0	28	200	23.203	0.116	29	1	5.9253	0
1	4	600	232.38	155.09	1781.52886	0	0	28	300	30.367	0.101	30	1	7.75455	0
1	4	620	309.84	186.32	2429.83813	0	0	28	400	36.48	0.091	31	1	9.31575	0
1	4	640	387.3	215.19	3239.93157	0	0	28	500	42.134	0.084	32	1	10.75955	0
1	4	660	464.75	243.16	4211.52643	0	0	28	599.99	47.611	0.079	33	1	12.1581	0
1	4	680	542.21	273.01	5346.07885	0	0	28	699.99	53.456	0.076	34	1	13.65065	0
1	4	700	619.67	297.3	6642.25521	0	0	28	799.99	58.211	0.073	35	1	14.86485	0
1	4	720	697.13	321.56	8100.61865	0	0	28	899.99	62.961	0.07	36	1	16.0778	0
1	4	740	774.59	344.75	9721.57757	0	0	28	1000	67.502	0.068	37	1	17.2375	0
1	5	750	774.59	337.82	10549.02909	0	0	28	1000	66.145	0.066	38	1	16.8909	0
1	5	760	774.59	334.63	11360.17889	0	0	28	1000	65.52	0.066	39	1	16.73145	0
1	5	770	774.59	331.62	12171.73474	0	0	28	1000	64.931	0.065	40	1	16.58085	0
1	5	780	774.59	328.77	12982.47927	0	0	28	1000	64.374	0.064	41	1	16.4386	0
1	5	790	774.59	326.11	13793.62829	0	0	28	1000	63.853	0.064	42	1	16.3056	0
1	5	800	774.59	323.65	14604.77651	0	0	28	1000	63.37	0.063	43	1	16.1824	0
1	6	820	774.59	321.13	16247.35352	0	0	28	1000	62.877	0.063	44	1	16.0565	0
1	6	840	697.13	288.66	17708.35747	0	0	28	899.99	56.519	0.063	45	1	14.4328	0
1	6	860	619.67	258.46	19006.56251	0	0	28	799.99	50.606	0.063	46	1	12.923	0
1	6	880	542.21	229.5	20143.79549	0	0	28	699.99	44.935	0.064	47	1	11.47475	0
1	6	900	464.75	201.22	21119.20503	0	0	28	599.99	39.398	0.066	48	1	10.0609	0
1	6	920	387.3	174.04	21930.88183	0	0	28	500	34.076	0.068	49	1	8.7018	0
1	6	940	309.84	146.95	22581.83318	0	0	28	400	28.774	0.072	50	1	7.3477	0
1	6	960	232.38	119.3	23069.21437	0	0	28	300	23.358	0.078	51	1	5.96485	0
1	6	980	154.92	89.69	23395.09727	0	0	28	200	17.561	0.088	52	1	4.4844	0
1	6	1000	77.46	56.43	23558.50878	0	0	28	100	11.049	0.11	53	1	2.82155	0
1	7	1020	69.71	52.95	23705.67983	0	0	28	90	10.367	0.115	54	1	2.64735	0
1	7	1040	61.97	49.09	23835.54385	0	0	28	80	9.612	0.12	55	1	2.45465	0
1	7	1060	54.22	44.87	23949.16348	0	0	28	70	8.786	0.126	56	1	2.24365	0
1	7	1080	46.48	40.11	24046.61882	0	0	28	60.01	7.853	0.131	57	1	2.0053	0
1	7	1100	38.73	35.24	24127.94287	0	0	28	50	6.899	0.138	58	1	1.76185	0
1	7	1120	30.99	30.19	24192.90708	0	0	28	40.01	5.91	0.148	59	1	1.5093	0
1	7	1140	23.24	24.41	24241.73136	0	0	28	30	4.779	0.159	60	1	1.2205	0
1	7	1160	15.5	17.9	24274.31125	0	0	28	20.01	3.505	0.175	61	1	0.89515	0
1	7	1180	7.75	9.48	24290.65303	0	0	28	10.01	1.857	0.186	62	1	0.4742	0
1	8	1200	6.97	9.65	24305.36432	0	0	28	9	1.89	0.21	63	1	0.48265	0
1	8	1220	6.2	8.8	24318.34302	0	0	28	8	1.723	0.215	64	1	0.43995	0
1	8	1240	5.42	8.11	24329.70852	0	0	28	7	1.588	0.227	65	1	0.4056	0
1	8	1260	4.64	7.41	24339.44824	0	0	28	5.99	1.451	0.242	66	1	0.3706	0
1	8	1280	3.87	6.57	24347.56455	0	0	28	5	1.286	0.257	67	1	0.32845	0
1	8	1300	3.09	5.66	24354.05822	0	0	28	3.99	1.109	0.278	68	1	0.2832	0
1	8	1320	2.32	5.62	24358.92533	0	0	28	3	1.1	0.367	69	1	0.281	0
1	8	1340	1.54	3.05	24362.17295	0	0	28	1.99	0.598	0.301	70	1	0.1526	0
1	8	1360	0.77	2.02	24363.79716	0	0	28	0.99	0.395	0.399	71	1	0.10085	0
1	9	1380	0.7	2.96	24365.27213	18.18373	31.3512	28	0.9	0.58	0.644	72	1	0.148	0.031896646
1	9	1400	0.62	3.31	24366.5759	34.25668	52.86517	28	0.8	0.648	0.81	73	1	0.1655	0.018916019
1	9	1420	0.55	3.58	24367.71865	48.34472	69.06379	28	0.71	0.7	0.986	74	1	0.17885	0.014479347
1	9	1440	0.47	4.11	24368.69883	60.42848	75.06634	28	0.61	0.805	1.32	75	1	0.2056	0.013321533
1	9	1460	0.39	4.01	24369.51643	70.50796	89.70467	28	0.5	0.786	1.572	76	1	0.20065	0.011147678

1	9	1480	0.31	3.76	24370.17223	78.59285	106.78362	28	0.4	0.736	1.84	77	1	0.188	0.00936472
1	9	1500	0.24	4.01	24370.66546	84.67346	107.86414	28	0.31	0.785	2.532	78	1	0.20055	0.00927091
1	9	1520	0.16	3.34	24370.9969	88.75948	135.92549	28	0.21	0.653	3.11	79	1	0.1668	0.007356961
1	9	1540	0.08	1.81	24371.16498	90.83153	255.86274	28	0.1	0.355	3.55	80	1	0.0907	0.003908334

2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 3.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	6.11	0.16415	2.02364	1.69059	28	0.1	1.197	11.97	1	1	0.3057	0.591508371
1	1	40	0.16	7.67	0.49166	6.06125	4.03814	28	0.21	1.501	7.148	2	1	0.38335	0.247638688
1	1	60	0.24	10.27	0.98175	12.10312	6.01846	28	0.31	2.011	6.487	3	1	0.5135	0.166155504
1	1	80	0.31	13.62	1.63441	20.14928	7.5522	28	0.4	2.668	6.67	4	1	0.6812	0.132411679
1	1	100	0.39	16.66	2.44887	30.19003	9.25506	28	0.5	3.262	6.524	5	1	0.83305	0.108048915
1	1	120	0.47	18.35	3.42591	42.23506	11.75481	28	0.61	3.593	5.89	6	1	0.9176	0.085071502
1	1	140	0.54	19.1	4.56709	56.30374	15.0585	28	0.7	3.739	5.341	7	1	0.9549	0.066407667
1	1	160	0.62	19.16	5.87007	72.367	19.28757	28	0.8	3.752	4.69	8	1	0.958	0.051846836
1	1	180	0.7	19.28	7.33405	90.41519	23.95104	28	0.9	3.775	4.194	9	1	0.964	0.041751834
1	2	200	0.77	19.35	8.95825	0	0	28	0.99	3.788	3.826	10	1	0.9673	0
1	2	220	1.55	28.85	12.18153	0	0	28	2	5.648	2.824	11	1	1.4424	0
1	2	240	2.32	30.15	17.02979	0	0	28	3	5.904	1.968	12	1	1.5077	0
1	2	260	3.09	27.97	23.50147	0	0	28	3.99	5.477	1.373	13	1	1.39855	0
1	2	280	3.87	26.13	31.59264	0	0	28	5	5.117	1.023	14	1	1.30665	0
1	2	300	4.65	25.48	41.3088	0	0	28	6	4.989	0.832	15	1	1.2741	0
1	2	320	5.42	25.53	52.66252	0	0	28	7	4.998	0.714	16	1	1.2763	0
1	2	340	6.2	25.95	65.61923	0	0	28	8	5.08	0.635	17	1	1.2973	0
1	2	360	6.97	25.62	80.2135	0	0	28	9	5.017	0.557	18	1	1.2812	0
1	3	380	7.75	26.01	96.5757	0	0	28	10.01	5.092	0.509	19	1	1.30025	0
1	3	400	15.5	39.32	128.94589	0	0	28	20.01	7.699	0.385	20	1	1.96595	0
1	3	420	23.24	45.49	177.5047	0	0	28	30	8.907	0.297	21	1	2.2744	0
1	3	440	30.99	48.27	242.22072	0	0	28	40.01	9.45	0.236	22	1	2.41325	0
1	3	460	38.73	48.46	323.21962	0	0	28	50	9.488	0.19	23	1	2.42295	0
1	3	480	46.48	48.91	420.51239	0	0	28	60.01	9.577	0.16	24	1	2.44565	0
1	3	500	54.22	51.01	533.83042	0	0	28	70	9.988	0.143	25	1	2.5505	0
1	3	520	61.96	54.69	663.52008	0	0	28	79.99	10.708	0.134	26	1	2.73455	0
1	3	540	69.71	57.25	809.4714	0	0	28	90	11.21	0.125	27	1	2.86265	0
1	4	560	77.46	60.49	973.12639	0	0	28	100	11.843	0.118	28	1	3.0243	0
1	4	580	154.92	95.67	1296.2871	0	0	28	200	18.732	0.094	29	1	4.78335	0
1	4	600	232.38	126	1781.71736	0	0	28	300	24.671	0.082	30	1	6.30005	0
1	4	620	309.84	152.79	2429.90646	0	0	28	400	29.916	0.075	31	1	7.63935	0
1	4	640	387.3	178.19	3239.39279	0	0	28	500	34.89	0.07	32	1	8.90965	0
1	4	660	464.75	203.41	4211.87986	0	0	28	599.99	39.828	0.066	33	1	10.1706	0
1	4	680	542.21	229.48	5346.22886	0	0	28	699.99	44.932	0.064	34	1	11.47395	0
1	4	700	619.67	255.64	6641.43133	0	0	28	799.99	50.055	0.063	35	1	12.78205	0
1	4	720	697.13	280.79	8100.52519	0	0	28	899.99	54.979	0.061	36	1	14.03955	0
1	4	740	774.59	304.52	9721.88937	0	0	28	1000	59.625	0.06	37	1	15.2259	0
1	5	750	774.59	300.47	10548.93563	0	0	28	1000	58.831	0.059	38	1	15.0233	0
1	5	760	774.59	298.4	11360.08543	0	0	28	1000	58.427	0.058	39	1	14.92015	0
1	5	770	774.59	296.54	12171.23523	0	0	28	1000	58.062	0.058	40	1	14.8268	0
1	5	780	774.59	294.94	12982.38424	0	0	28	1000	57.749	0.058	41	1	14.74685	0
1	5	790	774.59	293.44	13794.75062	0	0	28	1000	57.455	0.057	42	1	14.6719	0
1	5	800	774.59	292	14604.68305	0	0	28	1000	57.174	0.057	43	1	14.6	0

1	6	820	774.59	290.39	16246.85244	0	0	28	1000	56.857	0.057	44	1	14.51925	0
1	6	840	697.13	261.36	17706.71913	0	0	28	899.99	51.174	0.057	45	1	13.06805	0
1	6	860	619.67	234.08	19006.54759	0	0	28	799.99	45.833	0.057	46	1	11.70415	0
1	6	880	542.21	207.58	20144.0641	0	0	28	699.99	40.643	0.058	47	1	10.3788	0
1	6	900	464.75	181.47	21117.56669	0	0	28	599.99	35.533	0.059	48	1	9.0737	0
1	6	920	387.3	156.27	21931.07033	0	0	28	500	30.598	0.061	49	1	7.81355	0
1	6	940	309.84	131.28	22580.51764	0	0	28	400	25.705	0.064	50	1	6.5641	0
1	6	960	232.38	105.84	23069.07614	0	0	28	300	20.724	0.069	51	1	5.2921	0
1	6	980	154.92	78.66	23394.83731	0	0	28	200	15.402	0.077	52	1	3.93305	0
1	6	1000	77.46	48.78	23558.16635	0	0	28	100	9.551	0.096	53	1	2.43895	0
1	7	1020	69.71	45.58	23705.64763	0	0	28	90	8.925	0.099	54	1	2.2791	0
1	7	1040	61.97	42.29	23835.58076	0	0	28	80	8.281	0.104	55	1	2.11455	0
1	7	1060	54.22	38.51	23949.20432	0	0	28	70	7.54	0.108	56	1	1.92555	0
1	7	1080	46.48	34.31	24046.68401	0	0	28	60.01	6.718	0.112	57	1	1.7156	0
1	7	1100	38.73	30.09	24127.88161	0	0	28	50	5.891	0.118	58	1	1.50425	0
1	7	1120	30.99	25.54	24192.94321	0	0	28	40.01	5	0.125	59	1	1.2768	0
1	7	1140	23.24	20.52	24241.71879	0	0	28	30	4.017	0.134	60	1	1.02585	0
1	7	1160	15.5	14.73	24274.25705	0	0	28	20.01	2.885	0.144	61	1	0.7367	0
1	7	1180	7.75	7.71	24290.60747	0	0	28	10.01	1.51	0.151	62	1	0.3855	0
1	8	1200	6.97	7.85	24305.32505	0	0	28	9	1.536	0.171	63	1	0.3923	0
1	8	1220	6.2	7.35	24318.30454	0	0	28	8	1.44	0.18	64	1	0.3676	0
1	8	1240	5.42	6.76	24329.66454	0	0	28	7	1.324	0.189	65	1	0.3382	0
1	8	1260	4.64	6.28	24339.40505	0	0	28	5.99	1.229	0.205	66	1	0.31385	0
1	8	1280	3.87	5.56	24347.52135	0	0	28	5	1.089	0.218	67	1	0.2781	0
1	8	1300	3.09	4.93	24354.01188	0	0	28	3.99	0.966	0.242	68	1	0.24675	0
1	8	1320	2.32	4.13	24358.88214	0	0	28	3	0.808	0.269	69	1	0.2063	0
1	8	1340	1.54	2.86	24362.13133	0	0	28	1.99	0.559	0.281	70	1	0.1428	0
1	8	1360	0.77	1.77	24363.75317	0	0	28	0.99	0.347	0.351	71	1	0.0887	0
1	9	1380	0.7	3.02	24365.22815	18.18373	30.76768	28	0.9	0.591	0.657	72	1	0.15085	0.032501582
1	9	1400	0.62	3.18	24366.53191	34.25668	55.07496	28	0.8	0.622	0.778	73	1	0.1588	0.018157043
1	9	1420	0.55	3.38	24367.67388	48.33504	73.124	28	0.71	0.661	0.931	74	1	0.16885	0.013675379
1	9	1440	0.47	3.49	24368.65406	60.4188	88.46078	28	0.61	0.683	1.12	75	1	0.1743	0.011304428
1	9	1460	0.39	3.48	24369.47323	70.51765	103.39816	28	0.5	0.682	1.364	76	1	0.1742	0.009671338
1	9	1480	0.31	3.49	24370.12747	78.58317	115.05572	28	0.4	0.683	1.708	77	1	0.17445	0.008691428
1	9	1500	0.24	3.5	24370.62148	84.67346	123.61071	28	0.31	0.685	2.21	78	1	0.1748	0.008089902
1	9	1520	0.16	3.32	24370.95213	88.74979	136.74831	28	0.21	0.649	3.09	79	1	0.16585	0.007312693
1	9	1540	0.08	1.95	24371.12099	90.83153	238.40234	28	0.1	0.381	3.81	80	1	0.09725	0.004194579

2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 4.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	5.48	0.16336	2.01396	1.87694	28	0.1	1.073	10.73	1	1	0.274	0.532781187
1	1	40	0.16	7.22	0.49166	6.06125	4.28963	28	0.21	1.413	6.729	2	1	0.36085	0.233120231
1	1	60	0.24	9.5	0.98175	12.10312	6.50355	28	0.31	1.861	6.003	3	1	0.4752	0.153762005
1	1	80	0.31	12.17	1.63441	20.14928	8.45542	28	0.4	2.383	5.958	4	1	0.60855	0.118267253
1	1	100	0.39	14.56	2.44966	30.19972	10.59267	28	0.5	2.851	5.702	5	1	0.72795	0.094404849
1	1	120	0.47	16.26	3.42748	42.25443	13.27086	28	0.61	3.184	5.22	6	1	0.8132	0.075353046
1	1	140	0.54	16.7	4.56709	56.30374	17.21826	28	0.7	3.27	4.671	7	1	0.83495	0.058077847
1	1	160	0.62	16.23	5.87085	72.37669	22.78145	28	0.8	3.177	3.971	8	1	0.81135	0.043895348
1	1	180	0.7	15.57	7.33562	90.43455	29.67012	28	0.9	3.048	3.387	9	1	0.77825	0.033703933
1	2	200	0.77	15.21	8.95747	0	0	28	0.99	2.978	3.008	10	1	0.7604	0

1	2	220	1.55	23.42	12.17995	0	0	28	2	4.585	2.293	11	1	1.17075	0
1	2	240	2.32	26.11	17.03057	0	0	28	3	5.111	1.704	12	1	1.30525	0
1	2	260	3.09	24.83	23.50225	0	0	28	3.99	4.861	1.218	13	1	1.24125	0
1	2	280	3.87	23.41	31.59578	0	0	28	5	4.583	0.917	14	1	1.1704	0
1	2	300	4.65	22.73	41.31273	0	0	28	6	4.451	0.742	15	1	1.1366	0
1	2	320	5.42	23.05	52.65466	0	0	28	7	4.513	0.645	16	1	1.15255	0
1	2	340	6.2	23.25	65.61452	0	0	28	8	4.552	0.569	17	1	1.1625	0
1	2	360	6.97	23.27	80.19779	0	0	28	9	4.556	0.506	18	1	1.16345	0
1	3	380	7.75	23.4	96.57177	0	0	28	10.01	4.582	0.458	19	1	1.17005	0
1	3	400	15.5	35.7	128.8807	0	0	28	20.01	6.991	0.349	20	1	1.78515	0
1	3	420	23.24	41.21	177.49763	0	0	28	30	8.069	0.269	21	1	2.0606	0
1	3	440	30.99	43.75	242.20973	0	0	28	40.01	8.566	0.214	22	1	2.18745	0
1	3	460	38.73	44.17	323.25653	0	0	28	50	8.649	0.173	23	1	2.20865	0
1	3	480	46.48	43.67	420.45191	0	0	28	60.01	8.551	0.142	24	1	2.1837	0
1	3	500	54.22	45.38	533.91681	0	0	28	70	8.885	0.127	25	1	2.26895	0
1	3	520	61.96	46.96	663.50987	0	0	28	79.99	9.194	0.115	26	1	2.3479	0
1	3	540	69.71	49.98	809.50125	0	0	28	90	9.787	0.109	27	1	2.4992	0
1	4	560	77.46	53.48	973.31096	0	0	28	100	10.47	0.105	28	1	2.67375	0
1	4	580	154.92	84.97	1296.26904	0	0	28	200	16.638	0.083	29	1	4.2487	0
1	4	600	232.38	112.51	1782.61114	0	0	28	300	22.03	0.073	30	1	5.6256	0
1	4	620	309.84	137.01	2430.59761	0	0	28	400	26.826	0.067	31	1	6.85025	0
1	4	640	387.3	160.35	3239.92215	0	0	28	500	31.397	0.063	32	1	8.0177	0
1	4	660	464.75	184.62	4213.22054	0	0	28	599.99	36.148	0.06	33	1	9.23085	0
1	4	680	542.21	209.1	5346.35295	0	0	28	699.99	40.942	0.058	34	1	10.455	0
1	4	700	619.67	234.32	6643.82758	0	0	28	799.99	45.879	0.057	35	1	11.7158	0
1	4	720	697.13	258.57	8101.09539	0	0	28	899.99	50.627	0.056	36	1	12.92835	0
1	4	740	774.59	282.04	9724.08299	0	0	28	1000	55.223	0.055	37	1	14.1019	0
1	5	750	774.59	279.31	10551.94056	0	0	28	1000	54.688	0.055	38	1	13.96535	0
1	5	760	774.59	277.98	11365.11748	0	0	28	1000	54.428	0.054	39	1	13.8988	0
1	5	770	774.59	276.84	12175.45517	0	0	28	1000	54.206	0.054	40	1	13.8422	0
1	5	780	774.59	275.82	12985.79365	0	0	28	1000	54.005	0.054	41	1	13.7909	0
1	5	790	774.59	274.86	13797.75241	0	0	28	1000	53.817	0.054	42	1	13.7428	0
1	5	800	774.59	273.92	14609.71353	0	0	28	1000	53.634	0.054	43	1	13.6962	0
1	6	820	774.59	272.86	16250.26185	0	0	28	1000	53.427	0.053	44	1	13.64315	0
1	6	840	697.13	245.94	17713.08871	0	0	28	899.99	48.155	0.054	45	1	12.2969	0
1	6	860	619.67	220.18	19011.29375	0	0	28	799.99	43.112	0.054	46	1	11.00915	0
1	6	880	542.21	195.11	20149.093	0	0	28	699.99	38.202	0.055	47	1	9.7553	0
1	6	900	464.75	170.15	21123.52786	0	0	28	599.99	33.316	0.056	48	1	8.5077	0
1	6	920	387.3	146.05	21936.01834	0	0	28	500	28.596	0.057	49	1	7.30235	0
1	6	940	309.84	122.15	22586.07433	0	0	28	400	23.918	0.06	50	1	6.1077	0
1	6	960	232.38	98.01	23073.8223	0	0	28	300	19.19	0.064	51	1	4.9003	0
1	6	980	154.92	72.3	23399.82537	0	0	28	200	14.156	0.071	52	1	3.6148	0
1	6	1000	77.46	44.27	23563.39789	0	0	28	100	8.668	0.087	53	1	2.2135	0
1	7	1020	69.71	41.24	23710.64277	0	0	28	90	8.074	0.09	54	1	2.06185	0
1	7	1040	61.97	38.12	23840.41489	0	0	28	80	7.463	0.093	55	1	1.9058	0
1	7	1060	54.22	34.72	23954.08635	0	0	28	70	6.798	0.097	56	1	1.736	0
1	7	1080	46.48	30.71	24051.56997	0	0	28	60.01	6.013	0.1	57	1	1.53555	0
1	7	1100	38.73	26.69	24132.8846	0	0	28	50	5.226	0.105	58	1	1.3344	0
1	7	1120	30.99	22.79	24197.84881	0	0	28	40.01	4.461	0.111	59	1	1.1393	0
1	7	1140	23.24	18.16	24246.62439	0	0	28	30	3.556	0.119	60	1	0.9081	0

1	7	1160	15.5	12.81	24279.19564	0	0	28	20.01	2.508	0.125	61	1	0.64055	0
1	7	1180	7.75	6.51	24295.56176	0	0	28	10.01	1.274	0.127	62	1	0.3253	0
1	8	1200	6.97	6.68	24310.26285	0	0	28	9	1.307	0.145	63	1	0.33375	0
1	8	1220	6.2	6.37	24323.24862	0	0	28	8	1.246	0.156	64	1	0.31825	0
1	8	1240	5.42	5.81	24334.62276	0	0	28	7	1.138	0.163	65	1	0.29065	0
1	8	1260	4.64	5.46	24344.35541	0	0	28	5.99	1.068	0.178	66	1	0.27285	0
1	8	1280	3.87	5.14	24352.47564	0	0	28	5	1.006	0.201	67	1	0.25685	0
1	8	1300	3.09	4.32	24358.96931	0	0	28	3.99	0.845	0.212	68	1	0.2159	0
1	8	1320	2.32	3.66	24363.83957	0	0	28	3	0.716	0.239	69	1	0.1829	0
1	8	1340	1.54	2.43	24367.08405	0	0	28	1.99	0.476	0.239	70	1	0.1216	0
1	8	1360	0.77	1.43	24368.70825	0	0	28	0.99	0.279	0.282	71	1	0.07125	0
1	9	1380	0.7	2.46	24370.18166	18.16437	37.76368	28	0.9	0.481	0.534	72	1	0.1228	0.026480412
1	9	1400	0.62	2.91	24371.4862	34.247	60.08235	28	0.8	0.57	0.712	73	1	0.14555	0.016643794
1	9	1420	0.55	3.06	24372.62896	48.33504	80.55827	28	0.71	0.6	0.845	74	1	0.1531	0.012413355
1	9	1440	0.47	3.21	24373.60914	60.4188	96.20813	28	0.61	0.628	1.03	75	1	0.16035	0.010394116
1	9	1460	0.39	3.17	24374.42674	70.49828	113.52362	28	0.5	0.621	1.242	76	1	0.15855	0.008808726
1	9	1480	0.31	3.01	24375.08254	78.58317	133.41772	28	0.4	0.589	1.473	77	1	0.1503	0.007495244
1	9	1500	0.24	2.85	24375.57577	84.66378	151.72693	28	0.31	0.558	1.8	78	1	0.1426	0.006590776
1	9	1520	0.16	2.69	24375.90643	88.74011	168.70711	28	0.21	0.526	2.505	79	1	0.1343	0.005927421
1	9	1540	0.08	1.49	24376.07607	90.83153	312.13477	28	0.1	0.291	2.91	80	1	0.07435	0.003203733

2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 5.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	4.76	0.16415	2.02364	2.17129	28	0.1	0.932	9.32	1	1	0.2379	0.460556225
1	1	40	0.16	6.88	0.49166	6.06125	4.50315	28	0.21	1.346	6.41	2	1	0.3438	0.222066405
1	1	60	0.24	8.97	0.98175	12.10312	6.89243	28	0.31	1.756	5.665	3	1	0.4485	0.145086556
1	1	80	0.31	10.98	1.6352	20.15896	9.37626	28	0.4	2.15	5.375	4	1	0.54915	0.106652327
1	1	100	0.39	12.43	2.45044	30.2094	12.41142	28	0.5	2.434	4.868	5	1	0.62145	0.080570948
1	1	120	0.47	13.11	3.42826	42.26411	16.45798	28	0.61	2.568	4.21	6	1	0.65565	0.060760773
1	1	140	0.54	13.18	4.56866	56.3231	21.82219	28	0.7	2.581	3.687	7	1	0.6592	0.045824892
1	1	160	0.62	12.91	5.87085	72.37669	28.63001	28	0.8	2.528	3.16	8	1	0.64555	0.034928373
1	1	180	0.7	12.83	7.3364	90.44423	36.01919	28	0.9	2.511	2.79	9	1	0.64125	0.027762965
1	2	200	0.77	12.75	8.96061	0	0	28	0.99	2.497	2.522	10	1	0.63755	0
1	2	220	1.55	20.12	12.18074	0	0	28	2	3.939	1.97	11	1	1.00585	0
1	2	240	2.32	23.33	17.03136	0	0	28	3	4.568	1.523	12	1	1.1665	0
1	2	260	3.09	22.26	23.50304	0	0	28	3.99	4.359	1.092	13	1	1.1131	0
1	2	280	3.87	21.25	31.59343	0	0	28	5	4.161	0.832	14	1	1.06245	0
1	2	300	4.65	20.77	41.31037	0	0	28	6	4.067	0.678	15	1	1.0385	0
1	2	320	5.42	21.05	52.65388	0	0	28	7	4.122	0.589	16	1	1.05265	0
1	2	340	6.2	21.27	65.61687	0	0	28	8	4.165	0.521	17	1	1.06365	0
1	2	360	6.97	21.48	80.19936	0	0	28	9	4.206	0.467	18	1	1.074	0
1	3	380	7.75	21.77	96.5702	0	0	28	10.01	4.263	0.426	19	1	1.08855	0
1	3	400	15.5	33.63	128.90347	0	0	28	20.01	6.584	0.329	20	1	1.6813	0
1	3	420	23.24	38.98	177.45129	0	0	28	30	7.633	0.254	21	1	1.94915	0
1	3	440	30.99	40.11	242.24507	0	0	28	40.01	7.854	0.196	22	1	2.0055	0
1	3	460	38.73	39.06	323.24711	0	0	28	50	7.648	0.153	23	1	1.9529	0
1	3	480	46.48	39.65	420.43777	0	0	28	60.01	7.763	0.129	24	1	1.9824	0
1	3	500	54.22	41.55	533.8744	0	0	28	70	8.135	0.116	25	1	2.0775	0
1	3	520	61.96	43.31	663.56484	0	0	28	79.99	8.48	0.106	26	1	2.16555	0
1	3	540	69.71	45.93	809.407	0	0	28	90	8.994	0.1	27	1	2.29665	0

1	4	560	77.46	48.86	973.09811	0	0	28	100	9.566	0.096	28	1	2.44285	0
1	4	580	154.92	78.57	1296.34051	0	0	28	200	15.383	0.077	29	1	3.92835	0
1	4	600	232.38	104.49	1782.0166	0	0	28	300	20.458	0.068	30	1	5.2243	0
1	4	620	309.84	127.63	2429.31427	0	0	28	400	24.99	0.062	31	1	6.3816	0
1	4	640	387.3	149.85	3238.96239	0	0	28	500	29.34	0.059	32	1	7.49225	0
1	4	660	464.75	173.59	4211.04263	0	0	28	599.99	33.99	0.057	33	1	8.67965	0
1	4	680	542.21	197.03	5345.63903	0	0	28	699.99	38.577	0.055	34	1	9.85125	0
1	4	700	619.67	221.68	6642.74608	0	0	28	799.99	43.404	0.054	35	1	11.08375	0
1	4	720	697.13	244.95	8101.47316	0	0	28	899.99	47.961	0.053	36	1	12.24745	0
1	4	740	774.59	267.88	9722.43208	0	0	28	1000	52.45	0.052	37	1	13.39375	0
1	5	750	774.59	266.22	10551.50781	0	0	28	1000	52.126	0.052	38	1	13.3111	0
1	5	760	774.59	265.23	11361.44024	0	0	28	1000	51.931	0.052	39	1	13.26135	0
1	5	770	774.59	264.4	12174.21189	0	0	28	1000	51.77	0.052	40	1	13.22005	0
1	5	780	774.59	263.62	12984.14353	0	0	28	1000	51.616	0.052	41	1	13.18075	0
1	5	790	774.59	262.88	13794.88571	0	0	28	1000	51.471	0.051	42	1	13.14375	0
1	5	800	774.59	262.1	14605.63024	0	0	28	1000	51.319	0.051	43	1	13.105	0
1	6	820	774.59	261.3	16247.80277	0	0	28	1000	51.162	0.051	44	1	13.0649	0
1	6	840	697.13	235.57	17708.43836	0	0	28	899.99	46.124	0.051	45	1	11.77845	0
1	6	860	619.67	210.96	19008.22441	0	0	28	799.99	41.305	0.052	46	1	10.5478	0
1	6	880	542.21	186.73	20144.32171	0	0	28	699.99	36.561	0.052	47	1	9.33625	0
1	6	900	464.75	162.58	21118.79662	0	0	28	599.99	31.833	0.053	48	1	8.12885	0
1	6	920	387.3	139.18	21931.69236	0	0	28	500	27.251	0.055	49	1	6.9588	0
1	6	940	309.84	115.97	22581.91015	0	0	28	400	22.707	0.057	50	1	5.79845	0
1	6	960	232.38	92.55	23069.61649	0	0	28	300	18.122	0.06	51	1	4.6277	0
1	6	980	154.92	67.86	23395.41771	0	0	28	200	13.287	0.066	52	1	3.39305	0
1	6	1000	77.46	41.13	23558.86693	0	0	28	100	8.054	0.081	53	1	2.0567	0
1	7	1020	69.71	38.35	23706.07646	0	0	28	90	7.509	0.083	54	1	1.9174	0
1	7	1040	61.97	35.3	23836.00959	0	0	28	80	6.912	0.086	55	1	1.76515	0
1	7	1060	54.22	32.13	23949.71875	0	0	28	70	6.29	0.09	56	1	1.60635	0
1	7	1080	46.48	28.44	24047.17802	0	0	28	60.01	5.568	0.093	57	1	1.4218	0
1	7	1100	38.73	24.61	24128.3505	0	0	28	50	4.818	0.096	58	1	1.23045	0
1	7	1120	30.99	20.93	24193.40031	0	0	28	40.01	4.099	0.102	59	1	1.04665	0
1	7	1140	23.24	16.58	24242.16804	0	0	28	30	3.247	0.108	60	1	0.82915	0
1	7	1160	15.5	11.57	24274.74636	0	0	28	20.01	2.265	0.113	61	1	0.57835	0
1	7	1180	7.75	5.88	24291.1007	0	0	28	10.01	1.15	0.115	62	1	0.29375	0
1	8	1200	6.97	6.13	24305.81121	0	0	28	9	1.201	0.133	63	1	0.3066	0
1	8	1220	6.2	5.77	24318.80091	0	0	28	8	1.13	0.141	64	1	0.2885	0
1	8	1240	5.42	5.2	24330.15777	0	0	28	7	1.019	0.146	65	1	0.2601	0
1	8	1260	4.64	4.96	24339.89513	0	0	28	5.99	0.971	0.162	66	1	0.2479	0
1	8	1280	3.87	4.52	24348.01537	0	0	28	5	0.884	0.177	67	1	0.22585	0
1	8	1300	3.09	3.96	24354.50668	0	0	28	3.99	0.775	0.194	68	1	0.1978	0
1	8	1320	2.32	3.46	24359.37851	0	0	28	3	0.676	0.225	69	1	0.17275	0
1	8	1340	1.54	2.27	24362.62691	0	0	28	1.99	0.444	0.223	70	1	0.11345	0
1	8	1360	0.77	1.36	24364.24876	0	0	28	0.99	0.266	0.269	71	1	0.0678	0
1	9	1380	0.7	2.34	24365.72452	18.19342	39.72354	28	0.9	0.458	0.509	72	1	0.11705	0.025173937
1	9	1400	0.62	2.69	24367.02828	34.26637	65.02145	28	0.8	0.527	0.659	73	1	0.1347	0.015379511
1	9	1420	0.55	2.98	24368.17104	48.35441	82.94053	28	0.71	0.583	0.821	74	1	0.14875	0.012056811
1	9	1440	0.47	2.93	24369.15122	60.43817	105.47655	28	0.61	0.573	0.939	75	1	0.1464	0.009480764
1	9	1460	0.39	2.94	24369.96882	70.51765	122.63918	28	0.5	0.575	1.15	76	1	0.1468	0.008153987
1	9	1480	0.31	2.9	24370.62462	78.60253	138.62856	28	0.4	0.567	1.417	77	1	0.14485	0.007213508

1	9	1500	0.24	2.73	24371.11785	84.68315	158.28597	28	0.31	0.535	1.726	78	1	0.1366	0.006317668
1	9	1520	0.16	2.62	24371.44851	88.75948	173.35802	28	0.21	0.512	2.438	79	1	0.1308	0.005768398
1	9	1540	0.08	1.43	24371.61737	90.84122	325.5946	28	0.1	0.279	2.79	80	1	0.0713	0.003071293

2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 6.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	5.12	0.16415	2.02364	2.0196	28	0.1	1.002	10.02	1	1	0.256	0.495147358
1	1	40	0.16	7.01	0.49166	6.06125	4.4146	28	0.21	1.373	6.538	2	1	0.35065	0.226520932
1	1	60	0.24	9.03	0.98253	12.11281	6.84726	28	0.31	1.769	5.706	3	1	0.45165	0.146043734
1	1	80	0.31	11.12	1.6352	20.15896	9.25572	28	0.4	2.178	5.445	4	1	0.5562	0.108041288
1	1	100	0.39	12.67	2.45044	30.2094	12.1812	28	0.5	2.48	4.96	5	1	0.63335	0.082093653
1	1	120	0.47	13.14	3.42826	42.26411	16.426	28	0.61	2.573	4.218	6	1	0.65695	0.060879077
1	1	140	0.54	12.81	4.56788	56.31342	22.46246	28	0.7	2.507	3.581	7	1	0.6403	0.044518696
1	1	160	0.62	12.79	5.87164	72.38637	28.91983	28	0.8	2.503	3.129	8	1	0.6393	0.034578333
1	1	180	0.7	12.83	7.33562	90.43455	35.98667	28	0.9	2.513	2.792	9	1	0.6416	0.027788052
1	2	200	0.77	12.71	8.95982	0	0	28	0.99	2.488	2.513	10	1	0.63545	0
1	2	220	1.55	19.72	12.1831	0	0	28	2	3.86	1.93	11	1	0.98575	0
1	2	240	2.32	23	17.02743	0	0	28	3	4.502	1.501	12	1	1.14975	0
1	2	260	3.09	21.92	23.50147	0	0	28	3.99	4.291	1.075	13	1	1.0958	0
1	2	280	3.87	20.93	31.59186	0	0	28	5	4.098	0.82	14	1	1.0464	0
1	2	300	4.65	20.47	41.30959	0	0	28	6	4.008	0.668	15	1	1.0236	0
1	2	320	5.42	20.67	52.64995	0	0	28	7	4.047	0.578	16	1	1.0335	0
1	2	340	6.2	20.86	65.6263	0	0	28	8	4.084	0.51	17	1	1.04285	0
1	2	360	6.97	20.92	80.21664	0	0	28	9	4.096	0.455	18	1	1.04585	0
1	3	380	7.75	21.25	96.57884	0	0	28	10.01	4.161	0.416	19	1	1.06255	0
1	3	400	15.5	32.79	128.92939	0	0	28	20.01	6.421	0.321	20	1	1.6397	0
1	3	420	23.24	37.53	177.47642	0	0	28	30	7.349	0.245	21	1	1.87675	0
1	3	440	30.99	38.04	242.30319	0	0	28	40.01	7.449	0.186	22	1	1.9021	0
1	3	460	38.73	36.84	323.2047	0	0	28	50	7.213	0.144	23	1	1.842	0
1	3	480	46.48	38.01	420.49668	0	0	28	60.01	7.441	0.124	24	1	1.90025	0
1	3	500	54.22	39.81	533.95765	0	0	28	70	7.795	0.111	25	1	1.99065	0
1	3	520	61.96	41.44	663.64731	0	0	28	79.99	8.114	0.101	26	1	2.0719	0
1	3	540	69.71	43.43	809.48947	0	0	28	90	8.504	0.094	27	1	2.1715	0
1	4	560	77.46	46.06	973.26226	0	0	28	100	9.018	0.09	28	1	2.3029	0
1	4	580	154.92	74.43	1296.4646	0	0	28	200	14.573	0.073	29	1	3.72135	0
1	4	600	232.38	99.13	1781.93806	0	0	28	300	19.409	0.065	30	1	4.9563	0
1	4	620	309.84	121.44	2429.47921	0	0	28	400	23.778	0.059	31	1	6.07195	0
1	4	640	387.3	142.88	3239.41164	0	0	28	500	27.976	0.056	32	1	7.14405	0
1	4	660	464.75	165.8	4211.73456	0	0	28	599.99	32.464	0.054	33	1	8.29005	0
1	4	680	542.21	188.59	5345.15365	0	0	28	699.99	36.926	0.053	34	1	9.4295	0
1	4	700	619.67	212.82	6642.58665	0	0	28	799.99	41.67	0.052	35	1	10.64085	0
1	4	720	697.13	235.53	8100.95009	0	0	28	899.99	46.117	0.051	36	1	11.7765	0
1	4	740	774.59	258.39	9721.90901	0	0	28	1000	50.592	0.051	37	1	12.9193	0
1	5	750	774.59	256.94	10548.99768	0	0	28	1000	50.308	0.05	38	1	12.8468	0
1	5	760	774.59	256.15	11360.14669	0	0	28	1000	50.155	0.05	39	1	12.80775	0
1	5	770	774.59	255.42	12171.2957	0	0	28	1000	50.011	0.05	40	1	12.77085	0
1	5	780	774.59	254.9	12982.44393	0	0	28	1000	49.91	0.05	41	1	12.74515	0
1	5	790	774.59	254.42	13794.80795	0	0	28	1000	49.815	0.05	42	1	12.72095	0
1	5	800	774.59	253.9	14606.76907	0	0	28	1000	49.713	0.05	43	1	12.6949	0
1	6	820	774.59	253.58	16249.34608	0	0	28	1000	49.651	0.05	44	1	12.6791	0

1	6	840	697.13	229.25	17709.61725	0	0	28	899.99	44.887	0.05	45	1	11.46245	0
1	6	860	619.67	205.09	19009.07814	0	0	28	799.99	40.156	0.05	46	1	10.25435	0
1	6	880	542.21	181.36	20145.45896	0	0	28	699.99	35.51	0.051	47	1	9.0679	0
1	6	900	464.75	157.69	21120.1373	0	0	28	599.99	30.876	0.051	48	1	7.88465	0
1	6	920	387.3	134.81	21933.19483	0	0	28	500	26.395	0.053	49	1	6.7403	0
1	6	940	309.84	111.99	22583.45346	0	0	28	400	21.927	0.055	50	1	5.59945	0
1	6	960	232.38	89.11	23070.91633	0	0	28	300	17.447	0.058	51	1	4.45525	0
1	6	980	154.92	64.98	23396.9194	0	0	28	200	12.723	0.064	52	1	3.249	0
1	6	1000	77.46	39.13	23560.37018	0	0	28	100	7.661	0.077	53	1	1.9563	0
1	7	1020	69.71	36.4	23707.61663	0	0	28	90	7.126	0.079	54	1	1.8198	0
1	7	1040	61.97	33.54	23837.38325	0	0	28	80	6.568	0.082	55	1	1.6771	0
1	7	1060	54.22	30.41	23951.06414	0	0	28	70	5.954	0.085	56	1	1.5205	0
1	7	1080	46.48	26.87	24048.52263	0	0	28	60.01	5.261	0.088	57	1	1.34335	0
1	7	1100	38.73	23.17	24129.75636	0	0	28	50	4.537	0.091	58	1	1.1586	0
1	7	1120	30.99	19.68	24194.83366	0	0	28	40.01	3.852	0.096	59	1	0.98375	0
1	7	1140	23.24	15.63	24243.60139	0	0	28	30	3.061	0.102	60	1	0.78165	0
1	7	1160	15.5	10.83	24276.18364	0	0	28	20.01	2.121	0.106	61	1	0.5415	0
1	7	1180	7.75	5.48	24292.5262	0	0	28	10.01	1.073	0.107	62	1	0.2741	0
1	8	1200	6.97	5.69	24307.22179	0	0	28	9	1.113	0.124	63	1	0.28425	0
1	8	1220	6.2	5.45	24320.2107	0	0	28	8	1.068	0.134	64	1	0.2727	0
1	8	1240	5.42	5.02	24331.5707	0	0	28	7	0.983	0.14	65	1	0.25105	0
1	8	1260	4.64	4.81	24341.32063	0	0	28	5.99	0.941	0.157	66	1	0.24025	0
1	8	1280	3.87	4.37	24349.43694	0	0	28	5	0.856	0.171	67	1	0.2186	0
1	8	1300	3.09	3.91	24355.93061	0	0	28	3.99	0.766	0.192	68	1	0.1956	0
1	8	1320	2.32	3.32	24360.79851	0	0	28	3	0.649	0.216	69	1	0.1658	0
1	8	1340	1.54	2.18	24364.0477	0	0	28	1.99	0.427	0.215	70	1	0.10905	0
1	8	1360	0.77	1.39	24365.67033	0	0	28	0.99	0.273	0.276	71	1	0.0696	0
1	9	1380	0.7	2.4	24367.14374	18.16437	38.64751	28	0.9	0.47	0.522	72	1	0.1199	0.025874831
1	9	1400	0.62	3.08	24368.44986	34.26637	56.92079	28	0.8	0.602	0.753	73	1	0.15375	0.017568245
1	9	1420	0.55	9.53	24369.5934	48.36409	25.91858	28	0.71	1.866	2.628	74	1	0.47655	0.038582345
1	9	1440	0.47	2.76	24370.572	60.42848	111.69754	28	0.61	0.541	0.887	75	1	0.13815	0.008952732
1	9	1460	0.39	3.52	24371.39039	70.51765	102.49644	28	0.5	0.688	1.376	76	1	0.1758	0.009756423
1	9	1480	0.31	2.96	24372.04541	78.59285	135.50468	28	0.4	0.58	1.45	77	1	0.14815	0.007379806
1	9	1500	0.24	2.67	24372.53942	84.68315	162.22795	28	0.31	0.522	1.684	78	1	0.1333	0.006164154
1	9	1520	0.16	2.38	24372.87008	88.75948	190.06272	28	0.21	0.467	2.224	79	1	0.11915	0.00526141
1	9	1540	0.08	1.65	24373.03894	90.84122	282.11471	28	0.1	0.322	3.22	80	1	0.08235	0.003544646

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	6.01	0.16415	2.02364	1.72078	28	0.1	1.176	11.76	1	1	0.3003	0.581131031
1	1	40	0.16	7.09	0.49166	6.06125	4.36689	28	0.21	1.388	6.61	2	1	0.35445	0.228995669
1	1	60	0.24	9.59	0.98253	12.11281	6.44984	28	0.31	1.878	6.058	3	1	0.47945	0.155042472
1	1	80	0.31	11.9	1.63441	20.14928	8.64776	28	0.4	2.33	5.825	4	1	0.595	0.115636886
1	1	100	0.39	13.51	2.45044	30.2094	11.42564	28	0.5	2.644	5.288	5	1	0.6753	0.087522427
1	1	120	0.47	14.26	3.42826	42.26411	15.13757	28	0.61	2.792	4.577	6	1	0.7129	0.066060778
1	1	140	0.54	14	4.56866	56.3231	20.54088	28	0.7	2.742	3.917	7	1	0.70015	0.0486834
1	1	160	0.62	13.73	5.87164	72.38637	26.93947	28	0.8	2.687	3.359	8	1	0.68625	0.037120248
1	1	180	0.7	13.67	7.3364	90.44423	33.79828	28	0.9	2.676	2.973	9	1	0.68345	0.029587294
1	2	200	0.77	13.21	8.95982	0	0	28	0.99	2.586	2.612	10	1	0.6603	0
1	2	220	1.55	20.53	12.18231	0	0	28	2	4.02	2.01	11	1	1.02645	0

1	2	240	2.32	23.66	17.02665	0	0	28	3	4.633	1.544	12	1	1.18305	0
1	2	260	3.09	22.96	23.49833	0	0	28	3.99	4.496	1.127	13	1	1.1482	0
1	2	280	3.87	21.27	31.59657	0	0	28	5	4.165	0.833	14	1	1.0636	0
1	2	300	4.65	23.11	41.3088	0	0	28	6	4.524	0.754	15	1	1.15525	0
1	2	320	5.42	21.64	52.65938	0	0	28	7	4.237	0.605	16	1	1.082	0
1	2	340	6.2	21.28	65.6263	0	0	28	8	4.166	0.521	17	1	1.0638	0
1	2	360	6.97	21.43	80.20486	0	0	28	9	4.195	0.466	18	1	1.07135	0
1	3	380	7.75	21.5	96.57649	0	0	28	10.01	4.209	0.42	19	1	1.07475	0
1	3	400	15.5	32.39	128.89798	0	0	28	20.01	6.343	0.317	20	1	1.6197	0
1	3	420	23.24	36.08	177.44187	0	0	28	30	7.064	0.235	21	1	1.804	0
1	3	440	30.99	35.78	242.25528	0	0	28	40.01	7.006	0.175	22	1	1.78915	0
1	3	460	38.73	35.51	323.2369	0	0	28	50	6.952	0.139	23	1	1.7754	0
1	3	480	46.48	36.54	420.53045	0	0	28	60.01	7.155	0.119	24	1	1.8271	0
1	3	500	54.22	38.17	533.94273	0	0	28	70	7.473	0.107	25	1	1.9083	0
1	3	520	61.96	39.21	663.535	0	0	28	79.99	7.678	0.096	26	1	1.9606	0
1	3	540	69.71	41.36	809.34495	0	0	28	90	8.099	0.09	27	1	2.06815	0
1	4	560	77.46	44.03	972.99523	0	0	28	100	8.621	0.086	28	1	2.2016	0
1	4	580	154.92	71.65	1296.07662	0	0	28	200	14.029	0.07	29	1	3.5824	0
1	4	600	232.38	95.85	1782.15875	0	0	28	300	18.766	0.063	30	1	4.79225	0
1	4	620	309.84	117.24	2429.65906	0	0	28	400	22.955	0.057	31	1	5.86195	0
1	4	640	387.3	137.98	3238.9027	0	0	28	500	27.017	0.054	32	1	6.8991	0
1	4	660	464.75	159.51	4210.98215	0	0	28	599.99	31.232	0.052	33	1	7.9754	0
1	4	680	542.21	182.99	5345.57855	0	0	28	699.99	35.83	0.051	34	1	9.14965	0
1	4	700	619.67	206.81	6641.71329	0	0	28	799.99	40.494	0.051	35	1	10.34055	0
1	4	720	697.13	228.67	8101.94204	0	0	28	899.99	44.773	0.05	36	1	11.4334	0
1	4	740	774.59	250.91	9722.08886	0	0	28	1000	49.128	0.049	37	1	12.5455	0
1	5	750	774.59	250.23	10551.20465	0	0	28	1000	48.996	0.049	38	1	12.51165	0
1	5	760	774.59	249.9	11361.94839	0	0	28	1000	48.931	0.049	39	1	12.4952	0
1	5	770	774.59	249.87	12172.69136	0	0	28	1000	48.925	0.049	40	1	12.49355	0
1	5	780	774.59	249.91	12983.02905	0	0	28	1000	48.932	0.049	41	1	12.4953	0
1	5	790	774.59	249.44	13794.17807	0	0	28	1000	48.841	0.049	42	1	12.4722	0
1	5	800	774.59	248.99	14606.54445	0	0	28	1000	48.753	0.049	43	1	12.4497	0
1	6	820	774.59	248.54	16247.49882	0	0	28	1000	48.664	0.049	44	1	12.42685	0
1	6	840	697.13	224.22	17709.59526	0	0	28	899.99	43.902	0.049	45	1	11.2109	0
1	6	860	619.67	200.52	19008.40663	0	0	28	799.99	39.261	0.049	46	1	10.0259	0
1	6	880	542.21	177.16	20146.20666	0	0	28	699.99	34.687	0.05	47	1	8.85775	0
1	6	900	464.75	153.86	21119.91189	0	0	28	599.99	30.126	0.05	48	1	7.69305	0
1	6	920	387.3	131.35	21932.56416	0	0	28	500	25.718	0.051	49	1	6.5675	0
1	6	940	309.84	108.89	22582.822	0	0	28	400	21.32	0.053	50	1	5.4443	0
1	6	960	232.38	86.3	23070.89276	0	0	28	300	16.898	0.056	51	1	4.315	0
1	6	980	154.92	62.67	23396.6932	0	0	28	200	12.27	0.061	52	1	3.1333	0
1	6	1000	77.46	37.54	23560.06309	0	0	28	100	7.35	0.074	53	1	1.87695	0
1	7	1020	69.71	34.9	23707.26712	0	0	28	90	6.833	0.076	54	1	1.7448	0
1	7	1040	61.97	32.06	23837.06674	0	0	28	80	6.278	0.078	55	1	1.6031	0
1	7	1060	54.22	28.99	23950.71385	0	0	28	70	5.676	0.081	56	1	1.44935	0
1	7	1080	46.48	25.54	24048.19354	0	0	28	60.01	5	0.083	57	1	1.27685	0
1	7	1100	38.73	21.99	24129.40764	0	0	28	50	4.306	0.086	58	1	1.09955	0
1	7	1120	30.99	18.7	24194.44018	0	0	28	40.01	3.662	0.092	59	1	0.9352	0
1	7	1140	23.24	14.82	24243.25189	0	0	28	30	2.902	0.097	60	1	0.74105	0
1	7	1160	15.5	10.18	24275.81528	0	0	28	20.01	1.992	0.1	61	1	0.5088	0

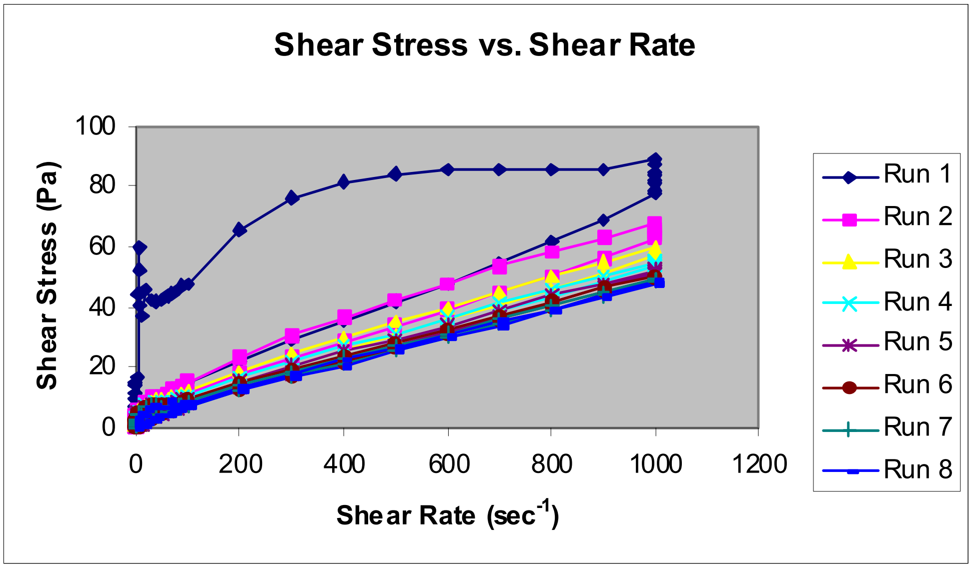
1	7	1180	7.75	4.87	24292.17277	0	0	28	10.01	0.954	0.095	62	1	0.24355	0
1	8	1200	6.97	5.14	24306.88171	0	0	28	9	1.006	0.112	63	1	0.2569	0
1	8	1220	6.2	4.99	24319.86748	0	0	28	8	0.978	0.122	64	1	0.24965	0
1	8	1240	5.42	4.61	24331.22984	0	0	28	7	0.902	0.129	65	1	0.2304	0
1	8	1260	4.64	4.39	24340.96328	0	0	28	5.99	0.859	0.143	66	1	0.2194	0
1	8	1280	3.87	4.04	24349.08429	0	0	28	5	0.792	0.158	67	1	0.2022	0
1	8	1300	3.09	3.54	24355.57561	0	0	28	3.99	0.694	0.174	68	1	0.17715	0
1	8	1320	2.32	3.22	24360.44508	0	0	28	3	0.629	0.21	69	1	0.16075	0
1	8	1340	1.54	1.93	24363.69191	0	0	28	1.99	0.378	0.19	70	1	0.09665	0
1	8	1360	0.77	1.33	24365.3169	0	0	28	0.99	0.26	0.263	71	1	0.06645	0
1	9	1380	0.7	2.72	24366.79267	18.19342	34.13393	28	0.9	0.533	0.592	72	1	0.136	0.029296306
1	9	1400	0.62	2.61	24368.09643	34.26637	67.05734	28	0.8	0.511	0.639	73	1	0.1305	0.01491258
1	9	1420	0.55	2.49	24369.23997	48.36409	99.10654	28	0.71	0.488	0.687	74	1	0.1245	0.010090131
1	9	1440	0.47	2.59	24370.21936	60.43817	119.2072	28	0.61	0.507	0.831	75	1	0.1295	0.008388738
1	9	1460	0.39	2.65	24371.03696	70.51765	136.1342	28	0.5	0.518	1.036	76	1	0.13235	0.007345679
1	9	1480	0.31	2.55	24371.69355	78.61222	157.22413	28	0.4	0.5	1.25	77	1	0.1276	0.006360334
1	9	1500	0.24	2.36	24372.18599	84.68315	183.29646	28	0.31	0.462	1.49	78	1	0.11805	0.005455631
1	9	1520	0.16	2.25	24372.51665	88.75948	201.26821	28	0.21	0.441	2.1	79	1	0.11265	0.004968483
1	9	1540	0.08	1.41	24372.68551	90.84122	330.33051	28	0.1	0.275	2.75	80	1	0.07025	0.00302726

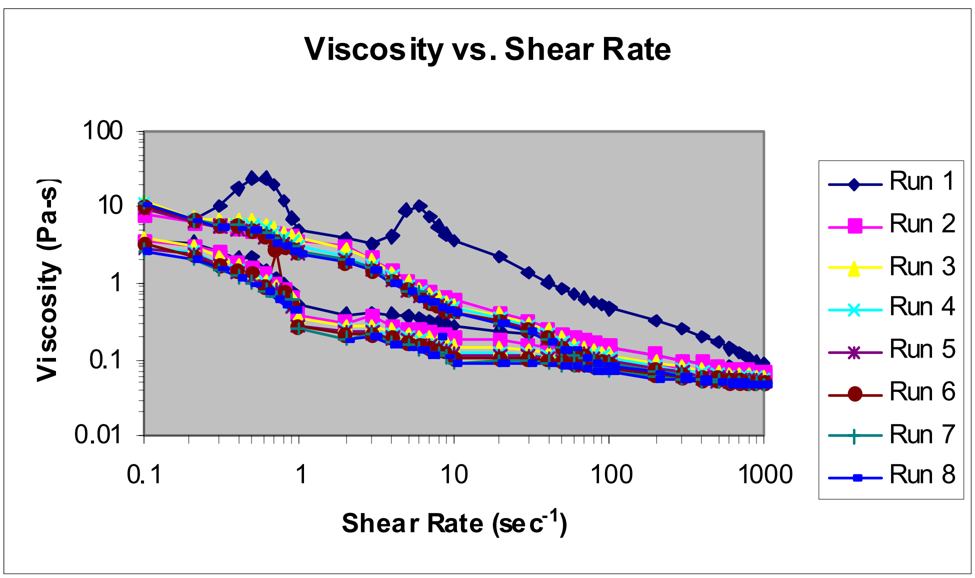
2004.01.22 META-20 wt%-U [not sonicated] 0.1-1000 s-1 CC-45 run 8.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	5.66	0.16336	2.01396	1.81765	28	0.1	1.108	11.08	1	1	0.28295	0.550159884
1	1	40	0.16	7.14	0.49166	6.06125	4.33876	28	0.21	1.397	6.652	2	1	0.35675	0.230480511
1	1	60	0.24	9.04	0.98175	12.10312	6.83792	28	0.31	1.77	5.71	3	1	0.45195	0.146243283
1	1	80	0.31	10.86	1.6352	20.15896	9.48656	28	0.4	2.125	5.313	4	1	0.54275	0.105412184
1	1	100	0.39	12.3	2.45044	30.2094	12.54543	28	0.5	2.408	4.816	5	1	0.61485	0.079710289
1	1	120	0.47	12.54	3.42905	42.27379	17.21245	28	0.61	2.456	4.026	6	1	0.6272	0.058097464
1	1	140	0.54	12.15	4.56866	56.3231	23.67511	28	0.7	2.379	3.399	7	1	0.6076	0.042238442
1	1	160	0.62	12.13	5.87085	72.37669	30.46156	28	0.8	2.376	2.97	8	1	0.60665	0.032828249
1	1	180	0.7	12.34	7.33562	90.43455	37.447	28	0.9	2.415	2.683	9	1	0.61675	0.026704396
1	2	200	0.77	12.03	8.95904	0	0	28	0.99	2.356	2.38	10	1	0.60155	0
1	2	220	1.55	19.4	12.17995	0	0	28	2	3.798	1.899	11	1	0.9699	0
1	2	240	2.32	22.06	17.02743	0	0	28	3	4.319	1.44	12	1	1.103	0
1	2	260	3.09	21.08	23.50225	0	0	28	3.99	4.126	1.034	13	1	1.05375	0
1	2	280	3.87	20.21	31.59735	0	0	28	5	3.957	0.791	14	1	1.0105	0
1	2	300	4.65	20.09	41.3088	0	0	28	6	3.934	0.656	15	1	1.00455	0
1	2	320	5.42	20.31	52.65231	0	0	28	7	3.977	0.568	16	1	1.0155	0
1	2	340	6.2	20.46	65.61923	0	0	28	8	4.005	0.501	17	1	1.0228	0
1	2	360	6.97	20.51	80.20329	0	0	28	9	4.015	0.446	18	1	1.0253	0
1	3	380	7.75	20.79	96.57727	0	0	28	10.01	4.071	0.407	19	1	1.0395	0
1	3	400	15.5	31.88	128.85556	0	0	28	20.01	6.242	0.312	20	1	1.5941	0
1	3	420	23.27	36.78	177.47171	0	0	28	30.04	7.202	0.24	21	1	1.8392	0
1	3	440	30.99	34.71	242.21601	0	0	28	40.01	6.796	0.17	22	1	1.73545	0
1	3	460	38.73	34.49	323.27538	0	0	28	50	6.754	0.135	23	1	1.7246	0
1	3	480	46.48	44.5	420.47076	0	0	28	60.01	8.713	0.145	24	1	2.22505	0
1	3	500	54.22	37.03	533.93959	0	0	28	70	7.25	0.104	25	1	1.85135	0
1	3	520	61.96	37.56	663.49966	0	0	28	79.99	7.353	0.092	26	1	1.87775	0
1	3	540	69.71	39.74	809.49104	0	0	28	90	7.781	0.086	27	1	1.9871	0
1	4	560	77.46	42.25	973.06199	0	0	28	100	8.273	0.083	28	1	2.1126	0

1	4	580	154.92	69.12	1296.58948	0	0	28	200	13.533	0.068	29	1	3.4559	0
1	4	600	232.38	92.66	1781.94041	0	0	28	300	18.143	0.06	30	1	4.63315	0
1	4	620	309.84	113.78	2430.13109	0	0	28	400	22.278	0.056	31	1	5.6889	0
1	4	640	387.3	134.25	3239.41557	0	0	28	500	26.285	0.053	32	1	6.7123	0
1	4	660	464.75	155.62	4211.25155	0	0	28	599.99	30.469	0.051	33	1	7.78075	0
1	4	680	542.21	179.22	5346.415	0	0	28	699.99	35.092	0.05	34	1	8.9612	0
1	4	700	619.67	201.14	6641.61668	0	0	28	799.99	39.383	0.049	35	1	10.0569	0
1	4	720	697.13	223.01	8101.80617	0	0	28	899.99	43.665	0.049	36	1	11.15035	0
1	4	740	774.59	245.55	9723.17036	0	0	28	1000	48.078	0.048	37	1	12.27725	0
1	5	750	774.59	245.06	10550.62267	0	0	28	1000	47.982	0.048	38	1	12.2528	0
1	5	760	774.59	245.12	11361.36563	0	0	28	1000	47.995	0.048	39	1	12.25605	0
1	5	770	774.59	245.05	12172.51464	0	0	28	1000	47.981	0.048	40	1	12.25245	0
1	5	780	774.59	244.77	12986.09917	0	0	28	1000	47.927	0.048	41	1	12.23865	0
1	5	790	774.59	244.64	13795.21793	0	0	28	1000	47.9	0.048	42	1	12.2319	0
1	5	800	774.59	244.26	14606.77378	0	0	28	1000	47.827	0.048	43	1	12.21315	0
1	6	820	774.59	243.89	16247.3221	0	0	28	1000	47.754	0.048	44	1	12.1946	0
1	6	840	697.13	220.17	17709.05333	0	0	28	899.99	43.109	0.048	45	1	11.0083	0
1	6	860	619.67	196.71	19008.55507	0	0	28	799.99	38.516	0.048	46	1	9.83555	0
1	6	880	542.21	173.66	20145.21863	0	0	28	699.99	34.003	0.049	47	1	8.6831	0
1	6	900	464.75	150.6	21119.93859	0	0	28	599.99	29.488	0.049	48	1	7.53015	0
1	6	920	387.3	128.34	21932.59007	0	0	28	500	25.129	0.05	49	1	6.41695	0
1	6	940	309.84	106.2	22583.29481	0	0	28	400	20.793	0.052	50	1	5.30975	0
1	6	960	232.38	83.96	23070.75611	0	0	28	300	16.439	0.055	51	1	4.198	0
1	6	980	154.92	60.74	23396.8008	0	0	28	200	11.892	0.059	52	1	3.03685	0
1	6	1000	77.46	36.13	23560.20996	0	0	28	100	7.074	0.071	53	1	1.8064	0
1	7	1020	69.71	33.55	23707.45562	0	0	28	90	6.569	0.073	54	1	1.6774	0
1	7	1040	61.97	30.78	23837.25523	0	0	28	80	6.027	0.075	55	1	1.53915	0
1	7	1060	54.22	27.92	23951.04372	0	0	28	70	5.467	0.078	56	1	1.39615	0
1	7	1080	46.48	24.52	24048.50299	0	0	28	60.01	4.801	0.08	57	1	1.226	0
1	7	1100	38.73	21.12	24129.68017	0	0	28	50	4.136	0.083	58	1	1.05615	0
1	7	1120	30.99	17.83	24194.6813	0	0	28	40.01	3.492	0.087	59	1	0.8917	0
1	7	1140	23.24	14.1	24243.49693	0	0	28	30	2.76	0.092	60	1	0.7049	0
1	7	1160	15.5	9.63	24276.0674	0	0	28	20.01	1.885	0.094	61	1	0.4813	0
1	7	1180	7.75	4.74	24292.41782	0	0	28	10.01	0.928	0.093	62	1	0.2369	0
1	8	1200	6.97	5.03	24307.13618	0	0	28	9	0.984	0.109	63	1	0.25125	0
1	8	1220	6.2	8.24	24320.10781	0	0	28	8	1.613	0.202	64	1	0.41195	0
1	8	1240	5.42	4.21	24331.46781	0	0	28	7	0.824	0.118	65	1	0.21035	0
1	8	1260	4.64	4.04	24341.20989	0	0	28	5.99	0.791	0.132	66	1	0.2019	0
1	8	1280	3.87	3.66	24349.3262	0	0	28	5	0.717	0.143	67	1	0.1831	0
1	8	1300	3.09	3.29	24355.82222	0	0	28	3.99	0.644	0.161	68	1	0.16435	0
1	8	1320	2.32	3.08	24360.69012	0	0	28	3	0.603	0.201	69	1	0.1539	0
1	8	1340	1.54	1.78	24363.93617	0	0	28	1.99	0.349	0.175	70	1	0.08905	0
1	8	1360	0.77	0	24365.56038	0	0	28	0.99	0	0	71	1	0	0
1	9	1380	0.7	1.99	24367.03614	18.19342	46.7696	28	0.9	0.389	0.432	72	1	0.09935	0.021381357
1	9	1400	0.62	2.15	24368.3399	34.26637	81.19974	28	0.8	0.422	0.528	73	1	0.10775	0.012315282
1	9	1420	0.55	2.34	24369.48344	48.36409	105.36816	28	0.71	0.459	0.646	74	1	0.1172	0.009490512
1	9	1440	0.47	2.5	24370.46283	60.43817	123.59519	28	0.61	0.489	0.802	75	1	0.12495	0.008090913
1	9	1460	0.39	2.48	24371.28043	70.51765	145.39692	28	0.5	0.485	0.97	76	1	0.12375	0.006877711
1	9	1480	0.31	2.44	24371.93702	78.61222	164.80515	28	0.4	0.477	1.193	77	1	0.1218	0.006067759
1	9	1500	0.24	2.51	24372.42947	84.68315	172.47042	28	0.31	0.491	1.584	78	1	0.1255	0.005798084

1	9	1520	0.16	2.31	24372.76012	88.75948	195.93661	28	0.21	0.453	2.157	79	1	0.1156	0.00510368
1	9	1540	0.08	1.37	24372.92977	90.8509	337.73443	28	0.1	0.269	2.69	80	1	0.0687	0.002960895





E-2.1.22 META/20wt%/U/S

2004.02.12 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	27.31	0.16179	1.9946	0.373	28	0.1	5.348	53.48	1	1	1.366	2.6812528
1	1	40	0.16	12.85	0.4893	6.0322	2.3975	28	0.21	2.516	11.981	2	1	0.642	0.4170949
1	1	60	0.24	19.14	0.97704	12.045	3.2146	28	0.31	3.747	12.087	3	1	0.957	0.3110827
1	1	80	0.31	29.38	1.62734	20.062	3.4873	28	0.4	5.753	14.383	4	1	1.469	0.286759
1	1	100	0.39	41.17	2.43866	30.064	3.73	28	0.5	8.06	16.12	5	1	2.058	0.2680933
1	1	120	0.47	51.68	3.41413	42.09	4.1595	28	0.61	10.12	16.589	6	1	2.584	0.2404144

1	1	140	0.54	52.07	4.55609	56.168	5.5099	28	0.7	10.19	14.563	7	1	2.603	0.1814907
1	1	160	0.62	43.68	5.86221	72.27	8.4507	28	0.8	8.552	10.69	8	1	2.184	0.1183337
1	1	180	0.7	28.81	7.33248	90.396	16.025	28	0.9	5.641	6.268	9	1	1.441	0.0624033
1	2	200	0.77	34.59	8.94804	0	0	28	0.99	6.773	6.841	10	1	1.73	0
1	2	220	1.55	77.14	12.16739	0	0	28	2	15.1	7.552	11	1	3.857	0
1	2	240	2.31	117.2	16.98502	0	0	28	2.98	22.94	7.698	12	1	5.858	0
1	2	260	3.09	186.5	23.44571	0	0	28	3.99	36.53	9.154	13	1	9.327	0
1	2	280	3.87	190.9	31.53609	0	0	28	5	37.38	7.475	14	1	9.545	0
1	2	300	4.64	256.5	41.22398	0	0	28	5.99	50.21	8.383	15	1	12.82	0
1	2	320	5.42	271.7	52.57141	0	0	28	7	53.2	7.599	16	1	13.58	0
1	2	340	6.2	234.5	65.54619	0	0	28	8	45.92	5.74	17	1	11.73	0
1	2	360	6.97	196.9	80.14674	0	0	28	9	38.55	4.283	18	1	9.843	0
1	3	380	7.75	176.5	96.53329	0	0	28	10.01	34.57	3.453	19	1	8.827	0
1	3	400	15.51	186.7	128.8697	0	0	28	20.02	36.56	1.826	20	1	9.336	0
1	3	420	23.25	142.3	177.40652	0	0	28	30.02	27.86	0.928	21	1	7.115	0
1	3	440	30.99	116.6	242.23564	0	0	28	40.01	22.82	0.57	22	1	5.828	0
1	3	460	38.73	105.2	323.17564	0	0	28	50	20.6	0.412	23	1	5.262	0
1	3	480	46.48	96.08	420.39772	0	0	28	60.01	18.81	0.313	24	1	4.804	0
1	3	500	54.22	81.6	533.86419	0	0	28	70	15.98	0.228	25	1	4.08	0
1	3	520	61.96	74.66	663.52243	0	0	28	79.99	14.62	0.183	26	1	3.733	0
1	3	540	69.71	71.45	809.29155	0	0	28	90	13.99	0.155	27	1	3.573	0
1	4	560	77.46	70.98	972.98423	0	0	28	100	13.9	0.139	28	1	3.549	0
1	4	580	154.9	117.6	1296.1858	0	0	28	200	23.02	0.115	29	1	5.877	0
1	4	600	232.4	133.1	1781.8234	0	0	28	300	26.06	0.087	30	1	6.654	0
1	4	620	309.8	136.5	2428.8807	0	0	28	400	26.72	0.067	31	1	6.823	0
1	4	640	387.3	142.2	3239.1807	0	0	28	500	27.84	0.056	32	1	7.108	0
1	4	660	464.8	150.7	4211.4652	0	0	28	600	29.5	0.049	33	1	7.533	0
1	4	680	542.2	173.1	5344.9275	0	0	28	700	33.89	0.048	34	1	8.655	0
1	4	700	619.7	170.4	6642.0793	0	0	28	800	33.36	0.042	35	1	8.518	0
1	4	720	697.1	181.2	8100.1231	0	0	28	900	35.48	0.039	36	1	9.061	0
1	4	740	774.6	190.9	9721.8925	0	0	28	1000	37.37	0.037	37	1	9.542	0
1	5	750	774.6	183.3	10550.564	0	0	28	1000	35.88	0.036	38	1	9.164	0
1	5	760	774.6	180.4	11361.307	0	0	28	1000	35.32	0.035	39	1	9.02	0
1	5	770	774.6	182.4	12171.644	0	0	28	1000	35.71	0.036	40	1	9.12	0
1	5	780	774.6	178.7	12984.415	0	0	28	1000	34.99	0.035	41	1	8.934	0
1	5	790	774.6	177.2	13795.565	0	0	28	1000	34.69	0.035	42	1	8.859	0
1	5	800	774.6	180.7	14606.713	0	0	28	1000	35.39	0.035	43	1	9.036	0
1	6	820	774.6	183.9	16247.668	0	0	28	1000	36	0.036	44	1	9.193	0
1	6	840	697.1	151.4	17709.441	0	0	28	900	29.65	0.033	45	1	7.572	0
1	6	860	619.7	120.8	19009.267	0	0	28	800	23.65	0.03	46	1	6.038	0
1	6	880	542.2	106.3	20145.362	0	0	28	700	20.82	0.03	47	1	5.317	0
1	6	900	464.8	89.23	21120.81	0	0	28	600	17.47	0.029	48	1	4.461	0
1	6	920	387.3	73.54	21932.245	0	0	28	500	14.4	0.029	49	1	3.677	0
1	6	940	309.8	58.69	22582.623	0	0	28	400	11.49	0.029	50	1	2.934	0
1	6	960	232.4	44.39	23070.935	0	0	28	300	8.691	0.029	51	1	2.219	0
1	6	980	154.9	30.09	23396.45	0	0	28	200	5.891	0.029	52	1	1.504	0
1	6	1000	77.46	16.79	23560.069	0	0	28	100	3.288	0.033	53	1	0.84	0
1	7	1020	69.71	17.94	23707.589	0	0	28	90	3.513	0.039	54	1	0.897	0
1	7	1040	61.97	17.7	23837.454	0	0	28	80	3.466	0.043	55	1	0.885	0
1	7	1060	54.22	16.83	23951.162	0	0	28	70	3.295	0.047	56	1	0.842	0

1	7	1080	46.48	15.74	24048.616	0	0	28	60.01	3.081	0.051	57	1	0.787	0
1	7	1100	38.73	14.66	24129.817	0	0	28	50	2.87	0.057	58	1	0.733	0
1	7	1120	30.99	13.75	24194.866	0	0	28	40.01	2.692	0.067	59	1	0.688	0
1	7	1140	23.24	12.45	24243.616	0	0	28	30	2.438	0.081	60	1	0.623	0
1	7	1160	15.5	10.6	24276.202	0	0	28	20.01	2.075	0.104	61	1	0.53	0
1	7	1180	7.75	8.29	24292.536	0	0	28	10.01	1.623	0.162	62	1	0.414	0
1	8	1200	6.97	10.82	24307.238	0	0	28	9	2.118	0.235	63	1	0.541	0
1	8	1220	6.2	11.9	24320.23	0	0	28	8	2.33	0.291	64	1	0.595	0
1	8	1240	5.42	12.69	24331.582	0	0	28	7	2.485	0.355	65	1	0.635	0
1	8	1260	4.64	13.19	24341.323	0	0	28	5.99	2.583	0.431	66	1	0.66	0
1	8	1280	3.87	13.31	24349.44	0	0	28	5	2.606	0.521	67	1	0.665	0
1	8	1300	3.09	13.22	24355.935	0	0	28	3.99	2.588	0.649	68	1	0.661	0
1	8	1320	2.32	13.06	24360.807	0	0	28	3	2.557	0.852	69	1	0.653	0
1	8	1340	1.54	11.96	24364.052	0	0	28	1.99	2.342	1.177	70	1	0.598	0
1	8	1360	0.77	10.74	24365.675	0	0	28	0.99	2.103	2.124	71	1	0.537	0
1	9	1380	0.7	13.75	24367.15	18.184	6.7547	28	0.9	2.692	2.991	72	1	0.687	0.1480444
1	9	1400	0.62	14.37	24368.454	34.257	12.174	28	0.8	2.814	3.518	73	1	0.719	0.0821446
1	9	1420	0.55	14.3	24369.597	48.354	17.269	28	0.71	2.8	3.944	74	1	0.715	0.0579058
1	9	1440	0.47	14.59	24370.577	60.428	21.158	28	0.61	2.856	4.682	75	1	0.729	0.0472625
1	9	1460	0.39	15.01	24371.394	70.508	23.99	28	0.5	2.939	5.878	76	1	0.75	0.0416832
1	9	1480	0.31	15.23	24372.049	78.583	26.361	28	0.4	2.981	7.453	77	1	0.761	0.0379343
1	9	1500	0.24	15.73	24372.543	84.664	27.488	28	0.31	3.08	9.935	78	1	0.787	0.0363792
1	9	1520	0.16	16.02	24372.873	88.74	28.288	28	0.21	3.137	14.938	79	1	0.801	0.0353504
1	9	1540	0.08	13.6	24373.042	90.822	34.118	28	0.1	2.662	26.62	80	1	0.68	0.0293101

2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 2.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	17.18	0.15944	1.9656	0.5845	28	0.1	3.363	33.63	1	2	0.859	1.7109715
1	1	40	0.16	25.46	0.48538	5.9838	1.2001	28	0.21	4.986	23.743	2	2	1.273	0.8332526
1	1	60	0.24	30.46	0.97468	12.016	2.0144	28	0.31	5.965	19.242	3	2	1.523	0.4964223
1	1	80	0.31	32.53	1.62813	20.072	3.151	28	0.4	6.37	15.925	4	2	1.627	0.3173604
1	1	100	0.39	32.68	2.44416	30.132	4.7096	28	0.5	6.398	12.796	5	2	1.634	0.2123328
1	1	120	0.47	31.18	3.42277	42.196	6.9118	28	0.61	6.105	10.008	6	2	1.559	0.1446808
1	1	140	0.54	29.25	4.56395	56.265	9.8245	28	0.7	5.727	8.181	7	2	1.462	0.1017862
1	1	160	0.62	27.41	5.86614	72.319	13.475	28	0.8	5.367	6.709	8	2	1.371	0.0742133
1	1	180	0.7	26.67	7.33248	90.396	17.307	28	0.9	5.223	5.803	9	2	1.334	0.0577792
1	2	200	0.77	26.24	8.95511	0	0	28	0.99	5.138	5.19	10	2	1.312	0
1	2	220	1.55	37.68	12.1776	0	0	28	2	7.378	3.689	11	2	1.884	0
1	2	240	2.32	41.46	17.02743	0	0	28	3	8.118	2.706	12	2	2.073	0
1	2	260	3.09	43.41	23.49362	0	0	28	3.99	8.5	2.13	13	2	2.171	0
1	2	280	3.87	45.93	31.59107	0	0	28	5	8.993	1.799	14	2	2.296	0
1	2	300	4.65	48.95	41.30252	0	0	28	6	9.584	1.597	15	2	2.447	0
1	2	320	5.42	52.95	52.65623	0	0	28	7	10.37	1.481	16	2	2.648	0
1	2	340	6.2	56.01	65.61609	0	0	28	8	10.97	1.371	17	2	2.801	0
1	2	360	6.97	58.82	80.19465	0	0	28	9	11.52	1.28	18	2	2.941	0
1	3	380	7.75	61.25	96.55999	0	0	28	10.01	11.99	1.198	19	2	3.062	0
1	3	400	15.5	98.29	128.89562	0	0	28	20.01	19.25	0.962	20	2	4.915	0
1	3	420	23.25	99.67	177.44422	0	0	28	30.02	19.52	0.65	21	2	4.984	0
1	3	440	30.99	94.44	242.27413	0	0	28	40.01	18.49	0.462	22	2	4.722	0
1	3	460	38.73	89.55	323.25653	0	0	28	50	17.53	0.351	23	2	4.478	0

1	3	480	46.48	89.68	420.50061	0	0	28	60.01	17.56	0.293	24	2	4.484	0
1	3	500	54.22	89.39	533.90896	0	0	28	70	17.5	0.25	25	2	4.47	0
1	3	520	61.96	90.46	663.53814	0	0	28	79.99	17.71	0.221	26	2	4.523	0
1	3	540	69.71	91.85	809.49339	0	0	28	90	17.98	0.2	27	2	4.592	0
1	4	560	77.46	94.39	973.06513	0	0	28	100	18.48	0.185	28	2	4.719	0
1	4	580	154.9	126.2	1296.6335	0	0	28	200	24.72	0.124	29	2	6.312	0
1	4	600	232.4	136.3	1781.8257	0	0	28	300	26.68	0.089	30	2	6.814	0
1	4	620	309.8	140.4	2429.6528	0	0	28	400	27.48	0.069	31	2	7.018	0
1	4	640	387.3	149.6	3239.9952	0	0	28	500	29.3	0.059	32	2	7.481	0
1	4	660	464.8	141.1	4211.799	0	0	28	600	27.62	0.046	33	2	7.054	0
1	4	680	542.2	151.1	5345.8236	0	0	28	700	29.58	0.042	34	2	7.553	0
1	4	700	619.7	180.4	6642	0	0	28	800	35.31	0.044	35	2	9.017	0
1	4	720	697.1	180.5	8102.1541	0	0	28	900	35.33	0.039	36	2	9.022	0
1	4	740	774.6	187.6	9721.8964	0	0	28	1000	36.73	0.037	37	2	9.378	0
1	5	750	774.6	176.6	10551.378	0	0	28	1000	34.57	0.035	38	2	8.829	0
1	5	760	774.6	174.5	11361.311	0	0	28	1000	34.17	0.034	39	2	8.726	0
1	5	770	774.6	173.3	12171.648	0	0	28	1000	33.93	0.034	40	2	8.665	0
1	5	780	774.6	172.9	12984.826	0	0	28	1000	33.85	0.034	41	2	8.643	0
1	5	790	774.6	172.1	13796.381	0	0	28	1000	33.7	0.034	42	2	8.605	0
1	5	800	774.6	171.7	14604.69	0	0	28	1000	33.62	0.034	43	2	8.585	0
1	6	820	774.6	170.6	16247.268	0	0	28	1000	33.4	0.033	44	2	8.528	0
1	6	840	697.1	142.4	17707.497	0	0	28	900	27.88	0.031	45	2	7.119	0
1	6	860	619.7	111.2	19007.326	0	0	28	800	21.76	0.027	46	2	5.557	0
1	6	880	542.2	95.72	20143.989	0	0	28	700	18.74	0.027	47	2	4.786	0
1	6	900	464.8	81.18	21119.152	0	0	28	600	15.89	0.026	48	2	4.059	0
1	6	920	387.3	67.16	21931.234	0	0	28	500	13.15	0.026	49	2	3.358	0
1	6	940	309.8	53.71	22581.126	0	0	28	400	10.52	0.026	50	2	2.685	0
1	6	960	232.4	40.56	23069.316	0	0	28	300	7.942	0.026	51	2	2.028	0
1	6	980	154.9	27.46	23394.79	0	0	28	200	5.377	0.027	52	2	1.373	0
1	6	1000	77.46	15.4	23558.495	0	0	28	100	3.015	0.03	53	2	0.77	0
1	7	1020	69.71	16.42	23705.593	0	0	28	90	3.215	0.036	54	2	0.821	0
1	7	1040	61.97	16.11	23835.554	0	0	28	80	3.155	0.039	55	2	0.806	0
1	7	1060	54.22	15.38	23949.177	0	0	28	70	3.01	0.043	56	2	0.769	0
1	7	1080	46.48	14.33	24046.729	0	0	28	60.01	2.805	0.047	57	2	0.716	0
1	7	1100	38.73	13.23	24127.885	0	0	28	50	2.59	0.052	58	2	0.661	0
1	7	1120	30.99	12.36	24192.897	0	0	28	40.01	2.421	0.061	59	2	0.618	0
1	7	1140	23.24	11.06	24241.725	0	0	28	30	2.165	0.072	60	2	0.553	0
1	7	1160	15.5	9.45	24274.287	0	0	28	20.01	1.851	0.093	61	2	0.473	0
1	7	1180	7.75	7.56	24290.62	0	0	28	10.01	1.48	0.148	62	2	0.378	0
1	8	1200	6.97	9.48	24305.331	0	0	28	9	1.855	0.206	63	2	0.474	0
1	8	1220	6.2	10	24318.312	0	0	28	8	1.958	0.245	64	2	0.5	0
1	8	1240	5.42	10.24	24329.677	0	0	28	7	2.005	0.286	65	2	0.512	0
1	8	1260	4.64	10.72	24339.412	0	0	28	5.99	2.099	0.35	66	2	0.536	0
1	8	1280	3.87	10.79	24347.528	0	0	28	5	2.112	0.422	67	2	0.539	0
1	8	1300	3.09	11.03	24354.019	0	0	28	3.99	2.16	0.541	68	2	0.552	0
1	8	1320	2.32	11.08	24358.888	0	0	28	3	2.17	0.723	69	2	0.554	0
1	8	1340	1.54	10.46	24362.137	0	0	28	1.99	2.047	1.029	70	2	0.523	0
1	8	1360	0.77	9.49	24363.759	0	0	28	0.99	1.859	1.878	71	2	0.475	0
1	9	1380	0.7	12.24	24365.234	18.184	7.586	28	0.9	2.397	2.663	72	2	0.612	0.1318211
1	9	1400	0.62	12.68	24366.538	34.266	13.806	28	0.8	2.482	3.103	73	2	0.634	0.0724325

1	9	1420	0.55	12.73	24367.679	48.335	19.396	28	0.71	2.492	3.51	74	2	0.636	0.0515568
1	9	1440	0.47	12.9	24368.66	60.428	23.932	28	0.61	2.525	4.139	75	2	0.645	0.0417849
1	9	1460	0.39	13.11	24369.478	70.508	27.467	28	0.5	2.567	5.134	76	2	0.655	0.0364072
1	9	1480	0.31	13.36	24370.134	78.593	30.043	28	0.4	2.616	6.54	77	2	0.668	0.0332855
1	9	1500	0.24	13.91	24370.626	84.664	31.081	28	0.31	2.724	8.787	78	2	0.696	0.0321743
1	9	1520	0.16	14.01	24370.957	88.74	32.363	28	0.21	2.742	13.057	79	2	0.7	0.0308992
1	9	1540	0.08	12.26	24371.126	90.822	37.842	28	0.1	2.4	24	80	2	0.613	0.0264254

2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 3.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	16.21	0.15944	1.9656	0.6191	28	0.1	3.175	31.75	1	3	0.811	1.615324
1	1	40	0.16	24	0.48616	5.9935	1.2752	28	0.21	4.7	22.381	2	3	1.2	0.7841868
1	1	60	0.24	28.16	0.97625	12.035	2.1831	28	0.31	5.513	17.784	3	3	1.408	0.4580673
1	1	80	0.31	29.64	1.6297	20.091	3.4622	28	0.4	5.803	14.507	4	3	1.482	0.2888331
1	1	100	0.39	28.51	2.44573	30.151	5.4015	28	0.5	5.582	11.164	5	3	1.426	0.185133
1	1	120	0.47	26.22	3.42434	42.216	8.2244	28	0.61	5.133	8.415	6	3	1.311	0.1215898
1	1	140	0.54	24.2	4.56552	56.284	11.879	28	0.7	4.738	6.769	7	3	1.21	0.0841797
1	1	160	0.62	22.93	5.8685	72.348	16.117	28	0.8	4.489	5.611	8	3	1.146	0.0620476
1	1	180	0.7	22.66	7.33405	90.415	20.382	28	0.9	4.436	4.929	9	3	1.133	0.0490626
1	2	200	0.77	22.62	8.95668	0	0	28	0.99	4.43	4.475	10	3	1.131	0
1	2	220	1.55	32.7	12.17995	0	0	28	2	6.402	3.201	11	3	1.635	0
1	2	240	2.32	36.42	17.02508	0	0	28	3	7.13	2.377	12	3	1.821	0
1	2	260	3.09	39.14	23.49833	0	0	28	3.99	7.663	1.921	13	3	1.957	0
1	2	280	3.87	41.93	31.59028	0	0	28	5	8.21	1.642	14	3	2.097	0
1	2	300	4.65	44.92	41.30645	0	0	28	6	8.796	1.466	15	3	2.246	0
1	2	320	5.42	48.64	52.64681	0	0	28	7	9.524	1.361	16	3	2.432	0
1	2	340	6.2	51.51	65.61609	0	0	28	8	10.09	1.261	17	3	2.576	0
1	2	360	6.97	54.3	80.19544	0	0	28	9	10.63	1.181	18	3	2.715	0
1	3	380	7.75	57.15	96.55685	0	0	28	10.01	11.19	1.118	19	3	2.858	0
1	3	400	15.5	92.82	128.9129	0	0	28	20.01	18.17	0.908	20	3	4.641	0
1	3	420	23.24	95.59	177.47328	0	0	28	30	18.72	0.624	21	3	4.78	0
1	3	440	30.99	91.27	242.2058	0	0	28	40.01	17.87	0.447	22	3	4.564	0
1	3	460	38.73	88.95	323.22904	0	0	28	50	17.42	0.348	23	3	4.448	0
1	3	480	46.48	87.52	420.44877	0	0	28	60.01	17.14	0.286	24	3	4.376	0
1	3	500	54.22	87.98	533.85634	0	0	28	70	17.23	0.246	25	3	4.399	0
1	3	520	61.96	86.7	663.64967	0	0	28	79.99	16.98	0.212	26	3	4.335	0
1	3	540	69.71	74.97	809.38815	0	0	28	90	14.68	0.163	27	3	3.748	0
1	4	560	77.46	72.41	973.08005	0	0	28	100	14.18	0.142	28	3	3.62	0
1	4	580	154.9	117.3	1296.3225	0	0	28	200	22.96	0.115	29	3	5.863	0
1	4	600	232.4	128.2	1781.9208	0	0	28	300	25.1	0.084	30	3	6.41	0
1	4	620	309.8	132.4	2428.8957	0	0	28	400	25.92	0.065	31	3	6.619	0
1	4	640	387.3	151.3	3239.2357	0	0	28	500	29.62	0.059	32	3	7.564	0
1	4	660	464.8	136.9	4211.0819	0	0	28	600	26.8	0.045	33	3	6.843	0
1	4	680	542.2	141.6	5345.6359	0	0	28	700	27.73	0.04	34	3	7.082	0
1	4	700	619.7	155.4	6642.7461	0	0	28	800	30.42	0.038	35	3	7.768	0
1	4	720	697.1	170.9	8100.7475	0	0	28	900	33.47	0.037	36	3	8.547	0
1	4	740	774.6	185.8	9720.8982	0	0	28	1000	36.39	0.036	37	3	9.292	0
1	5	750	774.6	173	10549.569	0	0	28	1000	33.88	0.034	38	3	8.651	0
1	5	760	774.6	171.5	11359.906	0	0	28	1000	33.57	0.034	39	3	8.573	0
1	5	770	774.6	170.3	12170.649	0	0	28	1000	33.35	0.033	40	3	8.516	0

1	5	780	774.6	170.9	12983.013	0	0	28	1000	33.47	0.033	41	3	8.546	0
1	5	790	774.6	169.8	13794.162	0	0	28	1000	33.24	0.033	42	3	8.487	0
1	5	800	774.6	169.1	14605.717	0	0	28	1000	33.11	0.033	43	3	8.454	0
1	6	820	774.6	168.6	16248.294	0	0	28	1000	33.02	0.033	44	3	8.432	0
1	6	840	697.1	139.3	17708.16	0	0	28	900	27.27	0.03	45	3	6.962	0
1	6	860	619.7	108.5	19007.624	0	0	28	800	21.24	0.027	46	3	5.423	0
1	6	880	542.2	92.97	20144.004	0	0	28	700	18.2	0.026	47	3	4.649	0
1	6	900	464.8	78.73	21118.718	0	0	28	600	15.42	0.026	48	3	3.936	0
1	6	920	387.3	65.04	21931.368	0	0	28	500	12.74	0.025	49	3	3.252	0
1	6	940	309.8	51.92	22582.031	0	0	28	400	10.17	0.025	50	3	2.596	0
1	6	960	232.4	39.17	23069.979	0	0	28	300	7.67	0.026	51	3	1.959	0
1	6	980	154.9	26.45	23395.451	0	0	28	200	5.178	0.026	52	3	1.322	0
1	6	1000	77.46	14.81	23559.039	0	0	28	100	2.901	0.029	53	3	0.741	0
1	7	1020	69.71	15.88	23706.248	0	0	28	90	3.109	0.035	54	3	0.794	0
1	7	1040	61.97	15.58	23836.178	0	0	28	80	3.051	0.038	55	3	0.779	0
1	7	1060	54.22	14.7	23949.829	0	0	28	70	2.879	0.041	56	3	0.735	0
1	7	1080	46.48	13.76	24047.239	0	0	28	60.01	2.695	0.045	57	3	0.688	0
1	7	1100	38.73	12.68	24128.497	0	0	28	50	2.483	0.05	58	3	0.634	0
1	7	1120	30.99	11.94	24193.542	0	0	28	40.01	2.338	0.058	59	3	0.597	0
1	7	1140	23.24	10.6	24242.341	0	0	28	30	2.076	0.069	60	3	0.53	0
1	7	1160	15.5	8.91	24274.887	0	0	28	20.01	1.746	0.087	61	3	0.446	0
1	7	1180	7.75	7.17	24291.227	0	0	28	10.01	1.404	0.14	62	3	0.358	0
1	8	1200	6.97	8.97	24305.935	0	0	28	9	1.757	0.195	63	3	0.449	0
1	8	1220	6.2	9.41	24318.931	0	0	28	8	1.842	0.23	64	3	0.47	0
1	8	1240	5.42	9.56	24330.284	0	0	28	7	1.872	0.267	65	3	0.478	0
1	8	1260	4.64	9.95	24340.028	0	0	28	5.99	1.948	0.325	66	3	0.497	0
1	8	1280	3.87	10.13	24348.144	0	0	28	5	1.983	0.397	67	3	0.506	0
1	8	1300	3.09	10.24	24354.635	0	0	28	3.99	2.005	0.503	68	3	0.512	0
1	8	1320	2.32	10.24	24359.507	0	0	28	3	2.005	0.668	69	3	0.512	0
1	8	1340	1.54	9.62	24362.753	0	0	28	1.99	1.883	0.946	70	3	0.481	0
1	8	1360	0.77	8.94	24364.377	0	0	28	0.99	1.751	1.769	71	3	0.447	0
1	9	1380	0.7	11.39	24365.851	18.174	8.1461	28	0.9	2.231	2.479	72	3	0.57	0.1227574
1	9	1400	0.62	11.84	24367.156	34.257	14.785	28	0.8	2.317	2.896	73	3	0.592	0.0676364
1	9	1420	0.55	11.98	24368.297	48.335	20.612	28	0.71	2.345	3.303	74	3	0.599	0.0485155
1	9	1440	0.47	11.97	24369.278	60.419	25.776	28	0.61	2.344	3.843	75	3	0.599	0.0387959
1	9	1460	0.39	12.33	24370.095	70.498	29.192	28	0.5	2.415	4.83	76	3	0.617	0.0342562
1	9	1480	0.31	12.55	24370.751	78.583	31.97	28	0.4	2.458	6.145	77	3	0.628	0.031279
1	9	1500	0.24	13.05	24371.244	84.664	33.149	28	0.31	2.554	8.239	78	3	0.652	0.0301664
1	9	1520	0.16	13.23	24371.574	88.73	34.246	28	0.21	2.591	12.338	79	3	0.662	0.0292008
1	9	1540	0.08	11.54	24371.744	90.822	40.187	28	0.1	2.26	22.6	80	3	0.577	0.0248839

2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 4.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	15.57	0.15944	1.9656	0.6447	28	0.1	3.049	30.49	1	4	0.779	1.5512198
1	1	40	0.16	23.16	0.48616	5.9935	1.3219	28	0.21	4.534	21.59	2	4	1.158	0.75649
1	1	60	0.24	26.74	0.97625	12.035	2.299	28	0.31	5.235	16.887	3	4	1.337	0.4349687
1	1	80	0.31	26.69	1.63049	20.101	3.8456	28	0.4	5.227	13.068	4	4	1.335	0.2600385
1	1	100	0.39	25.17	2.44652	30.161	6.1203	28	0.5	4.928	9.856	5	4	1.258	0.1633899
1	1	120	0.47	23.35	3.42512	42.225	9.2336	28	0.61	4.573	7.497	6	4	1.168	0.1082998
1	1	140	0.54	22.09	4.56709	56.304	13.018	28	0.7	4.325	6.179	7	4	1.104	0.0768155

1	1	160	0.62	20.98	5.86928	72.357	17.614	28	0.8	4.108	5.135	8	4	1.049	0.0567738
1	1	180	0.7	20.82	7.33326	90.406	22.18	28	0.9	4.076	4.529	9	4	1.041	0.0450858
1	2	200	0.77	21.07	8.9559	0	0	28	0.99	4.125	4.167	10	4	1.053	0
1	2	220	1.55	30.32	12.17917	0	0	28	2	5.936	2.968	11	4	1.516	0
1	2	240	2.32	33.98	17.02586	0	0	28	3	6.652	2.217	12	4	1.699	0
1	2	260	3.09	36.72	23.49911	0	0	28	3.99	7.19	1.802	13	4	1.836	0
1	2	280	3.87	39.47	31.59264	0	0	28	5	7.727	1.545	14	4	1.973	0
1	2	300	4.65	42.22	41.30802	0	0	28	6	8.266	1.378	15	4	2.111	0
1	2	320	5.42	45.89	52.65466	0	0	28	7	8.986	1.284	16	4	2.295	0
1	2	340	6.2	49.21	65.6208	0	0	28	8	9.636	1.205	17	4	2.461	0
1	2	360	6.97	52.47	80.18837	0	0	28	9	10.27	1.142	18	4	2.624	0
1	3	380	7.75	55.23	96.56156	0	0	28	10.01	10.81	1.08	19	4	2.761	0
1	3	400	15.5	90.59	128.86892	0	0	28	20.01	17.74	0.886	20	4	4.529	0
1	3	420	23.24	93.82	177.45286	0	0	28	30	18.37	0.612	21	4	4.691	0
1	3	440	30.99	89.19	242.28434	0	0	28	40.01	17.46	0.436	22	4	4.46	0
1	3	460	38.73	87.24	323.20548	0	0	28	50	17.08	0.342	23	4	4.362	0
1	3	480	46.48	87.71	420.46998	0	0	28	60.01	17.17	0.286	24	4	4.386	0
1	3	500	54.22	86.27	533.87833	0	0	28	70	16.89	0.241	25	4	4.314	0
1	3	520	61.96	85.81	663.50358	0	0	28	79.99	16.8	0.21	26	4	4.29	0
1	3	540	69.71	83.74	809.49182	0	0	28	90	16.4	0.182	27	4	4.187	0
1	4	560	77.46	82.4	973.14367	0	0	28	100	16.14	0.161	28	4	4.12	0
1	4	580	154.9	132.2	1296.4269	0	0	28	200	25.88	0.129	29	4	6.608	0
1	4	600	232.4	149.7	1781.7386	0	0	28	300	29.31	0.098	30	4	7.484	0
1	4	620	309.8	159.6	2429.8908	0	0	28	400	31.25	0.078	31	4	7.979	0
1	4	640	387.3	154.9	3239.3842	0	0	28	500	30.33	0.061	32	4	7.746	0
1	4	660	464.8	121	4211.2311	0	0	28	600	23.69	0.039	33	4	6.051	0
1	4	680	542.2	134.2	5346.0686	0	0	28	700	26.27	0.038	34	4	6.708	0
1	4	700	619.7	149.1	6642.5694	0	0	28	800	29.2	0.036	35	4	7.455	0
1	4	720	697.1	166.6	8101.9892	0	0	28	900	32.63	0.036	36	4	8.332	0
1	4	740	774.6	185.7	9722.1383	0	0	28	1000	36.35	0.036	37	4	9.283	0
1	5	750	774.6	171.8	10551.214	0	0	28	1000	33.63	0.034	38	4	8.588	0
1	5	760	774.6	170.5	11361.957	0	0	28	1000	33.38	0.033	39	4	8.524	0
1	5	770	774.6	169.7	12172.7	0	0	28	1000	33.22	0.033	40	4	8.482	0
1	5	780	774.6	168.3	12983.444	0	0	28	1000	32.95	0.033	41	4	8.413	0
1	5	790	774.6	168.1	13795.404	0	0	28	1000	32.91	0.033	42	4	8.403	0
1	5	800	774.6	167.5	14606.552	0	0	28	1000	32.8	0.033	43	4	8.377	0
1	6	820	774.6	168.2	16247.101	0	0	28	1000	32.93	0.033	44	4	8.408	0
1	6	840	697.1	138.8	17709.564	0	0	28	900	27.18	0.03	45	4	6.941	0
1	6	860	619.7	107.8	19007.73	0	0	28	800	21.11	0.026	46	4	5.391	0
1	6	880	542.2	91.52	20144.717	0	0	28	700	17.92	0.026	47	4	4.576	0
1	6	900	464.8	77.55	21120.122	0	0	28	600	15.18	0.025	48	4	3.877	0
1	6	920	387.3	64.03	21933.017	0	0	28	500	12.54	0.025	49	4	3.202	0
1	6	940	309.8	50.97	22582.908	0	0	28	400	9.979	0.025	50	4	2.548	0
1	6	960	232.4	38.44	23070.733	0	0	28	300	7.527	0.025	51	4	1.922	0
1	6	980	154.9	25.94	23396.657	0	0	28	200	5.078	0.025	52	4	1.297	0
1	6	1000	77.46	14.57	23560.238	0	0	28	100	2.853	0.029	53	4	0.729	0
1	7	1020	69.71	15.42	23707.444	0	0	28	90	3.018	0.034	54	4	0.771	0
1	7	1040	61.97	15.15	23837.378	0	0	28	80	2.966	0.037	55	4	0.757	0
1	7	1060	54.22	14.43	23951.001	0	0	28	70	2.825	0.04	56	4	0.721	0
1	7	1080	46.48	13.5	24048.479	0	0	28	60.01	2.642	0.044	57	4	0.675	0

1	7	1100	38.73	12.41	24129.737	0	0	28	50	2.43	0.049	58	4	0.621	0
1	7	1120	30.99	11.61	24194.668	0	0	28	40.01	2.273	0.057	59	4	0.58	0
1	7	1140	23.24	10.27	24243.459	0	0	28	30	2.011	0.067	60	4	0.513	0
1	7	1160	15.5	8.7	24276.07	0	0	28	20.01	1.704	0.085	61	4	0.435	0
1	7	1180	7.75	6.87	24292.398	0	0	28	10.01	1.345	0.134	62	4	0.344	0
1	8	1200	6.97	8.64	24307.108	0	0	28	9	1.692	0.188	63	4	0.432	0
1	8	1220	6.2	9.14	24320.088	0	0	28	8	1.789	0.224	64	4	0.457	0
1	8	1240	5.42	9.36	24331.459	0	0	28	7	1.832	0.262	65	4	0.468	0
1	8	1260	4.64	9.73	24341.191	0	0	28	5.99	1.905	0.318	66	4	0.486	0
1	8	1280	3.87	9.72	24349.311	0	0	28	5	1.902	0.38	67	4	0.486	0
1	8	1300	3.09	9.85	24355.802	0	0	28	3.99	1.928	0.483	68	4	0.492	0
1	8	1320	2.32	9.77	24360.671	0	0	28	3	1.913	0.638	69	4	0.488	0
1	8	1340	1.54	9.24	24363.919	0	0	28	1.99	1.81	0.91	70	4	0.462	0
1	8	1360	0.77	8.44	24365.542	0	0	28	0.99	1.652	1.669	71	4	0.422	0
1	9	1380	0.7	10.73	24367.017	18.184	8.6507	28	0.9	2.102	2.336	72	4	0.537	0.1155978
1	9	1400	0.62	11.18	24368.321	34.266	15.654	28	0.8	2.189	2.736	73	4	0.559	0.0638819
1	9	1420	0.55	11.27	24369.463	48.345	21.905	28	0.71	2.207	3.108	74	4	0.564	0.0456513
1	9	1440	0.47	11.69	24370.443	60.428	26.4	28	0.61	2.289	3.752	75	4	0.585	0.0378795
1	9	1460	0.39	11.67	24371.261	70.508	30.857	28	0.5	2.285	4.57	76	4	0.584	0.0324077
1	9	1480	0.31	11.93	24371.917	78.593	33.659	28	0.4	2.335	5.837	77	4	0.596	0.0297101
1	9	1500	0.24	12.05	24372.41	84.673	35.894	28	0.31	2.359	7.61	78	4	0.602	0.02786
1	9	1520	0.16	12.34	24372.74	88.75	36.734	28	0.21	2.416	11.505	79	4	0.617	0.0272226
1	9	1540	0.08	11.05	24372.909	90.822	41.989	28	0.1	2.163	21.63	80	4	0.552	0.0238159

2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 5.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	15.57	0.15944	1.9656	0.6447	28	0.1	3.049	30.49	1	4	0.779	1.5512198
1	1	40	0.16	23.16	0.48616	5.9935	1.3219	28	0.21	4.534	21.59	2	4	1.158	0.75649
1	1	60	0.24	26.74	0.97625	12.035	2.299	28	0.31	5.235	16.887	3	4	1.337	0.4349687
1	1	80	0.31	26.69	1.63049	20.101	3.8456	28	0.4	5.227	13.068	4	4	1.335	0.2600385
1	1	100	0.39	25.17	2.44652	30.161	6.1203	28	0.5	4.928	9.856	5	4	1.258	0.1633899
1	1	120	0.47	23.35	3.42512	42.225	9.2336	28	0.61	4.573	7.497	6	4	1.168	0.1082998
1	1	140	0.54	22.09	4.56709	56.304	13.018	28	0.7	4.325	6.179	7	4	1.104	0.0768155
1	1	160	0.62	20.98	5.86928	72.357	17.614	28	0.8	4.108	5.135	8	4	1.049	0.0567738
1	1	180	0.7	20.82	7.33326	90.406	22.18	28	0.9	4.076	4.529	9	4	1.041	0.0450858
1	2	200	0.77	21.07	8.9559	0	0	28	0.99	4.125	4.167	10	4	1.053	0
1	2	220	1.55	30.32	12.17917	0	0	28	2	5.936	2.968	11	4	1.516	0
1	2	240	2.32	33.98	17.02586	0	0	28	3	6.652	2.217	12	4	1.699	0
1	2	260	3.09	36.72	23.49911	0	0	28	3.99	7.19	1.802	13	4	1.836	0
1	2	280	3.87	39.47	31.59264	0	0	28	5	7.727	1.545	14	4	1.973	0
1	2	300	4.65	42.22	41.30802	0	0	28	6	8.266	1.378	15	4	2.111	0
1	2	320	5.42	45.89	52.65466	0	0	28	7	8.986	1.284	16	4	2.295	0
1	2	340	6.2	49.21	65.6208	0	0	28	8	9.636	1.205	17	4	2.461	0
1	2	360	6.97	52.47	80.18837	0	0	28	9	10.27	1.142	18	4	2.624	0
1	3	380	7.75	55.23	96.56156	0	0	28	10.01	10.81	1.08	19	4	2.761	0
1	3	400	15.5	90.59	128.86892	0	0	28	20.01	17.74	0.886	20	4	4.529	0
1	3	420	23.24	93.82	177.45286	0	0	28	30	18.37	0.612	21	4	4.691	0
1	3	440	30.99	89.19	242.28434	0	0	28	40.01	17.46	0.436	22	4	4.46	0
1	3	460	38.73	87.24	323.20548	0	0	28	50	17.08	0.342	23	4	4.362	0
1	3	480	46.48	87.71	420.46998	0	0	28	60.01	17.17	0.286	24	4	4.386	0

1	3	500	54.22	86.27	533.87833	0	0	28	70	16.89	0.241	25	4	4.314	0
1	3	520	61.96	85.81	663.50358	0	0	28	79.99	16.8	0.21	26	4	4.29	0
1	3	540	69.71	83.74	809.49182	0	0	28	90	16.4	0.182	27	4	4.187	0
1	4	560	77.46	82.4	973.14367	0	0	28	100	16.14	0.161	28	4	4.12	0
1	4	580	154.9	132.2	1296.4269	0	0	28	200	25.88	0.129	29	4	6.608	0
1	4	600	232.4	149.7	1781.7386	0	0	28	300	29.31	0.098	30	4	7.484	0
1	4	620	309.8	159.6	2429.8908	0	0	28	400	31.25	0.078	31	4	7.979	0
1	4	640	387.3	154.9	3239.3842	0	0	28	500	30.33	0.061	32	4	7.746	0
1	4	660	464.8	121	4211.2311	0	0	28	600	23.69	0.039	33	4	6.051	0
1	4	680	542.2	134.2	5346.0686	0	0	28	700	26.27	0.038	34	4	6.708	0
1	4	700	619.7	149.1	6642.5694	0	0	28	800	29.2	0.036	35	4	7.455	0
1	4	720	697.1	166.6	8101.9892	0	0	28	900	32.63	0.036	36	4	8.332	0
1	4	740	774.6	185.7	9722.1383	0	0	28	1000	36.35	0.036	37	4	9.283	0
1	5	750	774.6	171.8	10551.214	0	0	28	1000	33.63	0.034	38	4	8.588	0
1	5	760	774.6	170.5	11361.957	0	0	28	1000	33.38	0.033	39	4	8.524	0
1	5	770	774.6	169.7	12172.7	0	0	28	1000	33.22	0.033	40	4	8.482	0
1	5	780	774.6	168.3	12983.444	0	0	28	1000	32.95	0.033	41	4	8.413	0
1	5	790	774.6	168.1	13795.404	0	0	28	1000	32.91	0.033	42	4	8.403	0
1	5	800	774.6	167.5	14606.552	0	0	28	1000	32.8	0.033	43	4	8.377	0
1	6	820	774.6	168.2	16247.101	0	0	28	1000	32.93	0.033	44	4	8.408	0
1	6	840	697.1	138.8	17709.564	0	0	28	900	27.18	0.03	45	4	6.941	0
1	6	860	619.7	107.8	19007.73	0	0	28	800	21.11	0.026	46	4	5.391	0
1	6	880	542.2	91.52	20144.717	0	0	28	700	17.92	0.026	47	4	4.576	0
1	6	900	464.8	77.55	21120.122	0	0	28	600	15.18	0.025	48	4	3.877	0
1	6	920	387.3	64.03	21933.017	0	0	28	500	12.54	0.025	49	4	3.202	0
1	6	940	309.8	50.97	22582.908	0	0	28	400	9.979	0.025	50	4	2.548	0
1	6	960	232.4	38.44	23070.733	0	0	28	300	7.527	0.025	51	4	1.922	0
1	6	980	154.9	25.94	23396.657	0	0	28	200	5.078	0.025	52	4	1.297	0
1	6	1000	77.46	14.57	23560.238	0	0	28	100	2.853	0.029	53	4	0.729	0
1	7	1020	69.71	15.42	23707.444	0	0	28	90	3.018	0.034	54	4	0.771	0
1	7	1040	61.97	15.15	23837.378	0	0	28	80	2.966	0.037	55	4	0.757	0
1	7	1060	54.22	14.43	23951.001	0	0	28	70	2.825	0.04	56	4	0.721	0
1	7	1080	46.48	13.5	24048.479	0	0	28	60.01	2.642	0.044	57	4	0.675	0
1	7	1100	38.73	12.41	24129.737	0	0	28	50	2.43	0.049	58	4	0.621	0
1	7	1120	30.99	11.61	24194.668	0	0	28	40.01	2.273	0.057	59	4	0.58	0
1	7	1140	23.24	10.27	24243.459	0	0	28	30	2.011	0.067	60	4	0.513	0
1	7	1160	15.5	8.7	24276.07	0	0	28	20.01	1.704	0.085	61	4	0.435	0
1	7	1180	7.75	6.87	24292.398	0	0	28	10.01	1.345	0.134	62	4	0.344	0
1	8	1200	6.97	8.64	24307.108	0	0	28	9	1.692	0.188	63	4	0.432	0
1	8	1220	6.2	9.14	24320.088	0	0	28	8	1.789	0.224	64	4	0.457	0
1	8	1240	5.42	9.36	24331.459	0	0	28	7	1.832	0.262	65	4	0.468	0
1	8	1260	4.64	9.73	24341.191	0	0	28	5.99	1.905	0.318	66	4	0.486	0
1	8	1280	3.87	9.72	24349.311	0	0	28	5	1.902	0.38	67	4	0.486	0
1	8	1300	3.09	9.85	24355.802	0	0	28	3.99	1.928	0.483	68	4	0.492	0
1	8	1320	2.32	9.77	24360.671	0	0	28	3	1.913	0.638	69	4	0.488	0
1	8	1340	1.54	9.24	24363.919	0	0	28	1.99	1.81	0.91	70	4	0.462	0
1	8	1360	0.77	8.44	24365.542	0	0	28	0.99	1.652	1.669	71	4	0.422	0
1	9	1380	0.7	10.73	24367.017	18.184	8.6507	28	0.9	2.102	2.336	72	4	0.537	0.1155978
1	9	1400	0.62	11.18	24368.321	34.266	15.654	28	0.8	2.189	2.736	73	4	0.559	0.0638819
1	9	1420	0.55	11.27	24369.463	48.345	21.905	28	0.71	2.207	3.108	74	4	0.564	0.0456513

1	9	1440	0.47	11.69	24370.443	60.428	26.4	28	0.61	2.289	3.752	75	4	0.585	0.0378795
1	9	1460	0.39	11.67	24371.261	70.508	30.857	28	0.5	2.285	4.57	76	4	0.584	0.0324077
1	9	1480	0.31	11.93	24371.917	78.593	33.659	28	0.4	2.335	5.837	77	4	0.596	0.0297101
1	9	1500	0.24	12.05	24372.41	84.673	35.894	28	0.31	2.359	7.61	78	4	0.602	0.02786
1	9	1520	0.16	12.34	24372.74	88.75	36.734	28	0.21	2.416	11.505	79	4	0.617	0.0272226
1	9	1540	0.08	11.05	24372.909	90.822	41.989	28	0.1	2.163	21.63	80	4	0.552	0.0238159

2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 6.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	14.91	0.16022	1.9752	0.6767	28	0.1	2.919	29.19	1	6	0.745	1.4778026
1	1	40	0.16	22.32	0.48695	6.0032	1.3737	28	0.21	4.37	20.81	2	6	1.116	0.7279512
1	1	60	0.24	24.43	0.97782	12.055	2.5203	28	0.31	4.783	15.429	3	6	1.221	0.3967744
1	1	80	0.31	23.67	1.63206	20.12	4.3409	28	0.4	4.635	11.587	4	6	1.184	0.2303652
1	1	100	0.39	22.52	2.4473	30.171	6.8414	28	0.5	4.41	8.82	5	6	1.126	0.1461684
1	1	120	0.47	21.9	3.42669	42.245	9.8519	28	0.61	4.288	7.03	6	6	1.095	0.1015037
1	1	140	0.54	20.75	4.5663	56.294	13.855	28	0.7	4.063	5.804	7	6	1.038	0.0721746
1	1	160	0.62	19.31	5.8685	72.348	19.14	28	0.8	3.78	4.725	8	6	0.965	0.0522477
1	1	180	0.7	19.05	7.33326	90.406	24.237	28	0.9	3.73	4.144	9	6	0.953	0.0412586
1	2	200	0.77	19.1	8.95668	0	0	28	0.99	3.739	3.777	10	6	0.955	0
1	2	220	1.55	27.94	12.17995	0	0	28	2	5.47	2.735	11	6	1.397	0
1	2	240	2.32	31.58	17.02743	0	0	28	3	6.183	2.061	12	6	1.579	0
1	2	260	3.09	34.36	23.50068	0	0	28	3.99	6.728	1.686	13	6	1.718	0
1	2	280	3.87	37	31.5895	0	0	28	5	7.245	1.449	14	6	1.85	0
1	2	300	4.65	39.8	41.30566	0	0	28	6	7.794	1.299	15	6	1.99	0
1	2	320	5.42	43.39	52.64602	0	0	28	7	8.496	1.214	16	6	2.17	0
1	2	340	6.2	46.59	65.61216	0	0	28	8	9.123	1.14	17	6	2.33	0
1	2	360	6.97	49.96	80.21271	0	0	28	9	9.782	1.087	18	6	2.498	0
1	3	380	7.75	52.93	96.58277	0	0	28	10.01	10.36	1.035	19	6	2.646	0
1	3	400	15.5	88.25	128.93018	0	0	28	20.01	17.28	0.864	20	6	4.412	0
1	3	420	23.25	94.14	177.42851	0	0	28	30.02	18.43	0.614	21	6	4.707	0
1	3	440	30.99	93.22	242.24271	0	0	28	40.01	18.25	0.456	22	6	4.661	0
1	3	460	38.73	92.68	323.28559	0	0	28	50	18.15	0.363	23	6	4.634	0
1	3	480	46.48	92.12	420.53045	0	0	28	60.01	18.04	0.301	24	6	4.606	0
1	3	500	54.22	88.09	533.91446	0	0	28	70	17.25	0.246	25	6	4.404	0
1	3	520	61.96	85.17	663.5727	0	0	28	79.99	16.68	0.208	26	6	4.258	0
1	3	540	69.71	78.67	809.48633	0	0	28	90	15.4	0.171	27	6	3.934	0
1	4	560	77.46	69.79	973.21985	0	0	28	100	13.66	0.137	28	6	3.489	0
1	4	580	154.9	111.5	1296.2596	0	0	28	200	21.83	0.109	29	6	5.575	0
1	4	600	232.4	124.8	1782.1807	0	0	28	300	24.44	0.081	30	6	6.24	0
1	4	620	309.8	131.4	2429.0347	0	0	28	400	25.73	0.064	31	6	6.569	0
1	4	640	387.3	138.4	3239.3386	0	0	28	500	27.1	0.054	32	6	6.921	0
1	4	660	464.8	120.8	4210.9774	0	0	28	600	23.66	0.039	33	6	6.041	0
1	4	680	542.2	136.1	5346.1016	0	0	28	700	26.64	0.038	34	6	6.803	0
1	4	700	619.7	146.9	6642.8859	0	0	28	800	28.77	0.036	35	6	7.346	0
1	4	720	697.1	160.2	8100.1568	0	0	28	900	31.37	0.035	36	6	8.01	0
1	4	740	774.6	178.8	9723.1444	0	0	28	1000	35.01	0.035	37	6	8.939	0
1	5	750	774.6	170.7	10553.031	0	0	28	1000	33.43	0.033	38	6	8.536	0
1	5	760	774.6	169.3	11364.181	0	0	28	1000	33.15	0.033	39	6	8.464	0
1	5	770	774.6	168.9	12174.925	0	0	28	1000	33.07	0.033	40	6	8.446	0
1	5	780	774.6	168.6	12985.262	0	0	28	1000	33	0.033	41	6	8.428	0

1	5	790	774.6	168.2	13796.411	0	0	28	1000	32.94	0.033	42	6	8.411	0
1	5	800	774.6	167.8	14607.966	0	0	28	1000	32.85	0.033	43	6	8.387	0
1	6	820	774.6	167.3	16250.135	0	0	28	1000	32.76	0.033	44	6	8.367	0
1	6	840	697.1	138	17710.409	0	0	28	900	27.01	0.03	45	6	6.898	0
1	6	860	619.7	107.7	19010.521	0	0	28	800	21.1	0.026	46	6	5.387	0
1	6	880	542.2	91.05	20146.331	0	0	28	700	17.83	0.025	47	6	4.553	0
1	6	900	464.8	76.87	21121.941	0	0	28	600	15.05	0.025	48	6	3.844	0
1	6	920	387.3	63.37	21933.819	0	0	28	500	12.41	0.025	49	6	3.168	0
1	6	940	309.8	50.45	22584.157	0	0	28	400	9.878	0.025	50	6	2.523	0
1	6	960	232.4	38.06	23072.469	0	0	28	300	7.452	0.025	51	6	1.903	0
1	6	980	154.9	25.55	23397.861	0	0	28	200	5.003	0.025	52	6	1.278	0
1	6	1000	77.46	14.24	23561.363	0	0	28	100	2.789	0.028	53	6	0.712	0
1	7	1020	69.71	15.13	23708.532	0	0	28	90	2.963	0.033	54	6	0.757	0
1	7	1040	61.97	14.76	23838.396	0	0	28	80	2.89	0.036	55	6	0.738	0
1	7	1060	54.22	14.02	23952.071	0	0	28	70	2.744	0.039	56	6	0.701	0
1	7	1080	46.48	13.03	24049.554	0	0	28	60.01	2.551	0.043	57	6	0.651	0
1	7	1100	38.73	11.95	24130.792	0	0	28	50	2.339	0.047	58	6	0.597	0
1	7	1120	30.99	11.18	24195.804	0	0	28	40.01	2.19	0.055	59	6	0.559	0
1	7	1140	23.24	9.84	24244.603	0	0	28	30	1.927	0.064	60	6	0.492	0
1	7	1160	15.5	8.4	24277.154	0	0	28	20.01	1.645	0.082	61	6	0.42	0
1	7	1180	7.75	6.47	24293.498	0	0	28	10.01	1.267	0.127	62	6	0.324	0
1	8	1200	6.97	8.16	24308.193	0	0	28	9	1.597	0.177	63	6	0.408	0
1	8	1220	6.2	8.57	24321.185	0	0	28	8	1.677	0.21	64	6	0.428	0
1	8	1240	5.42	8.67	24332.545	0	0	28	7	1.697	0.242	65	6	0.433	0
1	8	1260	4.64	9.11	24342.288	0	0	28	5.99	1.783	0.298	66	6	0.455	0
1	8	1280	3.87	9.21	24350.401	0	0	28	5	1.803	0.361	67	6	0.46	0
1	8	1300	3.09	9.32	24356.898	0	0	28	3.99	1.826	0.458	68	6	0.466	0
1	8	1320	2.32	9.34	24361.768	0	0	28	3	1.829	0.61	69	6	0.467	0
1	8	1340	1.54	8.73	24365.013	0	0	28	1.99	1.71	0.859	70	6	0.437	0
1	8	1360	0.77	8.06	24366.636	0	0	28	0.99	1.579	1.595	71	6	0.403	0
1	9	1380	0.7	9.96	24368.11	18.164	9.3151	28	0.9	1.95	2.167	72	6	0.498	0.107353
1	9	1400	0.62	10.24	24369.415	34.257	17.077	28	0.8	2.006	2.507	73	6	0.512	0.0585579
1	9	1420	0.55	10.52	24370.558	48.345	23.48	28	0.71	2.059	2.9	74	6	0.526	0.04259
1	9	1440	0.47	10.76	24371.538	60.428	28.693	28	0.61	2.106	3.452	75	6	0.538	0.0348511
1	9	1460	0.39	11.08	24372.356	70.508	32.507	28	0.5	2.169	4.338	76	6	0.554	0.0307625
1	9	1480	0.31	11.39	24373.011	78.593	35.243	28	0.4	2.23	5.575	77	6	0.57	0.0283741
1	9	1500	0.24	11.75	24373.503	84.654	36.806	28	0.31	2.3	7.419	78	6	0.587	0.0271694
1	9	1520	0.16	11.8	24373.835	88.74	38.399	28	0.21	2.311	11.005	79	6	0.59	0.0260423
1	9	1540	0.08	10.54	24374.003	90.822	44.003	28	0.1	2.064	20.64	80	6	0.527	0.0227258

2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 7.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	14.65	0.16022	1.9752	0.6887	28	0.1	2.868	28.68	1	7	0.732	1.4519828
1	1	40	0.16	21.5	0.48773	6.0128	1.4282	28	0.21	4.21	20.048	2	7	1.075	0.7001695
1	1	60	0.24	23.45	0.97782	12.055	2.6252	28	0.31	4.592	14.813	3	7	1.173	0.3809299
1	1	80	0.31	22.65	1.63206	20.12	4.5377	28	0.4	4.434	11.085	4	7	1.132	0.2203752
1	1	100	0.39	21.66	2.44809	30.18	7.118	28	0.5	4.24	8.48	5	7	1.083	0.1404888
1	1	120	0.47	20.75	3.42591	42.235	10.395	28	0.61	4.063	6.661	6	7	1.038	0.0961997
1	1	140	0.54	20.06	4.5663	56.294	14.335	28	0.7	3.927	5.61	7	7	1.003	0.0697587
1	1	160	0.62	19.41	5.86928	72.357	19.046	28	0.8	3.799	4.749	8	7	0.97	0.0525033

1	1	180	0.7	18.73	7.33405	90.415	24.663	28	0.9	3.666	4.073	9	7	0.936	0.0405463
1	2	200	0.77	18.71	8.95747	0	0	28	0.99	3.663	3.7	10	7	0.935	0
1	2	220	1.55	27.18	12.18231	0	0	28	2	5.322	2.661	11	7	1.359	0
1	2	240	2.32	31.01	17.02665	0	0	28	3	6.071	2.024	12	7	1.55	0
1	2	260	3.09	33.75	23.4999	0	0	28	3.99	6.609	1.656	13	7	1.688	0
1	2	280	3.87	36.55	31.59421	0	0	28	5	7.156	1.431	14	7	1.827	0
1	2	300	4.65	39.6	41.30959	0	0	28	6	7.754	1.292	15	7	1.98	0
1	2	320	5.42	43.36	52.64995	0	0	28	7	8.49	1.213	16	7	2.168	0
1	2	340	6.2	46.66	65.61687	0	0	28	8	9.136	1.142	17	7	2.333	0
1	2	360	6.97	49.99	80.19229	0	0	28	9	9.787	1.087	18	7	2.499	0
1	3	380	7.75	52.95	96.55371	0	0	28	10.01	10.37	1.036	19	7	2.647	0
1	3	400	15.5	88.2	128.9019	0	0	28	20.01	17.27	0.863	20	7	4.41	0
1	3	420	23.24	94.24	177.44815	0	0	28	30	18.45	0.615	21	7	4.712	0
1	3	440	30.99	91.82	242.27805	0	0	28	40.01	17.98	0.449	22	7	4.591	0
1	3	460	38.73	92.42	323.19998	0	0	28	50	18.1	0.362	23	7	4.621	0
1	3	480	46.48	91.07	420.41892	0	0	28	60.01	17.83	0.297	24	7	4.553	0
1	3	500	54.22	91.44	533.91603	0	0	28	70	17.9	0.256	25	7	4.572	0
1	3	520	61.96	88.22	663.54442	0	0	28	79.99	17.27	0.216	26	7	4.411	0
1	3	540	69.71	75.43	809.49732	0	0	28	90	14.77	0.164	27	7	3.772	0
1	4	560	77.46	73.5	973.23006	0	0	28	100	14.39	0.144	28	7	3.675	0
1	4	580	154.9	115.6	1296.3924	0	0	28	200	22.63	0.113	29	7	5.78	0
1	4	600	232.4	124.8	1782.2318	0	0	28	300	24.44	0.081	30	7	6.24	0
1	4	620	309.8	131.5	2429.4502	0	0	28	400	25.74	0.064	31	7	6.572	0
1	4	640	387.3	128.5	3239.392	0	0	28	500	25.16	0.05	32	7	6.425	0
1	4	660	464.8	120.7	4211.4715	0	0	28	600	23.63	0.039	33	7	6.034	0
1	4	680	542.2	136.9	5346.5972	0	0	28	700	26.81	0.038	34	7	6.845	0
1	4	700	619.7	145.9	6641.7628	0	0	28	800	28.56	0.036	35	7	7.293	0
1	4	720	697.1	158.6	8100.1686	0	0	28	900	31.05	0.035	36	7	7.93	0
1	4	740	774.6	173.5	9723.1578	0	0	28	1000	33.97	0.034	37	7	8.676	0
1	5	750	774.6	170.1	10553.084	0	0	28	1000	33.31	0.033	38	7	8.507	0
1	5	760	774.6	169.6	11364.233	0	0	28	1000	33.21	0.033	39	7	8.479	0
1	5	770	774.6	168.8	12174.571	0	0	28	1000	33.06	0.033	40	7	8.441	0
1	5	780	774.6	168.9	12984.909	0	0	28	1000	33.07	0.033	41	7	8.444	0
1	5	790	774.6	168.2	13796.057	0	0	28	1000	32.93	0.033	42	7	8.409	0
1	5	800	774.6	167.9	14608.016	0	0	28	1000	32.88	0.033	43	7	8.395	0
1	6	820	774.6	167.7	16249.782	0	0	28	1000	32.83	0.033	44	7	8.384	0
1	6	840	697.1	138.4	17710.096	0	0	28	900	27.09	0.03	45	7	6.919	0
1	6	860	619.7	107.8	19009.275	0	0	28	800	21.1	0.026	46	7	5.389	0
1	6	880	542.2	91.22	20146.465	0	0	28	700	17.86	0.026	47	7	4.561	0
1	6	900	464.8	77.12	21121.911	0	0	28	600	15.1	0.025	48	7	3.856	0
1	6	920	387.3	63.64	21933.748	0	0	28	500	12.46	0.025	49	7	3.182	0
1	6	940	309.8	50.66	22584.129	0	0	28	400	9.919	0.025	50	7	2.533	0
1	6	960	232.4	38.09	23072.197	0	0	28	300	7.458	0.025	51	7	1.904	0
1	6	980	154.9	25.56	23397.914	0	0	28	200	5.004	0.025	52	7	1.278	0
1	6	1000	77.46	14.17	23561.379	0	0	28	100	2.775	0.028	53	7	0.709	0
1	7	1020	69.71	14.99	23708.513	0	0	28	90	2.935	0.033	54	7	0.75	0
1	7	1040	61.97	14.76	23838.413	0	0	28	80	2.889	0.036	55	7	0.738	0
1	7	1060	54.22	13.97	23952.117	0	0	28	70	2.735	0.039	56	7	0.698	0
1	7	1080	46.48	12.97	24049.6	0	0	28	60.01	2.54	0.042	57	7	0.649	0
1	7	1100	38.73	11.87	24130.817	0	0	28	50	2.325	0.047	58	7	0.594	0

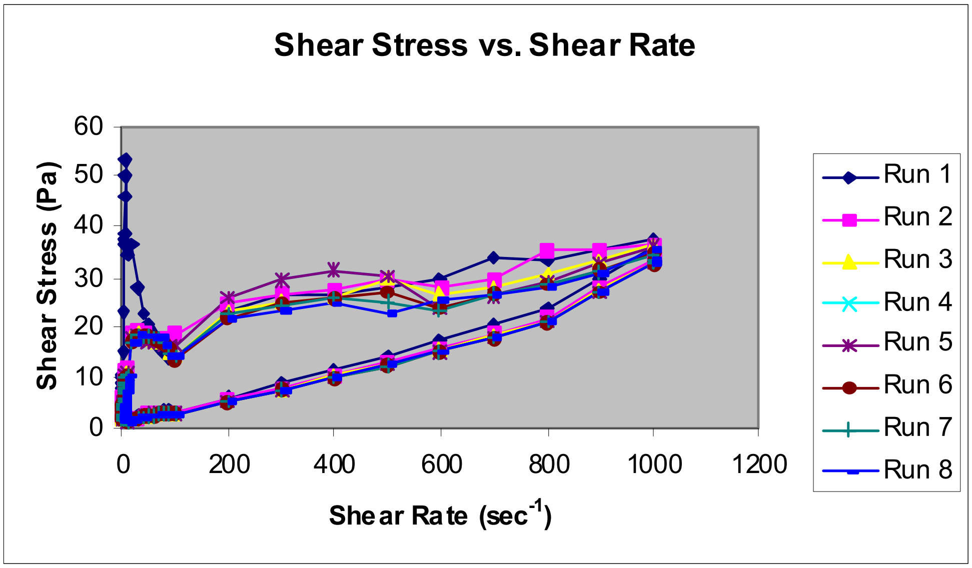
1	7	1120	30.99	11.1	24195.833	0	0	28	40.01	2.174	0.054	59	7	0.555	0
1	7	1140	23.24	9.82	24244.621	0	0	28	30	1.922	0.064	60	7	0.491	0
1	7	1160	15.5	8.23	24277.171	0	0	28	20.01	1.611	0.081	61	7	0.412	0
1	7	1180	7.75	6.49	24293.532	0	0	28	10.01	1.27	0.127	62	7	0.324	0
1	8	1200	6.97	8.16	24308.238	0	0	28	9	1.598	0.178	63	7	0.408	0
1	8	1220	6.2	8.58	24321.224	0	0	28	8	1.679	0.21	64	7	0.429	0
1	8	1240	5.42	8.66	24332.581	0	0	28	7	1.697	0.242	65	7	0.433	0
1	8	1260	4.64	9.02	24342.327	0	0	28	5.99	1.766	0.295	66	7	0.451	0
1	8	1280	3.87	9.11	24350.44	0	0	28	5	1.783	0.357	67	7	0.455	0
1	8	1300	3.09	9.18	24356.934	0	0	28	3.99	1.798	0.451	68	7	0.459	0
1	8	1320	2.32	9.04	24361.805	0	0	28	3	1.769	0.59	69	7	0.452	0
1	8	1340	1.54	8.46	24365.051	0	0	28	1.99	1.656	0.832	70	7	0.423	0
1	8	1360	0.77	7.74	24366.673	0	0	28	0.99	1.515	1.53	71	7	0.387	0
1	9	1380	0.7	9.77	24368.147	18.164	9.5002	28	0.9	1.912	2.124	72	7	0.488	0.105261
1	9	1400	0.62	10.12	24369.453	34.266	17.289	28	0.8	1.982	2.478	73	7	0.506	0.057841
1	9	1420	0.55	10.41	24370.594	48.335	23.717	28	0.71	2.038	2.87	74	7	0.52	0.042164
1	9	1440	0.47	10.63	24371.574	60.419	29.034	28	0.61	2.081	3.411	75	7	0.531	0.0344429
1	9	1460	0.39	10.65	24372.392	70.498	33.812	28	0.5	2.085	4.17	76	7	0.532	0.0295752
1	9	1480	0.31	11.01	24373.048	78.583	36.465	28	0.4	2.155	5.387	77	7	0.55	0.0274232
1	9	1500	0.24	11.3	24373.541	84.664	38.257	28	0.31	2.213	7.139	78	7	0.565	0.0261387
1	9	1520	0.16	11.54	24373.871	88.73	39.261	28	0.21	2.26	10.762	79	7	0.577	0.0254704
1	9	1540	0.08	10.08	24374.04	90.822	46.032	28	0.1	1.973	19.73	80	7	0.504	0.0217238

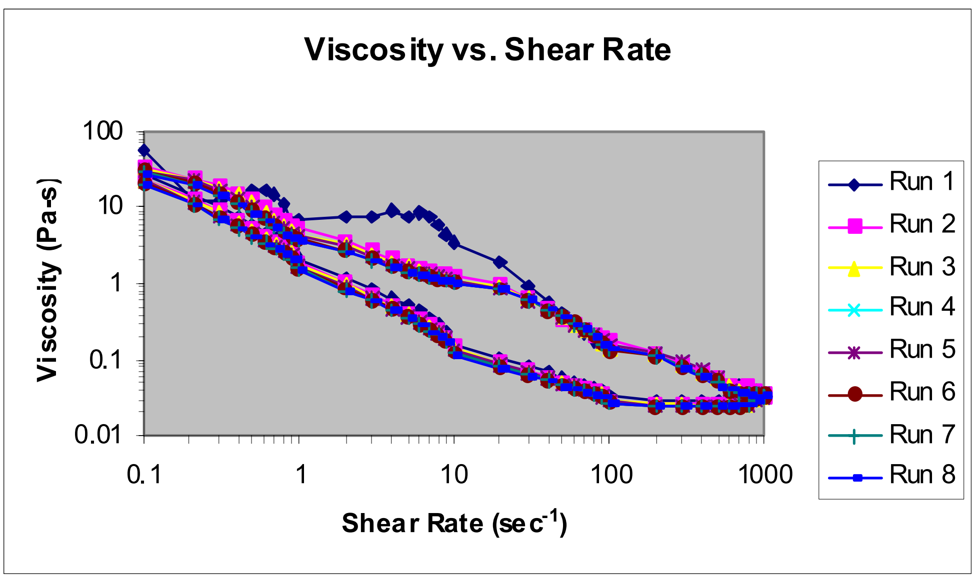
2004.02.12 META-20 wt%-U [sonicated] CC-45
0.1-1000 s-1 run 8.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	13.99	0.16022	1.9752	0.7209	28	0.1	2.74	27.4	1	8	0.7	1.3871802
1	1	40	0.16	20.9	0.48773	6.0128	1.4691	28	0.21	4.093	19.49	2	8	1.045	0.6807111
1	1	60	0.24	22.59	0.97861	12.064	2.7277	28	0.31	4.423	14.268	3	8	1.129	0.3666161
1	1	80	0.31	21.72	1.63284	20.13	4.7342	28	0.4	4.252	10.63	4	8	1.086	0.2112279
1	1	100	0.39	20.71	2.44887	30.19	7.4451	28	0.5	4.055	8.11	5	8	1.036	0.1343159
1	1	120	0.47	20.38	3.42669	42.245	10.588	28	0.61	3.99	6.541	6	8	1.019	0.0944496
1	1	140	0.54	19.44	4.56709	56.304	14.79	28	0.7	3.807	5.439	7	8	0.972	0.0676154
1	1	160	0.62	18.38	5.86928	72.357	20.099	28	0.8	3.6	4.5	8	8	0.919	0.0497531
1	1	180	0.7	17.95	7.33405	90.415	25.723	28	0.9	3.515	3.906	9	8	0.898	0.0388762
1	2	200	0.77	18.08	8.95668	0	0	28	0.99	3.54	3.576	10	8	0.904	0
1	2	220	1.55	26.48	12.17995	0	0	28	2	5.184	2.592	11	8	1.324	0
1	2	240	2.32	30.54	17.02665	0	0	28	3	5.981	1.994	12	8	1.527	0
1	2	260	3.09	33.39	23.4999	0	0	28	3.99	6.538	1.639	13	8	1.67	0
1	2	280	3.87	36.07	31.59421	0	0	28	5	7.063	1.413	14	8	1.804	0
1	2	300	4.65	39.16	41.3088	0	0	28	6	7.668	1.278	15	8	1.958	0
1	2	320	5.42	42.67	52.65466	0	0	28	7	8.354	1.193	16	8	2.133	0
1	2	340	6.2	46.04	65.62002	0	0	28	8	9.015	1.127	17	8	2.302	0
1	2	360	6.97	49.17	80.19544	0	0	28	9	9.627	1.07	18	8	2.458	0
1	3	380	7.75	51.94	96.55292	0	0	28	10.01	10.17	1.016	19	8	2.597	0
1	3	400	15.5	87.31	128.90033	0	0	28	20.01	17.1	0.854	20	8	4.365	0
1	3	420	23.24	94.71	177.44736	0	0	28	30	18.55	0.618	21	8	4.736	0
1	3	440	30.99	93.85	242.27334	0	0	28	40.01	18.38	0.459	22	8	4.692	0
1	3	460	38.73	93.27	323.21491	0	0	28	50	18.26	0.365	23	8	4.663	0
1	3	480	46.48	91.08	420.43149	0	0	28	60.01	17.83	0.297	24	8	4.554	0
1	3	500	54.22	90.52	533.95294	0	0	28	70	17.72	0.253	25	8	4.526	0

1	3	520	61.96	83.41	663.64574	0	0	28	79.99	16.33	0.204	26	8	4.171	0
1	3	540	69.71	74.02	809.56172	0	0	28	90	14.49	0.161	27	8	3.701	0
1	4	560	77.46	72.08	973.29446	0	0	28	100	14.11	0.141	28	8	3.604	0
1	4	580	154.9	112.4	1296.4568	0	0	28	200	22	0.11	29	8	5.617	0
1	4	600	232.4	120.7	1781.6482	0	0	28	300	23.64	0.079	30	8	6.036	0
1	4	620	309.8	126.4	2429.4792	0	0	28	400	24.76	0.062	31	8	6.322	0
1	4	640	387.3	116.2	3239.8193	0	0	28	500	22.74	0.045	32	8	5.808	0
1	4	660	464.8	130.5	4211.1322	0	0	28	600	25.55	0.043	33	8	6.524	0
1	4	680	542.2	135.3	5346.8258	0	0	28	700	26.49	0.038	34	8	6.764	0
1	4	700	619.7	144.6	6641.7062	0	0	28	800	28.31	0.035	35	8	7.229	0
1	4	720	697.1	156.3	8101.5313	0	0	28	900	30.6	0.034	36	8	7.813	0
1	4	740	774.6	180	9721.2752	0	0	28	1000	35.25	0.035	37	8	9.001	0
1	5	750	774.6	170.2	10550.755	0	0	28	1000	33.33	0.033	38	8	8.51	0
1	5	760	774.6	169.2	11359.47	0	0	28	1000	33.14	0.033	39	8	8.462	0
1	5	770	774.6	168.7	12173.459	0	0	28	1000	33.03	0.033	40	8	8.435	0
1	5	780	774.6	167.7	12983.391	0	0	28	1000	32.83	0.033	41	8	8.382	0
1	5	790	774.6	168.2	13794.134	0	0	28	1000	32.93	0.033	42	8	8.409	0
1	5	800	774.6	167.7	14606.498	0	0	28	1000	32.83	0.033	43	8	8.384	0
1	6	820	774.6	167.7	16247.453	0	0	28	1000	32.84	0.033	44	8	8.386	0
1	6	840	697.1	137.9	17709.51	0	0	28	900	27.01	0.03	45	8	6.897	0
1	6	860	619.7	107.7	19008.73	0	0	28	800	21.08	0.026	46	8	5.384	0
1	6	880	542.2	91.94	20145.636	0	0	28	700	18	0.026	47	8	4.597	0
1	6	900	464.8	77.82	21119.542	0	0	28	600	15.24	0.025	48	8	3.891	0
1	6	920	387.3	64.17	21932.19	0	0	28	500	12.56	0.025	49	8	3.208	0
1	6	940	309.8	50.92	22582.368	0	0	28	400	9.97	0.025	50	8	2.546	0
1	6	960	232.4	38.2	23070.557	0	0	28	300	7.48	0.025	51	8	1.91	0
1	6	980	154.9	25.52	23396.275	0	0	28	200	4.996	0.025	52	8	1.276	0
1	6	1000	77.46	14.07	23559.782	0	0	28	100	2.754	0.028	53	8	0.703	0
1	7	1020	69.71	14.95	23707.24	0	0	28	90	2.927	0.033	54	8	0.747	0
1	7	1040	61.97	14.44	23837.233	0	0	28	80	2.827	0.035	55	8	0.722	0
1	7	1060	54.22	13.69	23950.909	0	0	28	70	2.681	0.038	56	8	0.685	0
1	7	1080	46.48	12.73	24048.295	0	0	28	60.01	2.492	0.042	57	8	0.636	0
1	7	1100	38.73	11.61	24129.533	0	0	28	50	2.274	0.045	58	8	0.581	0
1	7	1120	30.99	10.85	24194.549	0	0	28	40.01	2.125	0.053	59	8	0.543	0
1	7	1140	23.24	9.53	24243.34	0	0	28	30	1.865	0.062	60	8	0.476	0
1	7	1160	15.5	8	24275.89	0	0	28	20.01	1.566	0.078	61	8	0.4	0
1	7	1180	7.75	6.16	24292.247	0	0	28	10.01	1.206	0.12	62	8	0.308	0
1	8	1200	6.97	7.95	24306.944	0	0	28	9	1.557	0.173	63	8	0.398	0
1	8	1220	6.2	8.23	24319.932	0	0	28	8	1.611	0.201	64	8	0.411	0
1	8	1240	5.42	8.33	24331.306	0	0	28	7	1.631	0.233	65	8	0.417	0
1	8	1260	4.64	8.76	24341.036	0	0	28	5.99	1.715	0.286	66	8	0.438	0
1	8	1280	3.87	8.86	24349.152	0	0	28	5	1.734	0.347	67	8	0.443	0
1	8	1300	3.09	9.09	24355.649	0	0	28	3.99	1.779	0.446	68	8	0.454	0
1	8	1320	2.32	8.94	24360.516	0	0	28	3	1.75	0.583	69	8	0.447	0
1	8	1340	1.54	8.28	24363.765	0	0	28	1.99	1.621	0.815	70	8	0.414	0
1	8	1360	0.77	7.5	24365.389	0	0	28	0.99	1.469	1.484	71	8	0.375	0
1	9	1380	0.7	9.6	24366.863	18.174	9.6722	28	0.9	1.879	2.088	72	8	0.48	0.1033892
1	9	1400	0.62	9.89	24368.168	34.257	17.695	28	0.8	1.936	2.42	73	8	0.494	0.0565145
1	9	1420	0.55	10.24	24369.311	48.345	24.1	28	0.71	2.006	2.825	74	8	0.512	0.0414937
1	9	1440	0.47	10.32	24370.291	60.428	29.9	28	0.61	2.021	3.313	75	8	0.516	0.0334445

1	9	1460	0.39	10.48	24371.108	70.508	34.361	28	0.5	2.052	4.104	76	8	0.524	0.0291031
1	9	1480	0.31	10.75	24371.763	78.583	37.349	28	0.4	2.104	5.26	77	8	0.537	0.0267742
1	9	1500	0.24	11.05	24372.257	84.664	39.142	28	0.31	2.163	6.977	78	8	0.552	0.0255481
1	9	1520	0.16	11.48	24372.587	88.74	39.475	28	0.21	2.248	10.705	79	8	0.574	0.0253324
1	9	1540	0.08	10.32	24372.755	90.812	44.957	28	0.1	2.02	20.2	80	8	0.516	0.0222437





E-2.1.23 META/20wt%/U/N 10°C

2004.02.10 META-20 wt%-U CC-45 0.1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.06	183.37	0.12331	1.52015	0.04234	10	0.08	35.903	448.787	1	1	9.16835	23.61806401

1	1	40	0.15	172.63	0.42804	5.27696	0.15612	10	0.19	33.8	177.895	2	1	8.6313	6.405202996
1	1	60	0.25	180.4	0.95819	11.81265	0.33443	10	0.32	35.322	110.381	3	1	9.0199	2.990184252
1	1	80	0.31	106.23	1.59671	19.68452	0.94637	10	0.4	20.8	52	4	1	5.31155	1.056667879
1	1	100	0.38	151.41	2.39861	29.57036	0.99745	10	0.49	29.646	60.502	5	1	7.57045	1.002557967
1	1	120	0.46	186.99	3.36229	41.45078	1.13216	10	0.59	36.612	62.054	6	1	9.34945	0.88326444
1	1	140	0.54	228.61	4.49248	55.3839	1.2373	10	0.7	44.762	63.946	7	1	11.43045	0.808213217
1	1	160	0.64	199.39	5.8253	71.8151	1.83953	10	0.83	39.04	47.036	8	1	9.9693	0.543618264
1	1	180	0.7	161.75	7.283	89.78582	2.83495	10	0.9	31.671	35.19	9	1	8.08755	0.352739441
1	2	200	0.77	169.34	8.90327	0	0	10	0.99	33.156	33.491	10	1	8.4669	0
1	2	220	1.55	342.17	12.09592	0	0	10	2	66.998	33.499	11	1	17.1087	0
1	2	240	2.33	281.68	16.94497	0	0	10	3.01	55.153	18.323	12	1	14.0841	0
1	2	260	3.09	288.89	23.3923	0	0	10	3.99	56.565	14.177	13	1	14.44455	0
1	2	280	3.89	317.54	31.50153	0	0	10	5.02	62.174	12.385	14	1	15.877	0
1	2	300	4.67	265.46	41.25225	0	0	10	6.03	51.976	8.62	15	1	13.27285	0
1	2	320	5.42	196.13	52.59497	0	0	10	7	38.402	5.486	16	1	9.80655	0
1	2	340	6.19	207.38	65.56033	0	0	10	7.99	40.604	5.082	17	1	10.36875	0
1	2	360	6.98	203.54	80.16402	0	0	10	9.01	39.853	4.423	18	1	10.177	0
1	3	380	7.75	176.13	96.52936	0	0	10.1	10.01	34.486	3.445	19	1	8.80635	0
1	3	400	15.51	216.3	128.86813	0	0	10	20.02	42.352	2.115	20	1	10.81505	0
1	3	420	23.24	224.83	177.39788	0	0	10	30	44.022	1.467	21	1	11.2416	0
1	3	440	30.99	263.7	242.14218	0	0	10	40.01	51.631	1.29	22	1	13.18475	0
1	3	460	38.73	258.9	323.16228	0	0	10	50	50.693	1.014	23	1	12.945	0
1	3	480	46.48	265.79	420.38358	0	0	10	60.01	52.042	0.867	24	1	13.28955	0
1	3	500	54.22	272.4	533.91995	0	0	10	70	53.336	0.762	25	1	13.6199	0
1	3	520	61.96	276.33	663.48238	0	0	10.1	79.99	54.104	0.676	26	1	13.81625	0
1	3	540	69.71	287.93	809.35752	0	0	10	90	56.376	0.626	27	1	14.3963	0
1	4	560	77.46	295.41	973.12639	0	0	10.1	100	57.841	0.578	28	1	14.77045	0
1	4	580	154.92	434.29	1296.43162	0	0	10.1	200	85.033	0.425	29	1	21.7143	0
1	4	600	232.38	514.85	1781.89486	0	0	10.1	300	100.81	0.336	30	1	25.74245	0
1	4	620	309.84	554.87	2429.10928	0	0	10.1	400	108.64	0.272	31	1	27.7435	0
1	4	640	387.3	574.29	3239.00245	0	0	10.1	500	112.45	0.225	32	1	28.71425	0
1	4	660	464.76	581.64	4211.0764	0	0	10.1	600.01	113.89	0.19	33	1	29.0819	0
1	4	680	542.22	582.22	5345.91156	0	0	10.1	700.01	114	0.163	34	1	29.1108	0
1	4	700	619.68	600.12	6641.11089	0	0	10.1	800.01	117.5	0.147	35	1	30.00575	0
1	4	720	697.13	587.78	8101.28781	0	0	10.1	899.99	115.09	0.128	36	1	29.38915	0
1	4	740	774.59	637.22	9721.3176	0	0	10.1	1000	124.77	0.125	37	1	31.86115	0
1	5	750	774.59	593.12	10549.87968	0	0	10.1	1000	116.13	0.116	38	1	29.65595	0
1	5	760	774.59	575.53	11360.21973	0	0	10.1	1000	112.69	0.113	39	1	28.77625	0
1	5	770	774.59	560.1	12172.18399	0	0	10.1	1000	109.67	0.11	40	1	28.005	0
1	5	780	774.59	546.58	12981.71194	0	0	10.1	1000	107.02	0.107	41	1	27.3288	0
1	5	790	774.59	534.5	13793.27015	0	0	10.1	1000	104.65	0.105	42	1	26.7248	0
1	5	800	774.59	523.78	14604.42151	0	0	10.1	1000	102.56	0.103	43	1	26.1891	0
1	6	820	774.59	512.62	16244.5685	0	0	10.1	1000	100.37	0.1	44	1	25.63105	0
1	6	840	697.13	452.74	17706.30287	0	0	10.1	899.99	88.646	0.098	45	1	22.63675	0
1	6	860	619.67	400.18	19005.12131	0	0	10.1	799.99	78.355	0.098	46	1	20.009	0
1	6	880	542.21	351.75	20142.64096	0	0	10.1	699.99	68.872	0.098	47	1	17.58735	0
1	6	900	464.75	306.37	21117.6091	0	0	10.1	599.99	59.988	0.1	48	1	15.3186	0
1	6	920	387.3	262.56	21930.46793	0	0	10.1	500	51.409	0.103	49	1	13.1279	0
1	6	940	309.84	219.32	22580.2027	0	0	10.1	400	42.944	0.107	50	1	10.9662	0
1	6	960	232.38	175.7	23068.19649	0	0	10.1	300	34.403	0.115	51	1	8.78515	0

1	6	980	154.92	129.2	23393.71811	0	0	10.1	200	25.298	0.126	52	1	6.4601	0
1	6	1000	77.46	77.48	23557.41551	0	0	10.1	100	15.171	0.152	53	1	3.87415	0
1	7	1020	69.71	72.43	23704.65882	0	0	10.1	90	14.181	0.158	54	1	3.6214	0
1	7	1040	61.97	67.49	23834.5244	0	0	10.1	80	13.215	0.165	55	1	3.37465	0
1	7	1060	54.22	60.76	23948.1723	0	0	10.1	70	11.897	0.17	56	1	3.03805	0
1	7	1080	46.48	54.7	24045.62765	0	0	10.1	60.01	10.71	0.178	57	1	2.735	0
1	7	1100	38.73	48.01	24126.89044	0	0	10.1	50	9.4	0.188	58	1	2.40045	0
1	7	1120	30.99	41.34	24191.87114	0	0	10.1	40.01	8.094	0.202	59	1	2.06695	0
1	7	1140	23.24	33.91	24240.63966	0	0	10.1	30	6.639	0.221	60	1	1.69545	0
1	7	1160	15.5	26.06	24273.24389	0	0	10.1	20.01	5.102	0.255	61	1	1.3028	0
1	7	1180	7.75	15.68	24289.58567	0	0	10.1	10.01	3.07	0.307	62	1	0.78395	0
1	8	1200	6.97	15.49	24304.29461	0	0	10.1	9	3.032	0.337	63	1	0.7743	0
1	8	1220	6.2	15.37	24317.28038	0	0	10.1	8	3.008	0.376	64	1	0.76825	0
1	8	1240	5.42	14.9	24328.64509	0	0	10.1	7	2.917	0.417	65	1	0.745	0
1	8	1260	4.64	14.14	24338.38481	0	0	10.1	5.99	2.769	0.462	66	1	0.707	0
1	8	1280	3.87	14.65	24346.49798	0	0	10.1	5	2.869	0.574	67	1	0.7326	0
1	8	1300	3.09	12.27	24352.99322	0	0	10.1	3.99	2.403	0.602	68	1	0.61355	0
1	8	1320	2.32	27.64	24357.86504	0	0	10.1	3	5.412	1.804	69	1	1.38195	0
1	8	1340	1.54	8.12	24361.1111	0	0	10.1	1.99	1.59	0.799	70	1	0.40615	0
1	8	1360	0.78	8.82	24362.73451	0	0	10.1	1.01	1.727	1.71	71	1	0.4409	0
1	9	1380	0.7	9.95	24364.20871	18.17405	9.3248	10.1	0.9	1.949	2.166	72	1	0.4977	0.107240819
1	9	1400	0.62	13	24365.51404	34.26637	13.4589	10.1	0.8	2.546	3.182	73	1	0.6502	0.074300254
1	9	1420	0.55	6.94	24366.65679	48.3544	35.60704	10.1	0.71	1.358	1.913	74	1	0.34675	0.028084311
1	9	1440	0.47	11.74	24367.63618	60.42848	26.28467	10.1	0.61	2.299	3.769	75	1	0.58705	0.038044975
1	9	1460	0.39	8.46	24368.45221	70.4886	42.53987	10.1	0.5	1.657	3.314	76	1	0.4231	0.023507347
1	9	1480	0.31	9.18	24369.1088	78.58317	43.70585	10.1	0.4	1.798	4.495	77	1	0.4591	0.022880217
1	9	1500	0.24	5.37	24369.60282	84.67346	80.56459	10.1	0.31	1.051	3.39	78	1	0.26835	0.01241239
1	9	1520	0.16	5.62	24369.93347	88.7498	80.68156	10.1	0.21	1.1	5.238	79	1	0.28095	0.012394394
1	9	1540	0.08	3.31	24370.10233	90.83153	140.1719	10.1	0.1	0.648	6.48	80	1	0.1656	0.007134087

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	6.92	0.16336	2.01396	1.48632	10.1	0.1	1.355	13.55	1	1	0.3459	0.672803829
1	1	40	0.16	9.81	0.49087	6.05156	3.15021	10.1	0.21	1.921	9.148	2	1	0.49045	0.317438809
1	1	60	0.24	13.07	0.98175	12.10312	4.72963	10.1	0.31	2.559	8.255	3	1	0.65345	0.211433085
1	1	80	0.31	12.55	1.6352	20.15896	8.20136	10.1	0.4	2.458	6.145	4	1	0.62765	0.121930893
1	1	100	0.39	18.39	2.45044	30.2094	8.3915	10.1	0.5	3.6	7.2	5	1	0.9193	0.119168206
1	1	120	0.47	13.65	3.42748	42.25443	15.80786	10.1	0.61	2.673	4.382	6	1	0.6825	0.063259639
1	1	140	0.54	14.09	4.56709	56.30374	20.40729	10.1	0.7	2.759	3.941	7	1	0.7045	0.049002073
1	1	160	0.62	14.01	5.87164	72.38637	26.38948	10.1	0.8	2.743	3.429	8	1	0.70055	0.037893874
1	1	180	0.7	14.66	7.3364	90.44423	31.50268	10.1	0.9	2.871	3.19	9	1	0.7331	0.031743319
1	2	200	0.77	14.51	8.95982	0	0	10.1	0.99	2.842	2.871	10	1	0.72565	0
1	2	220	1.55	22.51	12.1831	0	0	10.1	2	4.407	2.204	11	1	1.12545	0
1	2	240	2.32	25.06	17.02743	0	0	10.1	3	4.906	1.635	12	1	1.2528	0
1	2	260	3.09	39.28	23.48969	0	0	10.1	3.99	7.691	1.928	13	1	1.96405	0
1	2	280	3.87	34.64	31.59343	0	0	10.1	5	6.783	1.357	14	1	1.73205	0
1	2	300	4.65	35.48	41.3143	0	0	10.1	6	6.948	1.158	15	1	1.77415	0
1	2	320	5.42	31.18	52.66016	0	0	10.1	7	6.104	0.872	16	1	1.55885	0
1	2	340	6.2	34.77	65.6263	0	0	10.1	8	6.808	0.851	17	1	1.73845	0
1	2	360	6.97	27.64	80.19858	0	0	10.1	9	5.412	0.601	18	1	1.382	0

1	3	380	7.75	41.23	96.56863	0	0	10.1	10.01	8.073	0.806	19	1	2.06155	0
1	3	400	15.5	40.95	128.91997	0	0	10.1	20.01	8.018	0.401	20	1	2.04755	0
1	3	420	23.24	46.72	177.46621	0	0	10.1	30	9.147	0.305	21	1	2.33585	0
1	3	440	30.99	49.9	242.24664	0	0	10.1	40.01	9.77	0.244	22	1	2.49485	0
1	3	460	38.73	54.6	323.26831	0	0	10.1	50	10.691	0.214	23	1	2.73	0
1	3	480	46.48	60.5	420.44249	0	0	10.1	60.01	11.845	0.197	24	1	3.02475	0
1	3	500	54.22	66.08	533.84927	0	0	10.1	70	12.939	0.185	25	1	3.30405	0
1	3	520	61.96	74.83	663.60254	0	0	10.1	79.99	14.652	0.183	26	1	3.74165	0
1	3	540	69.71	76.89	809.33553	0	0	10.1	90	15.054	0.167	27	1	3.8443	0
1	4	560	77.46	82.31	972.98737	0	0	10.1	100	16.116	0.161	28	1	4.11545	0
1	4	580	154.92	138.1	1296.26433	0	0	10.1	200	27.041	0.135	29	1	6.9052	0
1	4	600	232.38	186.98	1781.89643	0	0	10.1	300	36.611	0.122	30	1	9.3491	0
1	4	620	309.84	229.35	2429.39281	0	0	10.1	400	44.907	0.112	31	1	11.46745	0
1	4	640	387.3	268.92	3239.68731	0	0	10.1	500	52.654	0.105	32	1	13.4458	0
1	4	660	464.75	307.33	4211.27589	0	0	10.1	599.99	60.175	0.1	33	1	15.36635	0
1	4	680	542.21	345.24	5345.30288	0	0	10.1	699.99	67.597	0.097	34	1	17.26185	0
1	4	700	619.67	385.29	6642.77122	0	0	10.1	799.99	75.439	0.094	35	1	19.2644	0
1	4	720	697.13	417.74	8100.40266	0	0	10.1	899.99	81.793	0.091	36	1	20.88695	0
1	4	740	774.59	447.74	9722.17133	0	0	10.1	1000	87.667	0.088	37	1	22.387	0
1	5	750	774.59	436.79	10550.42632	0	0	10.1	1000	85.523	0.086	38	1	21.83945	0
1	5	760	774.59	431.86	11363.20032	0	0	10.1	1000	84.559	0.085	39	1	21.5931	0
1	5	770	774.59	427.58	12172.31986	0	0	10.1	1000	83.721	0.084	40	1	21.3792	0
1	5	780	774.59	423.47	12984.28176	0	0	10.1	1000	82.916	0.083	41	1	21.1736	0
1	5	790	774.59	419.44	13795.02551	0	0	10.1	1000	82.126	0.082	42	1	20.972	0
1	5	800	774.59	415.78	14605.36399	0	0	10.1	1000	81.41	0.081	43	1	20.78915	0
1	6	820	774.59	411.8	16245.50862	0	0	10.1	1000	80.631	0.081	44	1	20.5901	0
1	6	840	697.13	367.75	17708.70304	0	0	10.1	899.99	72.005	0.08	45	1	18.3873	0
1	6	860	619.67	326.69	19007.23481	0	0	10.1	799.99	63.966	0.08	46	1	16.33445	0
1	6	880	542.21	287.42	20144.14499	0	0	10.1	699.99	56.277	0.08	47	1	14.3711	0
1	6	900	464.75	249.81	21119.11	0	0	10.1	599.99	48.912	0.082	48	1	12.49025	0
1	6	920	387.3	213.05	21930.99493	0	0	10.1	500	41.715	0.083	49	1	10.65255	0
1	6	940	309.84	176.53	22581.21586	0	0	10.1	400	34.564	0.086	50	1	8.82645	0
1	6	960	232.38	139.85	23069.65419	0	0	10.1	300	27.384	0.091	51	1	6.99275	0
1	6	980	154.92	101.16	23395.2143	0	0	10.1	200	19.806	0.099	52	1	5.0578	0
1	6	1000	77.46	59.26	23558.74912	0	0	10.1	100	11.603	0.116	53	1	2.9631	0
1	7	1020	69.71	55.04	23705.92566	0	0	10.1	90	10.776	0.12	54	1	2.75175	0
1	7	1040	61.97	50.69	23835.85958	0	0	10.1	80	9.925	0.124	55	1	2.53445	0
1	7	1060	54.22	45.96	23949.51219	0	0	10.1	70	8.998	0.129	56	1	2.29785	0
1	7	1080	46.48	40.73	24046.94712	0	0	10.1	60.01	7.975	0.133	57	1	2.0365	0
1	7	1100	38.73	36.53	24128.22562	0	0	10.1	50	7.153	0.143	58	1	1.8265	0
1	7	1120	30.99	30.5	24193.27072	0	0	10.1	40.01	5.972	0.149	59	1	1.525	0
1	7	1140	23.24	25.04	24241.99761	0	0	10.1	30	4.903	0.163	60	1	1.252	0
1	7	1160	15.5	19	24274.59399	0	0	10.1	20.01	3.721	0.186	61	1	0.9502	0
1	7	1180	7.75	11.33	24290.93106	0	0	10.1	10.01	2.219	0.222	62	1	0.56665	0
1	8	1200	6.97	12.43	24305.64628	0	0	10.1	9	2.434	0.27	63	1	0.6215	0
1	8	1220	6.2	13.06	24318.6187	0	0	10.1	8	2.557	0.32	64	1	0.65305	0
1	8	1240	5.42	15.31	24329.98341	0	0	10.1	7	2.997	0.428	65	1	0.76535	0
1	8	1260	4.65	56.18	24339.73648	0	0	10.1	6	10.999	1.833	66	1	2.80885	0
1	8	1280	3.87	12.56	24347.85043	0	0	10.1	5	2.458	0.492	67	1	0.62775	0
1	8	1300	3.09	9.49	24354.3496	0	0	10.1	3.99	1.858	0.466	68	1	0.47435	0

1	8	1320	2.32	11.92	24359.2175	0	0	10.1	3	2.333	0.778	69	1	0.59575	0
1	8	1340	1.54	7.28	24362.46512	0	0	10.1	1.99	1.425	0.716	70	1	0.3639	0
1	8	1360	0.77	3.29	24364.09011	0	0	10.1	0.99	0.645	0.652	71	1	0.16465	0
1	9	1380	0.7	7.61	24365.56352	18.16437	12.19084	10.1	0.9	1.49	1.656	72	1	0.3805	0.082028719
1	9	1400	0.62	15.82	24366.86806	34.247	11.05455	10.1	0.8	3.098	3.872	73	1	0.79115	0.090460478
1	9	1420	0.55	12.99	24368.0116	48.34472	19.00342	10.1	0.71	2.544	3.583	74	1	0.6497	0.052622086
1	9	1440	0.47	12.15	24368.99099	60.4188	25.39671	10.1	0.61	2.379	3.9	75	1	0.6076	0.039375161
1	9	1460	0.39	7.81	24369.80781	70.4886	46.07095	10.1	0.5	1.53	3.06	76	1	0.39065	0.021705638
1	9	1480	0.31	8.9	24370.46047	78.53476	45.08307	10.1	0.4	1.742	4.355	77	1	0.44495	0.022181261
1	9	1500	0.24	20.05	24370.95449	84.62505	21.54954	10.1	0.31	3.927	12.668	78	1	1.0027	0.046404699
1	9	1520	0.16	12.97	24371.2875	88.73043	34.93323	10.1	0.21	2.54	12.095	79	1	0.64855	0.028626031
1	9	1540	0.08	9.96	24371.45636	90.81217	46.54645	10.1	0.1	1.951	19.51	80	1	0.49815	0.021483905

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	8.48	0.16101	1.98491	1.19501	10.1	0.1	1.661	16.61	1	1	0.4241	0.83681376
1	1	40	0.16	16.84	0.49087	6.05156	1.83547	10.1	0.21	3.297	15.7	2	1	0.842	0.544818196
1	1	60	0.24	20.23	0.98096	12.09344	3.05236	10.1	0.31	3.962	12.781	3	1	1.01165	0.327615633
1	1	80	0.31	22.88	1.63206	20.12023	4.49112	10.1	0.4	4.48	11.2	4	1	1.14395	0.222661471
1	1	100	0.39	15.55	2.44652	30.16099	9.90834	10.1	0.5	3.044	6.088	5	1	0.77735	0.100925069
1	1	120	0.47	24.78	3.42591	42.23507	8.70646	10.1	0.61	4.851	7.952	6	1	1.2388	0.114857155
1	1	140	0.54	15.61	4.57023	56.34247	18.43064	10.1	0.7	3.057	4.367	7	1	0.78055	0.054257472
1	1	160	0.62	13.24	5.8685	72.34764	27.92266	10.1	0.8	2.591	3.239	8	1	0.66175	0.035813193
1	1	180	0.7	19.77	7.3364	90.44423	23.36456	10.1	0.9	3.871	4.301	9	1	0.9885	0.042799856
1	2	200	0.77	29.14	8.95354	0	0	10.1	0.99	5.706	5.764	10	1	1.4572	0
1	2	220	1.55	26.82	12.18153	0	0	10.1	2	5.252	2.626	11	1	1.3411	0
1	2	240	2.31	28.69	17.01722	0	0	10.1	2.98	5.617	1.885	12	1	1.43445	0
1	2	260	3.09	88.57	23.47712	0	0	10.1	3.99	17.341	4.346	13	1	4.42835	0
1	2	280	3.88	78.07	31.59421	0	0	10.1	5.01	15.286	3.051	14	1	3.90345	0
1	2	300	4.65	39.89	41.31194	0	0	10.1	6	7.811	1.302	15	1	1.9946	0
1	2	320	5.41	36.74	52.65938	0	0	10.1	6.98	7.193	1.031	16	1	1.83675	0
1	2	340	6.2	42.31	65.62237	0	0	10.1	8	8.285	1.036	17	1	2.11565	0
1	2	360	6.97	33.99	80.19544	0	0	10.1	9	6.655	0.739	18	1	1.69955	0
1	3	380	7.75	34.37	96.55606	0	0	10.1	10.01	6.729	0.672	19	1	1.71845	0
1	3	400	15.5	35.33	128.93175	0	0	10.1	20.01	6.917	0.346	20	1	1.7663	0
1	3	420	23.24	44.42	177.47878	0	0	10.1	30	8.698	0.29	21	1	2.2212	0
1	3	440	30.99	39.55	242.22308	0	0	10.1	40.01	7.743	0.194	22	1	1.97725	0
1	3	460	38.73	43.45	323.28167	0	0	10.1	50	8.508	0.17	23	1	2.1726	0
1	3	480	46.48	46.1	420.404	0	0	10.1	60.01	9.025	0.15	24	1	2.30475	0
1	3	500	54.22	50.6	533.86341	0	0	10.1	70	9.908	0.142	25	1	2.5301	0
1	3	520	61.96	54.64	663.54914	0	0	10.1	79.99	10.699	0.134	26	1	2.73215	0
1	3	540	69.71	59.09	809.46748	0	0	10.1	90	11.57	0.129	27	1	2.95465	0
1	4	560	77.46	63.67	973.07298	0	0	10.1	100	12.466	0.125	28	1	3.1834	0
1	4	580	154.92	108.51	1296.71907	0	0	10.1	200	21.247	0.106	29	1	5.42565	0
1	4	600	232.38	147.45	1782.27107	0	0	10.1	300	28.871	0.096	30	1	7.3725	0
1	4	620	309.84	182.88	2429.48549	0	0	10.1	400	35.808	0.09	31	1	9.1439	0
1	4	640	387.3	216.84	3239.37551	0	0	10.1	500	42.456	0.085	32	1	10.84175	0
1	4	660	464.75	250.35	4211.49266	0	0	10.1	599.99	49.019	0.082	33	1	12.51765	0
1	4	680	542.21	284.94	5346.04743	0	0	10.1	699.99	55.792	0.08	34	1	14.2471	0
1	4	700	619.67	321.63	6642.50104	0	0	10.1	799.99	62.975	0.079	35	1	16.08155	0

1	4	720	697.13	357.9	8100.13327	0	0	10.1	899.99	70.077	0.078	36	1	17.89505	0
1	4	740	774.59	388.83	9722.71169	0	0	10.1	1000	76.133	0.076	37	1	19.4416	0
1	5	750	774.59	382.17	10550.97688	0	0	10.1	1000	74.829	0.075	38	1	19.10845	0
1	5	760	774.59	379.17	11363.34405	0	0	10.1	1000	74.242	0.074	39	1	18.95855	0
1	5	770	774.59	376.65	12172.86964	0	0	10.1	1000	73.749	0.074	40	1	18.8327	0
1	5	780	774.59	374.34	12985.23838	0	0	10.1	1000	73.295	0.073	41	1	18.7168	0
1	5	790	774.59	372.17	13795.16845	0	0	10.1	1000	72.87	0.073	42	1	18.6084	0
1	5	800	774.59	369.88	14605.50693	0	0	10.1	1000	72.422	0.072	43	1	18.49375	0
1	6	820	774.59	367.45	16246.46366	0	0	10.1	1000	71.947	0.072	44	1	18.3726	0
1	6	840	697.13	329.22	17707.46526	0	0	10.1	899.99	64.461	0.072	45	1	16.4609	0
1	6	860	619.67	292.87	19007.94403	0	0	10.1	799.99	57.344	0.072	46	1	14.64355	0
1	6	880	542.21	257.66	20143.72009	0	0	10.1	699.99	50.45	0.072	47	1	12.88295	0
1	6	900	464.75	223.53	21118.1958	0	0	10.1	599.99	43.768	0.073	48	1	11.17665	0
1	6	920	387.3	189.98	21931.29652	0	0	10.1	500	37.199	0.074	49	1	9.4992	0
1	6	940	309.84	156.63	22581.1923	0	0	10.1	400	30.668	0.077	50	1	7.8314	0
1	6	960	232.38	123.22	23069.62984	0	0	10.1	300	24.126	0.08	51	1	6.1609	0
1	6	980	154.92	88.14	23395.18916	0	0	10.1	200	17.258	0.086	52	1	4.4071	0
1	6	1000	77.46	50.88	23558.64152	0	0	10.1	100	9.963	0.1	53	1	2.5441	0
1	7	1020	69.71	46.92	23705.81492	0	0	10.1	90	9.186	0.102	54	1	2.34585	0
1	7	1040	61.97	42.82	23835.67972	0	0	10.1	80	8.384	0.105	55	1	2.14105	0
1	7	1060	54.22	38.77	23949.30328	0	0	10.1	70	7.591	0.108	56	1	1.93855	0
1	7	1080	46.48	34.41	24046.83166	0	0	10.1	60.01	6.737	0.112	57	1	1.7205	0
1	7	1100	38.73	30.12	24128.06932	0	0	10.1	50	5.897	0.118	58	1	1.50585	0
1	7	1120	30.99	26.95	24193.05395	0	0	10.1	40.01	5.277	0.132	59	1	1.3476	0
1	7	1140	23.24	20.75	24241.86566	0	0	10.1	30	4.063	0.135	60	1	1.0376	0
1	7	1160	15.5	15.46	24274.43691	0	0	10.1	20.01	3.027	0.151	61	1	0.7729	0
1	7	1180	7.75	9.77	24290.77947	0	0	10.1	10.01	1.913	0.191	62	1	0.48855	0
1	8	1200	6.97	9.66	24305.48213	0	0	10.1	9	1.891	0.21	63	1	0.48285	0
1	8	1220	6.2	8.64	24318.4679	0	0	10.1	8	1.692	0.212	64	1	0.43205	0
1	8	1240	5.42	9.49	24329.83811	0	0	10.1	7	1.858	0.265	65	1	0.47455	0
1	8	1260	4.64	11.64	24339.57705	0	0	10.1	5.99	2.279	0.38	66	1	0.58205	0
1	8	1280	3.87	8.97	24347.69257	0	0	10.1	5	1.757	0.351	67	1	0.4486	0
1	8	1300	3.09	11.71	24354.18388	0	0	10.1	3.99	2.293	0.575	68	1	0.5856	0
1	8	1320	2.32	7.59	24359.05728	0	0	10.1	3	1.487	0.496	69	1	0.37965	0
1	8	1340	1.54	6.3	24362.30254	0	0	10.1	1.99	1.233	0.62	70	1	0.3148	0
1	8	1360	0.76	6.74	24363.91418	0	0	10.1	0.98	1.319	1.346	71	1	0.33675	0
1	9	1380	0.7	6.55	24365.39387	18.24183	14.22919	10.1	0.9	1.282	1.424	72	1	0.3274	0.070278037
1	9	1400	0.61	10.49	24366.67878	34.0824	16.59318	10.1	0.79	2.054	2.6	73	1	0.5245	0.060265709
1	9	1420	0.55	6.02	24367.84746	48.48996	41.12801	10.1	0.71	1.179	1.661	74	1	0.301	0.024314312
1	9	1440	0.47	4.59	24368.82763	60.57372	67.45396	10.1	0.61	0.898	1.472	75	1	0.22935	0.014824911
1	9	1460	0.39	7.18	24369.64445	70.64352	50.24429	10.1	0.5	1.406	2.812	76	1	0.35895	0.019902746
1	9	1480	0.31	7.65	24370.30025	78.72841	52.55565	10.1	0.4	1.498	3.745	77	1	0.3826	0.019027439
1	9	1500	0.24	4.29	24370.79427	84.8187	100.97452	10.1	0.31	0.84	2.71	78	1	0.2146	0.009903476
1	9	1520	0.16	7.2	24371.12099	88.84662	63.05646	10.1	0.21	1.409	6.71	79	1	0.35975	0.015858791
1	9	1540	0.08	2.45	24371.29378	90.97677	189.53454	10.1	0.1	0.48	4.8	80	1	0.12245	0.005276072

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	5.17	0.16415	2.02364	1.99964	10.1	0.1	1.012	10.12	1	1	0.2584	0.500088949
1	1	40	0.16	8.26	0.49166	6.06125	3.74845	10.1	0.21	1.617	7.7	2	1	0.4129	0.266776655

1	1	60	0.24	9.35	0.98253	12.11281	6.61902	10.1	0.31	1.83	5.903	3	1	0.4674	0.151079725
1	1	80	0.31	9.35	1.63598	20.16865	11.0151	10.1	0.4	1.831	4.578	4	1	0.4676	0.09078446
1	1	100	0.39	9.57	2.45201	30.22876	16.13921	10.1	0.5	1.873	3.746	5	1	0.47835	0.061960861
1	1	120	0.47	9.64	3.42905	42.27379	22.40263	10.1	0.61	1.887	3.093	6	1	0.48175	0.044637587
1	1	140	0.54	10.7	4.57023	56.34247	26.89377	10.1	0.7	2.095	2.993	7	1	0.5351	0.037183318
1	1	160	0.62	14.44	5.87242	72.39605	25.60878	10.1	0.8	2.827	3.534	8	1	0.7218	0.039049092
1	1	180	0.7	11.99	7.33719	90.45392	38.54021	10.1	0.9	2.347	2.608	9	1	0.5993	0.025946913
1	2	200	0.77	10.81	8.95904	0	0	10.1	0.99	2.117	2.138	10	1	0.5407	0
1	2	220	1.55	15.87	12.18467	0	0	10.1	2	3.107	1.554	11	1	0.7934	0
1	2	240	2.32	18.72	17.03057	0	0	10.1	3	3.666	1.222	12	1	0.9362	0
1	2	260	3.09	23.77	23.50225	0	0	10.1	3.99	4.655	1.167	13	1	1.18865	0
1	2	280	3.87	28.3	31.59657	0	0	10.1	5	5.542	1.108	14	1	1.4152	0
1	2	300	4.65	20.66	41.31666	0	0	10.1	6	4.045	0.674	15	1	1.03305	0
1	2	320	5.42	19.7	52.65466	0	0	10.1	7	3.857	0.551	16	1	0.9849	0
1	2	340	6.2	23.38	65.62002	0	0	10.1	8	4.578	0.572	17	1	1.169	0
1	2	360	6.97	22.49	80.21507	0	0	10.1	9	4.404	0.489	18	1	1.1247	0
1	3	380	7.75	20.75	96.58198	0	0	10.1	10.01	4.063	0.406	19	1	1.03765	0
1	3	400	15.5	35.18	128.91211	0	0	10.1	20.01	6.889	0.344	20	1	1.75915	0
1	3	420	23.24	31.36	177.50391	0	0	10.1	30	6.14	0.205	21	1	1.56805	0
1	3	440	30.99	34.49	242.28984	0	0	10.1	40.01	6.753	0.169	22	1	1.7244	0
1	3	460	38.73	37.35	323.27145	0	0	10.1	50	7.314	0.146	23	1	1.86765	0
1	3	480	46.48	40.03	420.48647	0	0	10.1	60.01	7.838	0.131	24	1	2.00145	0
1	3	500	54.22	43.85	533.86969	0	0	10.1	70	8.587	0.123	25	1	2.1927	0
1	3	520	61.96	47.48	663.55542	0	0	10.1	79.99	9.296	0.116	26	1	2.37375	0
1	3	540	69.71	51.35	809.46983	0	0	10.1	90	10.055	0.112	27	1	2.5677	0
1	4	560	77.46	55.06	973.12089	0	0	10.1	100	10.78	0.108	28	1	2.75285	0
1	4	580	154.92	94.21	1296.56435	0	0	10.1	200	18.446	0.092	29	1	4.71045	0
1	4	600	232.38	128.78	1781.83281	0	0	10.1	300	25.215	0.084	30	1	6.43885	0
1	4	620	309.84	160.33	2429.04802	0	0	10.1	400	31.393	0.078	31	1	8.01655	0
1	4	640	387.3	191.34	3238.93726	0	0	10.1	500	37.464	0.075	32	1	9.567	0
1	4	660	464.75	222.77	4211.22013	0	0	10.1	599.99	43.618	0.073	33	1	11.1385	0
1	4	680	542.21	255.05	5346.05686	0	0	10.1	699.99	49.938	0.071	34	1	12.75235	0
1	4	700	619.67	287.68	6641.86644	0	0	10.1	799.99	56.327	0.07	35	1	14.38375	0
1	4	720	697.13	323.84	8100.59116	0	0	10.1	899.99	63.409	0.07	36	1	16.1922	0
1	4	740	774.59	357.72	9722.76352	0	0	10.1	1000	70.041	0.07	37	1	17.8858	0
1	5	750	774.59	353.75	10551.43398	0	0	10.1	1000	69.264	0.069	38	1	17.68745	0
1	5	760	774.59	352.06	11362.98826	0	0	10.1	1000	68.934	0.069	39	1	17.60315	0
1	5	770	774.59	350.42	12174.94859	0	0	10.1	1000	68.612	0.069	40	1	17.521	0
1	5	780	774.59	348.91	12983.66365	0	0	10.1	1000	68.316	0.068	41	1	17.44545	0
1	5	790	774.59	347.39	13796.43687	0	0	10.1	1000	68.019	0.068	42	1	17.36955	0
1	5	800	774.59	345.94	14606.77457	0	0	10.1	1000	67.735	0.068	43	1	17.2971	0
1	6	820	774.59	344.18	16247.32368	0	0	10.1	1000	67.391	0.067	44	1	17.2091	0
1	6	840	697.13	308.89	17708.32605	0	0	10.1	899.99	60.48	0.067	45	1	15.44425	0
1	6	860	619.67	275.21	19008.80404	0	0	10.1	799.99	53.886	0.067	46	1	13.76055	0
1	6	880	542.21	242.23	20145.18643	0	0	10.1	699.99	47.428	0.068	47	1	12.11125	0
1	6	900	464.75	210.04	21120.59519	0	0	10.1	599.99	41.126	0.069	48	1	10.5021	0
1	6	920	387.3	178.29	21933.04796	0	0	10.1	500	34.909	0.07	49	1	8.91435	0
1	6	940	309.84	146.54	22583.10474	0	0	10.1	400	28.694	0.072	50	1	7.32725	0
1	6	960	232.38	114.82	23070.56918	0	0	10.1	300	22.482	0.075	51	1	5.74095	0
1	6	980	154.92	81.61	23396.57461	0	0	10.1	200	15.979	0.08	52	1	4.08045	0

1	6	1000	77.46	46.49	23560.10707	0	0	10.1	100	9.104	0.091	53	1	2.3247	0
1	7	1020	69.71	42.87	23707.36137	0	0	10.1	90	8.395	0.093	54	1	2.1437	0
1	7	1040	61.97	39.11	23837.22617	0	0	10.1	80	7.658	0.096	55	1	1.95545	0
1	7	1060	54.22	35.31	23950.90235	0	0	10.1	70	6.913	0.099	56	1	1.7654	0
1	7	1080	46.48	31.13	24048.38204	0	0	10.1	60.01	6.095	0.102	57	1	1.55645	0
1	7	1100	38.73	26.97	24129.6197	0	0	10.1	50	5.28	0.106	58	1	1.3484	0
1	7	1120	30.99	23.02	24194.58391	0	0	10.1	40.01	4.507	0.113	59	1	1.15095	0
1	7	1140	23.24	18.86	24243.39955	0	0	10.1	30	3.692	0.123	60	1	0.94275	0
1	7	1160	15.5	13.38	24275.96215	0	0	10.1	20.01	2.62	0.131	61	1	0.6691	0
1	7	1180	7.75	7.72	24292.31257	0	0	10.1	10.01	1.512	0.151	62	1	0.38615	0
1	8	1200	6.97	9.5	24307.01915	0	0	10.1	9	1.86	0.207	63	1	0.47495	0
1	8	1220	6.2	8.15	24320.001	0	0	10.1	8	1.597	0.2	64	1	0.4077	0
1	8	1240	5.42	7.2	24331.37042	0	0	10.1	7	1.41	0.201	65	1	0.3601	0
1	8	1260	4.64	9.48	24341.10779	0	0	10.1	5.99	1.857	0.31	66	1	0.47415	0
1	8	1280	3.87	9.16	24349.22881	0	0	10.1	5	1.794	0.359	67	1	0.458	0
1	8	1300	3.09	6.26	24355.72169	0	0	10.1	3.99	1.226	0.307	68	1	0.31295	0
1	8	1320	2.32	5.29	24360.59195	0	0	10.1	3	1.035	0.345	69	1	0.26425	0
1	8	1340	1.54	5.88	24363.838	0	0	10.1	1.99	1.151	0.578	70	1	0.29385	0
1	8	1360	0.77	2.71	24365.4622	0	0	10.1	0.99	0.531	0.536	71	1	0.13565	0
1	9	1380	0.7	5.21	24366.93718	18.18373	17.80971	10.1	0.9	1.021	1.134	72	1	0.26065	0.056149096
1	9	1400	0.62	5.04	24368.24173	34.26637	34.75288	10.1	0.8	0.986	1.233	73	1	0.25175	0.028774568
1	9	1420	0.55	15.45	24369.37663	48.25758	15.95291	10.1	0.71	3.025	4.261	74	1	0.7724	0.062684453
1	9	1440	0.47	16.7	24370.36151	60.39943	18.47642	10.1	0.61	3.269	5.359	75	1	0.83475	0.054123027
1	9	1460	0.39	7.1	24371.17911	70.47892	50.74073	10.1	0.5	1.389	2.778	76	1	0.35475	0.01970802
1	9	1480	0.31	6.93	24371.83806	78.60253	57.96642	10.1	0.4	1.356	3.39	77	1	0.34635	0.017251353
1	9	1500	0.24	3.78	24372.33051	84.67346	114.42344	10.1	0.31	0.74	2.387	78	1	0.1889	0.008739456
1	9	1520	0.16	4.38	24372.66116	88.74979	103.43786	10.1	0.21	0.858	4.086	79	1	0.2191	0.009667629
1	9	1540	0.08	2.36	24372.83081	90.84121	196.62557	10.1	0.1	0.462	4.62	80	1	0.11795	0.005085798

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	4.21	0.16336	2.01396	2.44116	10.1	0.1	0.825	8.25	1	1	0.2107	0.409640708
1	1	40	0.16	7.51	0.49166	6.06125	4.12049	10.1	0.21	1.471	7.005	2	1	0.3757	0.242689214
1	1	60	0.24	8.52	0.98332	12.12249	7.26768	10.1	0.31	1.668	5.381	3	1	0.426	0.137595494
1	1	80	0.31	25.38	1.62734	20.06214	4.03746	10.1	0.4	4.969	12.423	4	1	1.2689	0.247680457
1	1	100	0.4	8.61	2.4528	30.23845	17.94566	10.1	0.52	1.685	3.24	5	1	0.4303	0.055723756
1	1	120	0.47	8.1	3.43062	42.29316	26.68336	10.1	0.61	1.585	2.598	6	1	0.40475	0.037476509
1	1	140	0.54	8.3	4.57102	56.35215	34.67822	10.1	0.7	1.625	2.321	7	1	0.415	0.028836522
1	1	160	0.62	8.55	5.87321	72.40573	43.2531	10.1	0.8	1.674	2.093	8	1	0.4276	0.023119717
1	1	180	0.7	8.71	7.33876	90.47328	53.03237	10.1	0.9	1.706	1.896	9	1	0.4357	0.018856396
1	2	200	0.77	11.15	8.95668	0	0	10.1	0.99	2.183	2.205	10	1	0.55735	0
1	2	220	1.55	56.19	12.18545	0	0	10.1	2	11.001	5.501	11	1	2.80925	0
1	2	240	2.31	41.96	17.00308	0	0	10.1	2.98	8.216	2.757	12	1	2.09815	0
1	2	260	3.09	58.82	23.47398	0	0	10.1	3.99	11.518	2.887	13	1	2.9412	0
1	2	280	3.88	47.76	31.59186	0	0	10.1	5.01	9.352	1.867	14	1	2.38805	0
1	2	300	4.65	37.14	41.32058	0	0	10.1	6	7.271	1.212	15	1	1.85685	0
1	2	320	5.42	37.18	52.66566	0	0	10.1	7	7.28	1.04	16	1	1.85895	0
1	2	340	6.19	29.53	65.62002	0	0	10.1	7.99	5.782	0.724	17	1	1.4765	0
1	2	360	6.97	39.31	80.21429	0	0	10.1	9	7.697	0.855	18	1	1.9654	0
1	3	380	7.75	17.46	96.58434	0	0	10.1	10.01	3.419	0.342	19	1	0.8732	0

1	3	400	15.5	25.89	128.91525	0	0	10.1	20.01	5.069	0.253	20	1	1.29455	0
1	3	420	23.24	28.74	177.4992	0	0	10.1	30	5.627	0.188	21	1	1.4369	0
1	3	440	30.99	30.3	242.28434	0	0	10.1	40.01	5.933	0.148	22	1	1.51515	0
1	3	460	38.73	33.47	323.24161	0	0	10.1	50	6.553	0.131	23	1	1.6734	0
1	3	480	46.48	37.07	420.50846	0	0	10.1	60.01	7.258	0.121	24	1	1.8534	0
1	3	500	54.22	40.65	533.89247	0	0	10.1	70	7.958	0.114	25	1	2.0323	0
1	3	520	61.96	44.21	663.61432	0	0	10.1	79.99	8.657	0.108	26	1	2.21055	0
1	3	540	69.71	47.43	809.45648	0	0	10.1	90	9.288	0.103	27	1	2.3717	0
1	4	560	77.46	50.68	973.22928	0	0	10.1	100	9.924	0.099	28	1	2.53415	0
1	4	580	154.92	86.28	1296.10568	0	0	10.1	200	16.893	0.084	29	1	4.31385	0
1	4	600	232.38	118.14	1782.06451	0	0	10.1	300	23.131	0.077	30	1	5.9068	0
1	4	620	309.84	147.38	2429.07708	0	0	10.1	400	28.857	0.072	31	1	7.36895	0
1	4	640	387.3	176.85	3239.57657	0	0	10.1	500	34.628	0.069	32	1	8.8426	0
1	4	660	464.75	206.49	4211.16751	0	0	10.1	599.99	40.43	0.067	33	1	10.32435	0
1	4	680	542.21	236.99	5346.33175	0	0	10.1	699.99	46.403	0.066	34	1	11.84955	0
1	4	700	619.67	266.66	6642.17981	0	0	10.1	799.99	52.213	0.065	35	1	13.33315	0
1	4	720	697.13	297.98	8100.17647	0	0	10.1	899.99	58.345	0.065	36	1	14.89905	0
1	4	740	774.59	333.99	9721.53673	0	0	10.1	1000	65.396	0.065	37	1	16.6996	0
1	5	750	774.59	335	10548.58691	0	0	10.1	1000	65.593	0.066	38	1	16.7499	0
1	5	760	774.59	333.69	11360.14119	0	0	10.1	1000	65.337	0.065	39	1	16.68455	0
1	5	770	774.59	332.43	12171.69469	0	0	10.1	1000	65.09	0.065	40	1	16.6215	0
1	5	780	774.59	331.25	12982.43765	0	0	10.1	1000	64.859	0.065	41	1	16.56265	0
1	5	790	774.59	330.12	13794.80246	0	0	10.1	1000	64.638	0.065	42	1	16.5062	0
1	5	800	774.59	328.96	14604.73489	0	0	10.1	1000	64.41	0.064	43	1	16.4478	0
1	6	820	774.59	327.76	16246.9082	0	0	10.1	1000	64.176	0.064	44	1	16.38805	0
1	6	840	697.13	294.47	17707.17937	0	0	10.1	899.99	57.657	0.064	45	1	14.7235	0
1	6	860	619.67	262.32	19007.33299	0	0	10.1	799.99	51.363	0.064	46	1	13.1162	0
1	6	880	542.21	230.71	20143.99969	0	0	10.1	699.99	45.174	0.065	47	1	11.53565	0
1	6	900	464.75	199.79	21118.19187	0	0	10.1	599.99	39.119	0.065	48	1	9.98965	0
1	6	920	387.3	169.29	21930.51976	0	0	10.1	500	33.147	0.066	49	1	8.4645	0
1	6	940	309.84	138.73	22580.78153	0	0	10.1	400	27.164	0.068	50	1	6.9366	0
1	6	960	232.38	108.33	23069.13661	0	0	10.1	300	21.211	0.071	51	1	5.4164	0
1	6	980	154.92	76.53	23394.73599	0	0	10.1	200	14.985	0.075	52	1	3.8267	0
1	6	1000	77.46	43.27	23558.22761	0	0	10.1	100	8.473	0.085	53	1	2.1637	0
1	7	1020	69.71	39.85	23705.44264	0	0	10.1	90	7.802	0.087	54	1	1.99235	0
1	7	1040	61.97	36.33	23835.34357	0	0	10.1	80	7.114	0.089	55	1	1.81655	0
1	7	1060	54.22	32.55	23948.96241	0	0	10.1	70	6.374	0.091	56	1	1.6276	0
1	7	1080	46.48	28.77	24046.44211	0	0	10.1	60.01	5.634	0.094	57	1	1.4387	0
1	7	1100	38.73	24.68	24127.67977	0	0	10.1	50	4.832	0.097	58	1	1.2339	0
1	7	1120	30.99	21.09	24192.72958	0	0	10.1	40.01	4.129	0.103	59	1	1.0545	0
1	7	1140	23.24	17.05	24241.51695	0	0	10.1	30	3.339	0.111	60	1	0.85255	0
1	7	1160	15.5	12.37	24274.08034	0	0	10.1	20.01	2.422	0.121	61	1	0.6186	0
1	7	1180	7.75	7.63	24290.42133	0	0	10.1	10.01	1.493	0.149	62	1	0.38135	0
1	8	1200	6.97	7.61	24305.13734	0	0	10.1	9	1.49	0.166	63	1	0.3806	0
1	8	1220	6.2	9.8	24318.11761	0	0	10.1	8	1.919	0.24	64	1	0.49	0
1	8	1240	5.42	6.74	24329.47683	0	0	10.1	7	1.319	0.188	65	1	0.33695	0
1	8	1260	4.64	9.23	24339.21341	0	0	10.1	5.99	1.806	0.302	66	1	0.4613	0
1	8	1280	3.87	8.91	24347.32971	0	0	10.1	5	1.744	0.349	67	1	0.4453	0
1	8	1300	3.09	6.07	24353.82339	0	0	10.1	3.99	1.189	0.298	68	1	0.3037	0
1	8	1320	2.32	5.59	24358.69364	0	0	10.1	3	1.094	0.365	69	1	0.27935	0

1	8	1340	1.54	5.3	24361.94126	0	0	10.1	1.99	1.038	0.522	70	1	0.2651	0
1	8	1360	0.77	5.93	24363.56546	0	0	10.1	0.99	1.161	1.173	71	1	0.2965	0
1	9	1380	0.7	4.07	24365.04044	18.18373	22.81519	10.1	0.9	0.797	0.886	72	1	0.20365	0.043830391
1	9	1400	0.62	4.41	24366.34577	34.27605	39.67131	10.1	0.8	0.864	1.08	73	1	0.22055	0.025207105
1	9	1420	0.55	5.01	24367.48696	48.34472	49.28101	10.1	0.71	0.981	1.382	74	1	0.25055	0.020291771
1	9	1440	0.47	5.93	24368.46792	60.43816	52.10182	10.1	0.61	1.16	1.902	75	1	0.2963	0.019193172
1	9	1460	0.39	11.44	24369.28552	70.51765	31.48108	10.1	0.5	2.24	4.48	76	1	0.5721	0.031765097
1	9	1480	0.31	4.14	24369.94133	78.60253	96.92039	10.1	0.4	0.811	2.027	77	1	0.2072	0.010317734
1	9	1500	0.24	3.59	24370.43456	84.68315	120.4595	10.1	0.31	0.703	2.268	78	1	0.1795	0.008301533
1	9	1520	0.16	8.83	24370.76521	88.75948	51.30603	10.1	0.21	1.73	8.238	79	1	0.4417	0.019490876
1	9	1540	0.08	5.03	24370.93407	90.84122	92.13096	10.1	0.1	0.986	9.86	80	1	0.2517	0.010854103

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	5.61	0.16336	2.01396	1.83421	10.1	0.1	1.098	10.98	1	1	0.2804	0.545194542
1	1	40	0.16	8.2	0.49166	6.06125	3.77413	10.1	0.21	1.606	7.648	2	1	0.41015	0.264961848
1	1	60	0.24	9.59	0.98332	12.12249	6.45844	10.1	0.31	1.877	6.055	3	1	0.4794	0.154836176
1	1	80	0.31	8.5	1.63598	20.16865	12.12058	10.1	0.4	1.664	4.16	4	1	0.4249	0.082504283
1	1	100	0.39	8.39	2.4528	30.23845	18.41561	10.1	0.5	1.642	3.284	5	1	0.4193	0.054301725
1	1	120	0.47	10.45	3.43062	42.29316	20.66104	10.1	0.61	2.047	3.356	6	1	0.5227	0.048400261
1	1	140	0.54	8.63	4.57102	56.35215	33.36419	10.1	0.7	1.689	2.413	7	1	0.43135	0.029972237
1	1	160	0.62	8.89	5.87242	72.39605	41.583	10.1	0.8	1.741	2.176	8	1	0.4446	0.024048273
1	1	180	0.7	9.12	7.33876	90.47328	50.68528	10	0.9	1.785	1.983	9	1	0.4559	0.019729582
1	2	200	0.77	9.18	8.96296	0	0	10	0.99	1.797	1.815	10	1	0.4588	0
1	2	220	1.55	14.11	12.18467	0	0	10	2	2.762	1.381	11	1	0.70525	0
1	2	240	2.32	16.24	17.03372	0	0	10	3	3.18	1.06	12	1	0.812	0
1	2	260	3.09	16.95	23.5054	0	0	10	3.99	3.32	0.832	13	1	0.84775	0
1	2	280	3.87	17.34	31.59578	0	0	10	5	3.395	0.679	14	1	0.867	0
1	2	300	4.65	17.7	41.31744	0	0	10	6	3.466	0.578	15	1	0.885	0
1	2	320	5.42	17.92	52.65545	0	0	10	7	3.508	0.501	16	1	0.8959	0
1	2	340	6.2	17.92	65.62002	0	0	10	8	3.509	0.439	17	1	0.896	0
1	2	360	6.97	19.46	80.21978	0	0	10	9	3.81	0.423	18	1	0.97285	0
1	3	380	7.75	18.34	96.59376	0	0	10	10.01	3.592	0.359	19	1	0.91715	0
1	3	400	15.5	28.1	128.90033	0	0	10	20.01	5.502	0.275	20	1	1.40505	0
1	3	420	23.24	28.38	177.49763	0	0	10	30	5.556	0.185	21	1	1.4188	0
1	3	440	30.99	28.48	242.29455	0	0	10	40.01	5.576	0.139	22	1	1.42385	0
1	3	460	38.73	31.28	323.23611	0	0	10	50	6.125	0.123	23	1	1.56405	0
1	3	480	46.48	34.47	420.4794	0	0	10	60.01	6.748	0.112	24	1	1.7233	0
1	3	500	54.22	37.72	533.91524	0	0	10	70	7.386	0.106	25	1	1.88615	0
1	3	520	61.96	40.87	663.54442	0	0	10	79.99	8.003	0.1	26	1	2.0436	0
1	3	540	69.71	43.95	809.53581	0	0	10	90	8.606	0.096	27	1	2.19755	0
1	4	560	77.46	47.13	973.18765	0	0	10	100	9.228	0.092	28	1	2.3565	0
1	4	580	154.92	81.32	1296.46931	0	0	10	200	15.923	0.08	29	1	4.0661	0
1	4	600	232.38	111.19	1781.78019	0	0	10	300	21.771	0.073	30	1	5.5595	0
1	4	620	309.84	138.67	2429.76509	0	0	10	400	27.151	0.068	31	1	6.93325	0
1	4	640	387.3	166.81	3239.6559	0	0	10	500	32.661	0.065	32	1	8.3403	0
1	4	660	464.75	195.4	4212.2223	0	0	10	599.99	38.258	0.064	33	1	9.76975	0
1	4	680	542.21	224.69	5346.25007	0	0	10	699.99	43.994	0.063	34	1	11.2345	0
1	4	700	619.67	254.12	6643.07202	0	0	10	799.99	49.756	0.062	35	1	12.70575	0
1	4	720	697.13	285.18	8100.33826	0	0	10	899.99	55.838	0.062	36	1	14.25895	0

1	4	740	774.59	322.83	9720.89113	0	0	10	1000	63.211	0.063	37	1	16.14165	0
1	5	750	774.59	321.44	10547.52977	0	0	10	1000	62.939	0.063	38	1	16.07215	0
1	5	760	774.59	320.14	11359.8985	0	0	10	1000	62.683	0.063	39	1	16.00695	0
1	5	770	774.59	319.24	12169.4241	0	0	10	1000	62.507	0.063	40	1	15.96195	0
1	5	780	774.59	318.31	12983.00628	0	0	10	1000	62.325	0.062	41	1	15.9154	0
1	5	790	774.59	317.59	13794.15372	0	0	10	1000	62.184	0.062	42	1	15.8794	0
1	5	800	774.59	316.66	14602.87192	0	0	10	1000	62.001	0.062	43	1	15.83285	0
1	6	820	774.59	315.61	16244.63526	0	0	10	1000	61.797	0.062	44	1	15.78065	0
1	6	840	697.13	283.37	17705.27478	0	0	10	899.99	55.484	0.062	45	1	14.1686	0
1	6	860	619.67	252.39	19003.76178	0	0	10	799.99	49.418	0.062	46	1	12.6195	0
1	6	880	542.21	221.82	20140.71202	0	0	10	699.99	43.433	0.062	47	1	11.0911	0
1	6	900	464.75	191.9	21116.32655	0	0	10	599.99	37.574	0.063	48	1	9.59505	0
1	6	920	387.3	162.26	21928.81702	0	0	10	500	31.77	0.064	49	1	8.11275	0
1	6	940	309.84	132.73	22578.87302	0	0	10	400	25.989	0.065	50	1	6.6365	0
1	6	960	232.38	103.31	23067.10715	0	0	10	300	20.227	0.067	51	1	5.16525	0
1	6	980	154.92	72.71	23392.54473	0	0	10	200	14.237	0.071	52	1	3.6356	0
1	6	1000	77.46	40.82	23555.95467	0	0	10	100	7.992	0.08	53	1	2.0408	0
1	7	1020	69.71	37.48	23703.20504	0	0	10	90	7.339	0.082	54	1	1.8742	0
1	7	1040	61.97	34.11	23833.10205	0	0	10	80	6.679	0.083	55	1	1.7056	0
1	7	1060	54.22	30.56	23946.66355	0	0	10	70	5.983	0.085	56	1	1.52775	0
1	7	1080	46.48	26.96	24044.21707	0	0	10	60.01	5.278	0.088	57	1	1.3478	0
1	7	1100	38.73	23.09	24125.38954	0	0	10	50	4.521	0.09	58	1	1.15455	0
1	7	1120	30.99	19.64	24190.40245	0	0	10	40.01	3.846	0.096	59	1	0.98215	0
1	7	1140	23.24	15.69	24239.19374	0	0	10	30	3.072	0.102	60	1	0.7844	0
1	7	1160	15.5	11.38	24271.75713	0	0	10	20.01	2.229	0.111	61	1	0.5691	0
1	7	1180	7.75	6.27	24288.10598	0	0	10	10.01	1.228	0.123	62	1	0.3135	0
1	8	1200	6.97	6.65	24302.81727	0	0	10	9	1.302	0.145	63	1	0.33255	0
1	8	1220	6.2	6.42	24315.79676	0	0	10	8	1.258	0.157	64	1	0.3212	0
1	8	1240	5.42	5.79	24327.15833	0	0	10	7	1.133	0.162	65	1	0.28935	0
1	8	1260	4.64	6.07	24336.90355	0	0	10	5.99	1.188	0.198	66	1	0.30325	0
1	8	1280	3.87	6.99	24345.02064	0	0	10	5	1.368	0.274	67	1	0.3494	0
1	8	1300	3.09	5.97	24351.5096	0	0	10	3.99	1.169	0.293	68	1	0.2985	0
1	8	1320	2.3	5.47	24356.3453	0	0	10	2.97	1.072	0.361	69	1	0.2737	0
1	8	1340	1.54	3.48	24359.62748	0	0	10	1.99	0.682	0.343	70	1	0.1742	0
1	8	1360	0.77	4.97	24361.25247	0	0	10	0.99	0.972	0.982	71	1	0.24825	0
1	9	1380	0.7	3.02	24362.72587	18.16437	30.73492	10	0.9	0.591	0.657	72	1	0.1509	0.032536223
1	9	1400	0.62	3.38	24364.03042	34.247	51.81081	10	0.8	0.661	0.826	73	1	0.1689	0.019300961
1	9	1420	0.55	3.46	24365.17317	48.33504	71.29051	10	0.71	0.678	0.955	74	1	0.1732	0.014027091
1	9	1440	0.47	3.39	24366.15335	60.4188	91.12927	10	0.61	0.663	1.087	75	1	0.1694	0.010973406
1	9	1460	0.39	3.44	24366.97095	70.49828	104.75212	10	0.5	0.673	1.346	76	1	0.17185	0.009546332
1	9	1480	0.31	3.39	24367.62676	78.58317	118.34797	10	0.4	0.664	1.66	77	1	0.16965	0.008449646
1	9	1500	0.24	3.29	24368.11999	84.66378	131.46529	10	0.31	0.644	2.077	78	1	0.1645	0.007606559
1	9	1520	0.16	3.12	24368.45064	88.74011	145.23726	10	0.21	0.611	2.91	79	1	0.15605	0.006885274
1	9	1540	0.08	2.12	24368.6195	90.82185	218.8473	10	0.1	0.415	4.15	80	1	0.1061	0.004569385

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.32	0.16415	2.02364	3.11808	10	0.1	0.649	6.49	1	2	0.16575	0.320709217
1	1	40	0.16	6.01	0.49244	6.07093	5.15359	10	0.21	1.178	5.61	2	2	0.3007	0.194039463
1	1	60	0.24	6.37	0.98332	12.12249	9.72912	10	0.31	1.246	4.019	3	2	0.3183	0.102784164

1	1	80	0.31	6.46	1.63677	20.17833	15.96386	10	0.4	1.264	3.16	4	2	0.3228	0.062641457
1	1	100	0.39	6.83	2.4528	30.23845	22.61662	10	0.5	1.337	2.674	5	2	0.34135	0.044215229
1	1	120	0.47	6.86	3.43062	42.29316	31.49153	10	0.61	1.343	2.202	6	2	0.343	0.031754544
1	1	140	0.54	7.07	4.57102	56.35215	40.71684	10	0.7	1.384	1.977	7	2	0.3533	0.024559844
1	1	160	0.62	7.31	5.87399	72.41542	50.56939	10	0.8	1.432	1.79	8	2	0.36565	0.019774794
1	1	180	0.7	7.45	7.33876	90.47328	62.05296	10	0.9	1.458	1.62	9	2	0.37235	0.016115255
1	2	200	0.77	7.36	8.96139	0	0	10	0.99	1.442	1.457	10	2	0.36815	0
1	2	220	1.55	11.24	12.18467	0	0	10	2	2.201	1.101	11	2	0.5621	0
1	2	240	2.32	13.51	17.03607	0	0	10	3	2.645	0.882	12	2	0.67545	0
1	2	260	3.09	14.01	23.50383	0	0	10	3.99	2.744	0.688	13	2	0.70065	0
1	2	280	3.87	14.56	31.59814	0	0	10	5	2.85	0.57	14	2	0.72785	0
1	2	300	4.65	15.11	41.31823	0	0	10	6	2.958	0.493	15	2	0.7554	0
1	2	320	5.42	15.69	52.65938	0	0	10	7	3.073	0.439	16	2	0.7847	0
1	2	340	6.2	16.15	65.6153	0	0	10	8	3.163	0.395	17	2	0.8076	0
1	2	360	6.97	16.35	80.20565	0	0	10	9	3.202	0.356	18	2	0.8177	0
1	3	380	7.75	16.5	96.5757	0	0	10	10.01	3.231	0.323	19	2	0.82505	0
1	3	400	15.5	25.81	128.90583	0	0	10	20.01	5.054	0.253	20	2	1.2905	0
1	3	420	23.24	28.95	177.44108	0	0	10	30	5.668	0.189	21	2	1.4473	0
1	3	440	30.99	28.65	242.30083	0	0	10	40.01	5.609	0.14	22	2	1.4324	0
1	3	460	38.73	29.54	323.24554	0	0	10	50	5.783	0.116	23	2	1.47685	0
1	3	480	46.48	32.65	420.4684	0	0	10	60.01	6.393	0.107	24	2	1.6326	0
1	3	500	54.22	35.72	533.8477	0	0	10	70	6.994	0.1	25	2	1.786	0
1	3	520	61.96	38.71	663.53814	0	0	10	79.99	7.58	0.095	26	2	1.9356	0
1	3	540	69.71	41.67	809.45255	0	0	10	90	8.158	0.091	27	2	2.0833	0
1	4	560	77.46	44.65	972.98659	0	0	10	100	8.742	0.087	28	2	2.2323	0
1	4	580	154.92	76.56	1296.26982	0	0	10	200	14.99	0.075	29	2	3.82785	0
1	4	600	232.38	104.86	1782.1886	0	0	10	300	20.531	0.068	30	2	5.24275	0
1	4	620	309.84	131.86	2430.01171	0	0	10	400	25.818	0.065	31	2	6.5929	0
1	4	640	387.3	159.37	3239.13361	0	0	10	500	31.205	0.062	32	2	7.96855	0
1	4	660	464.75	187.29	4212.22701	0	0	10	599.99	36.672	0.061	33	2	9.3647	0
1	4	680	542.21	215.57	5345.68458	0	0	10	699.99	42.208	0.06	34	2	10.77825	0
1	4	700	619.67	243.07	6642.83169	0	0	10	799.99	47.593	0.059	35	2	12.1535	0
1	4	720	697.13	271.26	8100.82914	0	0	10	899.99	53.113	0.059	36	2	13.5631	0
1	4	740	774.59	301.68	9721.33881	0	0	10	1000	59.068	0.059	37	2	15.08385	0
1	5	750	774.59	309.17	10548.79269	0	0	10	1000	60.535	0.061	38	2	15.45835	0
1	5	760	774.59	309.21	11360.3454	0	0	10	1000	60.544	0.061	39	2	15.4606	0
1	5	770	774.59	308.47	12173.11783	0	0	10	1000	60.398	0.06	40	2	15.4235	0
1	5	780	774.59	307.74	12984.67368	0	0	10	1000	60.256	0.06	41	2	15.38715	0
1	5	790	774.59	307.06	13795.01059	0	0	10	1000	60.121	0.06	42	2	15.35275	0
1	5	800	774.59	306.41	14606.16039	0	0	10	1000	59.994	0.06	43	2	15.32035	0
1	6	820	774.59	305.63	16247.11397	0	0	10	1000	59.843	0.06	44	2	15.28155	0
1	6	840	697.13	274.45	17708.48235	0	0	10	899.99	53.737	0.06	45	2	13.72235	0
1	6	860	619.67	244.34	19007.61887	0	0	10	799.99	47.842	0.06	46	2	12.21715	0
1	6	880	542.21	214.71	20145.09611	0	0	10	699.99	42.04	0.06	47	2	10.7355	0
1	6	900	464.75	185.59	21119.5726	0	0	10	599.99	36.339	0.061	48	2	9.27955	0
1	6	920	387.3	156.79	21931.61697	0	0	10	500	30.699	0.061	49	2	7.8395	0
1	6	940	309.84	128.08	22581.67296	0	0	10	400	25.077	0.063	50	2	6.40385	0
1	6	960	232.38	99.41	23069.94872	0	0	10	300	19.465	0.065	51	2	4.9706	0
1	6	980	154.92	69.65	23395.58893	0	0	10	200	13.637	0.068	52	2	3.4823	0
1	6	1000	77.46	38.84	23558.99809	0	0	10	100	7.606	0.076	53	2	1.9422	0

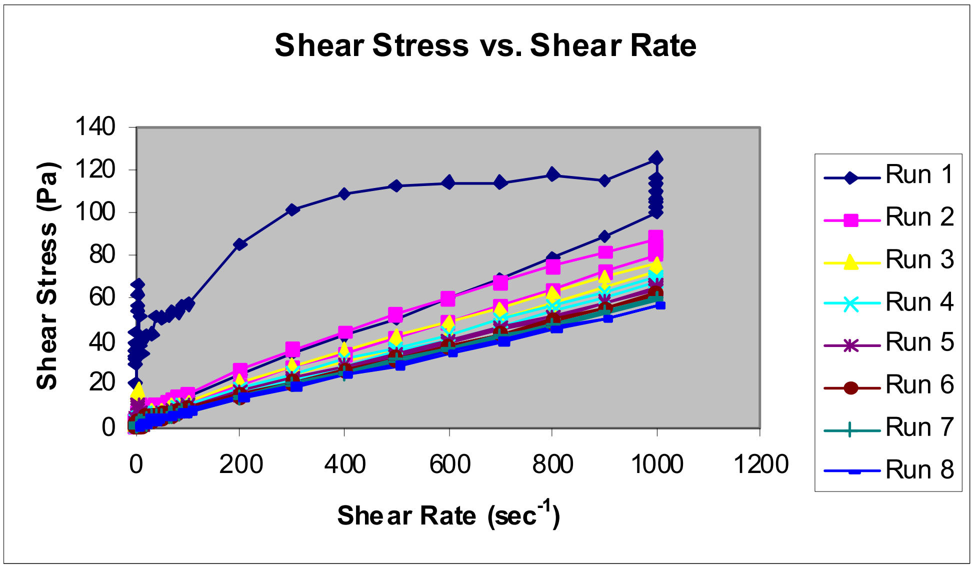
1	7	1020	69.71	35.71	23706.20527	0	0	10	90	6.992	0.078	54	2	1.7854	0
1	7	1040	61.97	32.46	23836.03708	0	0	10	80	6.355	0.079	55	2	1.6229	0
1	7	1060	54.22	29.01	23949.63236	0	0	10	70	5.679	0.081	56	2	1.4503	0
1	7	1080	46.48	25.53	24047.13954	0	0	10	60.01	4.999	0.083	57	2	1.27645	0
1	7	1100	38.73	21.82	24128.33636	0	0	10	50	4.272	0.085	58	2	1.09085	0
1	7	1120	30.99	18.56	24193.43487	0	0	10	40.01	3.635	0.091	59	2	0.9282	0
1	7	1140	23.24	14.94	24242.19789	0	0	10	30	2.924	0.097	60	2	0.74675	0
1	7	1160	15.5	10.51	24274.78563	0	0	10	20.01	2.057	0.103	61	2	0.5254	0
1	7	1180	7.75	5.96	24291.12269	0	0	10	10.01	1.167	0.117	62	2	0.29805	0
1	8	1200	6.97	6.19	24305.82378	0	0	10	9	1.213	0.135	63	2	0.30965	0
1	8	1220	6.2	6.49	24318.81976	0	0	10	8	1.27	0.159	64	2	0.3243	0
1	8	1240	5.42	5.82	24330.18447	0	0	10	7	1.139	0.163	65	2	0.2908	0
1	8	1260	4.64	5.26	24339.91398	0	0	10	5.99	1.03	0.172	66	2	0.26295	0
1	8	1280	3.87	4.82	24348.03107	0	0	10	5	0.944	0.189	67	2	0.24105	0
1	8	1300	3.09	4.56	24354.52789	0	0	10	3.99	0.892	0.224	68	2	0.2278	0
1	8	1320	2.32	4.21	24359.39579	0	0	10	3	0.824	0.275	69	2	0.2105	0
1	8	1340	1.54	3.48	24362.64184	0	0	10	1.99	0.681	0.342	70	2	0.17385	0
1	8	1360	0.77	1.97	24364.26525	0	0	10	0.99	0.385	0.389	71	2	0.0984	0
1	9	1380	0.7	2.8	24365.73788	18.15469	33.1895	10	0.9	0.547	0.608	72	2	0.13975	0.030129955
1	9	1400	0.62	3.1	24367.04321	34.247	56.42001	10	0.8	0.607	0.759	73	2	0.1549	0.01772418
1	9	1420	0.55	3.23	24368.18596	48.33504	76.35855	10	0.71	0.633	0.892	74	2	0.16155	0.013096089
1	9	1440	0.47	3.36	24369.16614	60.4188	91.82174	10	0.61	0.658	1.079	75	2	0.16815	0.01089065
1	9	1460	0.39	3.4	24369.98374	70.49828	105.69441	10	0.5	0.667	1.334	76	2	0.1702	0.009461224
1	9	1480	0.31	3.29	24370.63955	78.58317	121.83418	10	0.4	0.645	1.613	77	2	0.1647	0.008207864
1	9	1500	0.24	3.06	24371.13278	84.66378	141.34163	10	0.31	0.599	1.932	78	2	0.153	0.007075044
1	9	1520	0.16	3.02	24371.46343	88.74011	149.89858	10	0.21	0.592	2.819	79	2	0.1512	0.006671166
1	9	1540	0.08	2.2	24371.63229	90.82185	210.23528	10	0.1	0.432	4.32	80	2	0.1102	0.004756565

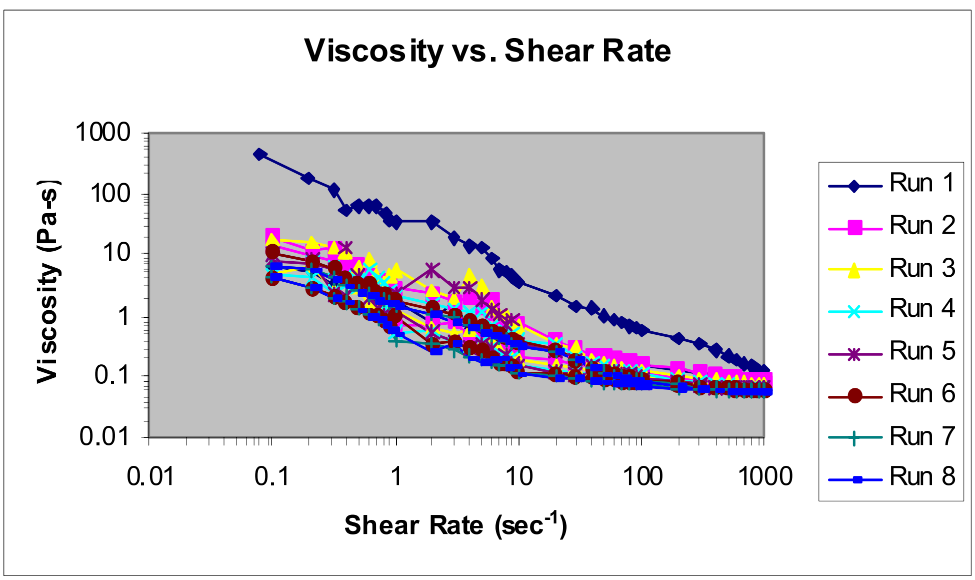
2004.02.10 META-20 wt%-U CC-45 0.1-1000 s-1 run 8.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.39	0.16415	2.02364	3.05224	10	0.1	0.663	6.63	1	3	0.1693	0.327627444
1	1	40	0.16	5.88	0.49244	6.07093	5.27448	10	0.21	1.151	5.481	2	3	0.294	0.189592039
1	1	60	0.24	6.23	0.98332	12.12249	9.93646	10	0.31	1.22	3.935	3	3	0.31165	0.10063939
1	1	80	0.31	6.21	1.63677	20.17833	16.60767	10	0.4	1.215	3.038	4	3	0.3103	0.06021311
1	1	100	0.39	6.25	2.4528	30.23845	24.7046	10	0.5	1.224	2.448	5	3	0.3125	0.040478265
1	1	120	0.47	6.49	3.43062	42.29316	33.27547	10	0.61	1.271	2.084	6	3	0.32455	0.030052141
1	1	140	0.54	6.67	4.57102	56.35215	43.11561	10	0.7	1.307	1.867	7	3	0.3337	0.023193436
1	1	160	0.62	6.76	5.87399	72.41542	54.73573	10	0.8	1.323	1.654	8	3	0.3379	0.01826959
1	1	180	0.7	7.33	7.33798	90.4636	63.04079	10	0.9	1.435	1.594	9	3	0.3664	0.015862734
1	2	200	0.77	7.16	8.96061	0	0	10	0.99	1.402	1.416	10	3	0.3581	0
1	2	220	1.55	10.45	12.18545	0	0	10	2	2.047	1.024	11	3	0.52265	0
1	2	240	2.32	12.38	17.03057	0	0	10	3	2.423	0.808	12	3	0.61885	0
1	2	260	3.09	13.24	23.50147	0	0	10	3.99	2.592	0.65	13	3	0.662	0
1	2	280	3.87	13.98	31.59657	0	0	10	5	2.737	0.547	14	3	0.69895	0
1	2	300	4.65	14.67	41.31744	0	0	10	6	2.872	0.479	15	3	0.7333	0
1	2	320	5.42	15.26	52.66566	0	0	10	7	2.988	0.427	16	3	0.763	0
1	2	340	6.2	15.71	65.61373	0	0	10	8	3.075	0.384	17	3	0.78525	0
1	2	360	6.97	16.2	80.20329	0	0	10	9	3.172	0.352	18	3	0.8099	0
1	3	380	7.75	16.11	96.56942	0	0	10	10.01	3.155	0.315	19	3	0.80565	0
1	3	400	15.5	25.46	128.92861	0	0	10	20.01	4.985	0.249	20	3	1.27305	0

1	3	420	23.24	29.23	177.45129	0	0	10	30	5.723	0.191	21	3	1.4615	0
1	3	440	30.99	28.46	242.23329	0	0	10	40.01	5.573	0.139	22	3	1.4232	0
1	3	460	38.73	28.13	323.25575	0	0	10	50	5.508	0.11	23	3	1.4065	0
1	3	480	46.48	31.11	420.44641	0	0	10	60.01	6.091	0.101	24	3	1.5554	0
1	3	500	54.22	34.08	533.93566	0	0	10	70	6.672	0.095	25	3	1.70385	0
1	3	520	61.96	37.18	663.62532	0	0	10	79.99	7.28	0.091	26	3	1.85915	0
1	3	540	69.71	40.01	809.35752	0	0	10	90	7.833	0.087	27	3	2.00035	0
1	4	560	77.46	43.09	972.96852	0	0	10	100	8.437	0.084	28	3	2.1545	0
1	4	580	154.92	73.7	1296.57613	0	0	10	200	14.431	0.072	29	3	3.6852	0
1	4	600	232.38	100.7	1781.80611	0	0	10	300	19.716	0.066	30	3	5.0348	0
1	4	620	309.84	126.82	2429.1839	0	0	10	400	24.832	0.062	31	3	6.34115	0
1	4	640	387.3	153.62	3239.31896	0	0	10	500	30.078	0.06	32	3	7.6809	0
1	4	660	464.75	180.8	4211.88536	0	0	10	599.99	35.4	0.059	33	3	9.0399	0
1	4	680	542.21	208.48	5345.3445	0	0	10	699.99	40.821	0.058	34	3	10.42415	0
1	4	700	619.67	235.32	6642.81441	0	0	10	799.99	46.076	0.058	35	3	11.76615	0
1	4	720	697.13	262.38	8100.48827	0	0	10	899.99	51.374	0.057	36	3	13.1191	0
1	4	740	774.59	290.77	9721.03957	0	0	10	1000	56.932	0.057	37	3	14.5384	0
1	5	750	774.59	290.38	10549.71003	0	0	10	1000	56.856	0.057	38	3	14.51895	0
1	5	760	774.59	290.03	11360.45221	0	0	10	1000	56.788	0.057	39	3	14.50145	0
1	5	770	774.59	289.72	12170.79069	0	0	10	1000	56.726	0.057	40	3	14.4858	0
1	5	780	774.59	289.34	12981.93813	0	0	10	1000	56.653	0.057	41	3	14.467	0
1	5	790	774.59	289.06	13793.08793	0	0	10	1000	56.597	0.057	42	3	14.45275	0
1	5	800	774.59	288.68	14605.04905	0	0	10	1000	56.523	0.057	43	3	14.4339	0
1	6	820	774.59	288.3	16246.41104	0	0	10	1000	56.449	0.056	44	3	14.41485	0
1	6	840	697.13	259.51	17708.10064	0	0	10	899.99	50.812	0.056	45	3	12.97555	0
1	6	860	619.67	231.21	19007.60238	0	0	10	799.99	45.272	0.057	46	3	11.56065	0
1	6	880	542.21	203.19	20143.37609	0	0	10	699.99	39.784	0.057	47	3	10.15925	0
1	6	900	464.75	175.55	21118.78484	0	0	10	599.99	34.372	0.057	48	3	8.77725	0
1	6	920	387.3	148.16	21931.03263	0	0	10	500	29.01	0.058	49	3	7.40795	0
1	6	940	309.84	120.79	22581.2512	0	0	10	400	23.651	0.059	50	3	6.0396	0
1	6	960	232.38	93.65	23068.87743	0	0	10	300	18.337	0.061	51	3	4.6825	0
1	6	980	154.92	65.51	23394.55692	0	0	10	200	12.826	0.064	52	3	3.2754	0
1	6	1000	77.46	36.54	23558.04854	0	0	10	100	7.155	0.072	53	3	1.8272	0
1	7	1020	69.71	33.77	23705.22509	0	0	10	90	6.611	0.073	54	3	1.6883	0
1	7	1040	61.97	30.93	23835.12602	0	0	10	80	6.056	0.076	55	3	1.54635	0
1	7	1060	54.22	27.64	23948.74879	0	0	10	70	5.413	0.077	56	3	1.3822	0
1	7	1080	46.48	24.29	24046.20335	0	0	10	60.01	4.756	0.079	57	3	1.21455	0
1	7	1100	38.73	21.52	24127.441	0	0	10	50	4.214	0.084	58	3	1.0762	0
1	7	1120	30.99	17.88	24192.48297	0	0	10	40.01	3.501	0.088	59	3	0.894	0
1	7	1140	23.24	14.22	24241.2342	0	0	10	30	2.783	0.093	60	3	0.71075	0
1	7	1160	15.5	10.06	24273.82116	0	0	10	20.01	1.97	0.098	61	3	0.5031	0
1	7	1180	7.75	5.83	24290.17001	0	0	10	10.01	1.141	0.114	62	3	0.2913	0
1	8	1200	6.97	6.67	24304.88444	0	0	10	9	1.306	0.145	63	3	0.33345	0
1	8	1220	6.2	5.67	24317.86707	0	0	10	8	1.109	0.139	64	3	0.2833	0
1	8	1240	5.42	7.34	24329.22079	0	0	10	7	1.437	0.205	65	3	0.367	0
1	8	1260	4.64	5.56	24338.96758	0	0	10	5.99	1.089	0.182	66	3	0.278	0
1	8	1280	3.87	4.6	24347.08388	0	0	10	5	0.901	0.18	67	3	0.2301	0
1	8	1300	3.09	4.14	24353.57363	0	0	10	3.99	0.811	0.203	68	3	0.20705	0
1	8	1320	2.32	5.35	24358.44545	0	0	10	3	1.048	0.349	69	3	0.2676	0
1	8	1340	1.54	2.67	24361.6915	0	0	10	1.99	0.523	0.263	70	3	0.13345	0

1	8	1360	0.77	2.52	24363.31571	0	0	10	0.99	0.493	0.498	71	3	0.1258	0
1	9	1380	0.7	2.58	24364.78833	18.15469	35.87876	10	0.9	0.506	0.562	72	3	0.1291	0.027871586
1	9	1400	0.62	2.93	24366.09445	34.25668	59.78468	10	0.8	0.573	0.716	73	3	0.14625	0.016726665
1	9	1420	0.55	3.12	24367.2372	48.34472	79.1238	10	0.71	0.611	0.861	74	3	0.1559	0.012638402
1	9	1440	0.47	3.11	24368.21659	60.4188	99.04705	10	0.61	0.61	1	75	3	0.1557	0.010096195
1	9	1460	0.39	3.18	24369.03419	70.49828	113.3411	10	0.5	0.622	1.244	76	3	0.15895	0.00882291
1	9	1480	0.31	3.41	24369.69	78.58317	117.81567	10	0.4	0.667	1.668	77	3	0.17045	0.008487823
1	9	1500	0.24	3.09	24370.18323	84.66378	139.9399	10	0.31	0.605	1.952	78	3	0.1544	0.007145913
1	9	1520	0.16	2.93	24370.51388	88.74011	154.59923	10	0.21	0.574	2.733	79	3	0.14665	0.006468326
1	9	1540	0.08	2.19	24370.68274	90.82185	211.70545	10	0.1	0.429	4.29	80	3	0.10945	0.004723533





E-2.1.24 META/20wt%/U/S 10°C

2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 1.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.03	229.38	0.05341	0.65841	0.01466	10	0.04	44.912	1122.8	1	1	11.46875	68.21281572
1	1	40	0.17	81.45	0.46967	5.79013	0.36306	10	0.22	15.948	72.491	2	1	4.0725	2.754342303
1	1	60	0.24	77.44	0.95819	11.81265	0.77904	10	0.31	15.163	48.913	3	1	3.87195	1.283623912
1	1	80	0.31	86.99	1.6085	19.82976	1.16426	10	0.4	17.032	42.58	4	1	4.34945	0.858911051
1	1	100	0.39	101.52	2.41903	29.8221	1.50033	10	0.5	19.877	39.754	5	1	5.07585	0.666519125
1	1	120	0.47	108.72	3.39606	41.86713	1.96679	10	0.61	21.287	34.897	6	1	5.43595	0.508441825
1	1	140	0.54	100.77	4.54117	55.98421	2.83737	10	0.7	19.731	28.187	7	1	5.03845	0.352438661
1	1	160	0.62	85.01	5.84965	72.11526	4.33255	10	0.8	16.645	20.806	8	1	4.25055	0.230811066
1	1	180	0.7	74.02	7.31677	90.20217	6.22427	10	0.9	14.492	16.102	9	1	3.7008	0.160661323
1	2	200	0.77	84.21	8.93233	0	0	10	0.99	16.487	16.654	10	1	4.21025	0
1	2	220	1.55	140.08	12.14226	0	0	10	2	27.428	13.714	11	1	7.0041	0
1	2	240	2.3	256.27	16.94339	0	0	10	2.97	50.177	16.895	12	1	12.81345	0
1	2	260	3.1	293.31	23.41508	0	0	10	4	57.43	14.358	13	1	14.66535	0
1	2	280	3.88	277.78	31.51803	0	0	10	5.01	54.39	10.856	14	1	13.88915	0
1	2	300	4.66	237.62	41.2444	0	0	10	6.02	46.527	7.729	15	1	11.88115	0
1	2	320	5.42	221.72	52.58476	0	0	10	7	43.413	6.202	16	1	11.08605	0
1	2	340	6.2	208.77	65.56504	0	0	10	8	40.878	5.11	17	1	10.4387	0
1	2	360	6.97	191.17	80.15459	0	0	10	9	37.43	4.159	18	1	9.55825	0
1	3	380	7.75	183.59	96.53486	0	0	10	10.01	35.946	3.591	19	1	9.17935	0
1	3	400	15.51	230.31	128.86813	0	0	10	20.02	45.095	2.252	20	1	11.5155	0
1	3	420	23.25	220.29	177.43008	0	0	10	30.02	43.132	1.437	21	1	11.01435	0
1	3	440	30.99	200.02	242.16731	0	0	10	40.01	39.164	0.979	22	1	10.001	0
1	3	460	38.74	167.22	323.17407	0	0	10	50.01	32.742	0.655	23	1	8.36115	0
1	3	480	46.48	158.19	420.44484	0	0	10	60.01	30.973	0.516	24	1	7.9094	0
1	3	500	54.22	138.81	533.85005	0	0	10	70	27.178	0.388	25	1	6.94035	0
1	3	520	61.96	131.76	663.44546	0	0	10	79.99	25.798	0.323	26	1	6.58775	0
1	3	540	69.71	124.67	809.36145	0	0	10	90	24.411	0.271	27	1	6.2337	0
1	4	560	77.46	121.51	973.09419	0	0	10	100	23.791	0.238	28	1	6.07545	0
1	4	580	154.93	207.24	1296.4112	0	0	10	200.01	40.577	0.203	29	1	10.36175	0
1	4	600	232.39	239.4	1781.48017	0	0	10	300.02	46.874	0.156	30	1	11.96975	0
1	4	620	309.84	251.18	2429.30406	0	0	10	400	49.181	0.123	31	1	12.5589	0
1	4	640	387.3	265.73	3239.43991	0	0	10	500	52.031	0.104	32	1	13.28665	0
1	4	660	464.75	269.42	4211.76598	0	0	10	599.99	52.752	0.088	33	1	13.47095	0
1	4	680	542.21	285.69	5346.03251	0	0	10	699.99	55.937	0.08	34	1	14.2843	0
1	4	700	619.68	315.05	6642.1751	0	0	10	800.01	61.687	0.077	35	1	15.7525	0
1	4	720	697.13	307.44	8100.1749	0	0	10	899.99	60.197	0.067	36	1	15.37215	0
1	4	740	774.6	320.33	9721.5438	0	0	10	1000	62.721	0.063	37	1	16.0165	0
1	5	750	774.59	292.85	10550.21662	0	0	10	1000	57.34	0.057	38	1	14.64245	0
1	5	760	774.59	283.9	11359.74535	0	0	10	1000	55.587	0.056	39	1	14.1949	0
1	5	770	774.59	276.23	12171.30042	0	0	10	1000	54.086	0.054	40	1	13.81145	0
1	5	780	774.59	270.1	12983.25917	0	0	10	1000	52.886	0.053	41	1	13.505	0
1	5	790	774.59	265.01	13793.59844	0	0	10	1000	51.888	0.052	42	1	13.25025	0
1	5	800	774.59	260.73	14604.34219	0	0	10	1000	51.05	0.051	43	1	13.03635	0
1	6	820	774.59	257.16	16245.29735	0	0	10	1000	50.353	0.05	44	1	12.8582	0
1	6	840	697.13	223.62	17705.93844	0	0	10.1	899.99	43.785	0.049	45	1	11.18105	0
1	6	860	619.67	193.12	19005.07654	0	0	10.1	799.99	37.814	0.047	46	1	9.6562	0

1	6	880	542.21	164.87	20143.12083	0	0	10.1	699.99	32.281	0.046	47	1	8.2433	0
1	6	900	464.75	138.23	21118.08113	0	0	10.1	599.99	27.065	0.045	48	1	6.91145	0
1	6	920	387.3	112.49	21929.51603	0	0	10.1	500	22.025	0.044	49	1	5.62435	0
1	6	940	309.84	87.42	22580.58833	0	0	10.1	400	17.117	0.043	50	1	4.37095	0
1	6	960	232.38	63.2	23068.04962	0	0	10.1	300	12.375	0.041	51	1	3.16	0
1	6	980	154.92	39.75	23393.76838	0	0	10	200	7.783	0.039	52	1	1.9876	0
1	6	1000	77.46	18.86	23557.38017	0	0	10	100	3.693	0.037	53	1	0.94295	0
1	7	1020	69.71	18.18	23704.51273	0	0	10	90	3.559	0.04	54	1	0.90875	0
1	7	1040	61.97	16.86	23834.44194	0	0	10	80	3.301	0.041	55	1	0.843	0
1	7	1060	54.22	15.11	23948.17466	0	0	10	70	2.958	0.042	56	1	0.75525	0
1	7	1080	46.48	13.41	24045.56403	0	0	10	60.01	2.625	0.044	57	1	0.67035	0
1	7	1100	38.73	11.48	24126.8174	0	0	10	50	2.247	0.045	58	1	0.5739	0
1	7	1120	30.99	10.06	24191.7981	0	0	10	40.01	1.969	0.049	59	1	0.5028	0
1	7	1140	23.24	8.11	24240.62552	0	0	10	30	1.587	0.053	60	1	0.40535	0
1	7	1160	15.5	6.11	24273.18341	0	0	10	20.01	1.197	0.06	61	1	0.30565	0
1	7	1180	7.75	3.84	24289.51655	0	0	10	10.01	0.751	0.075	62	1	0.19175	0
1	8	1200	6.97	4.56	24304.22628	0	0	10	9	0.892	0.099	63	1	0.22775	0
1	8	1220	6.2	4.64	24317.20577	0	0	10	8	0.908	0.114	64	1	0.2319	0
1	8	1240	5.42	4.45	24328.57441	0	0	10	7	0.87	0.124	65	1	0.22225	0
1	8	1260	4.64	4.57	24338.31334	0	0	10	5.99	0.894	0.149	66	1	0.2284	0
1	8	1280	3.87	4.38	24346.42886	0	0	10	5	0.858	0.172	67	1	0.21915	0
1	8	1300	3.09	4.25	24352.92253	0	0	10	3.99	0.833	0.209	68	1	0.21265	0
1	8	1320	2.32	3.98	24357.79279	0	0	10	3	0.779	0.26	69	1	0.19905	0
1	8	1340	1.54	3.15	24361.04041	0	0	10	1.99	0.616	0.31	70	1	0.15735	0
1	8	1360	0.77	2.44	24362.66226	0	0	10	0.99	0.479	0.484	71	1	0.1222	0
1	9	1380	0.7	3.11	24364.13802	18.19342	29.92334	10	0.9	0.608	0.676	72	1	0.15535	0.033418676
1	9	1400	0.62	3.47	24365.44178	34.26637	50.46586	10	0.8	0.679	0.849	73	1	0.17335	0.019815347
1	9	1420	0.55	3.48	24366.58532	48.36409	71.01912	10	0.71	0.681	0.959	74	1	0.1739	0.014080695
1	9	1440	0.47	3.75	24367.56471	60.43817	82.45305	10	0.61	0.733	1.202	75	1	0.18725	0.012128097
1	9	1460	0.39	3.64	24368.38231	70.51765	98.9026	10	0.5	0.713	1.426	76	1	0.1821	0.010110944
1	9	1480	0.31	3.61	24369.03812	78.60253	111.33487	10	0.4	0.706	1.765	77	1	0.18025	0.008981899
1	9	1500	0.24	3.44	24369.53135	84.68315	125.82916	10	0.31	0.673	2.171	78	1	0.1719	0.007947272
1	9	1520	0.16	3.39	24369.86122	88.7498	133.45815	10	0.21	0.665	3.167	79	1	0.1697	0.007492975
1	9	1540	0.08	2.56	24370.03086	90.84122	181.31944	10	0.1	0.501	5.01	80	1	0.12795	0.005515117

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Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.96	0.16336	2.01396	2.59531	10	0.1	0.776	7.76	1	2	0.19805	0.385310532
1	1	40	0.16	5.81	0.49244	6.07093	5.33942	10	0.21	1.137	5.414	2	2	0.2903	0.187285968
1	1	60	0.24	5.61	0.9841	12.13217	11.04933	10	0.31	1.098	3.542	3	2	0.2804	0.090503183
1	1	80	0.31	5.65	1.63677	20.17833	18.26092	10	0.4	1.105	2.762	4	2	0.28225	0.054761717
1	1	100	0.39	5.79	2.45358	30.24813	26.69736	10	0.5	1.133	2.266	5	2	0.28925	0.037456861
1	1	120	0.47	5.93	3.43062	42.29316	36.42819	10	0.61	1.161	1.903	6	2	0.2965	0.027451247
1	1	140	0.54	6.04	4.57102	56.35215	47.63491	10	0.7	1.183	1.69	7	2	0.30215	0.020992988
1	1	160	0.62	6.15	5.87399	72.41542	60.09573	10	0.8	1.205	1.506	8	2	0.3076	0.016640102
1	1	180	0.7	6.43	7.33876	90.47328	71.86117	10	0.9	1.259	1.399	9	2	0.32155	0.013915711
1	2	200	0.77	6.29	8.96139	0	0	10	0.99	1.232	1.244	10	2	0.3147	0
1	2	220	1.55	9.51	12.18781	0	0	10	2	1.863	0.932	11	2	0.4757	0
1	2	240	2.32	10.91	17.03607	0	0	10	3	2.137	0.712	12	2	0.5456	0
1	2	260	3.09	11.77	23.50775	0	0	10	3.99	2.304	0.577	13	2	0.5884	0

1	2	280	3.87	12.54	31.59814	0	0	10	5	2.455	0.491	14	2	0.627	0
1	2	300	4.65	13.2	41.31508	0	0	10	6	2.584	0.431	15	2	0.65985	0
1	2	320	5.42	14.06	52.66173	0	0	10	7	2.752	0.393	16	2	0.70275	0
1	2	340	6.2	14.65	65.62709	0	0	10	8	2.868	0.359	17	2	0.73235	0
1	2	360	6.97	15.21	80.20722	0	0	10	9	2.978	0.331	18	2	0.7605	0
1	3	380	7.75	15.73	96.58434	0	0	10.1	10.01	3.079	0.308	19	2	0.78625	0
1	3	400	15.5	29.44	128.89405	0	0	10	20.01	5.764	0.288	20	2	1.47185	0
1	3	420	23.24	35.65	177.50234	0	0	10	30	6.98	0.233	21	2	1.7824	0
1	3	440	30.99	37.89	242.25135	0	0	10	40.01	7.418	0.185	22	2	1.89435	0
1	3	460	38.73	38.82	323.27381	0	0	10	50	7.602	0.152	23	2	1.9412	0
1	3	480	46.48	37.92	420.39615	0	0	10	60.01	7.425	0.124	24	2	1.8961	0
1	3	500	54.22	36.53	533.91838	0	0	10	70	7.152	0.102	25	2	1.82635	0
1	3	520	61.96	33.8	663.54442	0	0	10	79.99	6.618	0.083	26	2	1.6901	0
1	3	540	69.71	34.73	809.42271	0	0	10	90	6.801	0.076	27	2	1.7366	0
1	4	560	77.46	36.72	973.11461	0	0	10	100	7.19	0.072	28	2	1.83605	0
1	4	580	154.92	72.81	1296.19521	0	0	10	200	14.256	0.071	29	2	3.6405	0
1	4	600	232.38	96.14	1782.11556	0	0	10	300	18.823	0.063	30	2	4.80675	0
1	4	620	309.84	111.16	2429.00718	0	0	10	400	21.764	0.054	31	2	5.5578	0
1	4	640	387.3	132.55	3239.14225	0	0	10	500	25.953	0.052	32	2	6.62745	0
1	4	660	464.75	159.1	4210.94053	0	0	10	599.99	31.151	0.052	33	2	7.95485	0
1	4	680	542.21	179.93	5345.77726	0	0	10	699.99	35.23	0.05	34	2	8.9963	0
1	4	700	619.67	203.04	6642.56309	0	0	10	799.99	39.755	0.05	35	2	10.1519	0
1	4	720	697.13	226.46	8100.19689	0	0	10	899.99	44.34	0.049	36	2	11.32275	0
1	4	740	774.59	249.07	9721.96713	0	0	10	1000	48.768	0.049	37	2	12.45355	0
1	5	750	774.59	243.24	10549.0126	0	0	10	1000	47.625	0.048	38	2	12.16175	0
1	5	760	774.59	241.27	11361.7866	0	0	10	1000	47.24	0.047	39	2	12.06335	0
1	5	770	774.59	239.26	12171.3122	0	0	10	1000	46.847	0.047	40	2	11.9631	0
1	5	780	774.59	237.41	12984.08306	0	0	10	1000	46.485	0.046	41	2	11.87055	0
1	5	790	774.59	235.75	13794.01627	0	0	10	1000	46.159	0.046	42	2	11.7874	0
1	5	800	774.59	234.13	14604.75924	0	0	10	1000	45.842	0.046	43	2	11.70645	0
1	6	820	774.59	232.52	16246.1173	0	0	10	1000	45.526	0.046	44	2	11.62575	0
1	6	840	697.13	203.83	17708.54204	0	0	10	899.99	39.91	0.044	45	2	10.1916	0
1	6	860	619.67	177.24	19007.35498	0	0	10	799.99	34.703	0.043	46	2	8.86185	0
1	6	880	542.21	151.54	20143.12633	0	0	10	699.99	29.672	0.042	47	2	7.57705	0
1	6	900	464.75	126.79	21118.08898	0	0	10	599.99	24.826	0.041	48	2	6.3396	0
1	6	920	387.3	103.05	21930.5771	0	0	10	500	20.177	0.04	49	2	5.15245	0
1	6	940	309.84	80.08	22581.40514	0	0	10	400	15.679	0.039	50	2	4.00395	0
1	6	960	232.38	58.05	23068.98817	0	0	10	300	11.365	0.038	51	2	2.90225	0
1	6	980	154.92	36.69	23394.78861	0	0	10	200	7.185	0.036	52	2	1.8347	0
1	6	1000	77.46	17.79	23558.1585	0	0	10	100	3.484	0.035	53	2	0.8896	0
1	7	1020	69.71	17.24	23705.21645	0	0	10	90	3.375	0.038	54	2	0.86175	0
1	7	1040	61.97	16	23835.24226	0	0	10	80	3.132	0.039	55	2	0.79975	0
1	7	1060	54.22	14.64	23948.94671	0	0	10	70	2.867	0.041	56	2	0.7321	0
1	7	1080	46.48	12.89	24046.27953	0	0	10	60.01	2.524	0.042	57	2	0.64465	0
1	7	1100	38.73	10.99	24127.5541	0	0	10	50	2.152	0.043	58	2	0.54965	0
1	7	1120	30.99	9.68	24192.57093	0	0	10	40.01	1.894	0.047	59	2	0.48375	0
1	7	1140	23.24	7.89	24241.33238	0	0	10	30	1.544	0.051	60	2	0.3943	0
1	7	1160	15.5	6.01	24273.93111	0	0	10	20.01	1.177	0.059	61	2	0.3005	0
1	7	1180	7.75	3.77	24290.28075	0	0	10	10.01	0.737	0.074	62	2	0.1883	0
1	8	1200	6.97	4.39	24304.99361	0	0	10	9	0.86	0.096	63	2	0.2196	0

1	8	1220	6.2	4.56	24317.97546	0	0	10	8	0.894	0.112	64	2	0.2282	0
1	8	1240	5.42	4.41	24329.33231	0	0	10	7	0.862	0.123	65	2	0.22025	0
1	8	1260	4.64	4.56	24339.07675	0	0	10	5.99	0.892	0.149	66	2	0.22785	0
1	8	1280	3.87	4.41	24347.19227	0	0	10	5	0.863	0.173	67	2	0.2204	0
1	8	1300	3.09	4.24	24353.68594	0	0	10	3.99	0.829	0.208	68	2	0.21175	0
1	8	1320	2.32	3.93	24358.55384	0	0	10	3	0.769	0.256	69	2	0.19625	0
1	8	1340	1.54	3.04	24361.80067	0	0	10	1.99	0.594	0.298	70	2	0.1518	0
1	8	1360	0.77	2.54	24363.42566	0	0	10	0.99	0.498	0.503	71	2	0.1272	0
1	9	1380	0.7	3.14	24364.90064	18.18373	29.61515	10	0.9	0.614	0.682	72	2	0.15675	0.033766449
1	9	1400	0.62	3.32	24366.20519	34.26637	52.71741	10	0.8	0.65	0.813	73	2	0.16605	0.018969036
1	9	1420	0.55	3.35	24367.34794	48.3544	73.71086	10	0.71	0.656	0.924	74	2	0.16755	0.013566501
1	9	1440	0.47	3.41	24368.32812	60.43816	90.6118	10	0.61	0.667	1.093	75	2	0.1703	0.011036074
1	9	1460	0.39	3.48	24369.14493	70.50796	103.53577	10	0.5	0.681	1.362	76	2	0.17385	0.009658484
1	9	1480	0.31	3.45	24369.80153	78.60253	116.44802	10	0.4	0.675	1.688	77	2	0.1724	0.00858751
1	9	1500	0.24	3.24	24370.29397	84.67346	133.55414	10	0.31	0.634	2.045	78	2	0.16185	0.007487588
1	9	1520	0.16	3.13	24370.62462	88.74979	144.5434	10	0.21	0.614	2.924	79	2	0.1567	0.006918326
1	9	1540	0.08	2.51	24370.79348	90.83153	185.37009	10	0.1	0.49	4.9	80	2	0.12525	0.005394603

2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 3.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.59	0.16415	2.02364	2.87448	10	0.1	0.704	7.04	1	3	0.1797	0.347887964
1	1	40	0.16	5.44	0.49323	6.08061	5.70949	10	0.21	1.065	5.071	2	3	0.27185	0.175146901
1	1	60	0.24	5.21	0.9841	12.13217	11.88262	10	0.31	1.021	3.294	3	3	0.2607	0.08415642
1	1	80	0.31	5.37	1.63756	20.18801	19.19011	10	0.4	1.052	2.63	4	3	0.2686	0.052110139
1	1	100	0.39	5.61	2.4528	30.23845	27.53955	10	0.5	1.098	2.196	5	3	0.2803	0.036311385
1	1	120	0.47	5.67	3.4314	42.30284	38.07633	10	0.61	1.111	1.821	6	3	0.2836	0.026263012
1	1	140	0.54	5.73	4.57102	56.35215	50.22469	10	0.7	1.122	1.603	7	3	0.2865	0.019910509
1	1	160	0.62	5.72	5.87399	72.41542	64.65657	10	0.8	1.12	1.4	8	3	0.2861	0.015466319
1	1	180	0.7	5.85	7.33876	90.47328	79.0159	10	0.9	1.145	1.272	9	3	0.29235	0.01265567
1	2	200	0.77	6.01	8.96218	0	0	10	0.99	1.178	1.19	10	3	0.3007	0
1	2	220	1.55	8.79	12.18702	0	0	10	2	1.72	0.86	11	3	0.4393	0
1	2	240	2.32	9.98	17.03843	0	0	10	3	1.955	0.652	12	3	0.4992	0
1	2	260	3.09	10.69	23.50932	0	0	10	3.99	2.094	0.525	13	3	0.5347	0
1	2	280	3.87	11.36	31.59892	0	0	10	5	2.224	0.445	14	3	0.568	0
1	2	300	4.65	12.01	41.31508	0	0	10	6	2.352	0.392	15	3	0.6005	0
1	2	320	5.42	12.86	52.66252	0	0	10	7	2.518	0.36	16	3	0.64295	0
1	2	340	6.2	13.35	65.62237	0	0	10	8	2.613	0.327	17	3	0.66735	0
1	2	360	6.97	13.88	80.20957	0	0	10	9	2.718	0.302	18	3	0.69415	0
1	3	380	7.75	14.28	96.58041	0	0	10	10.01	2.797	0.279	19	3	0.71415	0
1	3	400	15.5	26.19	128.89719	0	0	10	20.01	5.129	0.256	20	3	1.30965	0
1	3	420	23.24	32.4	177.50156	0	0	10	30	6.344	0.211	21	3	1.62	0
1	3	440	30.99	35.55	242.28198	0	0	10	40.01	6.961	0.174	22	3	1.7775	0
1	3	460	38.73	36.65	323.28952	0	0	10	50	7.176	0.144	23	3	1.83245	0
1	3	480	46.48	35.22	420.41186	0	0	10	60.01	6.897	0.115	24	3	1.76115	0
1	3	500	54.22	35.89	533.96158	0	0	10	70	7.028	0.1	25	3	1.7946	0
1	3	520	61.96	36.9	663.58762	0	0	10	79.99	7.226	0.09	26	3	1.84515	0
1	3	540	69.71	35.81	809.43449	0	0	10	90	7.012	0.078	27	3	1.7905	0
1	4	560	77.46	34.33	973.08555	0	0	10	100	6.722	0.067	28	3	1.71645	0
1	4	580	154.92	66.78	1296.24705	0	0	10	200	13.075	0.065	29	3	3.3389	0
1	4	600	232.38	87.96	1781.56028	0	0	10	300	17.223	0.057	30	3	4.39805	0

1	4	620	309.84	98.45	2429.38496	0	0	10	400	19.276	0.048	31	3	4.92225	0
1	4	640	387.3	122.64	3239.47997	0	0	10	500	24.013	0.048	32	3	6.132	0
1	4	660	464.75	145.26	4211.56256	0	0	10	599.99	28.441	0.047	33	3	7.2628	0
1	4	680	542.21	165.49	5345.50708	0	0	10	699.99	32.402	0.046	34	3	8.2743	0
1	4	700	619.67	188.02	6642.00702	0	0	10	799.99	36.814	0.046	35	3	9.40095	0
1	4	720	697.13	211.64	8101.10245	0	0	10	899.99	41.44	0.046	36	3	10.5821	0
1	4	740	774.59	234.52	9722.83264	0	0	10	1000	45.919	0.046	37	3	11.726	0
1	5	750	774.59	230.01	10551.09548	0	0	10	1000	45.036	0.045	38	3	11.5005	0
1	5	760	774.59	227.88	11363.05738	0	0	10	1000	44.619	0.045	39	3	11.39405	0
1	5	770	774.59	226.27	12172.58376	0	0	10	1000	44.304	0.044	40	3	11.3137	0
1	5	780	774.59	224.81	12985.35383	0	0	10	1000	44.018	0.044	41	3	11.24065	0
1	5	790	774.59	223.67	13795.28626	0	0	10	1000	43.795	0.044	42	3	11.1837	0
1	5	800	774.59	222.5	14606.03001	0	0	10	1000	43.565	0.044	43	3	11.12495	0
1	6	820	774.59	221.18	16246.98281	0	0	10	1000	43.307	0.043	44	3	11.0591	0
1	6	840	697.13	193.68	17708.67634	0	0	10	899.99	37.922	0.042	45	3	9.6839	0
1	6	860	619.67	168.36	19007.4885	0	0	10	799.99	32.964	0.041	46	3	8.41785	0
1	6	880	542.21	143.93	20143.82769	0	0	10	699.99	28.181	0.04	47	3	7.1965	0
1	6	900	464.75	120.5	21119.0346	0	0	10	599.99	23.594	0.039	48	3	6.0251	0
1	6	920	387.3	97.84	21931.52193	0	0	10	500	19.156	0.038	49	3	4.89175	0
1	6	940	309.84	75.92	22581.70045	0	0	10	400	14.865	0.037	50	3	3.79585	0
1	6	960	232.38	55.04	23069.40522	0	0	10	300	10.777	0.036	51	3	2.7521	0
1	6	980	154.92	34.84	23395.16482	0	0	10	200	6.821	0.034	52	3	1.74175	0
1	6	1000	77.46	17.02	23558.74283	0	0	10	100	3.333	0.033	53	3	0.8511	0
1	7	1020	69.71	16.58	23705.88011	0	0	10	90	3.245	0.036	54	3	0.82875	0
1	7	1040	61.97	15.43	23835.84152	0	0	10	80	3.021	0.038	55	3	0.7714	0
1	7	1060	54.22	13.94	23949.52162	0	0	10	70	2.73	0.039	56	3	0.69705	0
1	7	1080	46.48	12.38	24046.93141	0	0	10	60.01	2.424	0.04	57	3	0.6189	0
1	7	1100	38.73	10.7	24128.20598	0	0	10	50	2.094	0.042	58	3	0.53475	0
1	7	1120	30.99	9.42	24193.1859	0	0	10	40.01	1.844	0.046	59	3	0.4709	0
1	7	1140	23.24	7.71	24241.98112	0	0	10	30	1.51	0.05	60	3	0.38565	0
1	7	1160	15.5	6.01	24274.53037	0	0	10	20.01	1.177	0.059	61	3	0.30065	0
1	7	1180	7.75	3.87	24290.87922	0	0	10	10.01	0.758	0.076	62	3	0.1935	0
1	8	1200	6.97	4.39	24305.57716	0	0	10	9	0.859	0.095	63	3	0.2193	0
1	8	1220	6.2	4.59	24318.57943	0	0	10	8	0.898	0.112	64	3	0.22935	0
1	8	1240	5.42	4.39	24329.92765	0	0	10	7	0.86	0.123	65	3	0.2197	0
1	8	1260	4.64	4.68	24339.66894	0	0	10	5.99	0.917	0.153	66	3	0.23415	0
1	8	1280	3.87	4.39	24347.78603	0	0	10	5	0.86	0.172	67	3	0.2196	0
1	8	1300	3.09	4.48	24354.28284	0	0	10	3.99	0.878	0.22	68	3	0.2241	0
1	8	1320	2.32	4.14	24359.15074	0	0	10	3	0.81	0.27	69	3	0.20695	0
1	8	1340	1.54	3.2	24362.39915	0	0	10	1.99	0.626	0.315	70	3	0.1599	0
1	8	1360	0.77	2.41	24364.02335	0	0	10	0.99	0.472	0.477	71	3	0.12055	0
1	9	1380	0.7	3.03	24365.49676	18.16437	30.63126	10	0.9	0.593	0.659	72	3	0.15155	0.032646329
1	9	1400	0.62	3.36	24366.8013	34.247	51.96805	10	0.8	0.659	0.824	73	3	0.1682	0.019242561
1	9	1420	0.55	3.69	24367.94406	48.33504	66.94595	10	0.71	0.722	1.017	74	3	0.18445	0.014937404
1	9	1440	0.47	3.71	24368.92424	60.4188	83.1069	10	0.61	0.727	1.192	75	3	0.1857	0.012032679
1	9	1460	0.39	3.62	24369.74262	70.50796	99.58737	10	0.5	0.708	1.416	76	3	0.18085	0.010041419
1	9	1480	0.31	3.52	24370.39764	78.58317	114.21956	10	0.4	0.688	1.72	77	3	0.1758	0.008755055
1	9	1500	0.24	3.35	24370.89087	84.66378	128.864	10	0.31	0.657	2.119	78	3	0.16765	0.007760107
1	9	1520	0.16	3.2	24371.22231	88.74979	141.7726	10	0.21	0.626	2.981	79	3	0.1599	0.007053538
1	9	1540	0.08	2.38	24371.39039	90.82185	194.89626	10	0.1	0.466	4.66	80	3	0.11895	0.005130924

2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 4.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.63	0.16415	2.02364	2.84618	10	0.1	0.711	7.11	1	4	0.1815	0.351347078
1	1	40	0.16	5.37	0.49244	6.07093	5.77084	10	0.21	1.052	5.01	2	4	0.26865	0.173284818
1	1	60	0.24	5.05	0.9841	12.13217	12.27951	10	0.31	0.988	3.187	3	4	0.25225	0.081436379
1	1	80	0.31	5.33	1.63756	20.18801	19.3557	10	0.4	1.043	2.607	4	4	0.26635	0.051664329
1	1	100	0.39	5.42	2.4528	30.23845	28.49993	10	0.5	1.061	2.122	5	4	0.27105	0.035087777
1	1	120	0.47	5.53	3.43219	42.31253	39.06971	10	0.61	1.083	1.775	6	4	0.27655	0.025595255
1	1	140	0.54	5.64	4.57102	56.35215	50.99737	10	0.7	1.105	1.579	7	4	0.2822	0.019608835
1	1	160	0.62	5.79	5.87399	72.41542	63.9147	10	0.8	1.133	1.416	8	4	0.2893	0.015645839
1	1	180	0.7	5.86	7.33798	90.4636	78.86968	10	0.9	1.147	1.274	9	4	0.2929	0.012679133
1	2	200	0.77	5.92	8.96218	0	0	10	0.99	1.159	1.171	10	4	0.2959	0
1	2	220	1.55	8.71	12.18467	0	0	10	2	1.704	0.852	11	4	0.43525	0
1	2	240	2.32	9.97	17.03214	0	0	10	3	1.953	0.651	12	4	0.4986	0
1	2	260	3.09	10.64	23.50775	0	0	10	3.99	2.084	0.522	13	4	0.5321	0
1	2	280	3.87	11.3	31.59735	0	0	10	5	2.213	0.443	14	4	0.56515	0
1	2	300	4.65	11.9	41.31351	0	0	10	6	2.33	0.388	15	4	0.59505	0
1	2	320	5.42	12.68	52.65702	0	0	10	7	2.483	0.355	16	4	0.634	0
1	2	340	6.2	13.28	65.6208	0	0	10	8	2.601	0.325	17	4	0.66415	0
1	2	360	6.97	13.78	80.208	0	0	10	9	2.699	0.3	18	4	0.6892	0
1	3	380	7.75	14.19	96.57727	0	0	10	10.01	2.778	0.278	19	4	0.70945	0
1	3	400	15.5	25.53	128.93567	0	0	10	20.01	4.999	0.25	20	4	1.27655	0
1	3	420	23.24	31.15	177.47093	0	0	10	30	6.098	0.203	21	4	1.55725	0
1	3	440	30.99	33.77	242.20344	0	0	10	40.01	6.612	0.165	22	4	1.6885	0
1	3	460	38.73	33.77	323.24711	0	0	10	50	6.612	0.132	23	4	1.68835	0
1	3	480	46.48	34.6	420.46291	0	0	10	60.01	6.774	0.113	24	4	1.72995	0
1	3	500	54.22	34.32	533.98122	0	0	10	70	6.719	0.096	25	4	1.7158	0
1	3	520	61.96	30.2	663.60647	0	0	10	79.99	5.912	0.074	26	4	1.50975	0
1	3	540	69.71	30.55	809.45255	0	0	10	90	5.982	0.066	27	4	1.52765	0
1	4	560	77.46	32.21	973.14445	0	0	10	100	6.306	0.063	28	4	1.6103	0
1	4	580	154.92	63.1	1296.22584	0	0	10	200	12.355	0.062	29	4	3.1551	0
1	4	600	232.38	80.39	1781.82339	0	0	10	300	15.741	0.052	30	4	4.01965	0
1	4	620	309.84	95.17	2429.68812	0	0	10	400	18.634	0.047	31	4	4.75835	0
1	4	640	387.3	116.73	3239.01344	0	0	10	500	22.855	0.046	32	4	5.83635	0
1	4	660	464.75	136.1	4211.54136	0	0	10	599.99	26.649	0.044	33	4	6.8051	0
1	4	680	542.21	156.7	5345.48744	0	0	10	699.99	30.681	0.044	34	4	7.8348	0
1	4	700	619.67	178.98	6642.27013	0	0	10	799.99	35.043	0.044	35	4	8.94875	0
1	4	720	697.13	201.65	8101.36478	0	0	10	899.99	39.484	0.044	36	4	10.08265	0
1	4	740	774.59	224.91	9721.10633	0	0	10	1000	44.037	0.044	37	4	11.2455	0
1	5	750	774.59	221.25	10549.77522	0	0	10	1000	43.321	0.043	38	4	11.06255	0
1	5	760	774.59	219.64	11361.73712	0	0	10	1000	43.005	0.043	39	4	10.98185	0
1	5	770	774.59	218.43	12170.85667	0	0	10	1000	42.769	0.043	40	4	10.9216	0
1	5	780	774.59	217.3	12984.03672	0	0	10	1000	42.548	0.043	41	4	10.8652	0
1	5	790	774.59	216.3	13794.7789	0	0	10	1000	42.352	0.042	42	4	10.815	0
1	5	800	774.59	215.12	14604.71133	0	0	10	1000	42.12	0.042	43	4	10.75595	0
1	6	820	774.59	213.94	16246.07175	0	0	10	1000	41.89	0.042	44	4	10.6972	0
1	6	840	697.13	188.42	17708.12656	0	0	10	899.99	36.892	0.041	45	4	9.42095	0
1	6	860	619.67	164.25	19006.69446	0	0	10	799.99	32.161	0.04	46	4	8.21265	0
1	6	880	542.21	140.4	20143.8866	0	0	10	699.99	27.49	0.039	47	4	7.02	0

1	6	900	464.75	117.35	21118.32224	0	0	10	599.99	22.977	0.038	48	4	5.86755	0
1	6	920	387.3	95.19	21930.6093	0	0	10	500	18.639	0.037	49	4	4.7596	0
1	6	940	309.84	73.84	22581.3533	0	0	10	400	14.458	0.036	50	4	3.692	0
1	6	960	232.38	53.58	23068.81617	0	0	10	300	10.491	0.035	51	4	2.679	0
1	6	980	154.92	33.97	23394.65509	0	0	10	200	6.652	0.033	52	4	1.69855	0
1	6	1000	77.46	16.66	23558.18756	0	0	10	100	3.261	0.033	53	4	0.8328	0
1	7	1020	69.71	16.27	23705.40495	0	0	10	90	3.185	0.035	54	4	0.81325	0
1	7	1040	61.97	15.06	23835.33493	0	0	10	80	2.948	0.037	55	4	0.7528	0
1	7	1060	54.22	13.67	23948.95377	0	0	10	70	2.676	0.038	56	4	0.68325	0
1	7	1080	46.48	12.11	24046.48059	0	0	10	60.01	2.37	0.039	57	4	0.60525	0
1	7	1100	38.73	10.46	24127.63735	0	0	10	50	2.047	0.041	58	4	0.5228	0
1	7	1120	30.99	9.24	24192.63298	0	0	10	40.01	1.809	0.045	59	4	0.46195	0
1	7	1140	23.24	7.47	24241.46904	0	0	10	30	1.462	0.049	60	4	0.37345	0
1	7	1160	15.5	5.77	24274.01515	0	0	10	20.01	1.13	0.056	61	4	0.28865	0
1	7	1180	7.75	3.57	24290.36871	0	0	10	10.01	0.698	0.07	62	4	0.17835	0
1	8	1200	6.97	4.12	24305.08079	0	0	10	9	0.807	0.09	63	4	0.2061	0
1	8	1220	6.2	4.38	24318.05792	0	0	10	8	0.857	0.107	64	4	0.21895	0
1	8	1240	5.42	4.27	24329.42264	0	0	10	7	0.835	0.119	65	4	0.2133	0
1	8	1260	4.64	4.44	24339.16	0	0	10	5.99	0.87	0.145	66	4	0.22205	0
1	8	1280	3.87	4.28	24347.28102	0	0	10	5	0.837	0.167	67	4	0.21375	0
1	8	1300	3.09	4.18	24353.77155	0	0	10	3.99	0.819	0.205	68	4	0.20915	0
1	8	1320	2.32	3.89	24358.64416	0	0	10	3	0.762	0.254	69	4	0.19465	0
1	8	1340	1.54	2.98	24361.88942	0	0	10	1.99	0.584	0.293	70	4	0.14905	0
1	8	1360	0.77	2.35	24363.51363	0	0	10	0.99	0.459	0.464	71	4	0.11725	0
1	9	1380	0.7	3.03	24364.98704	18.16437	30.68301	10	0.9	0.592	0.658	72	4	0.15125	0.032591276
1	9	1400	0.62	3.24	24366.2908	34.23732	53.91695	10	0.8	0.635	0.794	73	4	0.1622	0.018547012
1	9	1420	0.55	3.33	24367.43434	48.33504	74.13338	10	0.71	0.652	0.918	74	4	0.1664	0.013489179
1	9	1440	0.47	3.43	24368.41373	60.40912	90.02836	10	0.61	0.671	1.1	75	4	0.1714	0.011107594
1	9	1460	0.39	3.65	24369.23133	70.4886	98.58532	10	0.5	0.715	1.43	76	4	0.18255	0.010143484
1	9	1480	0.31	3.48	24369.88792	78.58317	115.22442	10	0.4	0.682	1.705	77	4	0.17405	0.008678703
1	9	1500	0.24	3.46	24370.38115	84.66378	124.87265	10	0.31	0.678	2.187	78	4	0.17305	0.008008147
1	9	1520	0.16	2.95	24370.71102	88.73043	153.51259	10	0.21	0.578	2.752	79	4	0.1476	0.006514112
1	9	1540	0.08	2.7	24370.87988	90.81217	171.66729	10	0.1	0.529	5.29	80	4	0.135	0.00582521

2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 5.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.63	0.16415	2.02364	2.84618	10	0.1	0.711	7.11	1	4	0.1815	0.351347078
1	1	40	0.16	5.37	0.49244	6.07093	5.77084	10	0.21	1.052	5.01	2	4	0.26865	0.173284818
1	1	60	0.24	5.05	0.9841	12.13217	12.27951	10	0.31	0.988	3.187	3	4	0.25225	0.081436379
1	1	80	0.31	5.33	1.63756	20.18801	19.3557	10	0.4	1.043	2.607	4	4	0.26635	0.051664329
1	1	100	0.39	5.42	2.4528	30.23845	28.49993	10	0.5	1.061	2.122	5	4	0.27105	0.035087777
1	1	120	0.47	5.53	3.43219	42.31253	39.06971	10	0.61	1.083	1.775	6	4	0.27655	0.025595255
1	1	140	0.54	5.64	4.57102	56.35215	50.99737	10	0.7	1.105	1.579	7	4	0.2822	0.019608835
1	1	160	0.62	5.79	5.87399	72.41542	63.9147	10	0.8	1.133	1.416	8	4	0.2893	0.015645839
1	1	180	0.7	5.86	7.33798	90.4636	78.86968	10	0.9	1.147	1.274	9	4	0.2929	0.012679133
1	2	200	0.77	5.92	8.96218	0	0	10	0.99	1.159	1.171	10	4	0.2959	0
1	2	220	1.55	8.71	12.18467	0	0	10	2	1.704	0.852	11	4	0.43525	0
1	2	240	2.32	9.97	17.03214	0	0	10	3	1.953	0.651	12	4	0.4986	0
1	2	260	3.09	10.64	23.50775	0	0	10	3.99	2.084	0.522	13	4	0.5321	0
1	2	280	3.87	11.3	31.59735	0	0	10	5	2.213	0.443	14	4	0.56515	0

1	2	300	4.65	11.9	41.31351	0	0	10	6	2.33	0.388	15	4	0.59505	0
1	2	320	5.42	12.68	52.65702	0	0	10	7	2.483	0.355	16	4	0.634	0
1	2	340	6.2	13.28	65.6208	0	0	10	8	2.601	0.325	17	4	0.66415	0
1	2	360	6.97	13.78	80.208	0	0	10	9	2.699	0.3	18	4	0.6892	0
1	3	380	7.75	14.19	96.57727	0	0	10	10.01	2.778	0.278	19	4	0.70945	0
1	3	400	15.5	25.53	128.93567	0	0	10	20.01	4.999	0.25	20	4	1.27655	0
1	3	420	23.24	31.15	177.47093	0	0	10	30	6.098	0.203	21	4	1.55725	0
1	3	440	30.99	33.77	242.20344	0	0	10	40.01	6.612	0.165	22	4	1.6885	0
1	3	460	38.73	33.77	323.24711	0	0	10	50	6.612	0.132	23	4	1.68835	0
1	3	480	46.48	34.6	420.46291	0	0	10	60.01	6.774	0.113	24	4	1.72995	0
1	3	500	54.22	34.32	533.98122	0	0	10	70	6.719	0.096	25	4	1.7158	0
1	3	520	61.96	30.2	663.60647	0	0	10	79.99	5.912	0.074	26	4	1.50975	0
1	3	540	69.71	30.55	809.45255	0	0	10	90	5.982	0.066	27	4	1.52765	0
1	4	560	77.46	32.21	973.14445	0	0	10	100	6.306	0.063	28	4	1.6103	0
1	4	580	154.92	63.1	1296.22584	0	0	10	200	12.355	0.062	29	4	3.1551	0
1	4	600	232.38	80.39	1781.82339	0	0	10	300	15.741	0.052	30	4	4.01965	0
1	4	620	309.84	95.17	2429.68812	0	0	10	400	18.634	0.047	31	4	4.75835	0
1	4	640	387.3	116.73	3239.01344	0	0	10	500	22.855	0.046	32	4	5.83635	0
1	4	660	464.75	136.1	4211.54136	0	0	10	599.99	26.649	0.044	33	4	6.8051	0
1	4	680	542.21	156.7	5345.48744	0	0	10	699.99	30.681	0.044	34	4	7.8348	0
1	4	700	619.67	178.98	6642.27013	0	0	10	799.99	35.043	0.044	35	4	8.94875	0
1	4	720	697.13	201.65	8101.36478	0	0	10	899.99	39.484	0.044	36	4	10.08265	0
1	4	740	774.59	224.91	9721.10633	0	0	10	1000	44.037	0.044	37	4	11.2455	0
1	5	750	774.59	221.25	10549.77522	0	0	10	1000	43.321	0.043	38	4	11.06255	0
1	5	760	774.59	219.64	11361.73712	0	0	10	1000	43.005	0.043	39	4	10.98185	0
1	5	770	774.59	218.43	12170.85667	0	0	10	1000	42.769	0.043	40	4	10.9216	0
1	5	780	774.59	217.3	12984.03672	0	0	10	1000	42.548	0.043	41	4	10.8652	0
1	5	790	774.59	216.3	13794.7789	0	0	10	1000	42.352	0.042	42	4	10.815	0
1	5	800	774.59	215.12	14604.71133	0	0	10	1000	42.12	0.042	43	4	10.75595	0
1	6	820	774.59	213.94	16246.07175	0	0	10	1000	41.89	0.042	44	4	10.6972	0
1	6	840	697.13	188.42	17708.12656	0	0	10	899.99	36.892	0.041	45	4	9.42095	0
1	6	860	619.67	164.25	19006.69446	0	0	10	799.99	32.161	0.04	46	4	8.21265	0
1	6	880	542.21	140.4	20143.8866	0	0	10	699.99	27.49	0.039	47	4	7.02	0
1	6	900	464.75	117.35	21118.32224	0	0	10	599.99	22.977	0.038	48	4	5.86755	0
1	6	920	387.3	95.19	21930.6093	0	0	10	500	18.639	0.037	49	4	4.7596	0
1	6	940	309.84	73.84	22581.3533	0	0	10	400	14.458	0.036	50	4	3.692	0
1	6	960	232.38	53.58	23068.81617	0	0	10	300	10.491	0.035	51	4	2.679	0
1	6	980	154.92	33.97	23394.65509	0	0	10	200	6.652	0.033	52	4	1.69855	0
1	6	1000	77.46	16.66	23558.18756	0	0	10	100	3.261	0.033	53	4	0.8328	0
1	7	1020	69.71	16.27	23705.40495	0	0	10	90	3.185	0.035	54	4	0.81325	0
1	7	1040	61.97	15.06	23835.33493	0	0	10	80	2.948	0.037	55	4	0.7528	0
1	7	1060	54.22	13.67	23948.95377	0	0	10	70	2.676	0.038	56	4	0.68325	0
1	7	1080	46.48	12.11	24046.48059	0	0	10	60.01	2.37	0.039	57	4	0.60525	0
1	7	1100	38.73	10.46	24127.63735	0	0	10	50	2.047	0.041	58	4	0.5228	0
1	7	1120	30.99	9.24	24192.63298	0	0	10	40.01	1.809	0.045	59	4	0.46195	0
1	7	1140	23.24	7.47	24241.46904	0	0	10	30	1.462	0.049	60	4	0.37345	0
1	7	1160	15.5	5.77	24274.01515	0	0	10	20.01	1.13	0.056	61	4	0.28865	0
1	7	1180	7.75	3.57	24290.36871	0	0	10	10.01	0.698	0.07	62	4	0.17835	0
1	8	1200	6.97	4.12	24305.08079	0	0	10	9	0.807	0.09	63	4	0.2061	0
1	8	1220	6.2	4.38	24318.05792	0	0	10	8	0.857	0.107	64	4	0.21895	0

1	8	1240	5.42	4.27	24329.42264	0	0	10	7	0.835	0.119	65	4	0.2133	0
1	8	1260	4.64	4.44	24339.16	0	0	10	5.99	0.87	0.145	66	4	0.22205	0
1	8	1280	3.87	4.28	24347.28102	0	0	10	5	0.837	0.167	67	4	0.21375	0
1	8	1300	3.09	4.18	24353.77155	0	0	10	3.99	0.819	0.205	68	4	0.20915	0
1	8	1320	2.32	3.89	24358.64416	0	0	10	3	0.762	0.254	69	4	0.19465	0
1	8	1340	1.54	2.98	24361.88942	0	0	10	1.99	0.584	0.293	70	4	0.14905	0
1	8	1360	0.77	2.35	24363.51363	0	0	10	0.99	0.459	0.464	71	4	0.11725	0
1	9	1380	0.7	3.03	24364.98704	18.16437	30.68301	10	0.9	0.592	0.658	72	4	0.15125	0.032591276
1	9	1400	0.62	3.24	24366.2908	34.23732	53.91695	10	0.8	0.635	0.794	73	4	0.1622	0.018547012
1	9	1420	0.55	3.33	24367.43434	48.33504	74.13338	10	0.71	0.652	0.918	74	4	0.1664	0.013489179
1	9	1440	0.47	3.43	24368.41373	60.40912	90.02836	10	0.61	0.671	1.1	75	4	0.1714	0.011107594
1	9	1460	0.39	3.65	24369.23133	70.4886	98.58532	10	0.5	0.715	1.43	76	4	0.18255	0.010143484
1	9	1480	0.31	3.48	24369.88792	78.58317	115.22442	10	0.4	0.682	1.705	77	4	0.17405	0.008678703
1	9	1500	0.24	3.46	24370.38115	84.66378	124.87265	10	0.31	0.678	2.187	78	4	0.17305	0.008008147
1	9	1520	0.16	2.95	24370.71102	88.73043	153.51259	10	0.21	0.578	2.752	79	4	0.1476	0.006514112
1	9	1540	0.08	2.7	24370.87988	90.81217	171.66729	10	0.1	0.529	5.29	80	4	0.135	0.00582521

2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 6.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.47	0.16415	2.02364	2.97594	10	0.1	0.68	6.8	1	6	0.1737	0.336028147
1	1	40	0.16	5.07	0.49323	6.08061	6.12347	10	0.21	0.993	4.729	2	6	0.2535	0.163305984
1	1	60	0.24	4.84	0.98332	12.12249	12.78742	10	0.31	0.948	3.058	3	6	0.24205	0.078201756
1	1	80	0.31	4.98	1.63677	20.17833	20.6745	10	0.4	0.976	2.44	4	6	0.2492	0.04836872
1	1	100	0.39	5.28	2.45358	30.24813	29.25348	10	0.5	1.034	2.068	5	6	0.2641	0.034183931
1	1	120	0.47	5.31	3.43062	42.29316	40.66646	10	0.61	1.04	1.705	6	6	0.26565	0.024590265
1	1	140	0.54	5.37	4.57102	56.35215	53.56663	10	0.7	1.052	1.503	7	6	0.2687	0.018668321
1	1	160	0.62	5.43	5.87478	72.4251	68.13267	10	0.8	1.063	1.329	8	6	0.2714	0.014677232
1	1	180	0.7	5.58	7.33876	90.47328	82.77511	10	0.9	1.093	1.214	9	6	0.27905	0.012080915
1	2	200	0.77	5.68	8.96139	0	0	10	0.99	1.112	1.123	10	6	0.28385	0
1	2	220	1.55	8.15	12.18624	0	0	10	2	1.595	0.798	11	6	0.40725	0
1	2	240	2.32	9.48	17.0345	0	0	10	3	1.856	0.619	12	6	0.47385	0
1	2	260	3.09	10.12	23.50304	0	0	10	3.99	1.981	0.496	13	6	0.5059	0
1	2	280	3.87	10.72	31.60128	0	0	10	5	2.099	0.42	14	6	0.5359	0
1	2	300	4.65	11.31	41.31823	0	0	10	6	2.215	0.369	15	6	0.5656	0
1	2	320	5.42	12.07	52.65859	0	0	10	7	2.364	0.338	16	6	0.60355	0
1	2	340	6.2	12.65	65.62551	0	0	10	8	2.477	0.31	17	6	0.6325	0
1	2	360	6.97	13.1	80.21586	0	0	10	9	2.564	0.285	18	6	0.65475	0
1	3	380	7.75	13.52	96.59062	0	0	10	10.01	2.647	0.264	19	6	0.67595	0
1	3	400	15.5	24.09	128.92389	0	0	10	20.01	4.717	0.236	20	6	1.20455	0
1	3	420	23.24	29.36	177.45522	0	0	10	30	5.748	0.192	21	6	1.4678	0
1	3	440	30.99	30.53	242.30162	0	0	10	40.01	5.978	0.149	22	6	1.52655	0
1	3	460	38.73	30.78	323.24711	0	0	10	50	6.027	0.121	23	6	1.53915	0
1	3	480	46.48	32.09	420.51553	0	0	10	60.01	6.283	0.105	24	6	1.60455	0
1	3	500	54.22	32.37	533.86733	0	0	10	70	6.337	0.091	25	6	1.6183	0
1	3	520	61.96	31.35	663.58998	0	0	10	79.99	6.138	0.077	26	6	1.5674	0
1	3	540	69.71	29.81	809.39679	0	0	10	90	5.837	0.065	27	6	1.4905	0
1	4	560	77.46	29.92	973.0879	0	0	10	100	5.858	0.059	28	6	1.496	0
1	4	580	154.92	57.4	1296.17008	0	0	10	200	11.239	0.056	29	6	2.8699	0
1	4	600	232.38	74.66	1781.48253	0	0	10	300	14.619	0.049	30	6	3.73315	0
1	4	620	309.84	90.62	2429.47057	0	0	10	400	17.743	0.044	31	6	4.531	0

1	4	640	387.3	110.77	3238.95611	0	0	10	500	21.688	0.043	32	6	5.5383	0
1	4	660	464.75	130.19	4212.01103	0	0	10	599.99	25.491	0.042	33	6	6.50945	0
1	4	680	542.21	149.96	5345.4309	0	0	10	699.99	29.361	0.042	34	6	7.49775	0
1	4	700	619.67	170.83	6642.25757	0	0	10	799.99	33.448	0.042	35	6	8.5414	0
1	4	720	697.13	192.73	8100.98543	0	0	10	899.99	37.736	0.042	36	6	9.63635	0
1	4	740	774.59	214.22	9721.53987	0	0	10	1000	41.945	0.042	37	6	10.71115	0
1	5	750	774.59	210.43	10550.6156	0	0	10	1000	41.202	0.041	38	6	10.5214	0
1	5	760	774.59	209.14	11362.57357	0	0	10	1000	40.95	0.041	39	6	10.4571	0
1	5	770	774.59	208.15	12172.50679	0	0	10	1000	40.756	0.041	40	6	10.4076	0
1	5	780	774.59	207.4	12984.87081	0	0	10	1000	40.61	0.041	41	6	10.3702	0
1	5	790	774.59	206.6	13794.80246	0	0	10	1000	40.452	0.04	42	6	10.3299	0
1	5	800	774.59	205.88	14605.5462	0	0	10	1000	40.31	0.04	43	6	10.29375	0
1	6	820	774.59	205.15	16246.09531	0	0	10	1000	40.168	0.04	44	6	10.2573	0
1	6	840	697.13	180.51	17708.15248	0	0	10	899.99	35.344	0.039	45	6	9.0255	0
1	6	860	619.67	157.34	19006.68189	0	0	10	799.99	30.806	0.039	46	6	7.8668	0
1	6	880	542.21	134.8	20144.19761	0	0	10	699.99	26.394	0.038	47	6	6.73995	0
1	6	900	464.75	112.97	21119.36133	0	0	10	599.99	22.119	0.037	48	6	5.64825	0
1	6	920	387.3	91.75	21931.64681	0	0	10	500	17.965	0.036	49	6	4.58755	0
1	6	940	309.84	71.07	22581.37922	0	0	10	400	13.916	0.035	50	6	3.55355	0
1	6	960	232.38	51.48	23069.4492	0	0	10	300	10.079	0.034	51	6	2.5738	0
1	6	980	154.92	32.66	23395.24807	0	0	10	200	6.395	0.032	52	6	1.633	0
1	6	1000	77.46	16.18	23558.7821	0	0	10	100	3.169	0.032	53	6	0.8092	0
1	7	1020	69.71	15.66	23705.95394	0	0	10	90	3.065	0.034	54	6	0.7828	0
1	7	1040	61.97	14.54	23835.78968	0	0	10	80	2.846	0.036	55	6	0.7268	0
1	7	1060	54.22	13.22	23949.46507	0	0	10	70	2.589	0.037	56	6	0.66115	0
1	7	1080	46.48	11.76	24046.91963	0	0	10	60.01	2.302	0.038	57	6	0.5879	0
1	7	1100	38.73	10.2	24128.24211	0	0	10	50	1.997	0.04	58	6	0.51005	0
1	7	1120	30.99	9.09	24193.2181	0	0	10	40.01	1.781	0.045	59	6	0.4547	0
1	7	1140	23.24	7.35	24242.00546	0	0	10	30	1.439	0.048	60	6	0.36755	0
1	7	1160	15.5	5.67	24274.54687	0	0	10	20.01	1.11	0.055	61	6	0.28335	0
1	7	1180	7.75	3.63	24290.8965	0	0	10	10.01	0.71	0.071	62	6	0.18135	0
1	8	1200	6.97	4.2	24305.60544	0	0	10	9	0.822	0.091	63	6	0.2098	0
1	8	1220	6.2	4.39	24318.581	0	0	10	8	0.861	0.108	64	6	0.21975	0
1	8	1240	5.42	4.41	24329.94414	0	0	10	7	0.862	0.123	65	6	0.22025	0
1	8	1260	4.64	4.51	24339.68936	0	0	10	5.99	0.883	0.147	66	6	0.22555	0
1	8	1280	3.87	4.24	24347.80174	0	0	10	5	0.83	0.166	67	6	0.2119	0
1	8	1300	3.09	4.16	24354.29541	0	0	10	3.99	0.814	0.204	68	6	0.20785	0
1	8	1320	2.32	3.78	24359.16645	0	0	10	3	0.74	0.247	69	6	0.18905	0
1	8	1340	1.54	3	24362.41329	0	0	10	1.99	0.587	0.295	70	6	0.14995	0
1	8	1360	0.77	2.33	24364.0367	0	0	10	0.99	0.456	0.461	71	6	0.11655	0
1	9	1380	0.7	2.86	24365.5109	18.17405	32.51166	10	0.9	0.559	0.621	72	6	0.14285	0.030758141
1	9	1400	0.62	3.07	24366.81701	34.27605	57.0316	10	0.8	0.601	0.751	73	6	0.15355	0.017534109
1	9	1420	0.55	3.38	24367.9582	48.34472	73.02817	10	0.71	0.662	0.932	74	6	0.169	0.013693326
1	9	1440	0.47	3.66	24368.93837	60.42848	84.27949	10	0.61	0.717	1.175	75	6	0.1832	0.011865266
1	9	1460	0.39	3.72	24369.75676	70.51765	96.7319	10	0.5	0.729	1.458	76	6	0.18615	0.010337837
1	9	1480	0.31	3.53	24370.41178	78.59285	113.57332	10	0.4	0.692	1.73	77	6	0.1766	0.008804872
1	9	1500	0.24	3.28	24370.9058	84.68315	131.90501	10	0.31	0.642	2.071	78	6	0.16395	0.007581201
1	9	1520	0.16	3.08	24371.23645	88.75948	147.19624	10	0.21	0.603	2.871	79	6	0.1541	0.006793641
1	9	1540	0.08	2.31	24371.40531	90.84122	201.42133	10	0.1	0.451	4.51	80	6	0.11525	0.004964707

2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 7.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.51	0.16415	2.02364	2.94133	10	0.1	0.688	6.88	1	7	0.1757	0.33998142
1	1	40	0.16	5.2	0.49323	6.08061	5.97309	10	0.21	1.018	4.848	2	7	0.2599	0.167417414
1	1	60	0.24	4.93	0.9841	12.13217	12.57218	10	0.31	0.965	3.113	3	7	0.24635	0.079540593
1	1	80	0.31	5.1	1.63756	20.18801	20.2082	10	0.4	0.999	2.498	4	7	0.2551	0.049484818
1	1	100	0.39	5.24	2.4528	30.23845	29.47214	10	0.5	1.026	2.052	5	7	0.26205	0.033930311
1	1	120	0.47	5.63	3.4314	42.30284	38.35249	10	0.61	1.103	1.808	6	7	0.2817	0.0260739
1	1	140	0.54	5.62	4.5718	56.36183	51.23798	10	0.7	1.1	1.571	7	7	0.2809	0.019516755
1	1	160	0.62	5.68	5.87321	72.40573	65.11301	10	0.8	1.112	1.39	8	7	0.2839	0.015357901
1	1	180	0.7	5.65	7.33955	90.48296	81.81092	10	0.9	1.106	1.229	9	7	0.28245	0.012223296
1	2	200	0.77	5.65	8.96139	0	0	10	0.99	1.106	1.117	10	7	0.2824	0
1	2	220	1.55	8.22	12.18624	0	0	10	2	1.609	0.805	11	7	0.4108	0
1	2	240	2.32	9.52	17.03686	0	0	10	3	1.864	0.621	12	7	0.47605	0
1	2	260	3.09	10.03	23.5054	0	0	10	3.99	1.964	0.492	13	7	0.5016	0
1	2	280	3.87	10.64	31.60207	0	0	10	5	2.083	0.417	14	7	0.5318	0
1	2	300	4.65	11.21	41.31901	0	0	10	6	2.195	0.366	15	7	0.56055	0
1	2	320	5.42	12.11	52.65623	0	0	10	7	2.371	0.339	16	7	0.60555	0
1	2	340	6.2	12.47	65.62316	0	0	10	8	2.441	0.305	17	7	0.62325	0
1	2	360	6.97	12.97	80.21664	0	0	10	9	2.54	0.282	18	7	0.6487	0
1	3	380	7.75	13.24	96.57884	0	0	10	10.01	2.591	0.259	19	7	0.66175	0
1	3	400	15.5	23.71	128.9129	0	0	10	20.01	4.643	0.232	20	7	1.1857	0
1	3	420	23.24	28.96	177.49606	0	0	10	30	5.671	0.189	21	7	1.44815	0
1	3	440	30.99	31.45	242.28984	0	0	10	40.01	6.158	0.154	22	7	1.57255	0
1	3	460	38.73	30.99	323.28873	0	0	10	50	6.068	0.121	23	7	1.5496	0
1	3	480	46.48	31.39	420.43934	0	0	10	60.01	6.145	0.102	24	7	1.5693	0
1	3	500	54.22	28.86	533.93409	0	0	10	70	5.65	0.081	25	7	1.44275	0
1	3	520	61.96	26.68	663.65595	0	0	10	79.99	5.224	0.065	26	7	1.33405	0
1	3	540	69.71	27.63	809.42585	0	0	10	90	5.41	0.06	27	7	1.38155	0
1	4	560	77.46	29.09	973.04078	0	0	10	100	5.696	0.057	28	7	1.45445	0
1	4	580	154.92	56.28	1296.48738	0	0	10	200	11.02	0.055	29	7	2.8141	0
1	4	600	232.38	74.33	1781.55635	0	0	10	300	14.554	0.049	30	7	3.7165	0
1	4	620	309.84	87.63	2429.90882	0	0	10	400	17.157	0.043	31	7	4.3813	0
1	4	640	387.3	106.95	3239.1933	0	0	10	500	20.941	0.042	32	7	5.34765	0
1	4	660	464.75	125.91	4210.78973	0	0	10	599.99	24.652	0.041	33	7	6.2953	0
1	4	680	542.21	147.72	5345.6673	0	0	10	699.99	28.924	0.041	34	7	7.386	0
1	4	700	619.67	167.05	6642.77829	0	0	10	799.99	32.708	0.041	35	7	8.3525	0
1	4	720	697.13	188.91	8100.04688	0	0	10	899.99	36.989	0.041	36	7	9.4457	0
1	4	740	774.59	209.4	9722.18311	0	0	10	1000	41.001	0.041	37	7	10.47	0
1	5	750	774.59	206.01	10549.63542	0	0	10	1000	40.338	0.04	38	7	10.3007	0
1	5	760	774.59	204.71	11361.59575	0	0	10	1000	40.083	0.04	39	7	10.2357	0
1	5	770	774.59	203.83	12173.55372	0	0	10	1000	39.909	0.04	40	7	10.19135	0
1	5	780	774.59	203.17	12985.108	0	0	10	1000	39.781	0.04	41	7	10.1585	0
1	5	790	774.59	202.75	13795.44491	0	0	10	1000	39.699	0.04	42	7	10.13755	0
1	5	800	774.59	202.34	14605.37813	0	0	10	1000	39.619	0.04	43	7	10.11715	0
1	6	820	774.59	201.97	16246.33172	0	0	10	1000	39.546	0.04	44	7	10.09855	0
1	6	840	697.13	177.8	17708.42972	0	0	10	899.99	34.814	0.039	45	7	8.89015	0
1	6	860	619.67	154.94	19007.60866	0	0	10	799.99	30.338	0.038	46	7	7.7472	0
1	6	880	542.21	132.76	20143.42007	0	0	10	699.99	25.994	0.037	47	7	6.63785	0
1	6	900	464.75	111.37	21118.62541	0	0	10	599.99	21.806	0.036	48	7	5.5684	0

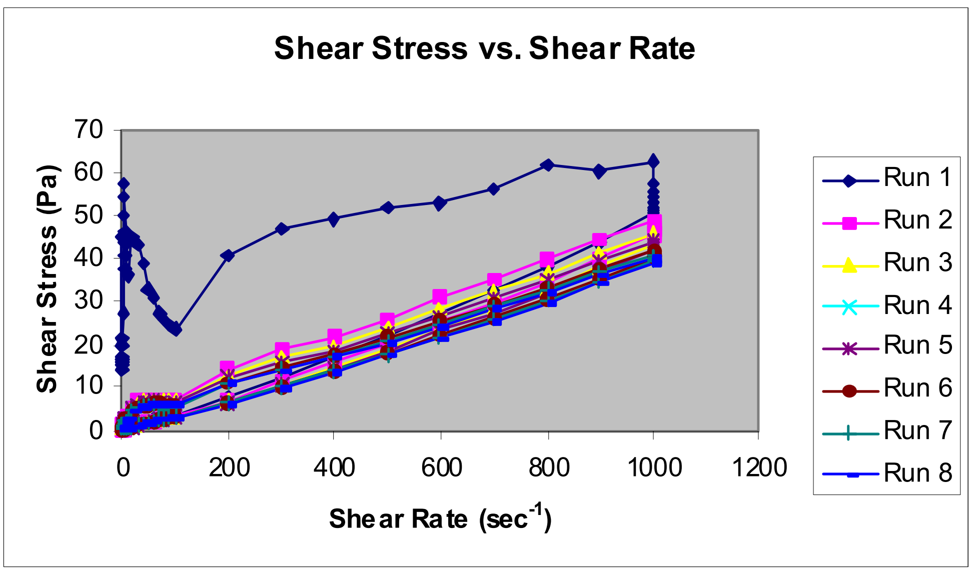
1	6	920	387.3	90.48	21930.90932	0	0	10	500	17.717	0.035	49	7	4.5242	0
1	6	940	309.84	70.23	22581.12868	0	0	10	400	13.75	0.034	50	7	3.51135	0
1	6	960	232.38	50.97	23069.31883	0	0	10	300	9.979	0.033	51	7	2.54835	0
1	6	980	154.92	32.4	23394.91585	0	0	10	200	6.344	0.032	52	7	1.6201	0
1	6	1000	77.46	16.04	23558.44988	0	0	10	100	3.14	0.031	53	7	0.8018	0
1	7	1020	69.71	15.6	23705.59108	0	0	10	90	3.054	0.034	54	7	0.77985	0
1	7	1040	61.97	14.42	23835.4551	0	0	10	80	2.824	0.035	55	7	0.72105	0
1	7	1060	54.22	13.15	23949.13049	0	0	10	70	2.576	0.037	56	7	0.6577	0
1	7	1080	46.48	11.65	24046.6416	0	0	10	60.01	2.281	0.038	57	7	0.58245	0
1	7	1100	38.73	10.08	24127.86276	0	0	10	50	1.974	0.039	58	7	0.5041	0
1	7	1120	30.99	8.9	24192.87959	0	0	10	40.01	1.743	0.044	59	7	0.4451	0
1	7	1140	23.24	7.34	24241.65518	0	0	10	30	1.437	0.048	60	7	0.36685	0
1	7	1160	15.5	5.7	24274.24527	0	0	10	20.01	1.117	0.056	61	7	0.2852	0
1	7	1180	7.75	3.68	24290.58234	0	0	10	10.01	0.72	0.072	62	7	0.1838	0
1	8	1200	6.97	4.16	24305.28499	0	0	10	9	0.815	0.091	63	7	0.208	0
1	8	1220	6.2	4.34	24318.27784	0	0	10	8	0.849	0.106	64	7	0.2169	0
1	8	1240	5.42	4.18	24329.64098	0	0	10	7	0.819	0.117	65	7	0.20915	0
1	8	1260	4.64	4.4	24339.37677	0	0	10	5.99	0.861	0.144	66	7	0.21995	0
1	8	1280	3.87	4.26	24347.49386	0	0	10	5	0.833	0.167	67	7	0.2128	0
1	8	1300	3.09	4.17	24353.98361	0	0	10	3.99	0.816	0.205	68	7	0.20835	0
1	8	1320	2.32	3.78	24358.85386	0	0	10	3	0.74	0.247	69	7	0.18905	0
1	8	1340	1.54	3.01	24362.10148	0	0	10	1.99	0.589	0.296	70	7	0.1504	0
1	8	1360	0.77	2.39	24363.72569	0	0	10	0.99	0.468	0.473	71	7	0.1196	0
1	9	1380	0.7	3.13	24365.20066	18.18373	29.71193	10	0.9	0.612	0.68	72	7	0.15625	0.033656461
1	9	1400	0.62	3.39	24366.506	34.27605	51.62048	10	0.8	0.664	0.83	73	7	0.1696	0.019372127
1	9	1420	0.55	3.34	24367.64718	48.34472	74.03468	10	0.71	0.653	0.92	74	7	0.1668	0.013507163
1	9	1440	0.47	3.46	24368.62736	60.42848	89.25907	10	0.61	0.677	1.11	75	7	0.173	0.011203327
1	9	1460	0.39	3.46	24369.44653	70.52733	104.17611	10	0.5	0.677	1.354	76	7	0.17285	0.009599116
1	9	1480	0.31	3.35	24370.10076	78.59285	119.62364	10	0.4	0.657	1.643	77	7	0.16765	0.008359539
1	9	1500	0.24	3.14	24370.59399	84.67346	137.6802	10	0.31	0.615	1.984	78	7	0.1571	0.007263197
1	9	1520	0.16	3.04	24370.92543	88.75948	149.17535	10	0.21	0.595	2.833	79	7	0.15195	0.006703509
1	9	1540	0.08	2.47	24371.09429	90.84121	188.07665	10	0.1	0.483	4.83	80	7	0.12335	0.00531697

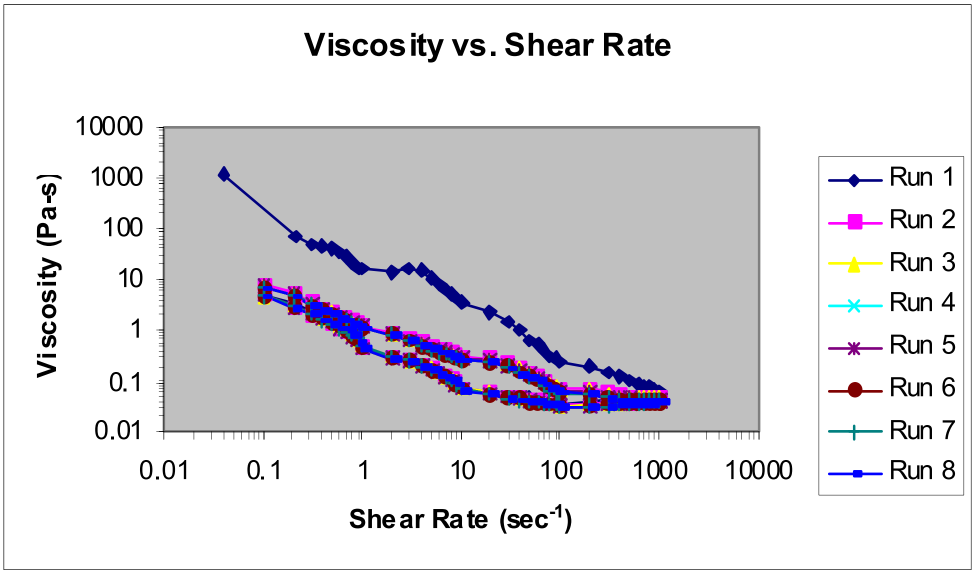
2004.02.15 META-20 wt%-U [sonicated] CC-45 0.1-1000 s-1 run 8.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	3.37	0.16415	2.02364	3.06148	10	0.1	0.661	6.61	1	8	0.1687	0.326639126
1	1	40	0.16	5.13	0.49323	6.08061	6.05035	10	0.21	1.005	4.786	2	8	0.2566	0.16527947
1	1	60	0.24	4.87	0.9841	12.13217	12.71715	10	0.31	0.954	3.077	3	8	0.2437	0.078633913
1	1	80	0.31	5.12	1.63834	20.19769	20.15736	10	0.4	1.002	2.505	4	8	0.2558	0.049609634
1	1	100	0.39	5.22	2.45201	30.22876	29.57801	10	0.5	1.022	2.044	5	8	0.26095	0.033808863
1	1	120	0.47	5.35	3.4314	42.30284	40.40382	10	0.61	1.047	1.716	6	8	0.26725	0.024750111
1	1	140	0.54	5.49	4.57259	56.37151	52.48739	10	0.7	1.074	1.534	7	8	0.27435	0.019052177
1	1	160	0.62	5.47	5.87399	72.41542	67.55163	10	0.8	1.072	1.34	8	8	0.2737	0.014803477
1	1	180	0.7	5.53	7.33876	90.47328	83.53942	10	0.9	1.083	1.203	9	8	0.2765	0.011970385
1	2	200	0.77	5.61	8.96139	0	0	10	0.99	1.099	1.11	10	8	0.2807	0
1	2	220	1.55	8.54	12.18702	0	0	10	2	1.672	0.836	11	8	0.427	0
1	2	240	2.32	9.43	17.0345	0	0	10	3	1.846	0.615	12	8	0.4714	0
1	2	260	3.09	10.23	23.50304	0	0	10	3.99	2.004	0.502	13	8	0.51165	0
1	2	280	3.87	11.02	31.6005	0	0	10	5	2.157	0.431	14	8	0.5509	0
1	2	300	4.65	11.18	41.31273	0	0	10	6	2.189	0.365	15	8	0.55895	0

1	2	320	5.42	11.86	52.6633	0	0	10	7	2.322	0.332	16	8	0.5929	0
1	2	340	6.2	12.33	65.6263	0	0	10	8	2.414	0.302	17	8	0.61655	0
1	2	360	6.97	12.9	80.22057	0	0	10	9	2.526	0.281	18	8	0.64505	0
1	3	380	7.75	13.29	96.57413	0	0	10	10.01	2.603	0.26	19	8	0.6647	0
1	3	400	15.5	23.61	128.94039	0	0	10	20.01	4.623	0.231	20	8	1.1805	0
1	3	420	23.24	28.74	177.48349	0	0	10	30	5.627	0.188	21	8	1.4368	0
1	3	440	30.99	29.21	242.29376	0	0	10	40.01	5.719	0.143	22	8	1.4605	0
1	3	460	38.73	29.82	323.23533	0	0	10	50	5.838	0.117	23	8	1.49085	0
1	3	480	46.48	31.52	420.50375	0	0	10	60.01	6.172	0.103	24	8	1.576	0
1	3	500	54.22	31.51	533.99771	0	0	10	70	6.17	0.088	25	8	1.5756	0
1	3	520	61.96	30.78	663.65516	0	0	10	79.99	6.027	0.075	26	8	1.5391	0
1	3	540	69.71	30.79	809.50203	0	0	10	90	6.028	0.067	27	8	1.53945	0
1	4	560	77.46	30.28	973.15309	0	0	10	100	5.93	0.059	28	8	1.5142	0
1	4	580	154.92	56.34	1296.60048	0	0	10	200	11.031	0.055	29	8	2.8169	0
1	4	600	232.38	71.62	1782.19724	0	0	10	300	14.023	0.047	30	8	3.5809	0
1	4	620	309.84	87.39	2429.25144	0	0	10	400	17.111	0.043	31	8	4.3694	0
1	4	640	387.3	104.82	3239.95592	0	0	10	500	20.525	0.041	32	8	5.2412	0
1	4	660	464.75	124.2	4211.34972	0	0	10	599.99	24.318	0.041	33	8	6.21	0
1	4	680	542.21	144.06	5346.14561	0	0	10	699.99	28.208	0.04	34	8	7.2032	0
1	4	700	619.67	163.98	6641.67323	0	0	10	799.99	32.107	0.04	35	8	8.19885	0
1	4	720	697.13	184.79	8100.44508	0	0	10	899.99	36.181	0.04	36	8	9.2393	0
1	4	740	774.59	205.49	9722.62136	0	0	10	1000	40.236	0.04	37	8	10.27465	0
1	5	750	774.59	202.41	10550.88499	0	0	10	1000	39.632	0.04	38	8	10.1206	0
1	5	760	774.59	201.19	11363.65506	0	0	10	1000	39.394	0.039	39	8	10.0597	0
1	5	770	774.59	200.14	12173.58828	0	0	10	1000	39.188	0.039	40	8	10.00715	0
1	5	780	774.59	199.34	12985.14177	0	0	10	1000	39.031	0.039	41	8	9.9671	0
1	5	790	774.59	198.66	13795.47947	0	0	10	1000	38.897	0.039	42	8	9.9328	0
1	5	800	774.59	198.23	14608.25033	0	0	10	1000	38.813	0.039	43	8	9.91145	0
1	6	820	774.59	197.87	16249.20549	0	0	10	1000	38.742	0.039	44	8	9.89335	0
1	6	840	697.13	174.38	17710.20551	0	0	10	899.99	34.144	0.038	45	8	8.719	0
1	6	860	619.67	152.1	19010.63951	0	0	10	799.99	29.781	0.037	46	8	7.60505	0
1	6	880	542.21	130.4	20147.30465	0	0	10	699.99	25.533	0.036	47	8	6.5201	0
1	6	900	464.75	109.43	21121.29183	0	0	10	599.99	21.427	0.036	48	8	5.4716	0
1	6	920	387.3	89	21934.38942	0	0	10	500	17.426	0.035	49	8	4.44995	0
1	6	940	309.84	69.05	22584.08021	0	0	10	400	13.52	0.034	50	8	3.4525	0
1	6	960	232.38	50.13	23071.9075	0	0	10	300	9.816	0.033	51	8	2.50655	0
1	6	980	154.92	31.84	23397.8281	0	0	10	200	6.234	0.031	52	8	1.592	0
1	6	1000	77.46	15.71	23561.24511	0	0	10	100	3.076	0.031	53	8	0.78555	0
1	7	1020	69.71	15.43	23708.42323	0	0	10	90	3.021	0.034	54	8	0.77155	0
1	7	1040	61.97	14.3	23838.35243	0	0	10	80	2.8	0.035	55	8	0.7149	0
1	7	1060	54.22	13.06	23952.0561	0	0	10	70	2.557	0.037	56	8	0.65285	0
1	7	1080	46.48	11.65	24049.44154	0	0	10	60.01	2.281	0.038	57	8	0.5826	0
1	7	1100	38.73	10.09	24130.76481	0	0	10	50	1.975	0.04	58	8	0.50435	0
1	7	1120	30.99	8.91	24195.76122	0	0	10	40.01	1.745	0.044	59	8	0.4456	0
1	7	1140	23.24	7.21	24244.52345	0	0	10	30	1.411	0.047	60	8	0.36035	0
1	7	1160	15.5	5.57	24277.11433	0	0	10	20.01	1.09	0.054	61	8	0.2783	0
1	7	1180	7.75	3.54	24293.44276	0	0	10	10.01	0.693	0.069	62	8	0.1769	0
1	8	1200	6.97	4.06	24308.1407	0	0	10	9	0.795	0.088	63	8	0.20295	0
1	8	1220	6.2	4.26	24321.12883	0	0	10	8	0.834	0.104	64	8	0.2131	0
1	8	1240	5.42	4.08	24332.49983	0	0	10	7	0.798	0.114	65	8	0.20385	0

1	8	1260	4.64	4.23	24342.22855	0	0	10	5.99	0.829	0.138	66	8	0.2116	0
1	8	1280	3.87	4.07	24350.34486	0	0	10	5	0.798	0.16	67	8	0.2037	0
1	8	1300	3.09	4.02	24356.83853	0	0	10	3.99	0.788	0.197	68	8	0.20115	0
1	8	1320	2.32	3.7	24361.708	0	0	10	3	0.725	0.242	69	8	0.1852	0
1	8	1340	1.54	2.95	24364.95405	0	0	10	1.99	0.577	0.29	70	8	0.1474	0
1	8	1360	0.77	2.25	24366.57904	0	0	10	0.99	0.44	0.444	71	8	0.11235	0
1	9	1380	0.7	2.78	24368.05323	18.17405	33.46964	10	0.9	0.543	0.603	72	8	0.13875	0.029877765
1	9	1400	0.62	3.31	24369.35699	34.247	52.85023	10	0.8	0.648	0.81	73	8	0.16535	0.018921365
1	9	1420	0.55	3.72	24370.50053	48.34472	66.40749	10	0.71	0.728	1.025	74	8	0.186	0.015058521
1	9	1440	0.47	3.3	24371.48071	60.42848	93.54239	10	0.61	0.646	1.059	75	8	0.165	0.010690324
1	9	1460	0.39	3.3	24372.29752	70.49828	108.96162	10	0.5	0.647	1.294	76	8	0.1652	0.009177529
1	9	1480	0.31	3.33	24372.95411	78.59285	120.72616	10	0.4	0.651	1.628	77	8	0.16635	0.008283196
1	9	1500	0.24	3.16	24373.44734	84.67346	136.79051	10	0.31	0.619	1.997	78	8	0.158	0.007310437
1	9	1520	0.16	3.03	24373.77721	88.74011	149.6458	10	0.21	0.593	2.824	79	8	0.15145	0.006682435
1	9	1540	0.08	2.48	24373.94686	90.83153	187.28112	10	0.1	0.485	4.85	80	8	0.12385	0.005339556





E-2.2 WM-187 Tank Farm Waste Samples

E-2.2.1 Supernate

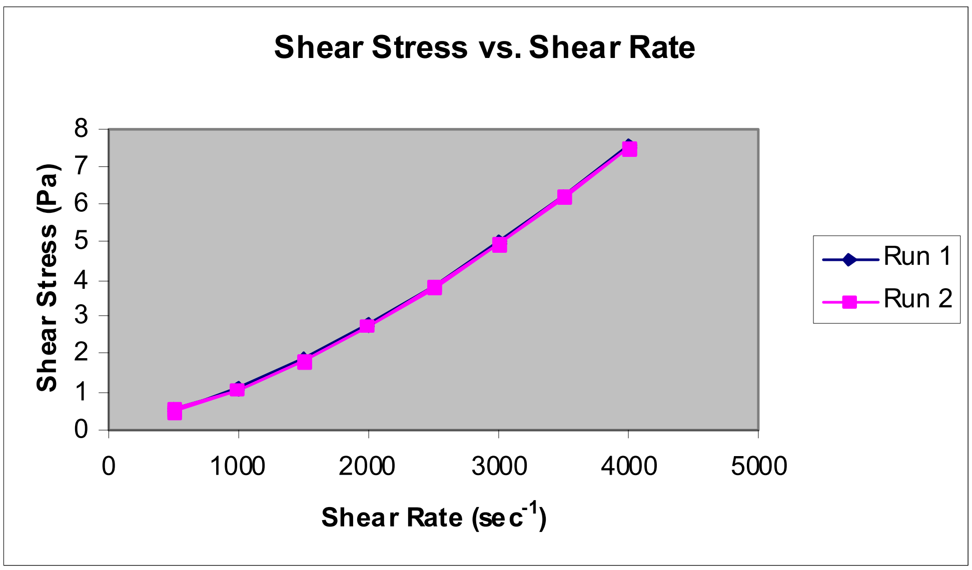
04.01.04 WM-187 supernate DG run 01.txt

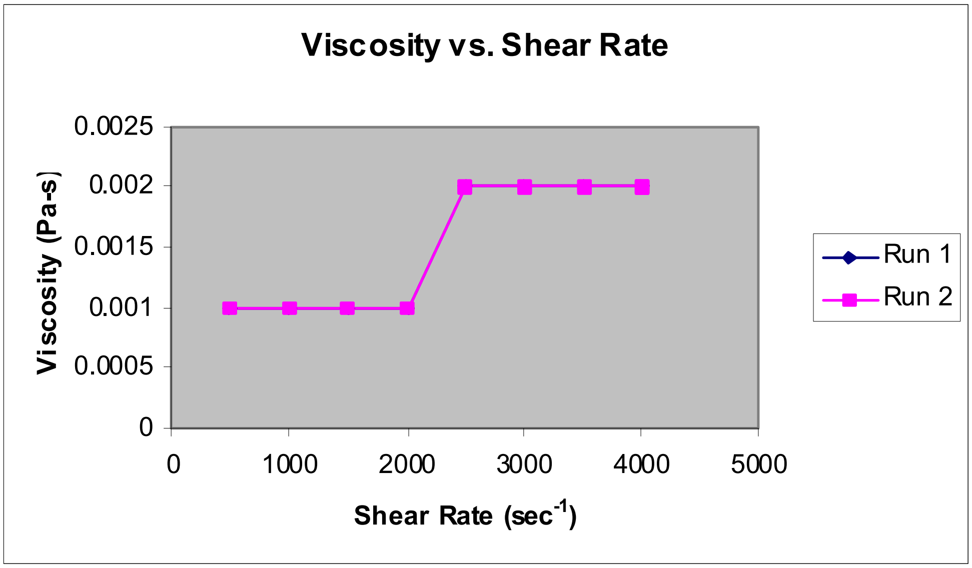
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.26	7.4	207.61372	0	0	30	500.2	0.496	0.001	1	1	0.3701	0
1	1	40	198.5	16.55	621.70391	0	0	30	1000	1.109	0.001	2	1	0.8276	0
1	1	60	297.7	28.46	1243.9223	0	0	30	1500	1.907	0.001	3	1	1.4229	0
1	1	80	396.9	41.91	2073.6475	0	0	30	2000	2.808	0.001	4	1	2.0954	0
1	1	100	496.1	57.19	3111.3972	0	0	30	2500	3.832	0.002	5	1	2.8595	0
1	1	120	595.4	74.4	4355.7169	0	0	30	3000	4.985	0.002	6	1	3.7199	0
1	1	140	694.6	92.69	5809.8274	0	0	30	3500	6.21	0.002	7	1	4.6344	0
1	1	160	793.8	112.4	7471.0835	0	0	30	4000	7.53	0.002	8	1	5.6197	0
1	2	180	793.8	112.1	9151.7586	0	0	30	4000	7.513	0.002	9	1	5.6068	0
1	2	200	793.8	111.7	10813.896	0	0	30	4000	7.482	0.002	10	1	5.5838	0
1	2	220	793.8	111.5	12476.445	0	0	30	4000	7.469	0.002	11	1	5.574	0
1	3	240	793.8	111.5	14156.871	0	0	30	4000	7.469	0.002	12	1	5.5736	0
1	3	260	694.6	92.22	15612.615	0	0	30	3500	6.179	0.002	13	1	4.6109	0
1	3	280	595.4	73.91	16861.18	0	0	30	3000	4.952	0.002	14	1	3.6955	0
1	3	300	496.1	56.74	17902.069	0	0	30	2500	3.801	0.002	15	1	2.8368	0
1	3	320	396.9	41.18	18735.717	0	0	30	2000	2.759	0.001	16	1	2.0592	0
1	3	340	297.7	27.29	19361.131	0	0	30	1500	1.828	0.001	17	1	1.3644	0
1	3	360	198.5	15.61	19778.479	0	0	30	1000	1.046	0.001	18	1	0.7805	0
1	3	380	99.23	7.83	19988.03	0	0	30	500	0.524	0.001	19	1	0.3913	0

04.01.04 WM-187 supernate
DG run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	99.28	7.12	207.68205	0	0	30	500.3	0.477	0.001	1	1	0.3558	0
1	1	40	198.5	15.58	621.82329	0	0	30	1000	1.044	0.001	2	1	0.7789	0
1	1	60	297.7	27.16	1243.3662	0	0	30	1500	1.82	0.001	3	1	1.358	0
1	1	80	396.9	41.05	2072.8315	0	0	30	2000	2.75	0.001	4	1	2.0523	0

1	1	100	496.1	56.61	3111.3069	0	0	30	2500	3.793	0.002	5	1	2.8307	0
1	1	120	595.4	73.77	4356.5636	0	0	30	3000	4.943	0.002	6	1	3.6887	0
1	1	140	694.6	92.21	5808.9093	0	0	30	3500	6.178	0.002	7	1	4.6106	0
1	1	160	793.8	111.7	7469.3337	0	0	30	4000	7.481	0.002	8	1	5.583	0
1	2	180	793.8	111.7	9148.7576	0	0	30	4000	7.481	0.002	9	1	5.5831	0
1	2	200	793.8	111.4	10810.893	0	0	30	4000	7.464	0.002	10	1	5.5699	0
1	2	220	793.8	111.3	12474.691	0	0	30	4000	7.457	0.002	11	1	5.5648	0
1	3	240	793.8	111.3	14155.117	0	0	30	4000	7.456	0.002	12	1	5.564	0
1	3	260	694.6	91.88	15610.494	0	0	30	3500	6.156	0.002	13	1	4.594	0
1	3	280	595.4	73.48	16860.051	0	0	30	3000	4.923	0.002	14	1	3.6742	0
1	3	300	496.1	56.32	17900.361	0	0	30	2500	3.774	0.002	15	1	2.8161	0
1	3	320	396.9	40.85	18734.076	0	0	30	2000	2.737	0.001	16	1	2.0423	0
1	3	340	297.7	27.09	19358.807	0	0	30	1500	1.815	0.001	17	1	1.3545	0
1	3	360	198.5	15.61	19776.256	0	0	30	1000	1.046	0.001	18	1	0.7807	0
1	3	380	99.23	7.73	19985.862	0	0	30	500	0.518	0.001	19	1	0.3863	0





E-2.2.2 As Received

04.01.04 WM-187 as received CC-48 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	0	0.04006	1.9668	0	30.3	0.1	0	0	1	1	0	0
1	1	40	0.04	0	0.12331	6.0547	0	30.3	0.21	0	0	2	1	0	0
1	1	60	0.06	0	0.24897	12.225	0	30.3	0.31	0	0	3	1	0	0
1	1	80	0.08	0	0.41626	20.439	0	30.3	0.41	0	0	4	1	0	0
1	1	100	0.1	0	0.62518	30.698	0	30.3	0.51	0	0	5	1	0	0
1	1	120	0.12	0	0.87572	43	0	30.3	0.62	0	0	6	1	0	0
1	1	140	0.14	0	1.17024	57.462	0	30.3	0.72	0	0	7	1	0	0
1	1	160	0.16	0	1.50404	73.852	0	30.3	0.82	0	0	8	1	0	0
1	1	180	0.18	0	1.88103	92.363	0	30.3	0.93	0	0	9	1	0	0
1	2	200	0.19	0	2.28158	112.03	0	30.3	0.98	0	0	10	1	0	0
1	2	220	0.39	0	3.08426	151.44	0	30.3	2.01	0	0	11	1	0	0
1	2	240	0.58	0	4.29691	210.99	0	30.3	2.98	0	0	12	1	0	0
1	2	260	0.78	0	5.91719	0	0	30.3	4.01	0	0	13	1	0	0
1	2	280	0.97	0	7.94587	0	0	30.3	4.99	0	0	14	1	0	0
1	2	300	1.17	0	10.38296	0	0	30.3	6.02	0	0	15	1	0	0
1	2	320	1.36	0	13.23082	0	0	30.3	6.99	0	0	16	1	0	0
1	2	340	1.55	0	16.48394	0	0	30.3	7.97	0	0	17	1	0	0
1	2	360	1.75	0	20.14703	0	0	30.3	9	0	0	18	1	0	0
1	3	380	1.94	0	24.23739	0	0	30.3	9.98	0	0	19	1	0	0
1	3	400	3.89	1.3	32.34427	0	0	30.3	20	0.247	0.012	20	1	0.0649	0
1	3	420	5.83	1.43	44.52893	0	0	30.3	29.98	0.272	0.009	21	1	0.07155	0
1	3	440	7.77	1.4	60.8016	0	0	30.3	39.95	0.266	0.007	22	1	0.0701	0
1	3	460	9.72	1.56	81.13163	0	0	30.3	49.98	0.297	0.006	23	1	0.0781	0
1	3	480	11.66	1.67	105.51746	0	0	30.3	59.96	0.317	0.005	24	1	0.0835	0
1	3	500	13.61	1.7	133.99285	0	0	30.3	69.98	0.322	0.005	25	1	0.08485	0
1	3	520	15.55	1.83	166.56724	0	0	30.3	79.96	0.348	0.004	26	1	0.0917	0
1	3	540	17.5	1.95	203.16444	0	0	30.3	89.99	0.37	0.004	27	1	0.0974	0

1	4	560	19.45	2.1	244.26904	0	0	30.3	100.01	0.399	0.004	28	1	0.1049	0
1	4	580	38.9	3.05	325.46272	0	0	30.3	200.02	0.579	0.003	29	1	0.15235	0
1	4	600	58.35	4.62	447.37693	0	0	30.3	300.04	0.877	0.003	30	1	0.2308	0
1	4	620	77.79	5.6	610.02268	0	0	30.3	400	1.064	0.003	31	1	0.28005	0
1	4	640	97.24	6.71	813.38975	0	0	30.3	500.01	1.275	0.003	32	1	0.3356	0
1	4	660	116.69	7.77	1057.54805	0	0	30.3	600.02	1.476	0.002	33	1	0.38855	0
1	4	680	136.14	8.84	1342.30672	0	0	30.3	700.03	1.679	0.002	34	1	0.44195	0
1	4	700	155.58	9.91	1667.93908	0	0	30.3	799.99	1.884	0.002	35	1	0.4957	0
1	4	720	175.03	11.09	2034.03673	0	0	30.4	900	2.107	0.002	36	1	0.5545	0
1	4	740	194.48	12.31	2441.13216	0	0	30.4	1000	2.338	0.002	37	1	0.61535	0
1	5	750	194.48	12.23	2648.57938	0	0	30.4	1000	2.324	0.002	38	1	0.6117	0
1	5	760	194.48	12.24	2852.74677	0	0	30.4	1000	2.326	0.002	39	1	0.6121	0
1	5	770	194.48	12.23	3056.3047	0	0	30.4	1000	2.324	0.002	40	1	0.6115	0
1	5	780	194.48	12.21	3259.75895	0	0	30.4	1000	2.32	0.002	41	1	0.61045	0
1	5	790	194.48	12.21	3463.31687	0	0	30.4	1000	2.32	0.002	42	1	0.6105	0
1	5	800	194.48	12.2	3667.07743	0	0	30.4	1000	2.318	0.002	43	1	0.60995	0
1	6	820	194.48	12.21	4078.67241	0	0	30.4	1000	2.32	0.002	44	1	0.6104	0
1	6	840	175.03	10.91	4445.65598	0	0	30.4	900	2.073	0.002	45	1	0.5455	0
1	6	860	155.58	9.71	4771.65198	0	0	30.4	799.99	1.844	0.002	46	1	0.48535	0
1	6	880	136.14	8.69	5057.35549	0	0	30.4	700.03	1.651	0.002	47	1	0.43445	0
1	6	900	116.69	7.59	5301.92141	0	0	30.4	600.02	1.443	0.002	48	1	0.3797	0
1	6	920	97.24	6.59	5505.88696	0	0	30.4	500.01	1.252	0.003	49	1	0.32955	0
1	6	940	77.79	5.64	5669.11154	0	0	30.4	400	1.071	0.003	50	1	0.2818	0
1	6	960	58.35	4.56	5791.63523	0	0	30.4	300.04	0.866	0.003	51	1	0.22795	0
1	6	980	38.9	3.14	5873.41717	0	0	30.4	200.02	0.597	0.003	52	1	0.15705	0
1	6	1000	19.45	2.23	5914.4071	0	0	30.4	100.01	0.424	0.004	53	1	0.11165	0
1	7	1020	17.5	2.1	5951.30432	0	0	30.4	89.99	0.399	0.004	54	1	0.105	0
1	7	1040	15.56	1.99	5983.91876	0	0	30.4	80.01	0.379	0.005	55	1	0.0997	0
1	7	1060	13.61	1.94	6012.45856	0	0	30.4	69.98	0.368	0.005	56	1	0.09675	0
1	7	1080	11.67	1.9	6036.91743	0	0	30.4	60.01	0.36	0.006	57	1	0.09475	0
1	7	1100	9.72	1.78	6057.31343	0	0	30.4	49.98	0.337	0.007	58	1	0.08875	0
1	7	1120	7.78	1.59	6073.61673	0	0	30.4	40	0.301	0.008	59	1	0.07925	0
1	7	1140	5.83	1.64	6085.85716	0	0	30.4	29.98	0.312	0.01	60	1	0.08215	0
1	7	1160	3.89	1.49	6094.02373	0	0	30.4	20	0.283	0.014	61	1	0.07445	0
1	7	1180	1.94	1.02	6098.1133	0	0	30.4	9.98	0.195	0.02	62	1	0.05125	0
1	8	1200	1.75	1.08	6101.79917	0	0	30.4	9	0.205	0.023	63	1	0.054	0
1	8	1220	1.56	1.04	6105.05779	0	0	30.4	8.02	0.197	0.025	64	1	0.05195	0
1	8	1240	1.36	1.11	6107.90957	0	0	30.4	6.99	0.211	0.03	65	1	0.0556	0
1	8	1260	1.17	1.02	6110.35216	0	0	30.4	6.02	0.194	0.032	66	1	0.0511	0
1	8	1280	0.97	1	6112.38555	0	0	30.3	4.99	0.19	0.038	67	1	0.05005	0
1	8	1300	0.78	0	6114.01211	0	0	30.3	4.01	0	0	68	1	0	0
1	8	1320	0.58	0	6115.22948	59.776	0	30.3	2.98	0	0	69	1	0	0
1	8	1340	0.39	0	6116.03844	99.498	0	30.3	2.01	0	0	70	1	0	0
1	8	1360	0.19	0	6116.43899	119.17	0	30.3	0.98	0	0	71	1	0	0
1	9	1380	0.18	0	6116.81756	137.75	0	30.3	0.93	0	0	72	1	0	0
1	9	1400	0.16	0	6117.15292	154.22	0	30.3	0.82	0	0	73	1	0	0
1	9	1420	0.14	0	6117.44666	168.64	0	30.3	0.72	0	0	74	1	0	0
1	9	1440	0.12	0	6117.69799	180.99	0	30.3	0.62	0	0	75	1	0	0
1	9	1460	0.1	0	6117.90769	191.28	0	30.3	0.51	0	0	76	1	0	0
1	9	1480	0.08	0	6118.07576	199.54	0	30.3	0.41	0	0	77	1	0	0

1	9	1500	0.06	0	6118.20143	205.71	0	30.3	0.31	0	0	78	1	0	0
1	9	1520	0.04	0	6118.28546	209.83	0	30.3	0.21	0	0	79	1	0	0
1	9	1540	0.02	0	6118.32788	211.91	0	30.3	0.1	0	0	80	1	0	0

04.01.04 WM-187 as received CC-48 run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	0	0.04006	1.9668	0	30.3	0.1	0	0	1	1	0	0
1	1	40	0.04	0	0.12331	6.0547	0	30.3	0.21	0	0	2	1	0	0
1	1	60	0.06	0	0.24819	12.187	0	30.3	0.31	0	0	3	1	0	0
1	1	80	0.08	0	0.41626	20.439	0	30.3	0.41	0	0	4	1	0	0
1	1	100	0.1	0	0.62518	30.698	0	30.3	0.51	0	0	5	1	0	0
1	1	120	0.12	0	0.8765	43.039	0	30.3	0.62	0	0	6	1	0	0
1	1	140	0.14	0	1.16867	57.385	0	30.3	0.72	0	0	7	1	0	0
1	1	160	0.16	0	1.50404	73.852	0	30.3	0.82	0	0	8	1	0	0
1	1	180	0.18	0	1.88103	92.363	0	30.3	0.93	0	0	9	1	0	0
1	2	200	0.19	0	2.2808	111.99	0	30.3	0.98	0	0	10	1	0	0
1	2	220	0.39	1.03	3.08504	151.48	772.87014	30.3	2.01	0.196	0.098	11	1	0.0516	0.001
1	2	240	0.58	0	4.29691	210.99	0	30.2	2.98	0	0	12	1	0	0
1	2	260	0.78	1.09	5.91798	0	0	30.2	4.01	0.207	0.052	13	1	0.0544	0
1	2	280	0.97	0	7.94666	0	0	30.2	4.99	0	0	14	1	0	0
1	2	300	1.17	0	10.38296	0	0	30.2	6.02	0	0	15	1	0	0
1	2	320	1.36	0	13.22846	0	0	30.2	6.99	0	0	16	1	0	0
1	2	340	1.55	0	16.48237	0	0	30.2	7.97	0	0	17	1	0	0
1	2	360	1.75	0	20.14468	0	0	30.2	9	0	0	18	1	0	0
1	3	380	1.94	0	24.23346	0	0	30.2	9.98	0	0	19	1	0	0
1	3	400	3.89	1.45	32.34819	0	0	30.2	20	0.276	0.014	20	1	0.07255	0
1	3	420	5.83	1.53	44.53757	0	0	30.2	29.98	0.291	0.01	21	1	0.07665	0
1	3	440	7.77	1.42	60.78982	0	0	30.2	39.95	0.269	0.007	22	1	0.07085	0
1	3	460	9.72	1.65	81.12927	0	0	30.2	49.98	0.314	0.006	23	1	0.0825	0
1	3	480	11.66	1.75	105.50332	0	0	30.2	59.96	0.332	0.006	24	1	0.0874	0
1	3	500	13.61	1.77	134.00856	0	0	30.2	69.98	0.336	0.005	25	1	0.08845	0
1	3	520	15.55	1.83	166.53347	0	0	30.2	79.96	0.347	0.004	26	1	0.09125	0
1	3	540	17.5	1.92	203.14873	0	0	30.2	89.99	0.365	0.004	27	1	0.096	0
1	4	560	19.45	2.14	244.25255	0	0	30.2	100.01	0.407	0.004	28	1	0.107	0
1	4	580	38.9	3.01	325.43601	0	0	30.2	200.02	0.571	0.003	29	1	0.15025	0
1	4	600	58.35	4.46	447.2175	0	0	30.2	300.04	0.847	0.003	30	1	0.22295	0
1	4	620	77.79	5.56	609.90409	0	0	30.2	400	1.057	0.003	31	1	0.2782	0
1	4	640	97.24	6.63	813.33163	0	0	30.2	500.01	1.259	0.003	32	1	0.3313	0
1	4	660	116.69	7.57	1057.30772	0	0	30.2	600.02	1.438	0.002	33	1	0.37835	0
1	4	680	136.14	8.71	1342.41275	0	0	30.2	700.03	1.654	0.002	34	1	0.4353	0
1	4	700	155.58	9.73	1668.0349	0	0	30.2	799.99	1.849	0.002	35	1	0.48665	0
1	4	720	175.03	10.89	2034.13255	0	0	30.2	900	2.07	0.002	36	1	0.5447	0
1	4	740	194.48	12.09	2441.0442	0	0	30.2	1000	2.298	0.002	37	1	0.6047	0
1	5	750	194.48	12.05	2648.49141	0	0	30.2	1000	2.29	0.002	38	1	0.60265	0
1	5	760	194.48	12.01	2852.55749	0	0	30.2	1000	2.282	0.002	39	1	0.6005	0
1	5	770	194.48	11.96	3055.80911	0	0	30.2	1000	2.273	0.002	40	1	0.5982	0
1	5	780	194.48	12.03	3259.87519	0	0	30.2	1000	2.286	0.002	41	1	0.60155	0
1	5	790	194.48	12.02	3463.53443	0	0	30.2	1000	2.284	0.002	42	1	0.601	0
1	5	800	194.48	12.01	3667.19367	0	0	30.2	1000	2.281	0.002	43	1	0.60035	0
1	6	820	194.48	11.96	4078.58444	0	0	30.2	1000	2.272	0.002	44	1	0.59785	0

1	6	840	175.03	10.74	4445.84291	0	0	30.2	900	2.04	0.002	45	1	0.5369	0
1	6	860	155.58	9.59	4772.00227	0	0	30.2	799.99	1.822	0.002	46	1	0.4794	0
1	6	880	136.14	8.56	5057.22747	0	0	30.2	700.03	1.627	0.002	47	1	0.42815	0
1	6	900	116.69	7.47	5301.98581	0	0	30.2	600.02	1.42	0.002	48	1	0.3736	0
1	6	920	97.24	6.52	5505.96235	0	0	30.2	500.01	1.239	0.002	49	1	0.32605	0
1	6	940	77.79	5.48	5669.1461	0	0	30.2	400	1.041	0.003	50	1	0.27405	0
1	6	960	58.35	4.5	5791.70042	0	0	30.2	300.04	0.854	0.003	51	1	0.2248	0
1	6	980	38.9	3.03	5873.4313	0	0	30.2	200.02	0.576	0.003	52	1	0.1517	0
1	6	1000	19.45	2.15	5914.46208	0	0	30.2	100.01	0.409	0.004	53	1	0.1077	0
1	7	1020	17.5	2.02	5951.38521	0	0	30.2	89.99	0.385	0.004	54	1	0.1012	0
1	7	1040	15.56	1.91	5984.00044	0	0	30.2	80.01	0.363	0.005	55	1	0.09555	0
1	7	1060	13.61	1.86	6012.51118	0	0	30.2	69.98	0.353	0.005	56	1	0.09295	0
1	7	1080	11.67	1.84	6036.98183	0	0	30.2	60.01	0.349	0.006	57	1	0.09175	0
1	7	1100	9.72	1.69	6057.37313	0	0	30.2	49.98	0.322	0.006	58	1	0.08465	0
1	7	1120	7.78	1.52	6073.67721	0	0	30.2	40	0.288	0.007	59	1	0.0758	0
1	7	1140	5.83	1.57	6085.9247	0	0	30.2	29.98	0.298	0.01	60	1	0.07835	0
1	7	1160	3.89	1.51	6094.08813	0	0	30.2	20	0.287	0.014	61	1	0.07565	0
1	7	1180	1.94	1.08	6098.18006	0	0	30.2	9.98	0.205	0.021	62	1	0.05395	0
1	8	1200	1.75	1.09	6101.86436	0	0	30.2	9	0.207	0.023	63	1	0.05435	0
1	8	1220	1.56	1.07	6105.12533	0	0	30.2	8.02	0.203	0.025	64	1	0.05345	0
1	8	1240	1.36	1.07	6107.97476	0	0	30.2	6.99	0.203	0.029	65	1	0.05355	0
1	8	1260	1.17	1.04	6110.41892	0	0	30.2	6.02	0.198	0.033	66	1	0.0521	0
1	8	1280	0.97	0	6112.4531	0	0	30.2	4.99	0	0	67	1	0	0
1	8	1300	0.78	0	6114.07809	0	0	30.2	4.01	0	0	68	1	0	0
1	8	1320	0.58	0	6115.29467	59.737	0	30.2	2.98	0	0	69	1	0	0
1	8	1340	0.39	0	6116.10441	99.498	0	30.2	2.01	0	0	70	1	0	0
1	8	1360	0.19	0	6116.50575	119.2	0	30.2	0.98	0	0	71	1	0	0
1	9	1380	0.18	0	6116.88353	137.75	0	30.2	0.93	0	0	72	1	0	0
1	9	1400	0.16	0	6117.21889	154.22	0	30.2	0.82	0	0	73	1	0	0
1	9	1420	0.14	0	6117.51263	168.64	0	30.2	0.72	0	0	74	1	0	0
1	9	1440	0.12	0	6117.76475	181.02	0	30.2	0.62	0	0	75	1	0	0
1	9	1460	0.1	0	6117.97366	191.28	0	30.2	0.51	0	0	76	1	0	0
1	9	1480	0.08	0	6118.14174	199.54	0	30.2	0.41	0	0	77	1	0	0
1	9	1500	0.06	0	6118.26819	205.74	0	30.2	0.31	0	0	78	1	0	0
1	9	1520	0.04	0	6118.35222	209.87	0	30.2	0.21	0	0	79	1	0	0
1	9	1540	0.02	0	6118.39385	211.91	0	30.2	0.1	0	0	80	1	0	0

04.01.04 WM-187 as received DG run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	0	0.04006	0	0	30.3	0.1	0	0	1	1	0	0
1	1	40	0.04	0	0.12331	0	0	30.3	0.2	0	0	2	1	0	0
1	1	60	0.06	0	0.24897	0	0	30.3	0.3	0	0	3	1	0	0
1	1	80	0.08	0	0.41626	0	0	30.3	0.4	0	0	4	1	0	0
1	1	100	0.1	0	0.62518	0	0	30.3	0.5	0	0	5	1	0	0
1	1	120	0.12	0	0.8765	0	0	30.3	0.6	0	0	6	1	0	0
1	1	140	0.14	0	1.16946	0	0	30.3	0.71	0	0	7	1	0	0
1	1	160	0.16	0	1.50404	0	0	30.3	0.81	0	0	8	1	0	0
1	1	180	0.18	0	1.88103	0	0	30.3	0.91	0	0	9	1	0	0
1	2	200	0.2	0	2.302	0	0	30.3	1.01	0	0	10	1	0	0
1	2	220	0.4	0	3.13531	0	0	30.3	2.02	0	0	11	1	0	0

1	2	240	0.6	1.23	4.38252	0	0	30.3	3.02	0.082	0.027	12	1	0.06125	0
1	2	260	0.8	1.23	6.04835	0	0	30.3	4.03	0.083	0.021	13	1	0.0617	0
1	2	280	1	1.56	8.12966	0	0	30.3	5.04	0.105	0.021	14	1	0.07815	0
1	2	300	1.19	1.85	10.62644	0	0	30.3	6	0.124	0.021	15	1	0.0927	0
1	2	320	1.39	1.68	13.54105	0	0	30.3	7	0.112	0.016	16	1	0.0839	0
1	2	340	1.59	1.76	16.86957	0	0	30.3	8.01	0.118	0.015	17	1	0.0879	0
1	2	360	1.79	1.82	20.61513	0	0	30.3	9.02	0.122	0.014	18	1	0.091	0
1	3	380	1.98	1.92	24.78717	0	0	30.3	9.98	0.129	0.013	19	1	0.09605	0
1	3	400	3.97	2.65	33.06448	0	0	30.3	20	0.177	0.009	20	1	0.13245	0
1	3	420	5.95	3.09	45.51147	0	0	30.3	29.98	0.207	0.007	21	1	0.1544	0
1	3	440	7.94	3.4	62.08965	0	0	30.3	40.01	0.228	0.006	22	1	0.1699	0
1	3	460	9.92	3.69	82.85322	0	0	30.3	49.99	0.247	0.005	23	1	0.1843	0
1	3	480	11.91	4.19	107.73935	0	0	30.3	60.01	0.281	0.005	24	1	0.2095	0
1	3	500	13.89	4.66	136.81636	0	0	30.3	69.99	0.312	0.004	25	1	0.23275	0
1	3	520	15.88	4.93	170.02692	0	0	30.3	80.02	0.33	0.004	26	1	0.2466	0
1	3	540	17.86	5.34	207.43151	0	0	30.3	90	0.358	0.004	27	1	0.26685	0
1	4	560	19.85	5.66	249.33014	0	0	30.3	100.02	0.379	0.004	28	1	0.28295	0
1	4	580	39.69	9.13	332.23756	0	0	30.3	200	0.612	0.003	29	1	0.4567	0
1	4	600	59.54	12.5	456.64541	0	0	30.3	300.02	0.838	0.003	30	1	0.6252	0
1	4	620	79.38	15.34	622.55292	0	0	30.3	400	1.028	0.003	31	1	0.76705	0
1	4	640	99.23	18.06	830.21927	0	0	30.3	500.02	1.21	0.002	32	1	0.90285	0
1	4	660	119.07	20.77	1079.16771	0	0	30.3	599.99	1.392	0.002	33	1	1.03845	0
1	4	680	138.92	23.51	1369.87498	0	0	30.3	700.02	1.575	0.002	34	1	1.17555	0
1	4	700	158.76	26.13	1701.98924	0	0	30.3	799.99	1.75	0.002	35	1	1.30625	0
1	4	720	178.61	28.86	2075.92673	0	0	30.3	900.02	1.934	0.002	36	1	1.44315	0
1	4	740	198.45	31.45	2491.23664	0	0	30.3	999.99	2.107	0.002	37	1	1.57245	0
1	5	750	198.45	31.4	2703.43787	0	0	30.3	999.99	2.104	0.002	38	1	1.5702	0
1	5	760	198.45	31.36	2911.46235	0	0	30.3	999.99	2.101	0.002	39	1	1.56815	0
1	5	770	198.45	31.3	3118.86323	0	0	30.3	999.99	2.097	0.002	40	1	1.565	0
1	5	780	198.45	31.3	3326.9906	0	0	30.3	999.99	2.097	0.002	41	1	1.5649	0
1	5	790	198.45	31.24	3534.59961	0	0	30.3	999.99	2.093	0.002	42	1	1.56195	0
1	5	800	198.45	31.23	3742.31229	0	0	30.3	999.99	2.092	0.002	43	1	1.56125	0
1	6	820	198.45	31.23	4162.51602	0	0	30.3	999.99	2.092	0.002	44	1	1.56125	0
1	6	840	178.61	28.44	4536.9813	0	0	30.3	900.02	1.906	0.002	45	1	1.4221	0
1	6	860	158.76	25.61	4869.46861	0	0	30.3	799.99	1.716	0.002	46	1	1.28045	0
1	6	880	138.92	23	5160.87175	0	0	30.3	700.02	1.541	0.002	47	1	1.1501	0
1	6	900	119.07	20.21	5410.45322	0	0	30.3	599.99	1.354	0.002	48	1	1.0107	0
1	6	920	99.23	17.45	5618.80443	0	0	30.3	500.02	1.169	0.002	49	1	0.87265	0
1	6	940	79.38	14.78	5785.2091	0	0	30.3	400	0.99	0.002	50	1	0.7389	0
1	6	960	59.54	11.96	5910.39607	0	0	30.3	300.02	0.801	0.003	51	1	0.59805	0
1	6	980	39.69	8.59	5993.79043	0	0	30.3	200	0.576	0.003	52	1	0.4296	0
1	6	1000	19.85	5.39	6035.67493	0	0	30.3	100.02	0.361	0.004	53	1	0.2693	0
1	7	1020	17.86	5.22	6073.37011	0	0	30.3	90	0.349	0.004	54	1	0.2608	0
1	7	1040	15.88	4.84	6106.63801	0	0	30.3	80.02	0.324	0.004	55	1	0.24215	0
1	7	1060	13.89	4.71	6135.78021	0	0	30.3	69.99	0.316	0.005	56	1	0.2355	0
1	7	1080	11.9	4.33	6160.72367	0	0	30.3	59.96	0.29	0.005	57	1	0.2167	0
1	7	1100	9.92	3.84	6181.53279	0	0	30.3	49.99	0.257	0.005	58	1	0.19185	0
1	7	1120	7.93	3.61	6198.18481	0	0	30.3	39.96	0.242	0.006	59	1	0.1806	0
1	7	1140	5.95	3.28	6210.67813	0	0	30.3	29.98	0.22	0.007	60	1	0.1642	0
1	7	1160	3.96	2.94	6219.00571	0	0	30.3	19.95	0.197	0.01	61	1	0.1472	0

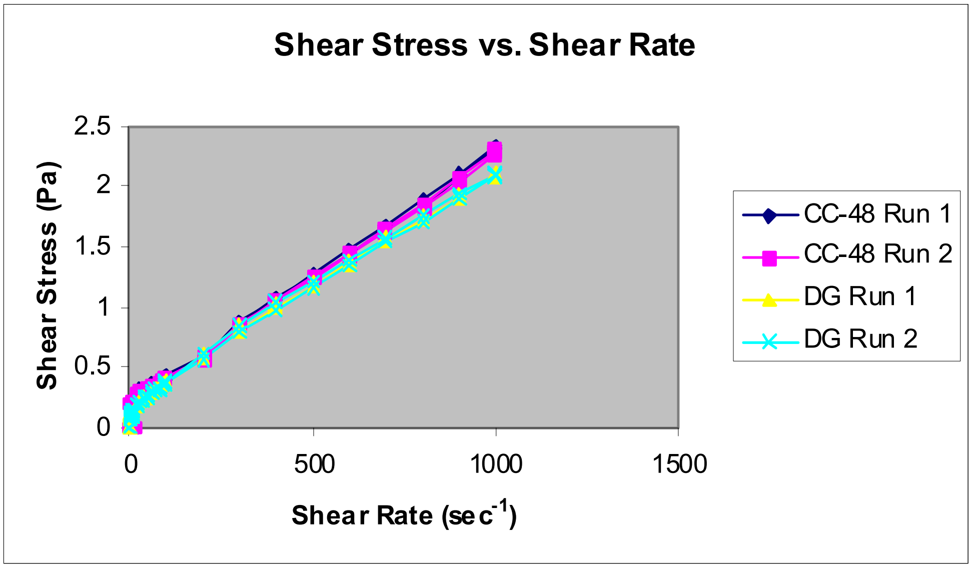
1	7	1180	1.98	2.07	6223.17932	0	0	30.3	9.98	0.139	0.014	62	1	0.10345	0
1	8	1200	1.79	2.1	6226.94766	0	0	30.3	9.02	0.14	0.016	63	1	0.10475	0
1	8	1220	1.59	2.01	6230.28403	0	0	30.3	8.01	0.135	0.017	64	1	0.10065	0
1	8	1240	1.39	2.04	6233.20414	0	0	30.4	7	0.137	0.02	65	1	0.10195	0
1	8	1260	1.19	1.84	6235.70642	0	0	30.3	6	0.123	0.021	66	1	0.092	0
1	8	1280	0.99	1.92	6237.79322	0	0	30.3	4.99	0.129	0.026	67	1	0.0959	0
1	8	1300	0.8	1.83	6239.46376	0	0	30.3	4.03	0.123	0.031	68	1	0.09155	0
1	8	1320	0.6	1.7	6240.71883	0	0	30.3	3.02	0.114	0.038	69	1	0.0852	0
1	8	1340	0.4	1.48	6241.55528	0	0	30.3	2.02	0.099	0.049	70	1	0.0739	0
1	8	1360	0.2	1.49	6241.97704	0	0	30.3	1.01	0.1	0.099	71	1	0.07455	0
1	9	1380	0.18	1.63	6242.35638	0	0	30.3	0.91	0.109	0.12	72	1	0.0816	0
1	9	1400	0.16	1.62	6242.69175	0	0	30.3	0.81	0.109	0.135	73	1	0.0811	0
1	9	1420	0.14	1.42	6242.98549	0	0	30.4	0.71	0.095	0.134	74	1	0.07085	0
1	9	1440	0.12	1.4	6243.23681	0	0	30.3	0.6	0.094	0.157	75	1	0.0702	0
1	9	1460	0.1	0	6243.44652	0	0	30.4	0.5	0	0	76	1	0	0
1	9	1480	0.08	0	6243.61459	0	0	30.3	0.4	0	0	77	1	0	0
1	9	1500	0.06	0	6243.74104	0	0	30.3	0.3	0	0	78	1	0	0
1	9	1520	0.04	1.1	6243.82429	0	0	30.3	0.2	0.074	0.37	79	1	0.05495	0
1	9	1540	0.02	0	6243.8667	0	0	30.4	0.1	0	0	80	1	0	0

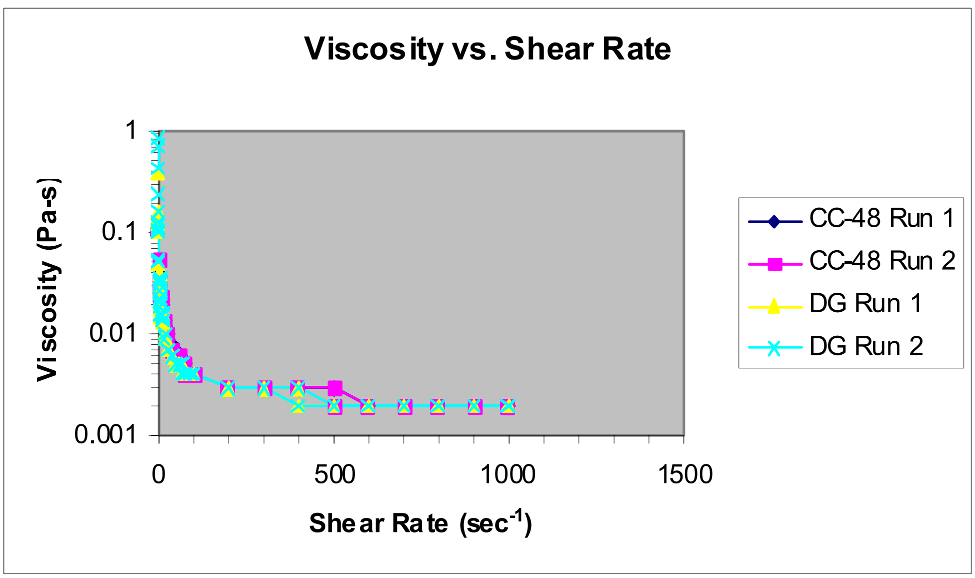
04.01.04 WM-187 as received DG run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	1.04	0.03927	0	0	30.3	0.1	0.07	0.7	1	1	0.0521	0
1	1	40	0.04	1.28	0.12331	0	0	30.3	0.2	0.086	0.43	2	1	0.06405	0
1	1	60	0.06	0	0.24897	0	0	30.3	0.3	0	0	3	1	0	0
1	1	80	0.08	0	0.41548	0	0	30.3	0.4	0	0	4	1	0	0
1	1	100	0.1	0	0.62518	0	0	30.4	0.5	0	0	5	1	0	0
1	1	120	0.12	1.01	0.87572	0	0	30.4	0.6	0.068	0.113	6	1	0.05065	0
1	1	140	0.14	0	1.16867	0	0	30.3	0.71	0	0	7	1	0	0
1	1	160	0.16	0	1.50404	0	0	30.3	0.81	0	0	8	1	0	0
1	1	180	0.18	0	1.88024	0	0	30.4	0.91	0	0	9	1	0	0
1	2	200	0.2	0	2.30122	0	0	30.4	1.01	0	0	10	1	0	0
1	2	220	0.4	1.5	3.13374	0	0	30.4	2.02	0.101	0.05	11	1	0.075	0
1	2	240	0.6	1.51	4.38331	0	0	30.4	3.02	0.101	0.033	12	1	0.07535	0
1	2	260	0.8	2.09	6.04678	0	0	30.4	4.03	0.14	0.035	13	1	0.10455	0
1	2	280	1	2.02	8.12966	0	0	30.4	5.04	0.135	0.027	14	1	0.10075	0
1	2	300	1.19	1.9	10.62644	0	0	30.4	6	0.127	0.021	15	1	0.09505	0
1	2	320	1.39	2.15	13.53869	0	0	30.4	7	0.144	0.021	16	1	0.10745	0
1	2	340	1.59	1.97	16.86878	0	0	30.4	8.01	0.132	0.016	17	1	0.09845	0
1	2	360	1.79	2.14	20.61513	0	0	30.3	9.02	0.144	0.016	18	1	0.1071	0
1	3	380	1.98	2.09	24.78874	0	0	30.3	9.98	0.14	0.014	19	1	0.10445	0
1	3	400	3.97	2.92	33.06919	0	0	30.3	20	0.196	0.01	20	1	0.146	0
1	3	420	5.95	3.24	45.50754	0	0	30.4	29.98	0.217	0.007	21	1	0.1618	0
1	3	440	7.94	3.61	62.08494	0	0	30.4	40.01	0.242	0.006	22	1	0.1803	0
1	3	460	9.92	3.84	82.85951	0	0	30.4	49.99	0.257	0.005	23	1	0.19185	0
1	3	480	11.91	4.35	107.7527	0	0	30.4	60.01	0.292	0.005	24	1	0.21755	0
1	3	500	13.89	4.75	136.81479	0	0	30.4	69.99	0.318	0.005	25	1	0.2374	0
1	3	520	15.88	4.98	170.05048	0	0	30.4	80.02	0.334	0.004	26	1	0.2489	0
1	3	540	17.86	5.41	207.42758	0	0	30.3	90	0.363	0.004	27	1	0.27055	0
1	4	560	19.85	5.7	249.31601	0	0	30.3	100.02	0.382	0.004	28	1	0.2851	0

1	4	580	39.69	9.23	332.17237	0	0	30.3	200	0.618	0.003	29	1	0.46135	0
1	4	600	59.54	12.58	456.57866	0	0	30.4	300.02	0.843	0.003	30	1	0.62875	0
1	4	620	79.38	15.45	622.62125	0	0	30.3	400	1.035	0.003	31	1	0.7723	0
1	4	640	99.23	18.1	830.13209	0	0	30.4	500.02	1.212	0.002	32	1	0.90475	0
1	4	660	119.07	20.85	1079.1952	0	0	30.3	599.99	1.397	0.002	33	1	1.0424	0
1	4	680	138.92	23.57	1369.83022	0	0	30.4	700.02	1.579	0.002	34	1	1.1787	0
1	4	700	158.76	26.18	1702.01751	0	0	30.4	799.99	1.754	0.002	35	1	1.30875	0
1	4	720	178.61	28.94	2076.0571	0	0	30.4	900.02	1.939	0.002	36	1	1.4472	0
1	4	740	198.45	31.48	2490.95311	0	0	30.3	999.99	2.109	0.002	37	1	1.57395	0
1	5	750	198.45	31.38	2703.0491	0	0	30.3	999.99	2.102	0.002	38	1	1.5688	0
1	5	760	198.45	31.29	2911.07358	0	0	30.3	999.99	2.096	0.002	39	1	1.56445	0
1	5	770	198.45	31.28	3118.47446	0	0	30.3	999.99	2.096	0.002	40	1	1.56405	0
1	5	780	198.45	31.23	3326.60262	0	0	30.4	999.99	2.092	0.002	41	1	1.56155	0
1	5	790	198.45	31.22	3534.3153	0	0	30.4	999.99	2.091	0.002	42	1	1.5608	0
1	5	800	198.45	31.18	3742.13165	0	0	30.4	999.99	2.089	0.002	43	1	1.5589	0
1	6	820	198.45	31.18	4162.44062	0	0	30.3	999.99	2.089	0.002	44	1	1.55895	0
1	6	840	178.61	28.38	4536.64515	0	0	30.4	900.02	1.902	0.002	45	1	1.41915	0
1	6	860	158.76	25.53	4869.55893	0	0	30.4	799.99	1.711	0.002	46	1	1.2766	0
1	6	880	138.92	22.9	5160.60786	0	0	30.4	700.02	1.534	0.002	47	1	1.14505	0
1	6	900	119.07	20.13	5410.31421	0	0	30.4	599.99	1.349	0.002	48	1	1.0064	0
1	6	920	99.23	17.37	5618.60337	0	0	30.4	500.02	1.164	0.002	49	1	0.8684	0
1	6	940	79.38	14.62	5785.04966	0	0	30.4	400	0.98	0.002	50	1	0.7311	0
1	6	960	59.54	11.78	5910.16359	0	0	30.4	300.02	0.789	0.003	51	1	0.5891	0
1	6	980	39.69	8.43	5993.55874	0	0	30.3	200	0.565	0.003	52	1	0.4216	0
1	6	1000	19.85	5.31	6035.44324	0	0	30.3	100.02	0.356	0.004	53	1	0.26555	0
1	7	1020	17.86	5.13	6073.12507	0	0	30.4	90	0.344	0.004	54	1	0.25635	0
1	7	1040	15.88	4.72	6106.41731	0	0	30.4	80.02	0.316	0.004	55	1	0.2361	0
1	7	1060	13.89	4.58	6135.5226	0	0	30.4	69.99	0.307	0.004	56	1	0.22905	0
1	7	1080	11.9	4.25	6160.47313	0	0	30.4	59.96	0.285	0.005	57	1	0.2125	0
1	7	1100	9.92	3.71	6181.27754	0	0	30.4	49.99	0.249	0.005	58	1	0.18545	0
1	7	1120	7.93	3.54	6197.92877	0	0	30.4	39.96	0.237	0.006	59	1	0.17685	0
1	7	1140	5.95	3.14	6210.41267	0	0	30.4	29.98	0.211	0.007	60	1	0.1571	0
1	7	1160	3.96	2.78	6218.7481	0	0	30.4	19.95	0.186	0.009	61	1	0.13895	0
1	7	1180	1.98	2.03	6222.92563	0	0	30.4	9.98	0.136	0.014	62	1	0.10165	0
1	8	1200	1.79	2.06	6226.6979	0	0	30.4	9.02	0.138	0.015	63	1	0.10285	0
1	8	1220	1.59	1.95	6230.03349	0	0	30.4	8.01	0.13	0.016	64	1	0.0973	0
1	8	1240	1.39	2	6232.95281	0	0	30.4	7	0.134	0.019	65	1	0.1002	0
1	8	1260	1.19	1.97	6235.4543	0	0	30.4	6	0.132	0.022	66	1	0.0983	0
1	8	1280	0.99	1.72	6237.54111	0	0	30.3	4.99	0.115	0.023	67	1	0.08575	0
1	8	1300	0.8	1.86	6239.21165	0	0	30.4	4.03	0.124	0.031	68	1	0.0929	0
1	8	1320	0.6	1.54	6240.46593	0	0	30.4	3.02	0.103	0.034	69	1	0.077	0
1	8	1340	0.4	1.63	6241.30474	0	0	30.4	2.02	0.109	0.054	70	1	0.08125	0
1	8	1360	0.2	1.49	6241.72571	0	0	30.4	1.01	0.1	0.099	71	1	0.0744	0
1	9	1380	0.18	1.44	6242.10506	0	0	30.4	0.91	0.096	0.105	72	1	0.0719	0
1	9	1400	0.16	1.41	6242.44042	0	0	30.4	0.81	0.094	0.116	73	1	0.07025	0
1	9	1420	0.14	1.1	6242.73416	0	0	30.4	0.71	0.074	0.104	74	1	0.05495	0
1	9	1440	0.12	1.12	6242.98549	0	0	30.4	0.6	0.075	0.125	75	1	0.0559	0
1	9	1460	0.1	1.2	6243.19519	0	0	30.4	0.5	0.08	0.16	76	1	0.0598	0
1	9	1480	0.08	0	6243.36248	0	0	30.3	0.4	0	0	77	1	0	0
1	9	1500	0.06	1.05	6243.48893	0	0	30.3	0.3	0.07	0.233	78	1	0.0525	0

1	9	1520	0.04	0	6243.57297	0	0	30.3	0.2	0	0	79	1	0	0
1	9	1540	0.02	1.27	6243.61459	0	0	30.4	0.1	0.085	0.85	80	1	0.0633	0





E-2.2.3 Gravity Settled

03.31.04 WM-187 gravity settled slurry CC-45 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	4.28	0.16415	2.0236	2.41773	30.2	0.1	0.837	8.37	1	1	0.21375	0.414
1	1	40	0.16	4.59	0.49244	6.0709	6.75297	30.2	0.21	0.899	4.281	2	1	0.22965	0.148
1	1	60	0.24	5.32	0.98332	12.122	11.64503	30.2	0.31	1.041	3.358	3	1	0.26585	0.086
1	1	80	0.31	5.7	1.63598	20.169	18.07225	30.2	0.4	1.116	2.79	4	1	0.285	0.055

1	1	100	0.39	5.96	2.4528	30.238	25.93347	30.2	0.5	1.166	2.332	5	1	0.29785	0.039
1	1	120	0.47	6.2	3.42983	42.283	34.85857	30.2	0.61	1.213	1.989	6	1	0.30975	0.029
1	1	140	0.54	6.31	4.57023	56.342	45.58449	30.2	0.7	1.236	1.766	7	1	0.31565	0.022
1	1	160	0.62	6.76	5.87399	72.415	54.73573	30.2	0.8	1.323	1.654	8	1	0.33775	0.018
1	1	180	0.7	7.45	7.33798	90.464	62.0038	30.2	0.9	1.459	1.621	9	1	0.37255	0.016
1	2	200	0.77	8.1	8.96061	0	0	30.2	0.99	1.586	1.602	10	1	0.40505	0
1	2	220	1.55	9.71	12.18545	0	0	30.2	2	1.902	0.951	11	1	0.4857	0
1	2	240	2.32	10.71	17.03607	0	0	30.2	3	2.096	0.699	12	1	0.5353	0
1	2	260	3.09	10.58	23.50775	0	0	30.3	3.99	2.072	0.519	13	1	0.5291	0
1	2	280	3.87	10.61	31.60207	0	0	30.3	5	2.077	0.415	14	1	0.5305	0
1	2	300	4.65	10.69	41.3143	0	0	30.3	6	2.093	0.349	15	1	0.5345	0
1	2	320	5.42	10.67	52.66644	0	0	30.3	7	2.09	0.299	16	1	0.5336	0
1	2	340	6.2	10.69	65.6263	0	0	30.3	8	2.093	0.262	17	1	0.5344	0
1	2	360	6.97	10.7	80.2135	0	0	30.3	9	2.095	0.233	18	1	0.53505	0
1	3	380	7.75	10.57	96.5757	0	0	30.3	10.01	2.069	0.207	19	1	0.52825	0
1	3	400	15.5	11.18	128.92704	0	0	30.3	20.01	2.188	0.109	20	1	0.5588	0
1	3	420	23.24	11.84	177.50784	0	0	30.3	30	2.319	0.077	21	1	0.59215	0
1	3	440	30.99	12.3	242.23643	0	0	30.3	40.01	2.408	0.06	22	1	0.6149	0
1	3	460	38.73	12.42	323.21962	0	0	30.3	50	2.431	0.049	23	1	0.6209	0
1	3	480	46.48	12.94	420.45898	0	0	30.3	60.01	2.533	0.042	24	1	0.6468	0
1	3	500	54.22	13.51	533.89561	0	0	30.3	70	2.646	0.038	25	1	0.6756	0
1	3	520	61.96	13.83	663.65124	0	0	30.3	79.99	2.709	0.034	26	1	0.6917	0
1	3	540	69.71	14.14	809.42035	0	0	30.3	90	2.768	0.031	27	1	0.70685	0
1	4	560	77.46	14.28	973.11304	0	0	30.3	100	2.795	0.028	28	1	0.71385	0
1	4	580	154.92	18.18	1296.32009	0	0	30.3	200	3.56	0.018	29	1	0.90915	0
1	4	600	232.38	22.39	1782.04094	0	0	30.3	300	4.385	0.015	30	1	1.11965	0
1	4	620	309.84	28.99	2429.5444	0	0	30.3	400	5.676	0.014	31	1	1.4494	0
1	4	640	387.3	37.59	3239.47918	0	0	30.3	500	7.361	0.015	32	1	1.8797	0
1	4	660	464.75	45.56	4211.60497	0	0	30.3	599.99	8.921	0.015	33	1	2.278	0
1	4	680	542.21	55.47	5346.48647	0	0	30.3	699.99	10.861	0.016	34	1	2.77355	0
1	4	700	619.67	66.75	6641.69051	0	0	30.3	799.99	13.069	0.016	35	1	3.3373	0
1	4	720	697.13	75.09	8100.78829	0	0	30.3	899.99	14.702	0.016	36	1	3.75445	0
1	4	740	774.59	86.52	9722.15641	0	0	30.3	1000	16.94	0.017	37	1	4.3259	0
1	5	750	774.59	83.68	10551.2306	0	0	30.3	1000	16.385	0.016	38	1	4.1841	0
1	5	760	774.59	83.32	11360.3509	0	0	30.3	1000	16.314	0.016	39	1	4.16605	0
1	5	770	774.59	83.09	12171.9067	0	0	30.3	1000	16.268	0.016	40	1	4.15435	0
1	5	780	774.59	82.98	12984.27	0	0	30.3	1000	16.248	0.016	41	1	4.1492	0
1	5	790	774.59	83.16	13793.7979	0	0	30.3	1000	16.284	0.016	42	1	4.1582	0
1	5	800	774.59	82.38	14606.1612	0	0	30.3	1000	16.129	0.016	43	1	4.11875	0
1	6	820	774.59	81.98	16246.7103	0	0	30.3	1000	16.051	0.016	44	1	4.0989	0
1	6	840	697.13	71.18	17707.0207	0	0	30.3	899.99	13.938	0.015	45	1	3.5592	0
1	6	860	619.67	61.23	19006.8044	0	0	30.3	799.99	11.988	0.015	46	1	3.0613	0
1	6	880	542.21	51.19	20143.7091	0	0	30.3	699.99	10.023	0.014	47	1	2.55955	0
1	6	900	464.75	41.13	21117.9382	0	0	30.3	599.99	8.054	0.013	48	1	2.0566	0
1	6	920	387.3	33.34	21930.5449	0	0	30.3	500	6.528	0.013	49	1	1.66695	0
1	6	940	309.84	26.01	22581.0863	0	0	30.3	400	5.093	0.013	50	1	1.30055	0
1	6	960	232.38	18.45	23069.0879	0	0	30.3	300	3.612	0.012	51	1	0.9223	0
1	6	980	154.92	14.71	23394.6253	0	0	30.3	200	2.879	0.014	52	1	0.73525	0
1	6	1000	77.46	11.82	23558.1397	0	0	30.3	100	2.314	0.023	53	1	0.5908	0
1	7	1020	69.71	11.74	23705.284	0	0	30.3	90	2.298	0.026	54	1	0.58675	0

1	7	1040	61.97	11.37	23835.2776	0	0	30.3	80	2.227	0.028	55	1	0.56865	0
1	7	1060	54.22	11.13	23948.8391	0	0	30.3	70	2.178	0.031	56	1	0.5563	0
1	7	1080	46.48	10.42	24046.2937	0	0	30.3	60.01	2.039	0.034	57	1	0.5208	0
1	7	1100	38.73	9.95	24127.5675	0	0	30.3	50	1.948	0.039	58	1	0.4975	0
1	7	1120	30.99	9.85	24192.5921	0	0	30.3	40.01	1.929	0.048	59	1	0.49265	0
1	7	1140	23.24	9.29	24241.3748	0	0	30.3	30	1.819	0.061	60	1	0.4646	0
1	7	1160	15.5	8.77	24273.9492	0	0	30.3	20.01	1.718	0.086	61	1	0.43865	0
1	7	1180	7.75	8.52	24290.2855	0	0	30.3	10.01	1.669	0.167	62	1	0.42615	0
1	8	1200	6.97	8.7	24304.9975	0	0	30.3	9	1.703	0.189	63	1	0.43495	0
1	8	1220	6.2	8.64	24317.9833	0	0	30.3	8	1.692	0.212	64	1	0.43205	0
1	8	1240	5.42	8.58	24329.3347	0	0	30.3	7	1.679	0.24	65	1	0.4288	0
1	8	1260	4.64	8.65	24339.0713	0	0	30.3	5.99	1.693	0.283	66	1	0.43225	0
1	8	1280	3.87	8.51	24347.1915	0	0	30.3	5	1.666	0.333	67	1	0.42545	0
1	8	1300	3.09	8.64	24353.6859	0	0	30.3	3.99	1.692	0.424	68	1	0.43215	0
1	8	1320	2.32	8.52	24358.5531	0	0	30.3	3	1.668	0.556	69	1	0.4259	0
1	8	1340	1.54	7.96	24361.8007	0	0	30.3	1.99	1.559	0.783	70	1	0.39805	0
1	8	1360	0.77	7.44	24363.4233	0	0	30.3	0.99	1.457	1.472	71	1	0.37205	0
1	9	1380	0.7	7.18	24364.8967	18.164	12.92837	30.3	0.9	1.405	1.561	72	1	0.3588	0.077
1	9	1400	0.62	6.88	24366.2021	34.257	25.45071	30.3	0.8	1.346	1.683	73	1	0.34375	0.039
1	9	1420	0.55	6.43	24367.344	48.335	38.39158	30.3	0.71	1.259	1.773	74	1	0.3215	0.026
1	9	1440	0.47	6.25	24368.3242	60.419	49.36172	30.3	0.61	1.224	2.007	75	1	0.3126	0.02
1	9	1460	0.39	5.84	24369.1434	70.518	61.64125	30.3	0.5	1.144	2.288	76	1	0.29205	0.016
1	9	1480	0.31	5.03	24369.7984	78.593	79.70869	30.3	0.4	0.986	2.465	77	1	0.2517	0.013
1	9	1500	0.24	4.46	24370.2916	84.673	96.88028	30.3	0.31	0.874	2.819	78	1	0.22315	0.01
1	9	1520	0.16	3.86	24370.6231	88.759	117.56207	30.3	0.21	0.755	3.595	79	1	0.1929	0.009
1	9	1540	0.08	2.87	24370.7919	90.841	161.927	30.3	0.1	0.561	5.61	80	1	0.1433	0.006

03.31.04 WM-187 gravity settled slurry CC-45 run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	2.74	0.16493	2.0333	3.7935	30.3	0.1	0.536	5.36	1	1	0.1369	0.264
1	1	40	0.16	2.96	0.49323	6.0806	10.5019	30.3	0.21	0.579	2.757	2	1	0.14785	0.095
1	1	60	0.24	3.57	0.98489	12.142	17.3703	30.3	0.31	0.699	2.255	3	1	0.1786	0.058
1	1	80	0.31	4	1.63677	20.178	25.80346	30.3	0.4	0.782	1.955	4	1	0.19975	0.039
1	1	100	0.39	4.07	2.45358	30.248	37.95244	30.3	0.5	0.797	1.594	5	1	0.2034	0.026
1	1	120	0.47	4.66	3.43062	42.293	46.37403	30.3	0.61	0.912	1.495	6	1	0.23295	0.022
1	1	140	0.54	5.22	4.57102	56.352	55.13904	30.3	0.7	1.022	1.46	7	1	0.26105	0.018
1	1	160	0.62	5.41	5.87399	72.415	68.38088	30.3	0.8	1.059	1.324	8	1	0.27055	0.015
1	1	180	0.7	5.69	7.33955	90.483	81.22341	30.3	0.9	1.114	1.238	9	1	0.2844	0.012
1	2	200	0.77	5.69	8.96296	0	0	30.3	0.99	1.115	1.126	10	1	0.2847	0
1	2	220	1.55	7.8	12.18702	0	0	30.3	2	1.528	0.764	11	1	0.39015	0
1	2	240	2.32	9.35	17.03607	0	0	30.3	3	1.831	0.61	12	1	0.4675	0
1	2	260	3.09	8.76	23.50461	0	0	30.3	3.99	1.716	0.43	13	1	0.4382	0
1	2	280	3.87	8.36	31.60364	0	0	30.3	5	1.637	0.327	14	1	0.4181	0
1	2	300	4.65	8.35	41.32137	0	0	30.3	6	1.634	0.272	15	1	0.41735	0
1	2	320	5.42	8.27	52.65859	0	0	30.3	7	1.619	0.231	16	1	0.41345	0
1	2	340	6.2	8.4	65.62316	0	0	30.3	8	1.645	0.206	17	1	0.41995	0
1	2	360	6.97	8.35	80.21271	0	0	30.3	9	1.635	0.182	18	1	0.41745	0
1	3	380	7.75	8.32	96.57099	0	0	30.3	10.01	1.629	0.163	19	1	0.41595	0
1	3	400	15.5	8.6	128.94274	0	0	30.3	20.01	1.685	0.084	20	1	0.4302	0
1	3	420	23.24	9.04	177.51569	0	0	30.3	30	1.77	0.059	21	1	0.452	0

1	3	440	30.99	9.62	242.2969	0	0	30.3	40.01	1.884	0.047	22	1	0.4812	0
1	3	460	38.73	9.75	323.25889	0	0	30.3	50	1.909	0.038	23	1	0.48755	0
1	3	480	46.48	10.19	420.42992	0	0	30.3	60.01	1.994	0.033	24	1	0.50925	0
1	3	500	54.22	10.98	533.98043	0	0	30.3	70	2.149	0.031	25	1	0.54875	0
1	3	520	61.96	11.19	663.53657	0	0	30.3	79.99	2.191	0.027	26	1	0.5594	0
1	3	540	69.71	11.51	809.37951	0	0	30.3	90	2.253	0.025	27	1	0.57545	0
1	4	560	77.46	11.83	973.11225	0	0	30.3	100	2.317	0.023	28	1	0.5917	0
1	4	580	154.92	15.02	1296.11667	0	0	30.3	200	2.941	0.015	29	1	0.7509	0
1	4	600	232.38	18.97	1781.715	0	0	30.3	300	3.714	0.012	30	1	0.94845	0
1	4	620	309.84	26.69	2429.50198	0	0	30.3	400	5.226	0.013	31	1	1.3346	0
1	4	640	387.3	33.85	3239.23571	0	0	30.3	500	6.628	0.013	32	1	1.69265	0
1	4	660	464.75	42.21	4211.3615	0	0	30.3	599.99	8.264	0.014	33	1	2.11025	0
1	4	680	542.21	52.77	5346.80927	0	0	30.3	699.99	10.332	0.015	34	1	2.63845	0
1	4	700	619.67	63.1	6642.98799	0	0	30.3	799.99	12.355	0.015	35	1	3.1551	0
1	4	720	697.13	73.28	8101.35614	0	0	30.3	899.99	14.349	0.016	36	1	3.6642	0
1	4	740	774.59	82.28	9722.31663	0	0	30.3	1000	16.109	0.016	37	1	4.11375	0
1	5	750	774.59	81.97	10550.9855	0	0	30.3	1000	16.049	0.016	38	1	4.0984	0
1	5	760	774.59	80.07	11360.5111	0	0	30.3	1000	15.678	0.016	39	1	4.0035	0
1	5	770	774.59	80.23	12172.067	0	0	30.3	1000	15.708	0.016	40	1	4.01135	0
1	5	780	774.59	80.49	12983.622	0	0	30.3	1000	15.76	0.016	41	1	4.0245	0
1	5	790	774.59	80.71	13796.3913	0	0	30.3	1000	15.803	0.016	42	1	4.03555	0
1	5	800	774.59	80.51	14606.729	0	0	30.3	1000	15.764	0.016	43	1	4.02565	0
1	6	820	774.59	80.59	16246.0615	0	0	30.3	1000	15.78	0.016	44	1	4.0295	0
1	6	840	697.13	69.99	17708.1556	0	0	30.3	899.99	13.704	0.015	45	1	3.49945	0
1	6	860	619.67	60.07	19007.6142	0	0	30.3	799.99	11.762	0.015	46	1	3.0037	0
1	6	880	542.21	50.32	20145.0867	0	0	30.3	699.99	9.853	0.014	47	1	2.516	0
1	6	900	464.75	40.38	21119.4791	0	0	30.3	599.99	7.905	0.013	48	1	2.01875	0
1	6	920	387.3	32.43	21931.5172	0	0	30.3	500	6.35	0.013	49	1	1.6215	0
1	6	940	309.84	25.18	22581.5716	0	0	30.3	400	4.931	0.012	50	1	1.2591	0
1	6	960	232.38	17.64	23069.4131	0	0	30.3	300	3.454	0.012	51	1	0.88195	0
1	6	980	154.92	14.01	23395.5638	0	0	30.3	200	2.743	0.014	52	1	0.70055	0
1	6	1000	77.46	11.23	23558.9612	0	0	30.3	100	2.198	0.022	53	1	0.5614	0
1	7	1020	69.71	11.03	23706.1	0	0	30.3	90	2.16	0.024	54	1	0.5517	0
1	7	1040	61.97	10.7	23836.0622	0	0	30.3	80	2.096	0.026	55	1	0.5352	0
1	7	1060	54.22	10.53	23949.7164	0	0	30.3	70	2.061	0.029	56	1	0.52635	0
1	7	1080	46.48	9.8	24047.2236	0	0	30.3	60.01	1.918	0.032	57	1	0.4899	0
1	7	1100	38.73	9.43	24128.3717	0	0	30.3	50	1.846	0.037	58	1	0.4714	0
1	7	1120	30.99	9.38	24193.4317	0	0	30.3	40.01	1.836	0.046	59	1	0.46885	0
1	7	1140	23.24	8.86	24242.1665	0	0	30.3	30	1.735	0.058	60	1	0.44295	0
1	7	1160	15.5	8.38	24274.7448	0	0	30.3	20.01	1.641	0.082	61	1	0.4191	0
1	7	1180	7.75	8.11	24291.0889	0	0	30.3	10.01	1.588	0.159	62	1	0.40545	0
1	8	1200	6.97	8.29	24305.7892	0	0	30.3	9	1.624	0.18	63	1	0.4146	0
1	8	1220	6.2	8.32	24318.7852	0	0	30.3	8	1.628	0.204	64	1	0.41575	0
1	8	1240	5.42	8.18	24330.1413	0	0	30.3	7	1.602	0.229	65	1	0.40905	0
1	8	1260	4.64	8.25	24339.8857	0	0	30.3	5.99	1.616	0.27	66	1	0.4126	0
1	8	1280	3.87	8.2	24347.9981	0	0	30.3	5	1.606	0.321	67	1	0.41005	0
1	8	1300	3.09	8.17	24354.4941	0	0	30.3	3.99	1.6	0.401	68	1	0.4087	0
1	8	1320	2.32	8.2	24359.362	0	0	30.3	3	1.605	0.535	69	1	0.40995	0
1	8	1340	1.54	7.68	24362.6112	0	0	30.3	1.99	1.503	0.755	70	1	0.3839	0
1	8	1360	0.77	7.21	24364.2338	0	0	30.3	0.99	1.413	1.427	71	1	0.3607	0

1	9	1380	0.7	6.94	24365.708	18.174	13.38294	30.3	0.9	1.358	1.509	72	1	0.34675	0.075
1	9	1400	0.62	6.58	24367.0126	34.257	26.59678	30.3	0.8	1.288	1.61	73	1	0.3288	0.038
1	9	1420	0.55	6.23	24368.1553	48.345	39.65929	30.3	0.71	1.219	1.717	74	1	0.31125	0.025
1	9	1440	0.47	5.83	24369.1363	60.438	52.96943	30.3	0.61	1.141	1.87	75	1	0.29135	0.019
1	9	1460	0.39	5.43	24369.9539	70.518	66.33827	30.3	0.5	1.063	2.126	76	1	0.27135	0.015
1	9	1480	0.31	5	24370.6097	78.603	80.3706	30.3	0.4	0.978	2.445	77	1	0.24975	0.012
1	9	1500	0.24	4.25	24371.1029	84.683	101.90499	30.3	0.31	0.831	2.681	78	1	0.2123	0.01
1	9	1520	0.16	3.74	24371.4344	88.769	121.43507	30.3	0.21	0.731	3.481	79	1	0.18675	0.008
1	9	1540	0.08	2.56	24371.6032	90.851	181.33876	30.3	0.1	0.501	5.01	80	1	0.1279	0.006

03.31.04 WM-187 gravity settled slurry CC-48 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	2.2	0.03927	1.9283	4.60202	30.3	0.1	0.419	4.19	1	1	0.11015	0.217
1	1	40	0.04	2.55	0.12252	6.0161	12.40439	30.3	0.21	0.485	2.31	2	1	0.1275	0.081
1	1	60	0.06	2.28	0.24819	12.187	28.14437	30.3	0.31	0.433	1.397	3	1	0.11405	0.036
1	1	80	0.08	1.98	0.41548	20.401	54.40223	30.3	0.41	0.375	0.915	4	1	0.09875	0.018
1	1	100	0.1	2.33	0.62439	30.659	69.20793	30.3	0.51	0.443	0.869	5	1	0.1166	0.014
1	1	120	0.12	2.48	0.87572	43	91.10146	30.3	0.62	0.472	0.761	6	1	0.1242	0.011
1	1	140	0.14	2.57	1.16867	57.385	117.5914	30.3	0.72	0.488	0.678	7	1	0.12835	0.009
1	1	160	0.16	2.62	1.50247	73.775	148.44004	30.3	0.82	0.497	0.606	8	1	0.13085	0.007
1	1	180	0.18	3.04	1.87946	92.286	159.66417	30.3	0.93	0.578	0.622	9	1	0.1521	0.006
1	2	200	0.19	3.1	2.28001	111.95	190.07472	30.3	0.98	0.589	0.601	10	1	0.15505	0.005
1	2	220	0.39	4.46	3.08347	151.41	178.54482	30.3	2.01	0.848	0.422	11	1	0.2231	0.006
1	2	240	0.58	5.32	4.29534	210.91	208.61699	30.3	2.98	1.011	0.339	12	1	0.2661	0.005
1	2	260	0.78	5.8	5.91562	0	0	30.3	4.01	1.102	0.275	13	1	0.29	0
1	2	280	0.97	7.2	7.9443	0	0	30.3	4.99	1.368	0.274	14	1	0.36005	0
1	2	300	1.17	9.39	10.38139	0	0	30.3	6.02	1.784	0.296	15	1	0.46935	0
1	2	320	1.36	9.6	13.22689	0	0	30.3	6.99	1.825	0.261	16	1	0.4802	0
1	2	340	1.55	10.05	16.4808	0	0	30.3	7.97	1.91	0.24	17	1	0.50255	0
1	2	360	1.75	10	20.14389	0	0	30.3	9	1.901	0.211	18	1	0.50015	0
1	3	380	1.94	10.29	24.23267	0	0	30.3	9.98	1.955	0.196	19	1	0.51455	0
1	3	400	3.89	11.27	32.34034	0	0	30.3	20	2.141	0.107	20	1	0.5634	0
1	3	420	5.83	11.73	44.52422	0	0	30.3	29.98	2.229	0.074	21	1	0.58645	0
1	3	440	7.77	12.08	60.79296	0	0	30.3	39.95	2.296	0.057	22	1	0.60415	0
1	3	460	9.72	12.52	81.11671	0	0	30.3	49.98	2.379	0.048	23	1	0.62605	0
1	3	480	11.66	12.92	105.5261	0	0	30.3	59.96	2.456	0.041	24	1	0.6462	0
1	3	500	13.61	13.4	133.99442	0	0	30.3	69.98	2.546	0.036	25	1	0.67005	0
1	3	520	15.55	13.55	166.52719	0	0	30.3	79.96	2.574	0.032	26	1	0.6773	0
1	3	540	17.5	14.06	203.16837	0	0	30.3	89.99	2.672	0.03	27	1	0.70315	0
1	4	560	19.45	14.3	244.25097	0	0	30.3	100.01	2.717	0.027	28	1	0.71505	0
1	4	580	38.9	17.67	325.51534	0	0	30.3	200.02	3.357	0.017	29	1	0.88345	0
1	4	600	58.35	21.04	447.29682	0	0	30.3	300.04	3.998	0.013	30	1	1.0522	0
1	4	620	77.79	23.67	610.0541	0	0	30.3	400	4.497	0.011	31	1	1.1835	0
1	4	640	97.24	26.12	813.26802	0	0	30.3	500.01	4.963	0.01	32	1	1.306	0
1	4	660	116.69	28.36	1057.54884	0	0	30.3	600.02	5.389	0.009	33	1	1.4182	0
1	4	680	136.14	30.94	1342.27609	0	0	30.3	700.03	5.878	0.008	34	1	1.54675	0
1	4	700	155.58	33.24	1667.97992	0	0	30.3	799.99	6.316	0.008	35	1	1.66205	0
1	4	720	175.03	35.66	2034.07836	0	0	30.3	900	6.776	0.008	36	1	1.78305	0
1	4	740	194.48	38.28	2440.8667	0	0	30.3	1000	7.274	0.007	37	1	1.91425	0
1	5	750	194.48	37.74	2648.82285	0	0	30.3	1000	7.17	0.007	38	1	1.8868	0

1	5	760	194.48	37.66	2852.07526	0	0	30.3	1000	7.155	0.007	39	1	1.8828	0
1	5	770	194.48	37.72	3056.24265	0	0	30.3	1000	7.166	0.007	40	1	1.8858	0
1	5	780	194.48	37.55	3259.39295	0	0	30.3	1000	7.135	0.007	41	1	1.8776	0
1	5	790	194.48	37.34	3462.95088	0	0	30.3	1000	7.095	0.007	42	1	1.8671	0
1	5	800	194.48	37.27	3667.32169	0	0	30.3	1000	7.081	0.007	43	1	1.86345	0
1	6	820	194.48	37.14	4079.12087	0	0	30.3	1000	7.057	0.007	44	1	1.8572	0
1	6	840	175.03	34.45	4446.01177	0	0	30.3	900	6.545	0.007	45	1	1.7224	0
1	6	860	155.58	31.85	4772.09024	0	0	30.3	799.99	6.051	0.008	46	1	1.59225	0
1	6	880	136.14	29.38	5057.59111	0	0	30.3	700.03	5.583	0.008	47	1	1.46915	0
1	6	900	116.69	26.86	5302.36045	0	0	30.3	600.02	5.103	0.009	48	1	1.343	0
1	6	920	97.24	24.37	5506.32599	0	0	30.3	500.01	4.631	0.009	49	1	1.2186	0
1	6	940	77.79	21.93	5669.43827	0	0	30.3	400	4.167	0.01	50	1	1.09665	0
1	6	960	58.35	19.32	5792.00358	0	0	30.3	300.04	3.671	0.012	51	1	0.96615	0
1	6	980	38.9	16.24	5873.75567	0	0	30.3	200.02	3.086	0.015	52	1	0.8122	0
1	6	1000	19.45	13.27	5914.80687	0	0	30.3	100.01	2.521	0.025	53	1	0.6633	0
1	7	1020	17.5	13.12	5951.74807	0	0	30.3	89.99	2.493	0.028	54	1	0.6561	0
1	7	1040	15.56	12.61	5984.35387	0	0	30.3	80.01	2.396	0.03	55	1	0.63055	0
1	7	1060	13.61	12.47	6012.88032	0	0	30.3	69.98	2.369	0.034	56	1	0.62345	0
1	7	1080	11.67	12.11	6037.32191	0	0	30.3	60.01	2.301	0.038	57	1	0.60555	0
1	7	1100	9.72	11.66	6057.72341	0	0	30.3	49.98	2.216	0.044	58	1	0.58315	0
1	7	1120	7.78	11.27	6074.02671	0	0	30.3	40	2.142	0.054	59	1	0.5636	0
1	7	1140	5.83	10.92	6086.26478	0	0	30.3	29.98	2.075	0.069	60	1	0.54605	0
1	7	1160	3.89	10.61	6094.43449	0	0	30.3	20	2.015	0.101	61	1	0.53025	0
1	7	1180	1.94	9.76	6098.52485	0	0	30.3	9.98	1.855	0.186	62	1	0.4881	0
1	8	1200	1.75	9.77	6102.21229	0	0	30.3	9	1.856	0.206	63	1	0.48845	0
1	8	1220	1.56	9.75	6105.47169	0	0	30.3	8.02	1.852	0.231	64	1	0.4873	0
1	8	1240	1.36	9.54	6108.32269	0	0	30.3	6.99	1.812	0.259	65	1	0.47695	0
1	8	1260	1.17	9.58	6110.76449	0	0	30.3	6.02	1.821	0.302	66	1	0.4792	0
1	8	1280	0.97	9.4	6112.79946	0	0	30.3	4.99	1.787	0.358	67	1	0.47015	0
1	8	1300	0.78	8.73	6114.42523	0	0	30.3	4.01	1.659	0.414	68	1	0.4366	0
1	8	1320	0.58	7.95	6115.64339	59.814	39.61211	30.3	2.98	1.51	0.507	69	1	0.39725	0.025
1	8	1340	0.39	6.28	6116.45235	99.536	83.36364	30.3	2.01	1.194	0.594	70	1	0.3142	0.012
1	8	1360	0.19	4.99	6116.85368	119.24	125.7836	30.3	0.98	0.948	0.967	71	1	0.2494	0.008
1	9	1380	0.18	4.78	6117.23303	137.87	151.67187	30.3	0.93	0.909	0.977	72	1	0.23915	0.007
1	9	1400	0.16	4.71	6117.56761	154.3	172.40044	30.3	0.82	0.895	1.091	73	1	0.23565	0.006
1	9	1420	0.14	4.36	6117.86135	168.72	203.77014	30.3	0.72	0.828	1.15	74	1	0.2178	0.005
1	9	1440	0.12	4.27	6118.11268	181.06	223.25827	30.3	0.62	0.811	1.308	75	1	0.2135	0.004
1	9	1460	0.1	3.96	6118.32316	191.4	254.18041	30.3	0.51	0.753	1.476	76	1	0.1982	0.004
1	9	1480	0.08	3.37	6118.49045	199.61	311.89395	30.3	0.41	0.64	1.561	77	1	0.16835	0.003
1	9	1500	0.06	3.31	6118.6169	205.82	327.21953	30.3	0.31	0.629	2.029	78	1	0.1654	0.003
1	9	1520	0.04	3.49	6118.70094	209.95	316.66296	30.3	0.21	0.663	3.157	79	1	0.17435	0.003
1	9	1540	0.02	3.6	6118.74335	212.03	310.43933	30.3	0.1	0.683	6.83	80	1	0.1798	0.003

03.31.04 WM-187 gravity settled slurry CC-48 run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	3.47	0.03848	1.8897	2.86751	30.3	0.1	0.659	6.59	1	1	0.17345	0.349
1	1	40	0.04	3.2	0.12252	6.0161	9.8787	30.3	0.21	0.609	2.9	2	1	0.1602	0.101
1	1	60	0.06	3.01	0.2474	12.148	21.23769	30.3	0.31	0.572	1.845	3	1	0.1505	0.047
1	1	80	0.08	3.5	0.41469	20.362	30.6661	30.3	0.41	0.664	1.62	4	1	0.1748	0.033
1	1	100	0.1	3.41	0.62439	30.659	47.3866	30.3	0.51	0.647	1.269	5	1	0.1703	0.021

1	1	120	0.12	3.64	0.87493	42.961	62.08287	30.3	0.62	0.692	1.116	6	1	0.182	0.016
1	1	140	0.14	3.68	1.16867	57.385	82.09533	30.3	0.72	0.699	0.971	7	1	0.18395	0.012
1	1	160	0.16	3.6	1.50247	73.775	107.85781	30.3	0.82	0.684	0.834	8	1	0.17995	0.009
1	1	180	0.18	3.39	1.87946	92.286	143.3011	30.3	0.93	0.644	0.692	9	1	0.1695	0.007
1	2	200	0.19	3.14	2.2808	111.99	187.59225	30.3	0.98	0.597	0.609	10	1	0.1571	0.005
1	2	220	0.39	3.81	3.08269	151.37	209.07102	30.3	2.01	0.724	0.36	11	1	0.1906	0.005
1	2	240	0.58	5.36	4.29534	210.91	207.1825	30.3	2.98	1.018	0.342	12	1	0.26785	0.005
1	2	260	0.78	7.14	5.91562	0	0	30.3	4.01	1.357	0.338	13	1	0.3571	0
1	2	280	0.97	8.49	7.94273	0	0	30.3	4.99	1.613	0.323	14	1	0.4244	0
1	2	300	1.17	9.5	10.38061	0	0	30.3	6.02	1.806	0.3	15	1	0.4752	0
1	2	320	1.36	9.28	13.22611	0	0	30.3	6.99	1.763	0.252	16	1	0.46405	0
1	2	340	1.55	9.34	16.48001	0	0	30.2	7.97	1.774	0.223	17	1	0.4669	0
1	2	360	1.75	9.44	20.14389	0	0	30.2	9	1.793	0.199	18	1	0.47185	0
1	3	380	1.94	9.46	24.23267	0	0	30.2	9.98	1.797	0.18	19	1	0.473	0
1	3	400	3.89	10.41	32.34662	0	0	30.2	20	1.978	0.099	20	1	0.5205	0
1	3	420	5.83	10.77	44.52501	0	0	30.2	29.98	2.046	0.068	21	1	0.53845	0
1	3	440	7.77	11.03	60.78511	0	0	30.2	39.95	2.096	0.052	22	1	0.5517	0
1	3	460	9.72	11.46	81.12456	0	0	30.2	49.98	2.178	0.044	23	1	0.5731	0
1	3	480	11.66	11.89	105.51589	0	0	30.2	59.96	2.258	0.038	24	1	0.59425	0
1	3	500	13.61	12.22	133.99914	0	0	30.2	69.98	2.322	0.033	25	1	0.61115	0
1	3	520	15.55	12.4	166.54918	0	0	30.2	79.96	2.356	0.029	26	1	0.6199	0
1	3	540	17.5	12.94	203.19114	0	0	30.2	89.99	2.459	0.027	27	1	0.647	0
1	4	560	19.45	13.14	244.27532	0	0	30.2	100.01	2.496	0.025	28	1	0.6568	0
1	4	580	38.9	16.3	325.51848	0	0	30.2	200.02	3.097	0.015	29	1	0.81495	0
1	4	600	58.35	19.4	447.27012	0	0	30.2	300.04	3.685	0.012	30	1	0.9698	0
1	4	620	77.79	21.9	609.98655	0	0	30.2	400	4.16	0.01	31	1	1.09485	0
1	4	640	97.24	24.14	813.45494	0	0	30.2	500.01	4.586	0.009	32	1	1.2068	0
1	4	660	116.69	26.43	1057.35956	0	0	30.2	600.02	5.022	0.008	33	1	1.32165	0
1	4	680	136.14	29.09	1342.23918	0	0	30.2	700.03	5.527	0.008	34	1	1.45435	0
1	4	700	155.58	31.38	1667.94223	0	0	30.2	799.99	5.961	0.007	35	1	1.5688	0
1	4	720	175.03	34.01	2034.04066	0	0	30.2	900	6.463	0.007	36	1	1.7007	0
1	4	740	194.48	36.42	2441.24761	0	0	30.2	1000	6.921	0.007	37	1	1.8212	0
1	5	750	194.48	36.24	2649.20298	0	0	30.2	1000	6.885	0.007	38	1	1.81185	0
1	5	760	194.48	36.18	2852.65881	0	0	30.2	1000	6.873	0.007	39	1	1.8088	0
1	5	770	194.48	36.19	3056.62357	0	0	30.2	1000	6.876	0.007	40	1	1.8094	0
1	5	780	194.48	36.2	3259.9765	0	0	30.2	1000	6.878	0.007	41	1	1.8099	0
1	5	790	194.48	36.41	3463.43233	0	0	30.2	1000	6.917	0.007	42	1	1.8203	0
1	5	800	194.48	36.37	3667.60051	0	0	30.2	1000	6.911	0.007	43	1	1.81865	0
1	6	820	194.48	36.08	4079.60232	0	0	30.2	1000	6.856	0.007	44	1	1.8041	0
1	6	840	175.03	33.38	4446.03533	0	0	30.2	900	6.342	0.007	45	1	1.66905	0
1	6	860	155.58	30.85	4772.28737	0	0	30.2	799.99	5.862	0.007	46	1	1.5425	0
1	6	880	136.14	28.41	5057.94061	0	0	30.2	700.03	5.397	0.008	47	1	1.4203	0
1	6	900	116.69	25.9	5302.39422	0	0	30.2	600.02	4.92	0.008	48	1	1.2948	0
1	6	920	97.24	23.49	5506.47286	0	0	30.2	500.01	4.464	0.009	49	1	1.1747	0
1	6	940	77.79	21.08	5669.77835	0	0	30.2	400	4.006	0.01	50	1	1.0541	0
1	6	960	58.35	18.56	5792.17008	0	0	30.2	300.04	3.526	0.012	51	1	0.9278	0
1	6	980	38.9	15.51	5873.94181	0	0	30.2	200.02	2.946	0.015	52	1	0.77535	0
1	6	1000	19.45	12.6	5915.03385	0	0	30.2	100.01	2.393	0.024	53	1	0.62985	0
1	7	1020	17.5	12.48	5951.9397	0	0	30.2	89.99	2.371	0.026	54	1	0.62405	0
1	7	1040	15.56	11.95	5984.57143	0	0	30.2	80.01	2.27	0.028	55	1	0.5974	0

1	7	1060	13.61	11.87	6013.10416	0	0	30.2	69.98	2.255	0.032	56	1	0.59335	0
1	7	1080	11.67	11.5	6037.5701	0	0	30.2	60.01	2.186	0.036	57	1	0.5752	0
1	7	1100	9.72	11.1	6057.94018	0	0	30.2	49.98	2.108	0.042	58	1	0.55475	0
1	7	1120	7.78	10.72	6074.2694	0	0	30.2	40	2.037	0.051	59	1	0.53615	0
1	7	1140	5.83	10.43	6086.49176	0	0	30.2	29.98	1.982	0.066	60	1	0.5217	0
1	7	1160	3.89	10.15	6094.6599	0	0	30.2	20	1.928	0.096	61	1	0.5073	0
1	7	1180	1.94	9.16	6098.75104	0	0	30.2	9.98	1.74	0.174	62	1	0.458	0
1	8	1200	1.75	9.29	6102.43692	0	0	30.2	9	1.765	0.196	63	1	0.4646	0
1	8	1220	1.56	9.26	6105.69475	0	0	30.2	8.02	1.76	0.219	64	1	0.46305	0
1	8	1240	1.36	9.21	6108.54574	0	0	30.2	6.99	1.75	0.25	65	1	0.46055	0
1	8	1260	1.17	9.09	6110.9899	0	0	30.2	6.02	1.726	0.287	66	1	0.4543	0
1	8	1280	0.97	8.91	6113.0233	0	0	30.2	4.99	1.693	0.339	67	1	0.4455	0
1	8	1300	0.78	8.46	6114.64986	0	0	30.2	4.01	1.608	0.401	68	1	0.4231	0
1	8	1320	0.58	7.5	6115.86801	59.814	41.97493	30.2	2.98	1.425	0.478	69	1	0.3749	0.024
1	8	1340	0.39	6.29	6116.67697	99.536	83.22424	30.2	2.01	1.196	0.595	70	1	0.31465	0.012
1	8	1360	0.19	4.77	6117.07831	119.24	131.61462	30.2	0.98	0.906	0.924	71	1	0.23845	0.008
1	9	1380	0.18	4.27	6117.45687	137.83	169.95208	30.2	0.93	0.811	0.872	72	1	0.21355	0.006
1	9	1400	0.16	4.19	6117.79223	154.3	193.84218	30.2	0.82	0.796	0.971	73	1	0.2094	0.005
1	9	1420	0.14	4.01	6118.08519	168.68	221.36888	30.2	0.72	0.762	1.058	74	1	0.2006	0.005
1	9	1440	0.12	4.26	6118.3373	181.06	223.5339	30.2	0.62	0.81	1.306	75	1	0.21315	0.004
1	9	1460	0.1	4.08	6118.547	191.36	246.59701	30.2	0.51	0.776	1.522	76	1	0.20415	0.004
1	9	1480	0.08	3.54	6118.71508	199.61	296.60051	30.2	0.41	0.673	1.641	77	1	0.177	0.003
1	9	1500	0.06	3.34	6118.84074	205.78	324.06695	30.2	0.31	0.635	2.048	78	1	0.1672	0.003
1	9	1520	0.04	3.35	6118.92478	209.91	329.52743	30.2	0.21	0.637	3.033	79	1	0.1675	0.003
1	9	1540	0.02	3.91	6118.96719	211.99	285.70286	30.2	0.1	0.742	7.42	80	1	0.19535	0.004

04.01.04 WM-187 gravity settled CC-48 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	7.62	0.0377	1.8511	1.27928	30	0.1	1.447	14.47	1	1	0.3809	0.782
1	1	40	0.04	6.55	0.12095	5.939	4.77412	30	0.21	1.244	5.924	2	1	0.32745	0.209
1	1	60	0.06	7.59	0.24583	12.071	8.3651	29.9	0.31	1.443	4.655	3	1	0.3797	0.12
1	1	80	0.08	7.97	0.41312	20.285	13.3984	29.9	0.41	1.514	3.693	4	1	0.3985	0.075
1	1	100	0.1	8.47	0.62204	30.543	18.97109	29.9	0.51	1.61	3.157	5	1	0.4237	0.053
1	1	120	0.12	8.86	0.87336	42.884	25.46571	30	0.62	1.684	2.716	6	1	0.44315	0.039
1	1	140	0.14	9	1.16632	57.269	33.49064	30	0.72	1.71	2.375	7	1	0.45	0.03
1	1	160	0.16	8.58	1.50168	73.736	45.23695	30	0.82	1.63	1.988	8	1	0.42905	0.022
1	1	180	0.18	8.4	1.87789	92.209	57.77498	30	0.93	1.596	1.716	9	1	0.42005	0.017
1	2	200	0.19	8.01	2.27844	111.88	73.5549	30	0.98	1.521	1.552	10	1	0.40035	0.014
1	2	220	0.39	8.16	3.0819	151.33	97.63159	29.9	2.01	1.55	0.771	11	1	0.40795	0.01
1	2	240	0.58	8.2	4.29456	210.87	135.34871	30	2.98	1.558	0.523	12	1	0.4099	0.007
1	2	260	0.78	9.71	5.91483	0	0	30	4.01	1.845	0.46	13	1	0.48555	0
1	2	280	0.97	11.28	7.94195	0	0	30	4.99	2.144	0.43	14	1	0.5642	0
1	2	300	1.17	12.22	10.37904	0	0	30	6.02	2.321	0.386	15	1	0.61075	0
1	2	320	1.36	12.6	13.22611	0	0	30	6.99	2.393	0.342	16	1	0.62975	0
1	2	340	1.55	11.57	16.48001	0	0	29.9	7.97	2.199	0.276	17	1	0.57865	0
1	2	360	1.75	10.8	20.14311	0	0	29.9	9	2.051	0.228	18	1	0.53975	0
1	3	380	1.94	10.23	24.23189	0	0	29.9	9.98	1.943	0.195	19	1	0.51135	0
1	3	400	3.89	10.47	32.34034	0	0	30	20	1.989	0.099	20	1	0.5234	0
1	3	420	5.83	9.82	44.53443	0	0	30	29.98	1.867	0.062	21	1	0.4912	0
1	3	440	7.77	9.89	60.78668	0	0	30	39.95	1.879	0.047	22	1	0.49455	0

1	3	460	9.72	10.13	81.12692	0	0	29.9	49.98	1.925	0.039	23	1	0.50645	0
1	3	480	11.66	10.67	105.51196	0	0	29.9	59.96	2.027	0.034	24	1	0.53335	0
1	3	500	13.61	11.04	134.00935	0	0	30	69.98	2.097	0.03	25	1	0.55185	0
1	3	520	15.55	11.24	166.55782	0	0	29.9	79.96	2.136	0.027	26	1	0.56205	0
1	3	540	17.5	11.84	203.15266	0	0	29.9	89.99	2.249	0.025	27	1	0.59185	0
1	4	560	19.45	12.03	244.26747	0	0	29.9	100.01	2.285	0.023	28	1	0.6014	0
1	4	580	38.9	15.23	325.45015	0	0	29.9	200.02	2.894	0.014	29	1	0.76165	0
1	4	600	58.35	18.35	447.201	0	0	29.9	300.04	3.486	0.012	30	1	0.91725	0
1	4	620	77.79	20.9	609.95828	0	0	29.9	400	3.971	0.01	31	1	1.04495	0
1	4	640	97.24	23.52	813.32457	0	0	29.9	500.01	4.469	0.009	32	1	1.17605	0
1	4	660	116.69	26.31	1057.22918	0	0	29.9	600.02	4.999	0.008	33	1	1.3154	0
1	4	680	136.14	29.35	1342.18027	0	0	30	700.03	5.576	0.008	34	1	1.4674	0
1	4	700	155.58	32.03	1667.79221	0	0	30	799.99	6.086	0.008	35	1	1.6017	0
1	4	720	175.03	34.67	2033.96212	0	0	30	900	6.588	0.007	36	1	1.73375	0
1	4	740	194.48	37.33	2441.16829	0	0	30	1000	7.092	0.007	37	1	1.86625	0
1	5	750	194.48	37.47	2649.22576	0	0	30	1000	7.12	0.007	38	1	1.8736	0
1	5	760	194.48	37.56	2852.47738	0	0	30	1000	7.137	0.007	39	1	1.87805	0
1	5	770	194.48	37.62	3056.54424	0	0	30	1000	7.148	0.007	40	1	1.88115	0
1	5	780	194.48	37.65	3260.1006	0	0	30	1000	7.154	0.007	41	1	1.8827	0
1	5	790	194.48	37.73	3463.76062	0	0	30	1000	7.169	0.007	42	1	1.8866	0
1	5	800	194.48	37.88	3667.41829	0	0	30	1000	7.196	0.007	43	1	1.89375	0
1	6	820	194.48	37.95	4079.01327	0	0	30	1000	7.21	0.007	44	1	1.89735	0
1	6	840	175.03	35.55	4446.09895	0	0	30	900	6.754	0.008	45	1	1.7773	0
1	6	860	155.58	32.99	4772.2591	0	0	29.9	799.99	6.268	0.008	46	1	1.64935	0
1	6	880	136.14	30.57	5057.4733	0	0	29.9	700.03	5.809	0.008	47	1	1.52865	0
1	6	900	116.69	28.03	5302.42642	0	0	29.9	600.02	5.326	0.009	48	1	1.40155	0
1	6	920	97.24	25.56	5506.2608	0	0	30	500.01	4.857	0.01	49	1	1.2781	0
1	6	940	77.79	23.01	5669.61734	0	0	30	400	4.372	0.011	50	1	1.15055	0
1	6	960	58.35	20.38	5792.02871	0	0	30	300.04	3.872	0.013	51	1	1.0189	0
1	6	980	38.9	17.2	5873.86249	0	0	30	200.02	3.269	0.016	52	1	0.8602	0
1	6	1000	19.45	14.18	5914.8532	0	0	29.9	100.01	2.694	0.027	53	1	0.70885	0
1	7	1020	17.5	14.01	5951.75749	0	0	29.9	89.99	2.661	0.03	54	1	0.70025	0
1	7	1040	15.56	13.51	5984.36408	0	0	29.9	80.01	2.567	0.032	55	1	0.6756	0
1	7	1060	13.61	13.31	6012.89838	0	0	30	69.98	2.529	0.036	56	1	0.66545	0
1	7	1080	11.67	12.95	6037.37767	0	0	30	60.01	2.46	0.041	57	1	0.64745	0
1	7	1100	9.72	12.57	6057.75404	0	0	30	49.98	2.389	0.048	58	1	0.62865	0
1	7	1120	7.78	12.07	6074.06676	0	0	29.9	40	2.293	0.057	59	1	0.60345	0
1	7	1140	5.83	11.76	6086.31033	0	0	30	29.98	2.234	0.075	60	1	0.58785	0
1	7	1160	3.89	11.4	6094.47769	0	0	30	20	2.167	0.108	61	1	0.5702	0
1	7	1180	1.94	10.32	6098.56804	0	0	30	9.98	1.961	0.196	62	1	0.516	0
1	8	1200	1.75	10.36	6102.25313	0	0	29.9	9	1.968	0.219	63	1	0.518	0
1	8	1220	1.56	10.18	6105.51411	0	0	30	8.02	1.934	0.241	64	1	0.50885	0
1	8	1240	1.36	10.12	6108.3651	0	0	30	6.99	1.923	0.275	65	1	0.506	0
1	8	1260	1.17	9.69	6110.80769	0	0	30	6.02	1.842	0.306	66	1	0.4847	0
1	8	1280	0.97	9.34	6112.84344	0	0	30	4.99	1.775	0.356	67	1	0.46705	0
1	8	1300	0.78	8.84	6114.46764	0	0	30	4.01	1.68	0.419	68	1	0.44205	0
1	8	1320	0.58	7.77	6115.68658	59.853	40.5507	29.9	2.98	1.476	0.495	69	1	0.3883	0.025
1	8	1340	0.39	6.65	6116.49633	99.613	78.8704	29.9	2.01	1.263	0.628	70	1	0.3324	0.013
1	8	1360	0.19	4.96	6116.8961	119.24	126.58477	29.9	0.98	0.942	0.961	71	1	0.248	0.008
1	9	1380	0.18	4.34	6117.27623	137.91	167.16154	30	0.93	0.825	0.887	72	1	0.2171	0.006

1	9	1400	0.16	4.59	6117.61159	154.38	177.03615	30	0.82	0.872	1.063	73	1	0.22955	0.006
1	9	1420	0.14	4.85	6117.90455	168.76	183.03716	29.9	0.72	0.922	1.281	74	1	0.24265	0.005
1	9	1440	0.12	4.68	6118.15587	181.1	203.48431	30	0.62	0.89	1.435	75	1	0.2342	0.005
1	9	1460	0.1	4.49	6118.36558	191.4	224.38203	30	0.51	0.853	1.673	76	1	0.2245	0.004
1	9	1480	0.08	4.1	6118.53365	199.65	256.29108	30	0.41	0.779	1.9	77	1	0.20495	0.004
1	9	1500	0.06	3.7	6118.65931	205.82	292.77542	29.9	0.31	0.703	2.268	78	1	0.185	0.003
1	9	1520	0.04	3.88	6118.74335	209.95	284.86781	29.9	0.21	0.737	3.51	79	1	0.19385	0.004
1	9	1540	0.02	3.89	6118.78576	212.03	287.30364	29.9	0.1	0.738	7.38	80	1	0.19425	0.003

04.01.04 WM-187 gravity settled CC-48 run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	4.61	0.03848	1.8897	2.15718	30	0.1	0.876	8.76	1	1	0.2305	0.464
1	1	40	0.04	3.96	0.12174	5.9776	7.93834	30	0.21	0.753	3.586	2	1	0.1982	0.126
1	1	60	0.06	4.39	0.2474	12.148	14.56591	30	0.31	0.834	2.69	3	1	0.21935	0.069
1	1	80	0.08	4.64	0.41469	20.362	23.0865	30	0.41	0.882	2.151	4	1	0.23205	0.043
1	1	100	0.1	5.11	0.62361	30.621	31.56761	30	0.51	0.97	1.902	5	1	0.25535	0.032
1	1	120	0.12	5.23	0.87415	42.923	43.1819	30	0.62	0.994	1.603	6	1	0.26165	0.023
1	1	140	0.14	5.9	1.1671	57.308	51.1218	30	0.72	1.121	1.557	7	1	0.2949	0.02
1	1	160	0.16	5.95	1.50247	73.775	65.22969	30	0.82	1.131	1.379	8	1	0.29765	0.015
1	1	180	0.18	5.96	1.87867	92.247	81.41871	30	0.93	1.133	1.218	9	1	0.2981	0.012
1	2	200	0.19	5.67	2.27923	111.92	103.81774	30	0.98	1.078	1.1	10	1	0.28365	0.01
1	2	220	0.39	5.75	3.08269	151.37	138.4881	30	2.01	1.093	0.544	11	1	0.2877	0.007
1	2	240	0.58	6.25	4.29534	210.91	177.5352	30.1	2.98	1.188	0.399	12	1	0.3127	0.006
1	2	260	0.78	7.13	5.91405	0	0	30.1	4.01	1.355	0.338	13	1	0.3566	0
1	2	280	0.97	9.11	7.94273	0	0	30.1	4.99	1.73	0.347	14	1	0.45535	0
1	2	300	1.17	10.11	10.38139	0	0	30.1	6.02	1.921	0.319	15	1	0.5054	0
1	2	320	1.36	10.17	13.22611	0	0	30.1	6.99	1.932	0.276	16	1	0.50855	0
1	2	340	1.55	10.18	16.48158	0	0	30.1	7.97	1.934	0.243	17	1	0.50905	0
1	2	360	1.75	10.07	20.14232	0	0	30.1	9	1.914	0.213	18	1	0.5037	0
1	3	380	1.94	10.02	24.23189	0	0	30.1	9.98	1.904	0.191	19	1	0.501	0
1	3	400	3.89	11.21	32.33798	0	0	30.1	20	2.13	0.107	20	1	0.5604	0
1	3	420	5.83	11.44	44.53443	0	0	30.1	29.98	2.173	0.072	21	1	0.57195	0
1	3	440	7.77	11.74	60.78668	0	0	30.1	39.95	2.231	0.056	22	1	0.5871	0
1	3	460	9.72	12.37	81.11592	0	0	30.1	49.98	2.35	0.047	23	1	0.61855	0
1	3	480	11.66	12.88	105.50096	0	0	30.1	59.96	2.447	0.041	24	1	0.64395	0
1	3	500	13.61	13.2	133.97715	0	0	30.1	69.98	2.507	0.036	25	1	0.6598	0
1	3	520	15.55	13.43	166.55075	0	0	30.1	79.96	2.551	0.032	26	1	0.67135	0
1	3	540	17.5	14.04	203.16366	0	0	30.1	89.99	2.668	0.03	27	1	0.7022	0
1	4	560	19.45	14.35	244.26668	0	0	30.1	100.01	2.726	0.027	28	1	0.71745	0
1	4	580	38.9	17.6	325.40852	0	0	30.2	200.02	3.344	0.017	29	1	0.88	0
1	4	600	58.35	20.87	447.33295	0	0	30.2	300.04	3.965	0.013	30	1	1.0433	0
1	4	620	77.79	23.53	610.03996	0	0	30.2	400	4.471	0.011	31	1	1.1766	0
1	4	640	97.24	26.06	813.25309	0	0	30.2	500.01	4.952	0.01	32	1	1.3032	0
1	4	660	116.69	28.7	1057.47344	0	0	30.2	600.02	5.452	0.009	33	1	1.43475	0
1	4	680	136.14	31.48	1342.2109	0	0	30.2	700.03	5.982	0.009	34	1	1.57415	0
1	4	700	155.58	33.98	1667.75137	0	0	30.2	799.99	6.456	0.008	35	1	1.69885	0
1	4	720	175.03	36.57	2034.10427	0	0	30.2	900	6.949	0.008	36	1	1.8287	0
1	4	740	194.48	39.11	2441.00571	0	0	30.2	1000	7.431	0.007	37	1	1.95565	0
1	5	750	194.48	38.98	2648.85976	0	0	30.2	1000	7.406	0.007	38	1	1.949	0
1	5	760	194.48	38.97	2852.1106	0	0	30.2	1000	7.405	0.007	39	1	1.9486	0

1	5	770	194.48	38.99	3055.87194	0	0	30.2	1000	7.409	0.007	40	1	1.94965	0
1	5	780	194.48	38.95	3259.7346	0	0	30.2	1000	7.4	0.007	41	1	1.94725	0
1	5	790	194.48	38.94	3463.18964	0	0	30.2	1000	7.399	0.007	42	1	1.94715	0
1	5	800	194.48	38.93	3667.25572	0	0	30.2	1000	7.396	0.007	43	1	1.94635	0
1	6	820	194.48	38.95	4078.85069	0	0	30.2	1000	7.4	0.007	44	1	1.9473	0
1	6	840	175.03	36.21	4445.74238	0	0	30.2	900	6.88	0.008	45	1	1.8106	0
1	6	860	155.58	33.65	4771.82163	0	0	30.2	799.99	6.393	0.008	46	1	1.6824	0
1	6	880	136.14	31.27	5057.33193	0	0	30.2	700.03	5.942	0.008	47	1	1.56365	0
1	6	900	116.69	28.68	5302.21279	0	0	30.2	600.02	5.45	0.009	48	1	1.4341	0
1	6	920	97.24	26.19	5506.07702	0	0	30.2	500.01	4.976	0.01	49	1	1.30955	0
1	6	940	77.79	23.68	5669.23014	0	0	30.2	400	4.5	0.011	50	1	1.18415	0
1	6	960	58.35	20.96	5791.76482	0	0	30.2	300.04	3.982	0.013	51	1	1.04785	0
1	6	980	38.9	17.72	5873.56796	0	0	30.2	200.02	3.367	0.017	52	1	0.88595	0
1	6	1000	19.45	14.61	5914.62858	0	0	30.2	100.01	2.776	0.028	53	1	0.73065	0
1	7	1020	17.5	14.46	5951.58156	0	0	30.2	89.99	2.748	0.031	54	1	0.72315	0
1	7	1040	15.56	13.96	5984.18815	0	0	30.2	80.01	2.653	0.033	55	1	0.69815	0
1	7	1060	13.61	13.8	6012.71381	0	0	30.2	69.98	2.622	0.037	56	1	0.69005	0
1	7	1080	11.67	13.45	6037.16797	0	0	30.2	60.01	2.556	0.043	57	1	0.6726	0
1	7	1100	9.72	13.05	6057.54905	0	0	30.2	49.98	2.479	0.05	58	1	0.6524	0
1	7	1120	7.78	12.48	6073.88141	0	0	30.2	40	2.372	0.059	59	1	0.62415	0
1	7	1140	5.83	12.3	6086.1132	0	0	30.2	29.98	2.337	0.078	60	1	0.61505	0
1	7	1160	3.89	11.88	6094.27977	0	0	30.2	20	2.257	0.113	61	1	0.59395	0
1	7	1180	1.94	10.8	6098.37169	0	0	30.2	9.98	2.052	0.206	62	1	0.54005	0
1	8	1200	1.75	10.69	6102.05992	0	0	30.2	9	2.031	0.226	63	1	0.53435	0
1	8	1220	1.56	10.48	6105.31697	0	0	30.2	8.02	1.991	0.248	64	1	0.52395	0
1	8	1240	1.36	10.54	6108.16875	0	0	30.2	6.99	2.003	0.287	65	1	0.52705	0
1	8	1260	1.17	10.1	6110.61291	0	0	30.2	6.02	1.918	0.319	66	1	0.50485	0
1	8	1280	0.97	9.52	6112.64631	0	0	30.2	4.99	1.808	0.362	67	1	0.4759	0
1	8	1300	0.78	9.22	6114.27208	0	0	30.2	4.01	1.752	0.437	68	1	0.46095	0
1	8	1320	0.58	8.08	6115.48945	59.776	38.94183	30.2	2.98	1.535	0.515	69	1	0.4039	0.026
1	8	1340	0.39	6.67	6116.29919	99.536	78.49857	30.2	2.01	1.268	0.631	70	1	0.33365	0.013
1	8	1360	0.19	4.88	6116.70053	119.24	128.77198	30.3	0.98	0.926	0.945	71	1	0.24375	0.008
1	9	1380	0.18	4.45	6117.07909	137.83	162.92098	30.3	0.93	0.846	0.91	72	1	0.2225	0.006
1	9	1400	0.16	4.12	6117.41524	154.34	196.85833	30.3	0.82	0.784	0.956	73	1	0.2062	0.005
1	9	1420	0.14	4.14	6117.7082	168.72	214.38585	30.3	0.72	0.787	1.093	74	1	0.20705	0.005
1	9	1440	0.12	4.2	6117.95952	181.06	226.8953	30.3	0.62	0.798	1.287	75	1	0.21	0.004
1	9	1460	0.1	4	6118.16923	191.36	251.78852	30.3	0.51	0.76	1.49	76	1	0.20005	0.004
1	9	1480	0.08	3.68	6118.33809	199.65	286.03256	30.3	0.41	0.698	1.702	77	1	0.18375	0.003
1	9	1500	0.06	4.1	6118.46375	205.82	264.5516	30.3	0.31	0.778	2.51	78	1	0.2048	0.004
1	9	1520	0.04	4	6118.547	209.91	276.55998	30.3	0.21	0.759	3.614	79	1	0.1998	0.004
1	9	1540	0.02	4.07	6118.58941	211.99	274.2452	30.3	0.1	0.773	7.73	80	1	0.20335	0.004

04.01.04 WM-187 gravity settled DG run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	1.63	0.03927	0	0	30.4	0.1	0.109	1.09	1	1	0.0814	0
1	1	40	0.04	1.83	0.12252	0	0	30.4	0.2	0.123	0.615	2	1	0.0915	0
1	1	60	0.06	2.16	0.24819	0	0	30.4	0.3	0.145	0.483	3	1	0.10795	0
1	1	80	0.08	2.84	0.41469	0	0	30.4	0.4	0.19	0.475	4	1	0.142	0
1	1	100	0.1	3.73	0.62439	0	0	30.4	0.5	0.25	0.5	5	1	0.1865	0
1	1	120	0.12	4.89	0.87493	0	0	30.4	0.6	0.328	0.547	6	1	0.2447	0

1	1	140	0.14	6.28	1.1671	0	0	30.4	0.71	0.42	0.592	7	1	0.3138	0
1	1	160	0.16	9.18	1.50168	0	0	30.4	0.81	0.615	0.759	8	1	0.45915	0
1	1	180	0.18	7.35	1.87867	0	0	30.4	0.91	0.492	0.541	9	1	0.36745	0
1	2	200	0.2	7.55	2.29965	0	0	30.4	1.01	0.506	0.501	10	1	0.37725	0
1	2	220	0.4	8.68	3.13138	0	0	30.3	2.02	0.581	0.288	11	1	0.4338	0
1	2	240	0.6	9.87	4.37938	0	0	30.3	3.02	0.661	0.219	12	1	0.4935	0
1	2	260	0.8	11.86	6.04442	0	0	30.3	4.03	0.795	0.197	13	1	0.5932	0
1	2	280	1	18.77	8.1218	0	0	30.4	5.04	1.258	0.25	14	1	0.9387	0
1	2	300	1.19	22.81	10.61937	0	0	30.4	6	1.528	0.255	15	1	1.1404	0
1	2	320	1.39	24.61	13.53162	0	0	30.4	7	1.649	0.236	16	1	1.2305	0
1	2	340	1.59	25.92	16.8625	0	0	30.3	8.01	1.736	0.217	17	1	1.2958	0
1	2	360	1.79	26.12	20.60885	0	0	30.3	9.02	1.75	0.194	18	1	1.3061	0
1	3	380	1.98	25.55	24.78088	0	0	30.3	9.98	1.712	0.172	19	1	1.27755	0
1	3	400	3.97	28.01	33.06212	0	0	30.3	20	1.877	0.094	20	1	1.4005	0
1	3	420	5.95	29.33	45.49969	0	0	30.3	29.98	1.965	0.066	21	1	1.46635	0
1	3	440	7.94	30.8	62.07787	0	0	30.3	40.01	2.064	0.052	22	1	1.53995	0
1	3	460	9.92	32.83	82.82652	0	0	30.3	49.99	2.2	0.044	23	1	1.64145	0
1	3	480	11.91	33.56	107.73778	0	0	30.3	60.01	2.249	0.037	24	1	1.6782	0
1	3	500	13.89	34.51	136.80615	0	0	30.3	69.99	2.312	0.033	25	1	1.7255	0
1	3	520	15.88	36.23	170.04106	0	0	30.3	80.02	2.427	0.03	26	1	1.81155	0
1	3	540	17.86	36.51	207.38046	0	0	30.3	90	2.446	0.027	27	1	1.82525	0
1	4	560	19.85	37.9	249.31993	0	0	30.3	100.02	2.54	0.025	28	1	1.8952	0
1	4	580	39.69	47.74	332.12211	0	0	30.3	200	3.199	0.016	29	1	2.387	0
1	4	600	59.54	56.45	456.58101	0	0	30.3	300.02	3.782	0.013	30	1	2.82255	0
1	4	620	79.38	64	622.45632	0	0	30.3	400	4.288	0.011	31	1	3.20015	0
1	4	640	99.23	71	829.97658	0	0	30.3	500.02	4.757	0.01	32	1	3.54985	0
1	4	660	119.07	77.47	1078.99728	0	0	30.3	599.99	5.191	0.009	33	1	3.8737	0
1	4	680	138.92	83.76	1369.84907	0	0	30.3	700.02	5.612	0.008	34	1	4.18815	0
1	4	700	158.76	89.61	1701.95311	0	0	30.3	799.99	6.004	0.008	35	1	4.48035	0
1	4	720	178.61	95.57	2075.70053	0	0	30.3	900.02	6.403	0.007	36	1	4.7784	0
1	4	740	198.45	101.1	2491.11568	0	0	30.3	999.99	6.775	0.007	37	1	5.05565	0
1	5	750	198.45	100.2	2703.108	0	0	30.3	999.99	6.711	0.007	38	1	5.00805	0
1	5	760	198.45	99.76	2911.02881	0	0	30.3	999.99	6.684	0.007	39	1	4.988	0
1	5	770	198.45	99.43	3118.94962	0	0	30.3	999.99	6.662	0.007	40	1	4.97145	0
1	5	780	198.45	99.09	3326.76598	0	0	30.3	999.99	6.639	0.007	41	1	4.9547	0
1	5	790	198.45	98.83	3534.0624	0	0	30.3	999.99	6.621	0.007	42	1	4.94135	0
1	5	800	198.45	98.53	3742.29501	0	0	30.3	999.99	6.601	0.007	43	1	4.92645	0
1	6	820	198.45	98.24	4162.70766	0	0	30.3	999.99	6.582	0.007	44	1	4.91215	0
1	6	840	178.61	91.28	4537.00643	0	0	30.3	900.02	6.116	0.007	45	1	4.5639	0
1	6	860	158.76	84.46	4869.7545	0	0	30.2	799.99	5.658	0.007	46	1	4.22275	0
1	6	880	138.92	77.92	5161.09638	0	0	30.2	700.02	5.221	0.007	47	1	3.8961	0
1	6	900	119.07	71.19	5410.67785	0	0	30.2	599.99	4.77	0.008	48	1	3.55945	0
1	6	920	99.23	64.52	5618.8225	0	0	30.2	500.02	4.323	0.009	49	1	3.22595	0
1	6	940	79.38	57.59	5785.43608	0	0	30.2	400	3.858	0.01	50	1	2.87925	0
1	6	960	59.54	50.37	5910.50917	0	0	30.2	300.02	3.375	0.011	51	1	2.5183	0
1	6	980	39.69	42.23	5993.8941	0	0	30.2	200	2.829	0.014	52	1	2.11145	0
1	6	1000	19.85	33.35	6035.78017	0	0	30.2	100.02	2.234	0.022	53	1	1.6674	0
1	7	1020	17.86	32.73	6073.44237	0	0	30.2	90	2.193	0.024	54	1	1.63645	0
1	7	1040	15.88	31.74	6106.7621	0	0	30.2	80.02	2.127	0.027	55	1	1.58705	0
1	7	1060	13.89	30.84	6135.86111	0	0	30.2	69.99	2.066	0.03	56	1	1.54185	0

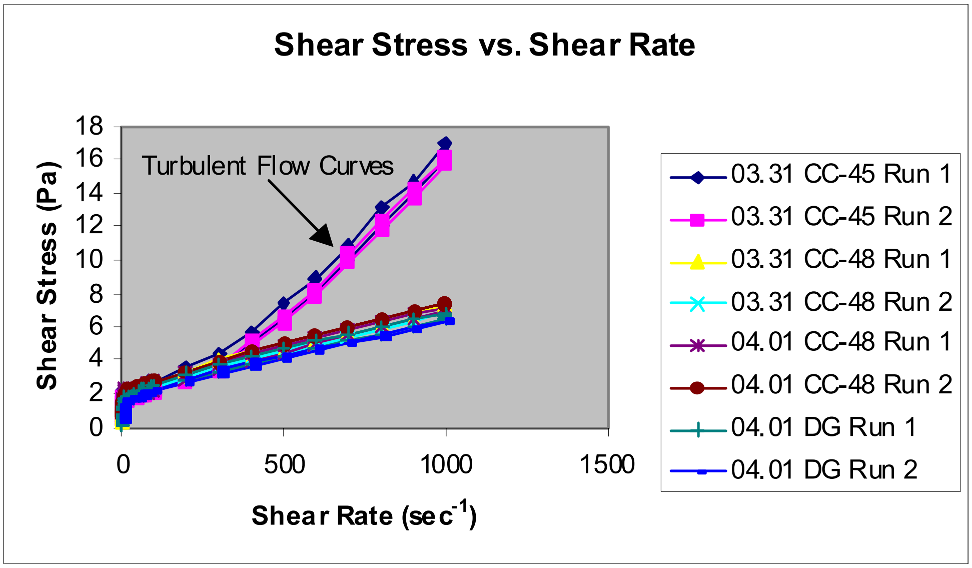
1	7	1080	11.9	29.83	6160.81242	0	0	30.2	59.96	1.999	0.033	57	1	1.49145	0
1	7	1100	9.92	28.6	6181.63332	0	0	30.1	49.99	1.916	0.038	58	1	1.43005	0
1	7	1120	7.93	27.55	6198.28612	0	0	30.1	39.96	1.846	0.046	59	1	1.3776	0
1	7	1140	5.95	26.36	6210.77395	0	0	30.1	29.98	1.766	0.059	60	1	1.31815	0
1	7	1160	3.96	25.3	6219.10624	0	0	30.1	19.95	1.695	0.085	61	1	1.2649	0
1	7	1180	1.98	23.83	6223.28063	0	0	30.1	9.98	1.596	0.16	62	1	1.1913	0
1	8	1200	1.79	23.69	6227.05133	0	0	30.1	9.02	1.587	0.176	63	1	1.18425	0
1	8	1220	1.59	23.53	6230.38692	0	0	30.1	8.01	1.577	0.197	64	1	1.1767	0
1	8	1240	1.39	23.45	6233.30546	0	0	30.1	7	1.571	0.224	65	1	1.1727	0
1	8	1260	1.19	23.02	6235.80773	0	0	30.1	6	1.542	0.257	66	1	1.151	0
1	8	1280	0.99	22.47	6237.89454	0	0	30.1	4.99	1.505	0.302	67	1	1.1234	0
1	8	1300	0.8	21.84	6239.56665	0	0	30.1	4.03	1.463	0.363	68	1	1.09195	0
1	8	1320	0.6	19.93	6240.82014	0	0	30.1	3.02	1.335	0.442	69	1	0.99645	0
1	8	1340	0.4	16.2	6241.66052	0	0	30.1	2.02	1.086	0.538	70	1	0.8102	0
1	8	1360	0.2	12.36	6242.08307	0	0	30.1	1.01	0.828	0.82	71	1	0.61785	0
1	9	1380	0.18	11.15	6242.46241	0	0	30.1	0.91	0.747	0.821	72	1	0.5576	0
1	9	1400	0.16	10.42	6242.79778	0	0	30.1	0.81	0.698	0.862	73	1	0.521	0
1	9	1420	0.14	9.72	6243.09152	0	0	30.1	0.71	0.651	0.917	74	1	0.48585	0
1	9	1440	0.12	8.96	6243.34284	0	0	30.1	0.6	0.601	1.002	75	1	0.44815	0
1	9	1460	0.1	8.61	6243.55333	0	0	30.1	0.5	0.577	1.154	76	1	0.4303	0
1	9	1480	0.08	8.4	6243.72062	0	0	30.1	0.4	0.563	1.407	77	1	0.42015	0
1	9	1500	0.06	8.07	6243.84707	0	0	30.1	0.3	0.541	1.803	78	1	0.40345	0
1	9	1520	0.04	8.14	6243.93111	0	0	30.1	0.2	0.545	2.725	79	1	0.40675	0
1	9	1540	0.02	8.03	6243.97352	0	0	30.2	0.1	0.538	5.38	80	1	0.4015	0

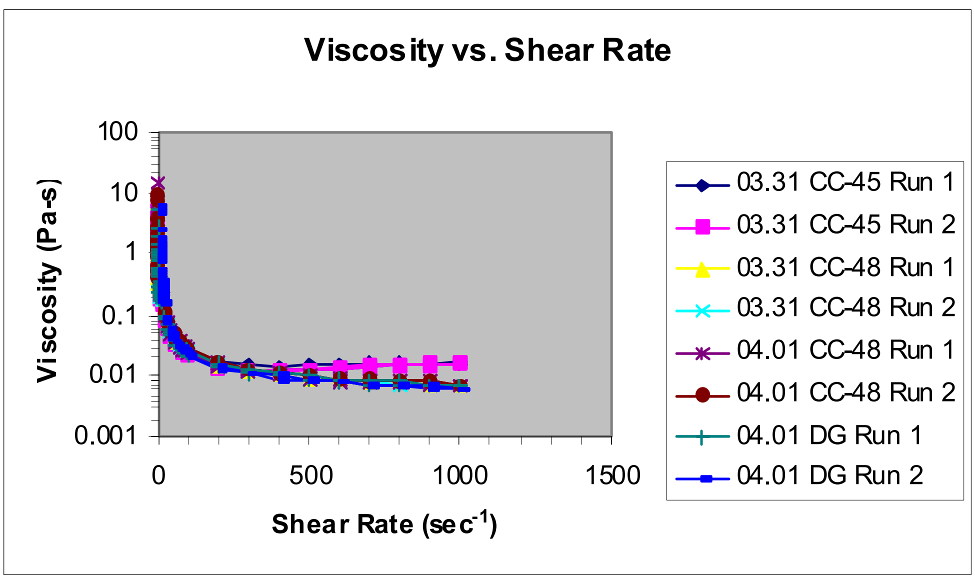
04.01.04 WM-187 gravity settled DG run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.02	8.46	0.03691	0	0	30.2	0.1	0.567	5.67	1	1	0.42315	0
1	1	40	0.04	7.67	0.12017	0	0	30.2	0.2	0.514	2.57	2	1	0.38345	0
1	1	60	0.06	8.19	0.24583	0	0	30.2	0.3	0.549	1.83	3	1	0.4097	0
1	1	80	0.08	8.56	0.41312	0	0	30.2	0.4	0.573	1.432	4	1	0.4279	0
1	1	100	0.1	9.48	0.62204	0	0	30.2	0.5	0.635	1.27	5	1	0.47405	0
1	1	120	0.12	10.19	0.87258	0	0	30.2	0.6	0.683	1.138	6	1	0.50955	0
1	1	140	0.14	11.12	1.16553	0	0	30.2	0.71	0.745	1.049	7	1	0.5558	0
1	1	160	0.16	11.54	1.50011	0	0	30.2	0.81	0.773	0.954	8	1	0.5768	0
1	1	180	0.18	11.9	1.87632	0	0	30.2	0.91	0.797	0.876	9	1	0.59475	0
1	2	200	0.2	12.28	2.29808	0	0	30.2	1.01	0.823	0.815	10	1	0.6142	0
1	2	220	0.4	14.19	3.12981	0	0	30.2	2.02	0.951	0.471	11	1	0.70945	0
1	2	240	0.6	16.01	4.37781	0	0	30.2	3.02	1.073	0.355	12	1	0.80065	0
1	2	260	0.8	17.7	6.04207	0	0	30.2	4.03	1.186	0.294	13	1	0.88525	0
1	2	280	1	22.28	8.12102	0	0	30.2	5.04	1.493	0.296	14	1	1.11385	0
1	2	300	1.19	23.78	10.61937	0	0	30.2	6	1.593	0.266	15	1	1.18915	0
1	2	320	1.39	23.03	13.5332	0	0	30.2	7	1.543	0.22	16	1	1.1517	0
1	2	340	1.59	23.16	16.86328	0	0	30.2	8.01	1.551	0.194	17	1	1.1578	0
1	2	360	1.79	23.19	20.60728	0	0	30.2	9.02	1.554	0.172	18	1	1.15945	0
1	3	380	1.98	23.36	24.78088	0	0	30.2	9.98	1.565	0.157	19	1	1.16795	0
1	3	400	3.97	25.16	33.05741	0	0	30.2	20	1.686	0.084	20	1	1.25795	0
1	3	420	5.95	26.27	45.4989	0	0	30.2	29.98	1.76	0.059	21	1	1.31325	0
1	3	440	7.94	27.3	62.08494	0	0	30.2	40.01	1.829	0.046	22	1	1.3652	0
1	3	460	9.92	28.39	82.82181	0	0	30.2	49.99	1.902	0.038	23	1	1.41955	0

1	3	480	11.91	29.66	107.74013	0	0	30.2	60.01	1.987	0.033	24	1	1.4832	0
1	3	500	13.89	30.62	136.80929	0	0	30.2	69.99	2.052	0.029	25	1	1.5312	0
1	3	520	15.88	31.67	170.00257	0	0	30.2	80.02	2.122	0.027	26	1	1.5835	0
1	3	540	17.86	32.6	207.38753	0	0	30.2	90	2.184	0.024	27	1	1.63005	0
1	4	560	19.85	33.53	249.32622	0	0	30.2	100.02	2.247	0.022	28	1	1.67655	0
1	4	580	39.69	42.93	332.15981	0	0	30.2	200	2.877	0.014	29	1	2.1467	0
1	4	600	59.54	51.09	456.52525	0	0	30.2	300.02	3.423	0.011	30	1	2.55445	0
1	4	620	79.38	58.04	622.51444	0	0	30.2	400	3.889	0.01	31	1	2.9019	0
1	4	640	99.23	64.79	830.06611	0	0	30.2	500.02	4.341	0.009	32	1	3.2395	0
1	4	660	119.07	71.1	1079.01377	0	0	30.2	599.99	4.764	0.008	33	1	3.5551	0
1	4	680	138.92	77.36	1369.71084	0	0	30.2	700.02	5.183	0.007	34	1	3.86805	0
1	4	700	158.76	83.28	1701.81331	0	0	30.2	799.99	5.58	0.007	35	1	4.1639	0
1	4	720	178.61	89.25	2075.84269	0	0	30.2	900.02	5.98	0.007	36	1	4.46245	0
1	4	740	198.45	94.96	2490.94447	0	0	30.2	999.99	6.363	0.006	37	1	4.7482	0
1	5	750	198.45	94.38	2702.73101	0	0	30.2	999.99	6.323	0.006	38	1	4.7189	0
1	5	760	198.45	94.15	2910.65104	0	0	30.2	999.99	6.308	0.006	39	1	4.70765	0
1	5	770	198.45	93.97	3118.46739	0	0	30.2	999.99	6.296	0.006	40	1	4.6983	0
1	5	780	198.45	93.79	3326.18007	0	0	30.2	999.99	6.284	0.006	41	1	4.68935	0
1	5	790	198.45	93.67	3534.20456	0	0	30.2	999.99	6.276	0.006	42	1	4.6834	0
1	5	800	198.45	93.56	3741.70911	0	0	30.3	999.99	6.268	0.006	43	1	4.67775	0
1	6	820	198.45	93.44	4162.01729	0	0	30.2	999.99	6.26	0.006	44	1	4.67195	0
1	6	840	178.61	86.9	4536.22339	0	0	30.2	900.02	5.822	0.006	45	1	4.34475	0
1	6	860	158.76	80.55	4868.8882	0	0	30.2	799.99	5.397	0.007	46	1	4.02745	0
1	6	880	138.92	74.36	5160.45706	0	0	30.2	700.02	4.982	0.007	47	1	3.718	0
1	6	900	119.07	67.95	5409.96706	0	0	30.2	599.99	4.553	0.008	48	1	3.3977	0
1	6	920	99.23	61.56	5618.16355	0	0	30.3	500.02	4.125	0.008	49	1	3.07805	0
1	6	940	79.38	54.97	5784.68367	0	0	30.3	400	3.683	0.009	50	1	2.7483	0
1	6	960	59.54	48.04	5909.79681	0	0	30.3	300.02	3.219	0.011	51	1	2.4019	0
1	6	980	39.69	40.24	5993.20374	0	0	30.3	200	2.696	0.013	52	1	2.01175	0
1	6	1000	19.85	31.75	6035.0686	0	0	30.3	100.02	2.127	0.021	53	1	1.5874	0
1	7	1020	17.86	31.23	6072.75122	0	0	30.2	90	2.093	0.023	54	1	1.5617	0
1	7	1040	15.88	30.23	6106.03875	0	0	30.3	80.02	2.025	0.025	55	1	1.5113	0
1	7	1060	13.89	29.39	6135.17388	0	0	30.3	69.99	1.969	0.028	56	1	1.4696	0
1	7	1080	11.9	28.37	6160.11184	0	0	30.3	59.96	1.901	0.032	57	1	1.41855	0
1	7	1100	9.92	27.28	6180.9139	0	0	30.3	49.99	1.828	0.037	58	1	1.36395	0
1	7	1120	7.93	26.33	6197.57769	0	0	30.3	39.96	1.764	0.044	59	1	1.31625	0
1	7	1140	5.95	25.18	6210.0616	0	0	30.2	29.98	1.687	0.056	60	1	1.25915	0
1	7	1160	3.96	24.21	6218.39781	0	0	30.3	19.95	1.622	0.081	61	1	1.2105	0
1	7	1180	1.98	22.73	6222.57377	0	0	30.3	9.98	1.523	0.153	62	1	1.13645	0
1	8	1200	1.79	22.69	6226.34212	0	0	30.3	9.02	1.52	0.169	63	1	1.13425	0
1	8	1220	1.59	22.73	6229.67927	0	0	30.3	8.01	1.523	0.19	64	1	1.1365	0
1	8	1240	1.39	22.34	6232.59781	0	0	30.3	7	1.497	0.214	65	1	1.117	0
1	8	1260	1.19	22.22	6235.10088	0	0	30.3	6	1.489	0.248	66	1	1.11115	0
1	8	1280	0.99	21.53	6237.18689	0	0	30.3	4.99	1.442	0.289	67	1	1.07635	0
1	8	1300	0.8	20.82	6238.85822	0	0	30.3	4.03	1.395	0.346	68	1	1.0412	0
1	8	1320	0.6	19.14	6240.11329	0	0	30.2	3.02	1.282	0.425	69	1	0.9569	0
1	8	1340	0.4	16.05	6240.95209	0	0	30.2	2.02	1.075	0.532	70	1	0.80255	0
1	8	1360	0.2	12.33	6241.37464	0	0	30.3	1.01	0.826	0.818	71	1	0.6164	0
1	9	1380	0.18	10.83	6241.75398	0	0	30.3	0.91	0.725	0.797	72	1	0.5413	0
1	9	1400	0.16	9.97	6242.09013	0	0	30.3	0.81	0.668	0.825	73	1	0.4985	0

1	9	1420	0.14	9.3	6242.38309	0	0	30.2	0.71	0.623	0.877	74	1	0.4648	0
1	9	1440	0.12	8.75	6242.63441	0	0	30.2	0.6	0.586	0.977	75	1	0.4375	0
1	9	1460	0.1	8.28	6242.8449	0	0	30.3	0.5	0.555	1.11	76	1	0.41405	0
1	9	1480	0.08	7.52	6243.01298	0	0	30.2	0.4	0.504	1.26	77	1	0.3762	0
1	9	1500	0.06	7.31	6243.13864	0	0	30.3	0.3	0.49	1.633	78	1	0.36545	0
1	9	1520	0.04	7.47	6243.22346	0	0	30.2	0.2	0.5	2.5	79	1	0.3733	0
1	9	1540	0.02	7.3	6243.26509	0	0	30.2	0.1	0.489	4.89	80	1	0.3649	0





E-2.2.4 Centrifuged

04.01.04 WM-187 centrifuged cc-45 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	25.37	0.15708	1.9365	0.38979	30.3	0.1	4.968	49.68	1	1	1.26865	2.565453137
1	1	40	0.16	25.85	0.48616	5.99347	1.18401	30.3	0.21	5.062	24.105	2	1	1.29265	0.844585858
1	1	60	0.24	24.46	0.97625	12.03535	2.51365	30.3	0.31	4.788	15.445	3	1	1.22275	0.397828065
1	1	80	0.31	26.97	1.62892	20.0815	3.80331	30.3	0.4	5.28	13.2	4	1	1.3484	0.262928566
1	1	100	0.39	29.81	2.44416	30.13194	5.16223	30.3	0.5	5.837	11.674	5	1	1.49065	0.193714709
1	1	120	0.47	32.21	3.42041	42.16729	6.68579	30.3	0.61	6.307	10.339	6	1	1.6105	0.149570911
1	1	140	0.54	35.68	4.56081	56.22628	8.04727	30.3	0.7	6.987	9.981	7	1	1.78415	0.124265735
1	1	160	0.62	35.18	5.86378	72.28954	10.49347	30.3	0.8	6.889	8.611	8	1	1.7592	0.095297328
1	1	180	0.7	34.35	7.32934	90.35709	13.434	30.3	0.9	6.726	7.473	9	1	1.71765	0.074437988
1	2	200	0.77	34.43	8.95197	0	0	30.3	0.99	6.742	6.81	10	1	1.7216	0
1	2	220	1.55	44.37	12.17289	0	0	30.3	2	8.687	4.344	11	1	2.21835	0
1	2	240	2.32	58.06	17.01722	0	0	30.3	3	11.367	3.789	12	1	2.9028	0
1	2	260	3.09	60.46	23.4889	0	0	30.3	3.99	11.839	2.967	13	1	3.02315	0
1	2	280	3.87	58.62	31.58793	0	0	30.3	5	11.479	2.296	14	1	2.9312	0
1	2	300	4.65	57.86	41.29938	0	0	30.3	6	11.328	1.888	15	1	2.8928	0
1	2	320	5.42	57.61	52.65152	0	0	30.3	7	11.281	1.612	16	1	2.88065	0
1	2	340	6.2	57.97	65.61609	0	0	30.3	8	11.35	1.419	17	1	2.89835	0
1	2	360	6.97	57.61	80.19151	0	0	30.3	9	11.279	1.253	18	1	2.8803	0
1	3	380	7.75	57.35	96.5702	0	0	30.3	10.01	11.228	1.122	19	1	2.8673	0
1	3	400	15.5	60.34	128.8807	0	0	30.3	20.01	11.815	0.59	20	1	3.017	0
1	3	420	23.24	61.53	177.46543	0	0	30.3	30	12.048	0.402	21	1	3.0765	0
1	3	440	30.99	61.76	242.21444	0	0	30.3	40.01	12.092	0.302	22	1	3.08775	0
1	3	460	38.73	61.26	323.20155	0	0	30.3	50	11.994	0.24	23	1	3.06275	0
1	3	480	46.48	61.35	420.51396	0	0	30.3	60.01	12.013	0.2	24	1	3.0676	0
1	3	500	54.22	61.76	533.9176	0	0	30.3	70	12.093	0.173	25	1	3.08815	0
1	3	520	61.96	61.8	663.51144	0	0	30.3	79.99	12.101	0.151	26	1	3.09005	0
1	3	540	69.71	62.25	809.43135	0	0	30.3	90	12.189	0.135	27	1	3.1127	0
1	4	560	77.46	61.91	973.08241	0	0	30.3	100	12.122	0.121	28	1	3.0954	0
1	4	580	154.92	67.85	1296.20856	0	0	30.3	200	13.285	0.066	29	1	3.39255	0
1	4	600	232.38	72.35	1781.80768	0	0	30.3	300	14.166	0.047	30	1	3.61755	0
1	4	620	309.84	76.88	2429.67713	0	0	30.3	400	15.053	0.038	31	1	3.844	0
1	4	640	387.3	81.45	3240.14049	0	0	30.3	500	15.947	0.032	32	1	4.07235	0
1	4	660	464.75	86.38	4211.98118	0	0	30.3	599.99	16.913	0.028	33	1	4.31895	0
1	4	680	542.21	96.96	5346.53909	0	0	30.3	699.99	18.984	0.027	34	1	4.8479	0
1	4	700	619.67	112.8	6641.41719	0	0	30.3	799.99	22.087	0.028	35	1	5.6401	0
1	4	720	697.13	123.21	8100.51341	0	0	30.3	899.99	24.124	0.027	36	1	6.16035	0
1	4	740	774.59	136.82	9722.68969	0	0	30.3	1000	26.789	0.027	37	1	6.84085	0
1	5	750	774.59	134.7	10551.35937	0	0	30.3	1000	26.375	0.026	38	1	6.7351	0
1	5	760	774.59	134.32	11362.91443	0	0	30.3	1000	26.299	0.026	39	1	6.71575	0
1	5	770	774.59	133.71	12174.4695	0	0	30.3	1000	26.18	0.026	40	1	6.6855	0
1	5	780	774.59	132.7	12985.21324	0	0	30.3	1000	25.983	0.026	41	1	6.63515	0
1	5	790	774.59	131.45	13795.14411	0	0	30.3	1000	25.738	0.026	42	1	6.57255	0
1	5	800	774.59	130.59	14607.91889	0	0	30.3	1000	25.57	0.026	43	1	6.5296	0
1	6	820	774.59	130.89	16248.06038	0	0	30.3	1000	25.628	0.026	44	1	6.54435	0
1	6	840	697.13	116.16	17710.84482	0	0	30.3	899.99	22.744	0.025	45	1	5.8079	0
1	6	860	619.67	103.59	19009.69389	0	0	30.3	799.99	20.283	0.025	46	1	5.17945	0

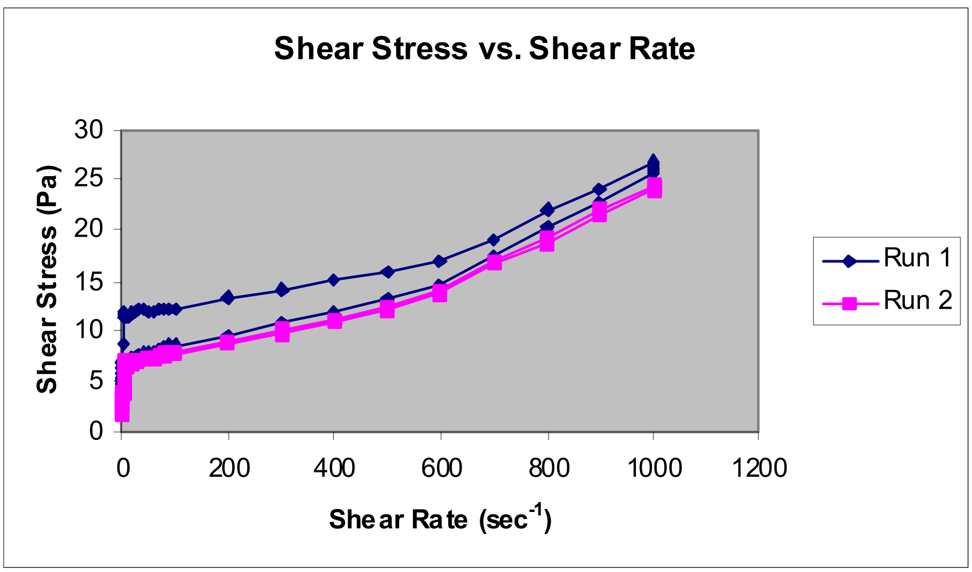
1	6	880	542.21	89.34	20147.16878	0	0	30.3	699.99	17.493	0.025	47	1	4.46695	0
1	6	900	464.75	74.32	21120.58733	0	0	30.3	599.99	14.551	0.024	48	1	3.71575	0
1	6	920	387.3	67.37	21933.03304	0	0	30.3	500	13.192	0.026	49	1	3.3687	0
1	6	940	309.84	60.72	22583.57205	0	0	30.3	400	11.889	0.03	50	1	3.03605	0
1	6	960	232.38	54.83	23071.80147	0	0	30.3	300	10.736	0.036	51	1	2.7416	0
1	6	980	154.92	49.17	23397.15266	0	0	30.3	200	9.628	0.048	52	1	2.4587	0
1	6	1000	77.46	44.09	23560.67884	0	0	30.3	100	8.633	0.086	53	1	2.2046	0
1	7	1020	69.71	43.47	23707.82004	0	0	30.3	90	8.511	0.095	54	1	2.17345	0
1	7	1040	61.97	42.76	23837.75239	0	0	30.3	80	8.373	0.105	55	1	2.1381	0
1	7	1060	54.22	42.03	23951.43171	0	0	30.3	70	8.23	0.118	56	1	2.10155	0
1	7	1080	46.48	40.93	24048.86663	0	0	30.3	60.01	8.014	0.134	57	1	2.0465	0
1	7	1100	38.73	40.07	24130.14042	0	0	30.3	50	7.846	0.157	58	1	2.00365	0
1	7	1120	30.99	39.49	24195.11955	0	0	30.3	40.01	7.732	0.193	59	1	1.9745	0
1	7	1140	23.24	38.62	24243.90691	0	0	30.3	30	7.562	0.252	60	1	1.9311	0
1	7	1160	15.5	37.64	24276.4813	0	0	30.3	20.01	7.37	0.368	61	1	1.882	0
1	7	1180	7.75	36.53	24292.82622	0	0	30.3	10.01	7.153	0.715	62	1	1.82655	0
1	8	1200	6.97	36.1	24307.53516	0	0	30.2	9	7.068	0.785	63	1	1.8048	0
1	8	1220	6.2	35.66	24320.52093	0	0	30.3	8	6.982	0.873	64	1	1.783	0
1	8	1240	5.42	34.93	24331.88015	0	0	30.3	7	6.84	0.977	65	1	1.74665	0
1	8	1260	4.64	34.46	24341.62065	0	0	30.3	5.99	6.747	1.126	66	1	1.723	0
1	8	1280	3.87	33.64	24349.74167	0	0	30.3	5	6.587	1.317	67	1	1.6822	0
1	8	1300	3.09	32.53	24356.23456	0	0	30.3	3.99	6.37	1.596	68	1	1.62665	0
1	8	1320	2.32	30.31	24361.10324	0	0	30.3	3	5.934	1.978	69	1	1.51535	0
1	8	1340	1.54	25.48	24364.35165	0	0	30.3	1.99	4.988	2.507	70	1	1.2738	0
1	8	1360	0.77	19.91	24365.97742	0	0	30.3	0.99	3.899	3.938	71	1	0.9957	0
1	9	1380	0.7	19.37	24367.45161	18.17405	4.79147	30.3	0.9	3.793	4.214	72	1	0.9686	0.208704169
1	9	1400	0.62	17.54	24368.75852	34.28573	9.98129	30.3	0.8	3.435	4.294	73	1	0.87705	0.100187454
1	9	1420	0.55	15.96	24369.90127	48.37377	15.4796	30.3	0.71	3.125	4.401	74	1	0.79795	0.064601126
1	9	1440	0.47	15.17	24370.88145	60.45753	20.35606	30.3	0.61	2.97	4.869	75	1	0.75845	0.049125394
1	9	1460	0.39	14.35	24371.69905	70.53701	25.10213	30.3	0.5	2.81	5.62	76	1	0.71765	0.039837243
1	9	1480	0.31	14.06	24372.35486	78.6219	28.55862	30.3	0.4	2.753	6.883	77	1	0.7031	0.035015689
1	9	1500	0.24	13.38	24372.84887	84.71219	32.33288	30.3	0.31	2.62	8.452	78	1	0.66915	0.030928252
1	9	1520	0.16	12.29	24373.18031	88.79821	36.90697	30.2	0.21	2.406	11.457	79	1	0.6143	0.027095141
1	9	1540	0.08	10.88	24373.34917	90.87995	42.6466	30.3	0.1	2.131	21.31	80	1	0.5442	0.023448516

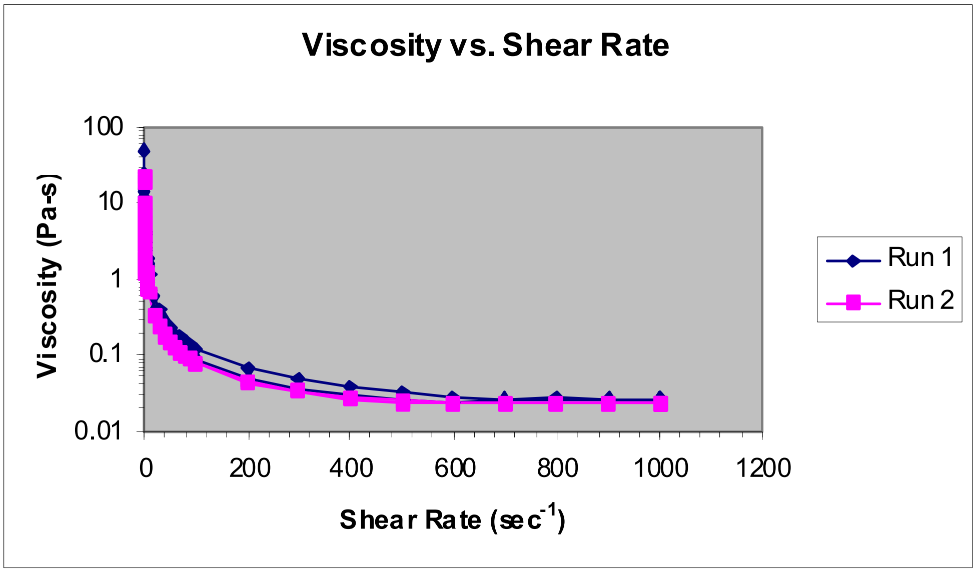
04.01.04 WM-187 centrifuged cc-45 run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	11.35	0.16179	1.99459	0.89765	30.3	0.1	2.222	22.22	1	1	0.56735	1.114013406
1	1	40	0.16	10.24	0.49009	6.04188	3.0134	30.3	0.21	2.005	9.548	2	1	0.5119	0.331850351
1	1	60	0.24	11.13	0.98175	12.10312	5.55189	30.3	0.31	2.18	7.032	3	1	0.5567	0.180118845
1	1	80	0.31	11.9	1.63441	20.14928	8.65147	30.3	0.4	2.329	5.823	4	1	0.59485	0.115587257
1	1	100	0.39	12.32	2.45044	30.2094	12.51943	30.3	0.5	2.413	4.826	5	1	0.61615	0.0798758
1	1	120	0.47	11.2	3.42826	42.26411	19.27227	30.3	0.61	2.193	3.595	6	1	0.56	0.051887997
1	1	140	0.54	12.48	4.56866	56.3231	23.05488	30.3	0.7	2.443	3.49	7	1	0.6239	0.043374743
1	1	160	0.62	14.29	5.87007	72.367	25.86382	30.3	0.8	2.798	3.498	8	1	0.71455	0.038664032
1	1	180	0.7	15.18	7.33562	90.43455	30.41861	30.3	0.9	2.973	3.303	9	1	0.7592	0.032874604
1	2	200	0.77	14.99	8.95825	0	0	30.3	0.99	2.934	2.964	10	1	0.74935	0
1	2	220	1.55	18.9	12.18153	0	0	30.3	2	3.7	1.85	11	1	0.94495	0
1	2	240	2.32	26.6	17.03136	0	0	30.3	3	5.209	1.736	12	1	1.33015	0
1	2	260	3.09	30.79	23.50068	0	0	30.3	3.99	6.029	1.511	13	1	1.5397	0

1	2	280	3.87	35.01	31.59028	0	0	30.3	5	6.856	1.371	14	1	1.75065	0
1	2	300	4.65	36.8	41.30645	0	0	30.3	6	7.206	1.201	15	1	1.8402	0
1	2	320	5.42	35.68	52.65623	0	0	30.3	7	6.987	0.998	16	1	1.7841	0
1	2	340	6.2	34.8	65.61609	0	0	30.3	8	6.813	0.852	17	1	1.7398	0
1	2	360	6.97	34.38	80.21429	0	0	30.3	9	6.732	0.748	18	1	1.719	0
1	3	380	7.75	34.24	96.5812	0	0	30.3	10.01	6.703	0.67	19	1	1.7118	0
1	3	400	15.5	35.33	128.91211	0	0	30.3	20.01	6.917	0.346	20	1	1.7663	0
1	3	420	23.24	35.86	177.44422	0	0	30.3	30	7.021	0.234	21	1	1.793	0
1	3	440	30.99	36.69	242.24271	0	0	30.3	40.01	7.183	0.18	22	1	1.83435	0
1	3	460	38.73	37.22	323.2691	0	0	30.3	50	7.287	0.146	23	1	1.8608	0
1	3	480	46.48	37.89	420.4362	0	0	30.3	60.01	7.42	0.124	24	1	1.8947	0
1	3	500	54.22	38.95	533.92938	0	0	30.3	70	7.626	0.109	25	1	1.9474	0
1	3	520	61.96	39.63	663.58684	0	0	30.3	79.99	7.76	0.097	26	1	1.98165	0
1	3	540	69.71	40.16	809.47062	0	0	30.3	90	7.862	0.087	27	1	2.00775	0
1	4	560	77.46	40.72	973.08555	0	0	30.3	100	7.972	0.08	28	1	2.03585	0
1	4	580	154.92	46.08	1296.33266	0	0	30.3	200	9.023	0.045	29	1	2.30415	0
1	4	600	232.38	51.43	1781.6883	0	0	30.3	300	10.071	0.034	30	1	2.5717	0
1	4	620	309.84	56.91	2429.88133	0	0	30.3	400	11.143	0.028	31	1	2.8456	0
1	4	640	387.3	62.86	3239.98027	0	0	30.3	500	12.307	0.025	32	1	3.1428	0
1	4	660	464.75	70.52	4211.61833	0	0	30.3	599.99	13.808	0.023	33	1	3.52615	0
1	4	680	542.21	86.53	5346.49747	0	0	30.3	699.99	16.942	0.024	34	1	4.32625	0
1	4	700	619.67	97.95	6642.99977	0	0	30.3	799.99	19.179	0.024	35	1	4.89765	0
1	4	720	697.13	112.16	8099.98719	0	0	30.3	899.99	21.962	0.024	36	1	5.6082	0
1	4	740	774.59	124.13	9722.52869	0	0	30.3	1000	24.304	0.024	37	1	6.20635	0
1	5	750	774.59	124.51	10551.19758	0	0	30.3	1000	24.378	0.024	38	1	6.22535	0
1	5	760	774.59	124.07	11362.34738	0	0	30.3	1000	24.293	0.024	39	1	6.20345	0
1	5	770	774.59	123.37	12174.31006	0	0	30.3	1000	24.156	0.024	40	1	6.16845	0
1	5	780	774.59	123.5	12982.61593	0	0	30.3	1000	24.181	0.024	41	1	6.17505	0
1	5	790	774.59	123.75	13794.9831	0	0	30.3	1000	24.231	0.024	42	1	6.1876	0
1	5	800	774.59	122.22	14607.35026	0	0	30.3	1000	23.93	0.024	43	1	6.1108	0
1	6	820	774.59	122.72	16248.30228	0	0	30.3	1000	24.029	0.024	44	1	6.1362	0
1	6	840	697.13	109.64	17710.03429	0	0	30.3	899.99	21.467	0.024	45	1	5.48175	0
1	6	860	619.67	95.82	19008.84331	0	0	30.3	799.99	18.762	0.023	46	1	4.79105	0
1	6	880	542.21	84.96	20146.88446	0	0	30.3	699.99	16.635	0.024	47	1	4.248	0
1	6	900	464.75	69.69	21120.58733	0	0	30.3	599.99	13.646	0.023	48	1	3.48465	0
1	6	920	387.3	61.52	21933.43673	0	0	30.3	500	12.046	0.024	49	1	3.07615	0
1	6	940	309.84	55.45	22583.532	0	0	30.3	400	10.856	0.027	50	1	2.7723	0
1	6	960	232.38	49.9	23071.31374	0	0	30.3	300	9.77	0.033	51	1	2.49485	0
1	6	980	154.92	44.54	23397.07019	0	0	30.3	200	8.72	0.044	52	1	2.22685	0
1	6	1000	77.46	39.93	23560.638	0	0	30.3	100	7.818	0.078	53	1	1.9965	0
1	7	1020	69.71	39.44	23707.78156	0	0	30.3	90	7.723	0.086	54	1	1.97205	0
1	7	1040	61.97	38.92	23837.77909	0	0	30.3	80	7.62	0.095	55	1	1.9459	0
1	7	1060	54.22	38.31	23951.48276	0	0	30.3	70	7.501	0.107	56	1	1.9155	0
1	7	1080	46.48	37.34	24048.91297	0	0	30.3	60.01	7.312	0.122	57	1	1.86715	0
1	7	1100	38.73	36.59	24130.08544	0	0	30.3	50	7.165	0.143	58	1	1.82965	0
1	7	1120	30.99	36.04	24195.16275	0	0	30.3	40.01	7.056	0.176	59	1	1.8018	0
1	7	1140	23.24	35.28	24243.93362	0	0	30.3	30	6.907	0.23	60	1	1.7638	0
1	7	1160	15.5	34.43	24276.47895	0	0	30.3	20.01	6.742	0.337	61	1	1.7217	0
1	7	1180	7.75	33.57	24292.82858	0	0	30.3	10.01	6.573	0.657	62	1	1.6786	0
1	8	1200	6.97	33.36	24307.54458	0	0	30.3	9	6.531	0.726	63	1	1.66785	0

1	8	1220	6.2	32.94	24320.52722	0	0	30.3	8	6.449	0.806	64	1	1.6468	0
1	8	1240	5.42	32.35	24331.88407	0	0	30.3	7	6.335	0.905	65	1	1.6176	0
1	8	1260	4.64	31.92	24341.62615	0	0	30.3	5.99	6.249	1.043	66	1	1.59575	0
1	8	1280	3.87	31.25	24349.73932	0	0	30.3	5	6.119	1.224	67	1	1.5626	0
1	8	1300	3.09	30.36	24356.23534	0	0	30.3	3.99	5.944	1.49	68	1	1.51775	0
1	8	1320	2.32	28.26	24361.10638	0	0	30.3	3	5.533	1.844	69	1	1.4128	0
1	8	1340	1.54	24.28	24364.35479	0	0	30.3	1.99	4.753	2.388	70	1	1.21385	0
1	8	1360	0.77	18.96	24365.97899	0	0	30.3	0.99	3.713	3.751	71	1	0.9481	0
1	9	1380	0.7	17.4	24367.4524	18.16437	5.33148	30.3	0.9	3.407	3.786	72	1	0.87	0.187564997
1	9	1400	0.62	16.37	24368.7593	34.27605	10.69122	30.3	0.8	3.206	4.007	73	1	0.81865	0.093534698
1	9	1420	0.55	15.39	24369.90049	48.34472	16.04005	30.3	0.71	3.014	4.245	74	1	0.7696	0.062343933
1	9	1440	0.47	14.97	24370.88066	60.42848	20.61701	30.3	0.61	2.931	4.805	75	1	0.7485	0.048503619
1	9	1460	0.39	14.52	24371.69905	70.51765	24.80395	30.3	0.5	2.843	5.686	76	1	0.7259	0.040316148
1	9	1480	0.31	13.2	24372.35564	78.61222	30.42267	30.3	0.4	2.584	6.46	77	1	0.65975	0.032870208
1	9	1500	0.24	11.73	24372.84887	84.69283	36.87105	30.3	0.31	2.297	7.41	78	1	0.58645	0.02712154
1	9	1520	0.16	10.6	24373.18031	88.77884	42.78496	30.3	0.21	2.075	9.881	79	1	0.52985	0.023372687
1	9	1540	0.08	9.22	24373.34917	90.86058	50.33824	30.3	0.1	1.805	18.05	80	1	0.4609	0.019865601





E-2.2.5 Aged Centrifuged

04.20.04 WM-187 centrifuged CC-45 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	31.15	0.16336	2.01396	0.33021	28.7	0.1	6.099	60.99	1	1	1.5575	3.028362033
1	1	40	0.16	4.13	0.49244	6.07093	7.51352	28.8	0.21	0.808	3.848	2	1	0.2064	0.133093282
1	1	60	0.24	5.72	0.98332	12.12249	10.8236	28.8	0.31	1.12	3.613	3	1	0.28595	0.09239026
1	1	80	0.31	8.14	1.63677	20.17833	12.6669	28.8	0.4	1.593	3.983	4	1	0.40675	0.078946077
1	1	100	0.39	21.24	2.45201	30.22876	7.27002	28.8	0.5	4.158	8.316	5	1	1.06175	0.137551127
1	1	120	0.47	13.24	3.42905	42.27379	16.303	28.8	0.61	2.593	4.251	6	1	0.6621	0.061338243
1	1	140	0.54	24.06	4.56945	56.33278	11.9603	28.9	0.7	4.71	6.729	7	1	1.20275	0.083610289
1	1	160	0.62	22.27	5.85593	72.19272	16.5542	28.8	0.8	4.361	5.451	8	1	1.11355	0.060407753
1	1	180	0.71	29.36	7.33483	90.42487	15.7288	28.8	0.92	5.749	6.249	9	1	1.4681	0.063577642
1	2	200	0.77	20.84	8.95825	0	0	28.8	0.99	4.081	4.122	10	1	1.0422	0
1	2	220	1.55	33.83	12.17838	0	0	28.8	2	6.625	3.313	11	1	1.6917	0
1	2	240	2.33	59.26	17.01801	0	0	28.8	3.01	11.602	3.854	12	1	2.96275	0
1	2	260	3.1	19.45	23.50697	0	0	28.8	4	3.809	0.952	13	1	0.97265	0
1	2	280	3.87	8.08	31.59735	0	0	28.7	5	1.583	0.317	14	1	0.40415	0
1	2	300	4.65	18.85	41.31587	0	0	28.7	6	3.691	0.615	15	1	0.94255	0
1	2	320	5.42	16.91	52.65152	0	0	28.8	7	3.311	0.473	16	1	0.84555	0
1	2	340	6.2	7.41	65.62237	0	0	28.7	8	1.451	0.181	17	1	0.3706	0
1	2	360	6.97	7.34	80.22057	0	0	28.8	9	1.436	0.16	18	1	0.36675	0
1	3	380	7.75	7.61	96.5867	0	0	28.8	10.01	1.49	0.149	19	1	0.3804	0
1	3	400	15.5	9.75	128.90662	0	0	28.8	20.01	1.91	0.095	20	1	0.48765	0
1	3	420	23.24	9.13	177.51883	0	0	28.7	30	1.787	0.06	21	1	0.45625	0
1	3	440	30.99	12.58	242.25371	0	0	28.7	40.01	2.464	0.062	22	1	0.6291	0
1	3	460	38.72	10.66	323.23454	0	0	28.7	49.99	2.088	0.042	23	1	0.53315	0
1	3	480	46.48	10.35	420.52731	0	0	28.7	60.01	2.026	0.034	24	1	0.5174	0
1	3	500	54.22	9.61	533.93959	0	0	28.8	70	1.881	0.027	25	1	0.4804	0
1	3	520	61.96	9.81	663.56563	0	0	28.7	79.99	1.921	0.024	26	1	0.4905	0
1	3	540	69.71	10.01	809.44863	0	0	28.7	90	1.96	0.022	27	1	0.50055	0

1	4	560	77.46	10.35	973.21749	0	0	28.7	100	2.027	0.02	28	1	0.5176	0
1	4	580	154.92	13.72	1296.46539	0	0	28.7	200	2.686	0.013	29	1	0.6859	0
1	4	600	232.38	17.74	1781.94277	0	0	28.7	300	3.474	0.012	30	1	0.88715	0
1	4	620	309.84	25.56	2428.91922	0	0	28.7	400	5.004	0.013	31	1	1.27775	0
1	4	640	387.3	33.05	3239.21843	0	0	28.7	500	6.47	0.013	32	1	1.6523	0
1	4	660	464.75	43.11	4211.58691	0	0	28.7	599.99	8.441	0.014	33	1	2.1554	0
1	4	680	542.21	55.08	5346.46919	0	0	28.7	699.99	10.785	0.015	34	1	2.75415	0
1	4	700	619.67	65.44	6642.97149	0	0	28.7	799.99	12.813	0.016	35	1	3.2719	0
1	4	720	697.13	75.42	8100.60844	0	0	28.7	899.99	14.767	0.016	36	1	3.77085	0
1	4	740	774.59	83.61	9722.01661	0	0	28.7	1000	16.37	0.016	37	1	4.18035	0
1	5	750	774.59	82.52	10550.68628	0	0	28.7	1000	16.157	0.016	38	1	4.1258	0
1	5	760	774.59	82.35	11361.43003	0	0	28.7	1000	16.124	0.016	39	1	4.11735	0
1	5	770	774.59	82.06	12172.17221	0	0	28.7	1000	16.067	0.016	40	1	4.1029	0
1	5	780	774.59	81.95	12983.72492	0	0	28.7	1000	16.047	0.016	41	1	4.0977	0
1	5	790	774.59	81.73	13795.68367	0	0	28.7	1000	16.003	0.016	42	1	4.08645	0
1	5	800	774.59	81.52	14605.61689	0	0	28.7	1000	15.962	0.016	43	1	4.07615	0
1	6	820	774.59	81.42	16246.16521	0	0	28.7	1000	15.942	0.016	44	1	4.0711	0
1	6	840	697.13	70.43	17706.75997	0	0	28.7	899.99	13.79	0.015	45	1	3.52155	0
1	6	860	619.67	60.16	19007.47672	0	0	28.7	799.99	11.779	0.015	46	1	3.008	0
1	6	880	542.21	50.52	20143.81356	0	0	28.7	699.99	9.891	0.014	47	1	2.52575	0
1	6	900	464.75	40.93	21118.48875	0	0	28.8	599.99	8.013	0.013	48	1	2.0463	0
1	6	920	387.3	31.68	21930.56767	0	0	28.7	500	6.202	0.012	49	1	1.58375	0
1	6	940	309.84	23.53	22580.94804	0	0	28.7	400	4.606	0.012	50	1	1.1763	0
1	6	960	232.38	16.12	23069.15311	0	0	28.7	300	3.156	0.011	51	1	0.8059	0
1	6	980	154.92	12.18	23394.9292	0	0	28.6	200	2.384	0.012	52	1	0.60885	0
1	6	1000	77.46	16.56	23558.49151	0	0	28.7	100	3.243	0.032	53	1	0.82805	0
1	7	1020	69.71	9.12	23705.7034	0	0	28.7	90	1.786	0.02	54	1	0.456	0
1	7	1040	61.97	8.81	23835.59647	0	0	28.7	80	1.726	0.022	55	1	0.4407	0
1	7	1060	54.22	8.68	23949.2428	0	0	28.7	70	1.7	0.024	56	1	0.43405	0
1	7	1080	46.48	8.02	24046.67301	0	0	28.7	60.01	1.57	0.026	57	1	0.401	0
1	7	1100	38.73	7.68	24127.95073	0	0	28.7	50	1.504	0.03	58	1	0.38415	0
1	7	1120	30.99	7.57	24192.96285	0	0	28.7	40.01	1.481	0.037	59	1	0.37825	0
1	7	1140	23.24	6.97	24241.72115	0	0	28.7	30	1.365	0.046	60	1	0.34855	0
1	7	1160	15.5	6.67	24274.30418	0	0	28.7	20.01	1.306	0.065	61	1	0.33355	0
1	7	1180	7.75	6.4	24290.63653	0	0	28.7	10.01	1.254	0.125	62	1	0.32015	0
1	8	1200	6.97	6.56	24305.33919	0	0	28.7	9	1.285	0.143	63	1	0.32805	0
1	8	1220	6.2	6.59	24318.32574	0	0	28.7	8	1.291	0.161	64	1	0.3296	0
1	8	1240	5.42	6.47	24329.69046	0	0	28.7	7	1.267	0.181	65	1	0.32345	0
1	8	1260	4.64	6.57	24339.42547	0	0	28.7	5.99	1.285	0.215	66	1	0.32825	0
1	8	1280	3.87	6.59	24347.54256	0	0	28.7	5	1.291	0.258	67	1	0.3297	0
1	8	1300	3.09	6.59	24354.03544	0	0	28.7	3.99	1.291	0.324	68	1	0.3296	0
1	8	1320	2.32	6.59	24358.90805	0	0	28.7	3	1.29	0.43	69	1	0.3295	0
1	8	1340	1.54	6.21	24362.15253	0	0	28.8	1.99	1.216	0.611	70	1	0.31055	0
1	8	1360	0.77	5.9	24363.77752	0	0	28.8	0.99	1.156	1.168	71	1	0.2952	0
1	9	1380	0.7	5.93	24365.2525	18.18373	15.6756	28.7	0.9	1.16	1.289	72	1	0.2963	0.063793292
1	9	1400	0.62	5.92	24366.55783	34.27605	29.5738	28.8	0.8	1.159	1.449	73	1	0.296	0.033813698
1	9	1420	0.55	5.8	24367.69901	48.34472	42.5944	28.7	0.71	1.135	1.599	74	1	0.28995	0.023477228
1	9	1440	0.47	5.7	24368.67919	60.42848	54.0989	28.6	0.61	1.117	1.831	75	1	0.28515	0.018484662
1	9	1460	0.39	5.31	24369.49836	70.52733	67.8799	28.6	0.5	1.039	2.078	76	1	0.2653	0.014731878
1	9	1480	0.31	4.74	24370.1526	78.59285	84.6905	28.7	0.4	0.928	2.32	77	1	0.23695	0.01180769

1	9	1500	0.24	3.97	24370.64661	84.68314	109.128	28.6	0.31	0.776	2.503	78	1	0.19825	0.009163571
1	9	1520	0.16	3.48	24370.97805	88.76916	130.351	28.7	0.21	0.681	3.243	79	1	0.17385	0.007671583
1	9	1540	0.08	2.56	24371.14691	90.8509	181.339	28.7	0.1	0.501	5.01	80	1	0.12795	0.00551453

04.21.04 WM-187 centrifuged CC-45 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.08	4.6	0.16415	2.02364	2.24849	28.6	0.1	0.9	9	1	1	0.2298	0.444743136
1	1	40	0.16	3.88	0.49323	6.08061	8.01133	28.6	0.21	0.759	3.614	2	1	0.1938	0.124823003
1	1	60	0.24	4.44	0.98332	12.12249	13.9339	28.6	0.31	0.87	2.806	3	1	0.2222	0.071767434
1	1	80	0.31	5.21	1.63677	20.17833	19.7827	28.6	0.4	1.02	2.55	4	1	0.26055	0.050549277
1	1	100	0.39	6.02	2.45201	30.22876	25.6393	28.6	0.5	1.179	2.358	5	1	0.3012	0.039002592
1	1	120	0.47	6.75	3.43062	42.29316	32.016	28.6	0.61	1.321	2.166	6	1	0.3373	0.031234365
1	1	140	0.54	7	4.57023	56.34247	41.1259	28.6	0.7	1.37	1.957	7	1	0.3498	0.024315583
1	1	160	0.62	7.25	5.87321	72.40573	50.9899	28.6	0.8	1.42	1.775	8	1	0.36265	0.019611708
1	1	180	0.7	7.74	7.33876	90.47328	59.6789	28.6	0.9	1.516	1.684	9	1	0.38715	0.016756328
1	2	200	0.77	7.91	8.96061	0	0	28.6	0.99	1.548	1.564	10	1	0.3954	0
1	2	220	1.55	9.77	12.18624	0	0	28.6	2	1.914	0.957	11	1	0.4887	0
1	2	240	2.32	9.87	17.03293	0	0	28.6	3	1.933	0.644	12	1	0.4937	0
1	2	260	3.09	8.37	23.5054	0	0	28.6	3.99	1.638	0.411	13	1	0.41835	0
1	2	280	3.87	7.49	31.60364	0	0	28.6	5	1.466	0.293	14	1	0.3744	0
1	2	300	4.65	7.07	41.32058	0	0	28.6	6	1.383	0.231	15	1	0.35325	0
1	2	320	5.42	6.87	52.65545	0	0	28.6	7	1.345	0.192	16	1	0.34345	0
1	2	340	6.2	6.88	65.62473	0	0	28.6	8	1.347	0.168	17	1	0.3441	0
1	2	360	6.97	6.77	80.208	0	0	28.6	9	1.326	0.147	18	1	0.33865	0
1	3	380	7.75	6.63	96.57491	0	0	28.6	10.01	1.298	0.13	19	1	0.3315	0
1	3	400	15.5	6.96	128.94274	0	0	28.6	20.01	1.363	0.068	20	1	0.348	0
1	3	420	23.24	7.1	177.44579	0	0	28.6	30	1.389	0.046	21	1	0.3548	0
1	3	440	30.99	7.43	242.2647	0	0	28.6	40.01	1.455	0.036	22	1	0.37165	0
1	3	460	38.73	7.5	323.29109	0	0	28.6	50	1.468	0.029	23	1	0.37495	0
1	3	480	46.48	7.84	420.4904	0	0	28.6	60.01	1.535	0.026	24	1	0.392	0
1	3	500	54.22	8.57	533.96001	0	0	28.6	70	1.678	0.024	25	1	0.4286	0
1	3	520	61.96	8.84	663.55699	0	0	28.6	79.99	1.731	0.022	26	1	0.442	0
1	3	540	69.71	9.11	809.51303	0	0	28.6	90	1.784	0.02	27	1	0.45545	0
1	4	560	77.46	9.53	973.12403	0	0	28.6	100	1.866	0.019	28	1	0.47645	0
1	4	580	154.92	12.88	1296.41277	0	0	28.6	200	2.521	0.013	29	1	0.64385	0
1	4	600	232.38	17.14	1782.13362	0	0	28.6	300	3.356	0.011	30	1	0.85695	0
1	4	620	309.84	24.84	2430.08239	0	0	28.6	400	4.864	0.012	31	1	1.24215	0
1	4	640	387.3	32.81	3239.40928	0	0	28.6	500	6.424	0.013	32	1	1.64055	0
1	4	660	464.75	43.93	4212.02124	0	0	28.6	599.99	8.601	0.014	33	1	2.19625	0
1	4	680	542.21	55.62	5345.76469	0	0	28.6	699.99	10.891	0.016	34	1	2.7811	0
1	4	700	619.67	67.09	6642.26935	0	0	28.6	799.99	13.136	0.016	35	1	3.3545	0
1	4	720	697.13	78.05	8102.13604	0	0	28.6	899.99	15.282	0.017	36	1	3.9024	0
1	4	740	774.59	89.35	9721.51552	0	0	28.6	1000	17.495	0.017	37	1	4.4676	0
1	5	750	774.59	89.25	10549.37231	0	0	28.6	1000	17.475	0.017	38	1	4.46245	0
1	5	760	774.59	88.83	11360.11606	0	0	28.6	1000	17.393	0.017	39	1	4.44145	0
1	5	770	774.59	88.6	12171.26586	0	0	28.6	1000	17.349	0.017	40	1	4.4302	0
1	5	780	774.59	88.43	12982.41487	0	0	28.6	1000	17.315	0.017	41	1	4.4217	0
1	5	790	774.59	88.35	13793.96993	0	0	28.6	1000	17.298	0.017	42	1	4.41725	0
1	5	800	774.59	88.29	14605.52186	0	0	28.6	1000	17.288	0.017	43	1	4.41465	0
1	6	820	774.59	88.2	16246.47545	0	0	28.6	1000	17.27	0.017	44	1	4.41015	0

1	6	840	697.13	76.52	17706.74583	0	0	28.6	899.99	14.983	0.017	45	1	3.8262	0
1	6	860	619.67	65.72	19006.20437	0	0	28.6	799.99	12.868	0.016	46	1	3.2859	0
1	6	880	542.21	54.92	20143.10905	0	0	28.6	699.99	10.752	0.015	47	1	2.74575	0
1	6	900	464.75	44.02	21117.78582	0	0	28.6	599.99	8.619	0.014	48	1	2.20095	0
1	6	920	387.3	34.51	21930.59595	0	0	28.6	500	6.757	0.014	49	1	1.72555	0
1	6	940	309.84	25.76	22580.48779	0	0	28.6	400	5.044	0.013	50	1	1.2881	0
1	6	960	232.38	18.03	23068.84837	0	0	28.6	300	3.531	0.012	51	1	0.90165	0
1	6	980	154.92	14.17	23394.46346	0	0	28.6	200	2.774	0.014	52	1	0.7084	0
1	6	1000	77.46	11.13	23557.93859	0	0	28.6	100	2.178	0.022	53	1	0.5563	0
1	7	1020	69.71	10.91	23705.04837	0	0	28.6	90	2.136	0.024	54	1	0.5454	0
1	7	1040	61.97	10.63	23835.01292	0	0	28.6	80	2.082	0.026	55	1	0.53155	0
1	7	1060	54.22	10.49	23948.71737	0	0	28.6	70	2.054	0.029	56	1	0.5245	0
1	7	1080	46.48	9.78	24046.13109	0	0	28.6	60.01	1.915	0.032	57	1	0.489	0
1	7	1100	38.73	9.33	24127.42058	0	0	28.6	50	1.827	0.037	58	1	0.4666	0
1	7	1120	30.99	9.29	24192.39579	0	0	28.6	40.01	1.819	0.045	59	1	0.46455	0
1	7	1140	23.24	8.75	24241.17922	0	0	28.6	30	1.712	0.057	60	1	0.4373	0
1	7	1160	15.5	8.29	24273.73712	0	0	28.6	20.01	1.623	0.081	61	1	0.4144	0
1	7	1180	7.75	8.04	24290.09461	0	0	28.6	10.01	1.575	0.157	62	1	0.40215	0
1	8	1200	6.97	8.21	24304.8059	0	0	28.6	9	1.608	0.179	63	1	0.41065	0
1	8	1220	6.2	8.19	24317.77518	0	0	28.6	8	1.604	0.201	64	1	0.4096	0
1	8	1240	5.42	8.13	24329.14853	0	0	28.6	7	1.592	0.227	65	1	0.4066	0
1	8	1260	4.64	8.2	24338.88668	0	0	28.6	5.99	1.605	0.268	66	1	0.4098	0
1	8	1280	3.87	8.11	24346.99828	0	0	28.6	5	1.588	0.318	67	1	0.40555	0
1	8	1300	3.09	8.15	24353.49273	0	0	28.6	3.99	1.596	0.4	68	1	0.40765	0
1	8	1320	2.32	8.17	24358.36142	0	0	28.6	3	1.599	0.533	69	1	0.40835	0
1	8	1340	1.54	7.62	24361.60904	0	0	28.6	1.99	1.492	0.75	70	1	0.38105	0
1	8	1360	0.77	7.26	24363.23324	0	0	28.6	0.99	1.421	1.435	71	1	0.36275	0
1	9	1380	0.7	7.17	24364.70822	18.18373	12.9514	28.6	0.9	1.404	1.56	72	1	0.35865	0.077211881
1	9	1400	0.62	6.86	24366.01277	34.26637	25.5148	28.5	0.8	1.343	1.679	73	1	0.343	0.039192946
1	9	1420	0.55	6.65	24367.15552	48.3544	37.11	28.5	0.71	1.303	1.835	74	1	0.33265	0.026946876
1	9	1440	0.47	6	24368.13648	60.44785	51.4888	28.6	0.61	1.174	1.925	75	1	0.29975	0.0194217
1	9	1460	0.39	5.46	24368.9533	70.51765	66.0277	28.6	0.5	1.068	2.136	76	1	0.2728	0.015145145
1	9	1480	0.31	5.01	24369.6091	78.60253	80.1248	28.6	0.4	0.981	2.452	77	1	0.2504	0.012480514
1	9	1500	0.24	4.53	24370.10312	84.69283	95.59	28.6	0.31	0.886	2.858	78	1	0.22635	0.010461334
1	9	1520	0.16	3.71	24370.43377	88.76916	122.44	28.6	0.21	0.725	3.452	79	1	0.18525	0.008167251
1	9	1540	0.08	2.57	24370.60263	90.8509	180.259	28.6	0.1	0.504	5.04	80	1	0.1287	0.005547551

04.27.04 WM-187 centrifuged CC-45 run 01.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0	243.19	0.00942	0.11619	0.00244	31.1	0	47.617	0	1	1	12.1595	409.8201222
1	1	40	0.09	677.05	0.19242	2.37221	0.01789	31.1	0.12	132.57	1104.73	2	1	33.85255	55.88333242
1	1	60	0.21	972.2	0.63303	7.80409	0.041	31.1	0.27	190.36	705.026	3	1	48.61005	24.39195345
1	1	80	0.33	1019.9	1.32261	16.30533	0.08165	31.1	0.43	199.69	464.405	4	1	50.99435	12.2471609
1	1	100	0.39	923.08	2.14492	26.44291	0.14631	31.1	0.5	180.74	361.476	5	1	46.15375	6.835026856
1	1	120	0.47	890.98	3.13295	38.62349	0.2214	31.2	0.61	174.45	285.99	6	1	44.549	4.516784993
1	1	140	0.54	871.65	4.27728	52.7309	0.30897	31.2	0.7	170.67	243.811	7	1	43.5823	3.236584242
1	1	160	0.62	860.92	5.57554	68.73607	0.40776	31.2	0.8	168.57	210.71	8	1	43.04595	2.452395082
1	1	180	0.71	871.68	7.05523	86.9779	0.50961	31.2	0.92	170.68	185.516	9	1	43.584	1.962280073
1	2	200	0.77	846.05	8.67865	0	0	31.2	0.99	165.66	167.33	10	1	42.30265	0
1	2	220	1.55	866.94	11.89328	0	0	31.2	2	169.75	84.874	11	1	43.347	0

1	2	240	2.33	886.09	16.7439	0	0	31.2	3.01	173.5	57.64	12	1	44.30425	0
1	2	260	3.09	896.95	23.21244	0	0	31.2	3.99	175.62	44.016	13	1	44.8475	0
1	2	280	3.87	873.66	31.31147	0	0	31.2	5	171.06	34.213	14	1	43.68305	0
1	2	300	4.65	863.68	41.0347	0	0	31.2	6	169.11	28.185	15	1	43.1841	0
1	2	320	5.42	858.55	52.37428	0	0	31.2	7	168.1	24.015	16	1	42.92755	0
1	2	340	6.2	857.82	65.33492	0	0	31.2	8	167.96	20.995	17	1	42.89105	0
1	2	360	6.97	858.5	79.92604	0	0	31.2	9	168.09	18.677	18	1	42.925	0
1	3	380	7.75	870.38	96.3016	0	0	31.2	10.01	170.42	17.025	19	1	43.5188	0
1	3	400	15.52	906.22	128.65686	0	0	31.2	20.04	177.44	8.854	20	1	45.31095	0
1	3	420	23.25	776.16	177.2141	0	0	31.2	30.02	151.97	5.062	21	1	38.80815	0
1	3	440	31.01	597.34	242.01809	0	0	31.2	40.03	116.96	2.922	22	1	29.86695	0
1	3	460	38.75	466.71	323.04447	0	0	31.2	50.03	91.382	1.827	23	1	23.3355	0
1	3	480	46.48	411.5	420.24535	0	0	31.2	60.01	80.572	1.343	24	1	20.5751	0
1	3	500	54.22	386.5	533.73382	0	0	31.2	70	75.677	1.081	25	1	19.32515	0
1	3	520	61.96	383.21	663.32765	0	0	31.2	79.99	75.032	0.938	26	1	19.16035	0
1	3	540	69.72	378.77	809.17609	0	0	31.3	90.01	74.163	0.824	27	1	18.93835	0
1	4	560	77.46	362.9	972.7494	0	0	31.3	100	71.056	0.711	28	1	18.14515	0
1	4	580	154.93	370.36	1296.35543	0	0	31.3	200.01	72.517	0.363	29	1	18.51805	0
1	4	600	232.4	333.43	1781.4409	0	0	31.3	300.03	65.285	0.218	30	1	16.67125	0
1	4	620	309.84	322.88	2429.47292	0	0	31.3	400	63.219	0.158	31	1	16.14385	0
1	4	640	387.3	304.44	3239.00794	0	0	31.3	500	59.608	0.119	32	1	15.22175	0
1	4	660	464.76	297.2	4211.58927	0	0	31.3	600.01	58.192	0.097	33	1	14.86	0
1	4	680	542.21	264.07	5345.02092	0	0	31.3	699.99	51.704	0.074	34	1	13.20325	0
1	4	700	619.68	175.87	6641.86251	0	0	31.3	800.01	34.436	0.043	35	1	8.79355	0
1	4	720	697.13	164.55	8102.05357	0	0	31.3	899.99	32.218	0.036	36	1	8.22725	0
1	4	740	774.6	127.13	9723.0227	0	0	31.3	1000	24.892	0.025	37	1	6.3564	0
1	5	750	774.6	97.23	10551.29183	0	0	31.3	1000	19.037	0.019	38	1	4.86125	0
1	5	760	774.59	80.93	11361.62952	0	0	31.3	1000	15.847	0.016	39	1	4.0467	0
1	5	770	774.59	79.96	12172.77853	0	0	31.3	1000	15.656	0.016	40	1	3.99805	0
1	5	780	774.59	78.65	12983.52071	0	0	31.3	1000	15.399	0.015	41	1	3.93225	0
1	5	790	774.58	92.1	13794.6658	0	0	31.3	999.98	18.033	0.018	42	1	4.60505	0
1	5	800	774.59	87.58	14606.63084	0	0	31.3	1000	17.148	0.017	43	1	4.379	0
1	6	820	774.59	84.92	16245.96337	0	0	31.3	1000	16.628	0.017	44	1	4.24615	0
1	6	840	697.13	75.82	17709.10988	0	0	31.3	899.99	14.845	0.016	45	1	3.79095	0
1	6	860	619.67	66.67	19007.59374	0	0	31.3	799.99	13.054	0.016	46	1	3.3334	0
1	6	880	542.21	70.09	20143.64784	0	0	31.3	699.99	13.724	0.02	47	1	3.5045	0
1	6	900	464.75	52.56	21119.57653	0	0	31.3	599.99	10.291	0.017	48	1	2.628	0
1	6	920	387.27	128.56	21931.78583	0	0	31.3	499.97	25.172	0.05	49	1	6.4279	0
1	6	940	309.84	222.1	22581.52059	0	0	31.3	400	43.486	0.109	50	1	11.10475	0
1	6	960	232.38	180.32	23069.49947	0	0	31.3	300	35.306	0.118	51	1	9.01595	0
1	6	980	154.92	239.94	23395.21194	0	0	31.3	200	46.979	0.235	52	1	11.9968	0
1	6	1000	77.46	223.24	23558.70121	0	0	31.3	100	43.71	0.437	53	1	11.1619	0
1	7	1020	69.71	221.66	23705.93273	0	0	31.3	90	43.401	0.482	54	1	11.08295	0
1	7	1040	61.97	225.26	23835.7991	0	0	31.3	80	44.106	0.551	55	1	11.26315	0
1	7	1060	54.22	235.18	23949.44386	0	0	31.3	70	46.048	0.658	56	1	11.75905	0
1	7	1080	46.48	234.8	24046.90156	0	0	31.3	60.01	45.973	0.766	57	1	11.73975	0
1	7	1100	38.73	242.86	24128.17692	0	0	31.3	50	47.552	0.951	58	1	12.14295	0
1	7	1120	30.99	246.7	24193.12699	0	0	31.3	40.01	48.304	1.207	59	1	12.33505	0
1	7	1140	23.24	251.98	24241.93478	0	0	31.3	30	49.338	1.645	60	1	12.5991	0
1	7	1160	15.5	277.51	24274.48875	0	0	31.3	20.01	54.337	2.715	61	1	13.8756	0

1	7	1180	7.74	285.53	24290.82424	0	0	31.3	9.99	55.907	5.596	62	1	14.2765	0
1	8	1200	6.97	307.71	24305.5214	0	0	31.3	9	60.249	6.694	63	1	15.3853	0
1	8	1220	6.2	323.95	24318.51581	0	0	31.3	8	63.429	7.929	64	1	16.19735	0
1	8	1240	5.42	314.65	24329.88759	0	0	31.3	7	61.607	8.801	65	1	15.73225	0
1	8	1260	4.64	303.04	24339.62653	0	0	31.3	5.99	59.336	9.906	66	1	15.1522	0
1	8	1280	3.87	293.43	24347.74755	0	0	31.3	5	57.453	11.491	67	1	14.6713	0
1	8	1300	3.09	282.94	24354.24593	0	0	31.3	3.99	55.399	13.884	68	1	14.1469	0
1	8	1320	2.32	268.97	24359.11775	0	0	31.3	3	52.665	17.555	69	1	13.4486	0
1	8	1340	1.54	252.17	24362.37009	0	0	31.3	1.99	49.376	24.812	70	1	12.6087	0
1	8	1360	0.77	233.6	24363.99979	0	0	31.3	0.99	45.738	46.2	71	1	11.67985	0
1	9	1380	0.7	236.05	24365.47398	18.17405	0.39322	31.3	0.9	46.218	51.353	72	1	11.8023	2.543076529
1	9	1400	0.62	237.64	24366.77853	34.25668	0.73621	31.3	0.8	46.531	58.164	73	1	11.8822	1.358304424
1	9	1420	0.55	242.97	24367.91893	48.31568	1.01559	31.3	0.71	47.574	67.006	74	1	12.14865	0.98464929
1	9	1440	0.47	239.29	24368.90146	60.42848	1.28975	31.3	0.61	46.853	76.808	75	1	11.9646	0.775346327
1	9	1460	0.39	236.48	24369.71906	70.50797	1.52278	31.3	0.5	46.302	92.604	76	1	11.8238	0.656691719
1	9	1480	0.31	234.04	24370.37722	78.6219	1.71566	31.3	0.4	45.826	114.565	77	1	11.7022	0.582865588
1	9	1500	0.24	233.39	24370.86888	84.68315	1.85314	31.3	0.31	45.697	147.41	78	1	11.66935	0.53962329
1	9	1520	0.16	228.48	24371.20032	88.76916	1.98429	31.3	0.21	44.736	213.029	79	1	11.424	0.503958807
1	9	1540	0.08	220.76	24371.37232	90.88963	2.10276	31.3	0.1	43.224	432.24	80	1	11.03775	0.475565804

04.27.04 WM-187 centrifuged CC-45 run 02.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.04	176.3	0.08875	1.09412	0.0317	31.3	0.05	34.519	690.38	1	2	8.8148	31.54955581
1	1	40	0.16	234.99	0.41155	5.07363	0.11027	31.3	0.21	46.011	219.1	2	2	11.74955	9.068654987
1	1	60	0.24	245.8	0.90242	11.12519	0.23116	31.3	0.31	48.128	155.252	3	2	12.29	4.326038477
1	1	80	0.31	255.33	1.54959	19.10357	0.38212	31.3	0.4	49.994	124.985	4	2	12.7665	2.616997765
1	1	100	0.39	264.88	2.36326	29.13464	0.56176	31.3	0.5	51.863	103.726	5	2	13.24395	1.780114668
1	1	120	0.47	270.04	3.3403	41.17967	0.77884	31.3	0.61	52.873	86.677	6	2	13.50175	1.283958808
1	1	140	0.54	271.51	4.4807	55.23866	1.03908	31.3	0.7	53.161	75.944	7	2	13.57525	0.962387574
1	1	160	0.62	275.87	5.78053	71.2632	1.3193	31.3	0.8	54.016	67.52	8	2	13.79365	0.757978873
1	1	180	0.7	282.01	7.24451	89.31138	1.61746	31.3	0.9	55.217	61.352	9	2	14.1004	0.61825268
1	2	200	0.77	289.64	8.86322	0	0	31.3	0.99	56.712	57.285	10	2	14.48215	0
1	2	220	1.55	314.9	12.08099	0	0	31.3	2	61.657	30.829	11	2	15.745	0
1	2	240	2.32	332.73	16.92926	0	0	31.3	3	65.148	21.716	12	2	16.6363	0
1	2	260	3.09	341.63	23.39387	0	0	31.3	3.99	66.891	16.765	13	2	17.08135	0
1	2	280	3.87	350.46	31.48583	0	0	31.3	5	68.619	13.724	14	2	17.5228	0
1	2	300	4.65	354.81	41.1957	0	0	31.3	6	69.473	11.579	15	2	17.7407	0
1	2	320	5.42	362.75	52.54471	0	0	31.3	7	71.027	10.147	16	2	18.13755	0
1	2	340	6.2	375.58	65.50613	0	0	31.4	8	73.539	9.192	17	2	18.7792	0
1	2	360	6.97	391.35	80.09019	0	0	31.4	9	76.626	8.514	18	2	19.5675	0
1	3	380	7.75	388.03	96.45004	0	0	31.4	10.01	75.976	7.59	19	2	19.4014	0
1	3	400	15.51	363.78	128.81001	0	0	31.4	20.02	71.229	3.558	20	2	18.1891	0
1	3	420	23.25	308.83	177.34997	0	0	31.4	30.02	60.468	2.014	21	2	15.44135	0
1	3	440	30.99	313.62	242.19323	0	0	31.4	40.01	61.406	1.535	22	2	15.68075	0
1	3	460	38.73	304.85	323.11595	0	0	31.4	50	59.69	1.194	23	2	15.2425	0
1	3	480	46.48	292.44	420.33567	0	0	31.4	60.01	57.261	0.954	24	2	14.6222	0
1	3	500	54.22	289.17	533.799	0	0	31.4	70	56.62	0.809	25	2	14.4586	0
1	3	520	61.96	285.46	663.49259	0	0	31.4	79.99	55.894	0.699	26	2	14.2732	0
1	3	540	69.71	271.71	809.30019	0	0	31.4	90	53.201	0.591	27	2	13.58555	0
1	4	560	77.46	276.76	973.03528	0	0	31.4	100	54.189	0.542	28	2	13.83775	0

1	4	580	154.93	307.15	1296.31616	0	0	31.4	200.01	60.141	0.301	29	2	15.3577	0
1	4	600	232.38	292.63	1781.31445	0	0	31.4	300	57.296	0.191	30	2	14.63125	0
1	4	620	309.85	251.48	2429.35747	0	0	31.4	400.02	49.24	0.123	31	2	12.574	0
1	4	640	387.3	205.42	3238.89092	0	0	31.4	500	40.221	0.08	32	2	10.271	0
1	4	660	464.76	186.09	4211.47853	0	0	31.4	600.01	36.436	0.061	33	2	9.3045	0
1	4	680	542.21	134.69	5345.18585	0	0	31.4	699.99	26.372	0.038	34	2	6.73455	0
1	4	700	619.67	131.61	6642.34082	0	0	31.4	799.99	25.77	0.032	35	2	6.5807	0
1	4	720	697.13	105.63	8101.76533	0	0	31.4	899.99	20.682	0.023	36	2	5.28145	0
1	4	740	774.59	96.26	9722.286	0	0	31.4	1000	18.847	0.019	37	2	4.8129	0
1	5	750	774.59	74.77	10549.33461	0	0	31.4	1000	14.64	0.015	38	2	3.73845	0
1	5	760	774.59	74.56	11360.07758	0	0	31.4	1000	14.598	0.015	39	2	3.7279	0
1	5	770	774.59	72.42	12172.03948	0	0	31.4	1000	14.179	0.014	40	2	3.62085	0
1	5	780	774.59	71.52	12983.5914	0	0	31.4	1000	14.003	0.014	41	2	3.57575	0
1	5	790	774.59	76.33	13795.55016	0	0	31.4	1000	14.946	0.015	42	2	3.81675	0
1	5	800	774.59	72.32	14605.48259	0	0	31.4	1000	14.16	0.014	43	2	3.61605	0
1	6	820	774.59	71.91	16246.02934	0	0	31.4	1000	14.08	0.014	44	2	3.5955	0
1	6	840	697.13	73.03	17707.76135	0	0	31.4	899.99	14.299	0.016	45	2	3.65145	0
1	6	860	619.67	77.49	19006.60257	0	0	31.4	799.99	15.172	0.019	46	2	3.87435	0
1	6	880	542.21	128.42	20142.68886	0	0	31.4	699.99	25.145	0.036	47	2	6.4211	0
1	6	900	464.75	111.2	21118.10547	0	0	31.4	599.99	21.773	0.036	48	2	5.56	0
1	6	920	387.3	58.71	21930.58181	0	0	31.4	500	11.495	0.023	49	2	2.9354	0
1	6	940	309.82	149.2	22580.42261	0	0	31.4	399.98	29.213	0.073	50	2	7.45995	0
1	6	960	232.36	196.68	23068.23733	0	0	31.4	299.98	38.511	0.128	51	2	9.83415	0
1	6	980	154.91	206.54	23394.19014	0	0	31.4	199.99	40.44	0.202	52	2	10.32675	0
1	6	1000	77.46	186.6	23557.5938	0	0	31.4	100	36.537	0.365	53	2	9.33015	0
1	7	1020	69.71	197.75	23704.69023	0	0	31.4	90	38.72	0.43	54	2	9.88765	0
1	7	1040	61.97	216.43	23834.65321	0	0	31.4	80	42.378	0.53	55	2	10.8217	0
1	7	1060	54.22	232.83	23948.32703	0	0	31.4	70	45.587	0.651	56	2	11.64125	0
1	7	1080	46.48	233.51	24045.83107	0	0	31.4	60.01	45.721	0.762	57	2	11.67555	0
1	7	1100	38.73	215.28	24127.01061	0	0	31.4	50	42.151	0.843	58	2	10.7639	0
1	7	1120	30.99	206.07	24192.0243	0	0	31.4	40.01	40.349	1.008	59	2	10.30365	0
1	7	1140	23.24	205.05	24240.81166	0	0	31.4	30	40.148	1.338	60	2	10.25235	0
1	7	1160	15.5	207.04	24273.4049	0	0	31.4	20.01	40.538	2.026	61	2	10.3519	0
1	7	1180	7.74	279.27	24289.73097	0	0	31.4	9.99	54.682	5.474	62	2	13.96365	0
1	8	1200	6.97	278.46	24304.42734	0	0	31.4	9	54.523	6.058	63	2	13.92325	0
1	8	1220	6.2	277.54	24317.42332	0	0	31.4	8	54.342	6.793	64	2	13.877	0
1	8	1240	5.42	277.53	24328.79275	0	0	31.4	7	54.341	7.763	65	2	13.87665	0
1	8	1260	4.64	267.96	24338.52697	0	0	31.4	5.99	52.467	8.759	66	2	13.398	0
1	8	1280	3.87	255.29	24346.65113	0	0	31.4	5	49.986	9.997	67	2	12.76455	0
1	8	1300	3.09	241.33	24353.14637	0	0	31.4	3.99	47.251	11.842	68	2	12.06625	0
1	8	1320	2.32	225.92	24358.02684	0	0	31.4	3	44.235	14.745	69	2	11.29605	0
1	8	1340	1.54	211.91	24361.27367	0	0	31.4	1.99	41.493	20.851	70	2	10.5957	0
1	8	1360	0.77	196.71	24362.9073	0	0	31.4	0.99	38.515	38.904	71	2	9.83525	0
1	9	1380	0.7	191.49	24364.38071	18.16437	0.48446	31.4	0.9	37.494	41.66	72	2	9.5746	2.064150862
1	9	1400	0.62	194.72	24365.68368	34.22764	0.89773	31.4	0.8	38.127	47.659	73	2	9.7362	1.113924302
1	9	1420	0.55	202.08	24366.82408	48.28663	1.22041	31.4	0.71	39.566	55.727	74	2	10.1038	0.819398662
1	9	1440	0.47	201.47	24367.80426	60.37039	1.53038	31.4	0.61	39.448	64.669	75	2	10.07345	0.653432916
1	9	1460	0.39	199.82	24368.62578	70.49828	1.80187	31.4	0.5	39.125	78.25	76	2	9.9911	0.554978079
1	9	1480	0.31	192.69	24369.28081	78.57349	2.08263	31.4	0.4	37.728	94.32	77	2	9.63435	0.480161948
1	9	1500	0.24	186.31	24369.77953	84.72188	2.32248	31.4	0.31	36.479	117.674	78	2	9.31545	0.430573543

1	9	1520	0.16	182.8	24370.1094	88.78853	2.48061	31.4	0.21	35.793	170.443	79	2	9.14015	0.403126395
1	9	1540	0.08	175.97	24370.27983	90.88963	2.63792	31.4	0.1	34.455	344.55	80	2	8.7986	0.379086151

04.27.04 WM-187 centrifuged CC-45 run 03.txt

Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.05	146.2	0.10603	1.30714	0.04566	31.4	0.06	28.625	477.083	1	3	7.30975	21.89895497
1	1	40	0.16	184.82	0.43197	5.32537	0.14716	31.4	0.21	36.187	172.319	2	3	9.2409	6.795208596
1	1	60	0.24	196.23	0.91656	11.29948	0.29409	31.4	0.31	38.422	123.942	3	3	9.81165	3.400333467
1	1	80	0.31	207.08	1.56844	19.33595	0.47688	31.4	0.4	40.547	101.367	4	3	10.3542	2.096974806
1	1	100	0.39	218	2.38054	29.34766	0.68754	31.4	0.5	42.685	85.37	5	3	10.90015	1.454460083
1	1	120	0.47	225.05	3.35522	41.36364	0.93872	31.4	0.61	44.064	72.236	6	3	11.25225	1.065283423
1	1	140	0.54	229.33	4.49483	55.41295	1.23406	31.4	0.7	44.903	64.147	7	3	11.4666	0.810334046
1	1	160	0.62	226.32	5.80095	71.51495	1.61382	31.4	0.8	44.314	55.393	8	3	11.31605	0.619646661
1	1	180	0.7	226.32	7.26179	89.5244	2.02023	31.4	0.9	44.314	49.238	9	3	11.3161	0.494993544
1	2	200	0.77	239.66	8.88207	0	0	31.4	0.99	46.925	47.399	10	3	11.98295	0
1	2	220	1.55	261.3	12.10377	0	0	31.4	2	51.162	25.581	11	3	13.06495	0
1	2	240	2.32	275.75	16.94339	0	0	31.4	3	53.992	17.997	12	3	13.78745	0
1	2	260	3.09	284.16	23.41193	0	0	31.4	3.99	55.639	13.945	13	3	14.20815	0
1	2	280	3.87	291.06	31.50468	0	0	31.4	5	56.99	11.398	14	3	14.5531	0
1	2	300	4.65	303.86	41.2122	0	0	31.4	6	59.495	9.916	15	3	15.1929	0
1	2	320	5.42	315.56	52.56277	0	0	31.4	7	61.786	8.827	16	3	15.77795	0
1	2	340	6.2	323.14	65.52106	0	0	31.4	8	63.27	7.909	17	3	16.15685	0
1	2	360	6.97	338.56	80.09883	0	0	31.4	9	66.289	7.365	18	3	16.9278	0
1	3	380	7.75	334.7	96.46889	0	0	31.4	10.01	65.534	6.547	19	3	16.73505	0
1	3	400	15.51	308.75	128.82258	0	0	31.4	20.02	60.452	3.02	20	3	15.43725	0
1	3	420	23.24	301.28	177.34448	0	0	31.4	30	58.99	1.966	21	3	15.0638	0
1	3	440	30.99	296.49	242.19088	0	0	31.4	40.01	58.052	1.451	22	3	14.8244	0
1	3	460	38.73	300.12	323.16464	0	0	31.4	50	58.763	1.175	23	3	15.00595	0
1	3	480	46.48	313.92	420.38515	0	0	31.4	60.01	61.466	1.024	24	3	15.69605	0
1	3	500	54.22	294.1	533.82885	0	0	31.4	70	57.584	0.823	25	3	14.70485	0
1	3	520	61.96	269.25	663.51929	0	0	31.4	79.99	52.72	0.659	26	3	13.4626	0
1	3	540	69.71	273.77	809.39836	0	0	31.4	90	53.603	0.596	27	3	13.68825	0
1	4	560	77.46	273.39	973.09419	0	0	31.4	100	53.53	0.535	28	3	13.6695	0
1	4	580	154.92	268.46	1296.09939	0	0	31.4	200	52.563	0.263	29	3	13.42275	0
1	4	600	232.38	283.17	1781.54222	0	0	31.4	300	55.445	0.185	30	3	14.1586	0
1	4	620	309.84	224.83	2429.82243	0	0	31.4	400	44.021	0.11	31	3	11.24135	0
1	4	640	387.3	170.73	3239.52552	0	0	31.4	500	33.429	0.067	32	3	8.5364	0
1	4	660	464.75	153.41	4211.86573	0	0	31.4	599.99	30.037	0.05	33	3	7.67035	0
1	4	680	542.2	130.15	5345.51022	0	0	31.4	699.98	25.484	0.036	34	3	6.50755	0
1	4	700	619.68	160.92	6641.69758	0	0	31.4	800.01	31.509	0.039	35	3	8.0462	0
1	4	720	697.14	130.34	8100.8472	0	0	31.4	900.01	25.521	0.028	36	3	6.51705	0
1	4	740	774.6	85.7	9722.22238	0	0	31.4	1000	16.779	0.017	37	3	4.2848	0
1	5	750	774.58	103.56	10549.66448	0	0	31.4	999.98	20.278	0.02	38	3	5.17815	0
1	5	760	774.59	110.84	11361.22347	0	0	31.4	1000	21.703	0.022	39	3	5.5422	0
1	5	770	774.56	142.93	12170.72236	0	0	31.4	999.96	27.986	0.028	40	3	7.14665	0
1	5	780	774.6	203.78	12984.7208	0	0	31.4	1000	39.9	0.04	41	3	10.18905	0
1	5	790	774.58	229.48	13795.45826	0	0	31.4	999.98	44.932	0.045	42	3	11.474	0
1	5	800	774.6	220.19	14605.80146	0	0	31.4	1000	43.113	0.043	43	3	11.0095	0
1	6	820	774.59	240.38	16245.94295	0	0	31.4	1000	47.067	0.047	44	3	12.01915	0
1	6	840	697.13	187.34	17707.27519	0	0	31.4	899.99	36.68	0.041	45	3	9.36675	0

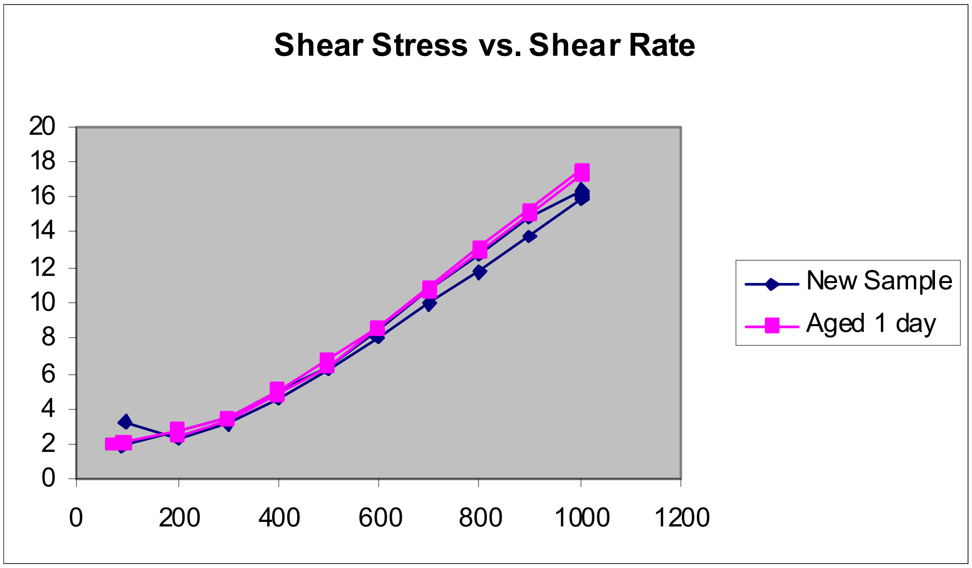
1	6	860	619.67	148.22	19007.37226	0	0	31.4	799.99	29.02	0.036	46	3	7.41075	0
1	6	880	542.23	156.08	20144.32485	0	0	31.4	700.02	30.56	0.044	47	3	7.8038	0
1	6	900	464.74	150.07	21119.04167	0	0	31.4	599.98	29.384	0.049	48	3	7.50345	0
1	6	920	387.3	115.22	21930.91875	0	0	31.4	500	22.56	0.045	49	3	5.76105	0
1	6	940	309.83	112.29	22581.64861	0	0	31.4	399.99	21.987	0.055	50	3	5.6146	0
1	6	960	232.38	155.6	23062.90527	0	0	31.4	300	30.466	0.102	51	3	7.77985	0
1	6	980	154.92	148.31	23393.00104	0	0	31.4	200	29.039	0.145	52	3	7.4156	0
1	6	1000	77.46	144.19	23556.35679	0	0	31.4	100	28.233	0.282	53	3	7.2097	0
1	7	1020	69.71	193.27	23703.59146	0	0	31.4	90	37.841	0.42	54	3	9.6633	0
1	7	1040	61.97	189.73	23833.36358	0	0	31.4	80	37.148	0.464	55	3	9.4863	0
1	7	1060	54.22	189.75	23947.00991	0	0	31.4	70	37.153	0.531	56	3	9.48755	0
1	7	1080	46.48	189.36	24044.46526	0	0	31.4	60.01	37.076	0.618	57	3	9.46795	0
1	7	1100	38.73	193.98	24125.76182	0	0	31.4	50	37.982	0.76	58	3	9.69915	0
1	7	1120	30.99	191.78	24190.77316	0	0	31.4	40.01	37.551	0.939	59	3	9.589	0
1	7	1140	23.24	192.23	24239.57623	0	0	31.4	30	37.638	1.255	60	3	9.6113	0
1	7	1160	15.5	202.48	24272.15062	0	0	31.4	20.01	39.646	1.981	61	3	10.12405	0
1	7	1180	7.74	224.06	24288.48533	0	0	31.4	9.99	43.871	4.391	62	3	11.20305	0
1	8	1200	6.97	241.46	24303.19505	0	0	31.4	9	47.278	5.253	63	3	12.073	0
1	8	1220	6.2	239.34	24316.18868	0	0	31.4	8	46.863	5.858	64	3	11.967	0
1	8	1240	5.42	234.4	24327.54004	0	0	31.4	7	45.896	6.557	65	3	11.72005	0
1	8	1260	4.64	233.21	24337.28918	0	0	31.4	5.99	45.663	7.623	66	3	11.6605	0
1	8	1280	3.87	222.63	24345.4102	0	0	31.4	5	43.591	8.718	67	3	11.1314	0
1	8	1300	3.09	214.38	24351.90544	0	0	31.4	3.99	41.976	10.52	68	3	10.719	0
1	8	1320	2.32	200.7	24356.7812	0	0	31.4	3	39.297	13.099	69	3	10.0351	0
1	8	1340	1.54	174.38	24360.03353	0	0	31.4	1.99	34.143	17.157	70	3	8.71875	0
1	8	1360	0.77	160.66	24361.66402	0	0	31.4	0.99	31.458	31.776	71	3	8.0332	0
1	9	1380	0.7	157.94	24363.14056	18.2031	0.58862	31.4	0.9	30.925	34.361	72	3	7.8972	1.698886453
1	9	1400	0.62	152.29	24364.44747	34.31478	1.15085	31.4	0.8	29.817	37.271	73	3	7.61425	0.868925868
1	9	1420	0.55	147.08	24365.59022	48.40282	1.68071	31.4	0.71	28.799	40.562	74	3	7.3542	0.594985995
1	9	1440	0.47	149.79	24366.56961	60.47689	2.06209	31.4	0.61	29.328	48.079	75	3	7.4894	0.484945572
1	9	1460	0.39	154.14	24367.38721	70.55638	2.33785	31.4	0.5	30.18	60.36	76	3	7.7068	0.427743033
1	9	1480	0.31	154.87	24368.04066	78.61222	2.59241	31.4	0.4	30.324	75.81	77	3	7.74365	0.385741555
1	9	1500	0.24	152.47	24368.53703	84.73156	2.83829	31.4	0.31	29.853	96.3	78	3	7.6234	0.352324447
1	9	1520	0.16	147.37	24368.86926	88.82726	3.0784	31.4	0.21	28.855	137.405	79	3	7.36845	0.324843972
1	9	1540	0.08	139.9	24369.03969	90.92836	3.31952	31.4	0.1	27.392	273.92	80	3	6.995	0.301248147

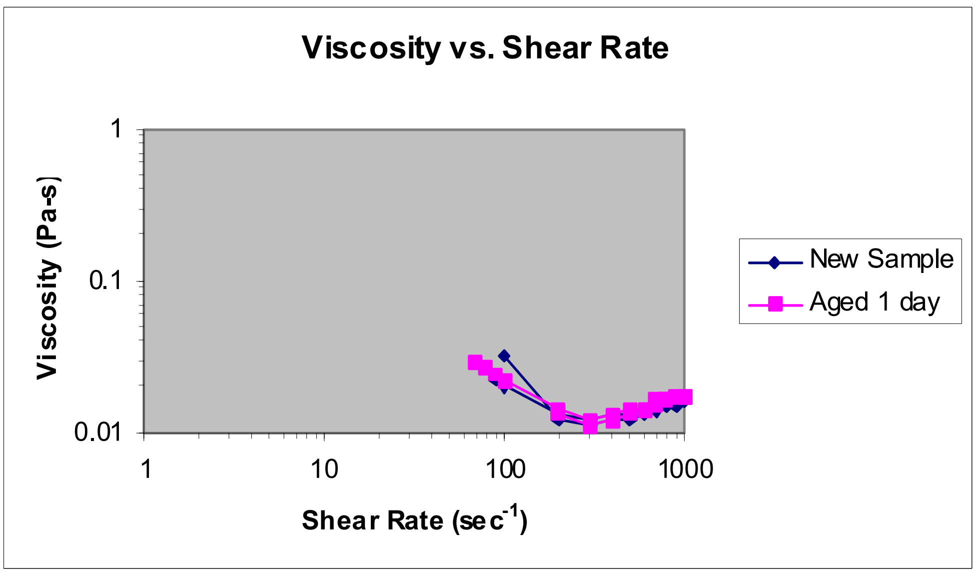
04.27.04 WM-187 centrifuged CC-45 run 04.txt

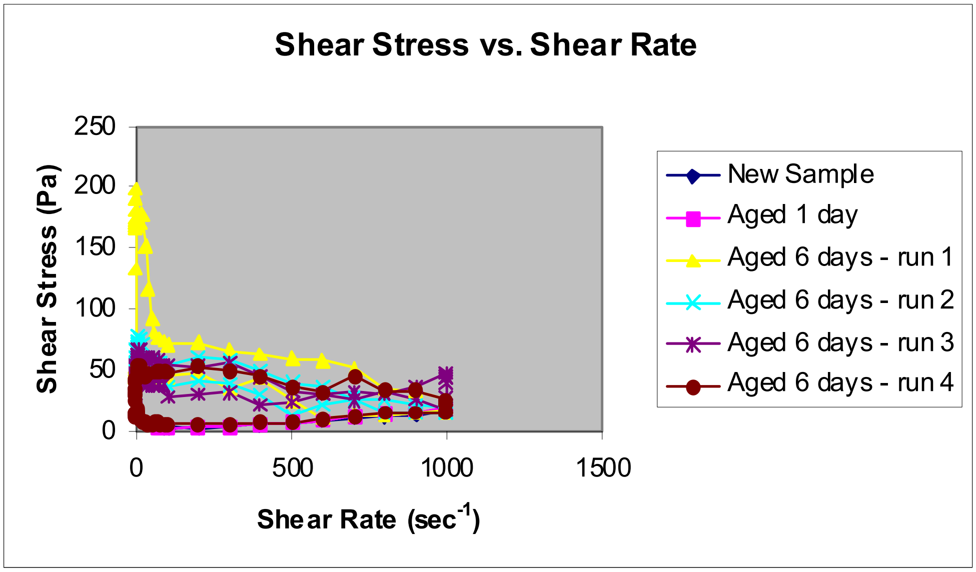
Mode	Step	t[s]	n[rpm]	M[%.]	Phi[rad]	Gamma	J[t]	T[°C]	D[1/s]	Tau[Pa]	Eta[Pas]	MP#	Block	M[mNm]	G[Pa]
1	1	20	0.06	121.97	0.11781	1.45237	0.06082	31.4	0.08	23.881	298.513	1	4	6.09825	16.44277973
1	1	40	0.16	148.76	0.44454	5.48029	0.18815	31.4	0.21	29.127	138.7	2	4	7.43785	5.314864724
1	1	60	0.24	154.17	0.93227	11.49313	0.38073	31.4	0.31	30.187	97.377	3	4	7.7086	2.626525585
1	1	80	0.31	155.76	1.58808	19.57801	0.64192	31.4	0.4	30.499	76.247	4	4	7.78825	1.557819206
1	1	100	0.39	155.17	2.40175	29.60908	0.97456	31.4	0.5	30.382	60.764	5	4	7.75835	1.026104155
1	1	120	0.47	159.3	3.37643	41.62507	1.33452	31.4	0.61	31.191	51.133	6	4	7.9649	0.749332073
1	1	140	0.54	170.21	4.5129	55.63565	1.66939	31.4	0.7	33.327	47.61	7	4	8.5105	0.599022389
1	1	160	0.62	176.61	5.81666	71.7086	2.07376	31.4	0.8	34.579	43.224	8	4	8.83025	0.482215522
1	1	180	0.7	178.77	7.28064	89.75678	2.56419	31.4	0.9	35.004	38.893	9	4	8.93865	0.389987252
1	2	200	0.77	176.17	8.90249	0	0	31.4	0.99	34.493	34.841	10	4	8.80835	0
1	2	220	1.55	204.27	12.11948	0	0	31.4	2	39.995	19.998	11	4	10.2133	0
1	2	240	2.32	219.42	16.95989	0	0	31.4	3	42.963	14.321	12	4	10.97105	0

1	2	260	3.09	237.26	23.4245	0	0	31.4	3.99	46.456	11.643	13	4	11.8631	0
1	2	280	3.87	254.39	31.52117	0	0	31.4	5	49.809	9.962	14	4	12.7193	0
1	2	300	4.65	254.42	41.23262	0	0	31.4	6	49.815	8.303	15	4	12.7209	0
1	2	320	5.42	256.75	52.57927	0	0	31.4	7	50.271	7.182	16	4	12.8374	0
1	2	340	6.2	265.43	65.53676	0	0	31.4	8	51.972	6.497	17	4	13.27165	0
1	2	360	6.97	272.65	80.12396	0	0	31.4	9	53.385	5.932	18	4	13.63245	0
1	3	380	7.75	272.82	96.48852	0	0	31.4	10.01	53.418	5.336	19	4	13.641	0
1	3	400	15.51	235.14	128.85792	0	0	31.4	20.02	46.041	2.3	20	4	11.75705	0
1	3	420	23.24	229.28	177.41752	0	0	31.4	30	44.892	1.496	21	4	11.4638	0
1	3	440	30.99	239.27	242.17752	0	0	31.4	40.01	46.85	1.171	22	4	11.9637	0
1	3	460	38.73	246.42	323.19763	0	0	31.4	50	48.249	0.965	23	4	12.321	0
1	3	480	46.48	246.69	420.38515	0	0	31.4	60.01	48.302	0.805	24	4	12.3345	0
1	3	500	54.22	252.65	533.76209	0	0	31.4	70	49.47	0.707	25	4	12.6327	0
1	3	520	61.96	255.34	663.49023	0	0	31.4	79.99	49.996	0.625	26	4	12.76715	0
1	3	540	69.71	253.04	809.33474	0	0	31.4	90	49.545	0.551	27	4	12.65205	0
1	4	560	77.46	241.93	973.09654	0	0	31.4	100	47.369	0.474	28	4	12.0963	0
1	4	580	154.93	267.17	1296.39156	0	0	31.4	200.01	52.312	0.262	29	4	13.35865	0
1	4	600	232.39	256.08	1781.86894	0	0	31.4	300.02	50.14	0.167	30	4	12.8038	0
1	4	620	309.84	222.77	2429.38653	0	0	31.4	400	43.618	0.109	31	4	11.13845	0
1	4	640	387.3	188.96	3239.69045	0	0	31.4	500	36.999	0.074	32	4	9.44805	0
1	4	660	464.75	161.99	4211.29081	0	0	31.4	599.99	31.717	0.053	33	4	8.0994	0
1	4	680	542.21	224.62	5345.05076	0	0	31.4	699.99	43.981	0.063	34	4	11.23105	0
1	4	700	619.66	171.44	6642.50575	0	0	31.4	799.98	33.567	0.042	35	4	8.57175	0
1	4	720	697.14	170.49	8100.52754	0	0	31.4	900.01	33.381	0.037	36	4	8.5243	0
1	4	740	774.59	126.87	9721.04664	0	0	31.4	1000	24.841	0.025	37	4	6.34355	0
1	5	750	774.59	111.39	10550.12315	0	0	31.4	1000	21.809	0.022	38	4	5.56925	0
1	5	760	774.59	109.2	11359.64796	0	0	31.4	1000	21.382	0.021	39	4	5.4602	0
1	5	770	774.59	85.64	12171.61457	0	0	31.4	1000	16.768	0.017	40	4	4.28185	0
1	5	780	774.59	78.55	12982.76202	0	0	31.4	1000	15.38	0.015	41	4	3.92745	0
1	5	790	774.59	76.66	13795.12761	0	0	31.4	1000	15.011	0.015	42	4	3.83315	0
1	5	800	774.59	73.21	14605.06083	0	0	31.4	1000	14.334	0.014	43	4	3.66035	0
1	6	820	774.59	72.23	16245.20389	0	0	31.4	1000	14.143	0.014	44	4	3.6115	0
1	6	840	697.13	72.76	17707.98676	0	0	31.4	899.99	14.246	0.016	45	4	3.63785	0
1	6	860	619.67	77.47	19006.14704	0	0	31.4	799.99	15.17	0.019	46	4	3.87375	0
1	6	880	542.21	62.18	20143.94393	0	0	31.4	699.99	12.175	0.017	47	4	3.1091	0
1	6	900	464.75	49.79	21117.44417	0	0	31.4	599.99	9.748	0.016	48	4	2.4893	0
1	6	920	387.3	37.63	21930.73968	0	0	31.4	500	7.369	0.015	49	4	1.88165	0
1	6	940	309.84	32.34	22580.59304	0	0	31.4	400	6.333	0.016	50	4	1.61715	0
1	6	960	232.38	27.41	23068.79025	0	0	31.4	300	5.367	0.018	51	4	1.37065	0
1	6	980	154.92	25.22	23394.51686	0	0	31.4	200	4.938	0.025	52	4	1.26105	0
1	6	1000	77.46	22.06	23557.89696	0	0	31.4	100	4.319	0.043	53	4	1.1028	0
1	7	1020	69.71	23.14	23705.11356	0	0	31.4	90	4.53	0.05	54	4	1.1569	0
1	7	1040	61.97	26.27	23834.94852	0	0	31.4	80	5.144	0.064	55	4	1.3136	0
1	7	1060	54.22	31.91	23948.59485	0	0	31.4	70	6.248	0.089	56	4	1.59555	0
1	7	1080	46.48	31.38	24046.09889	0	0	31.4	60.01	6.145	0.102	57	4	1.5692	0
1	7	1100	38.73	26.1	24127.29178	0	0	31.4	50	5.11	0.102	58	4	1.3049	0
1	7	1120	30.99	29.18	24192.35573	0	0	31.4	40.01	5.714	0.143	59	4	1.45905	0
1	7	1140	23.24	30.47	24241.16666	0	0	31.4	30	5.966	0.199	60	4	1.5234	0
1	7	1160	15.5	34.97	24273.70256	0	0	31.4	20.01	6.848	0.342	61	4	1.74865	0
1	7	1180	7.75	50.11	24290.04277	0	0	31.4	10.01	9.811	0.98	62	4	2.50525	0

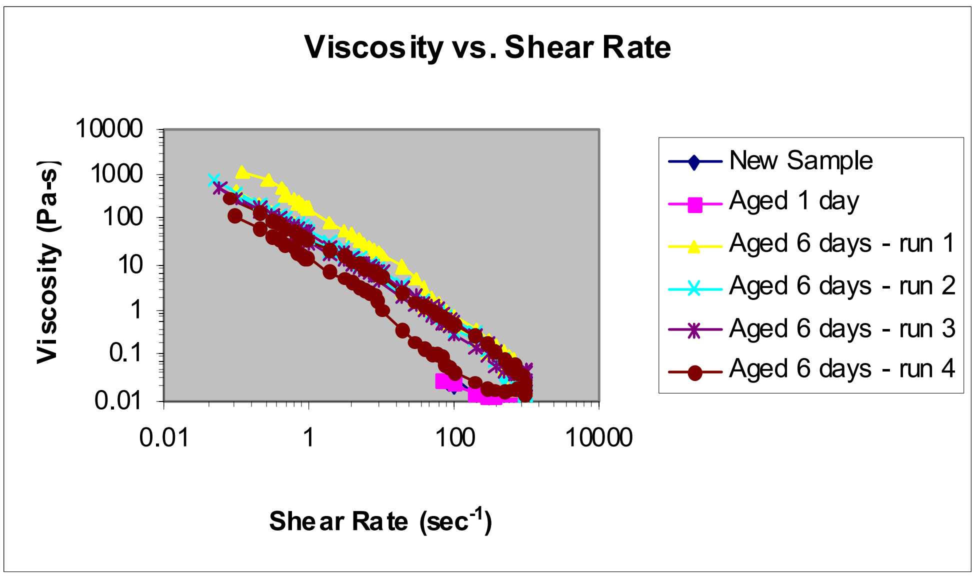
1	8	1200	6.97	73	24304.75564	0	0	31.4	9	14.294	1.588	63	4	3.65015	0
1	8	1220	6.2	91.55	24317.74062	0	0	31.4	8	17.925	2.241	64	4	4.57725	0
1	8	1240	5.42	87.8	24329.09591	0	0	31.4	7	17.19	2.456	65	4	4.3898	0
1	8	1260	4.64	80.42	24338.83485	0	0	31.4	5.99	15.745	2.629	66	4	4.02075	0
1	8	1280	3.87	77.16	24346.95508	0	0	31.4	5	15.109	3.022	67	4	3.85815	0
1	8	1300	3.09	78.11	24353.45032	0	0	31.4	3.99	15.294	3.833	68	4	3.9055	0
1	8	1320	2.32	74.81	24358.32058	0	0	31.4	3	14.648	4.883	69	4	3.74045	0
1	8	1340	1.54	67.75	24361.56663	0	0	31.4	1.99	13.266	6.666	70	4	3.38755	0
1	8	1360	0.77	67.05	24363.19083	0	0	31.4	0.99	13.129	13.262	71	4	3.35265	0
1	9	1380	0.7	64.13	24364.66738	18.2031	1.44975	31.4	0.9	12.556	13.951	72	4	3.2063	0.689772621
1	9	1400	0.62	60.96	24365.97114	34.27605	2.87165	31.4	0.8	11.936	14.92	73	4	3.04795	0.348231491
1	9	1420	0.55	65.76	24367.11154	48.33504	3.75389	31.4	0.71	12.876	18.135	74	4	3.28815	0.266390594
1	9	1440	0.47	69.54	24368.09171	60.4188	4.43734	31.4	0.61	13.616	22.321	75	4	3.4771	0.225360318
1	9	1460	0.39	70.87	24368.9101	70.50797	5.08092	31.4	0.5	13.877	27.754	76	4	3.5437	0.19681463
1	9	1480	0.31	69.44	24369.56591	78.59285	5.78016	31.4	0.4	13.597	33.993	77	4	3.47215	0.17300556
1	9	1500	0.24	68.19	24370.05992	84.68315	6.34236	31.4	0.31	13.352	43.071	78	4	3.4097	0.157670091
1	9	1520	0.16	65.32	24370.39136	88.76916	6.94051	31.4	0.21	12.79	60.905	79	4	3.2662	0.144081571
1	9	1540	0.08	60.93	24370.56258	90.87995	7.6184	31.4	0.1	11.929	119.29	80	4	3.0463	0.131261076


Shear Stress vs. Shear Rate
20
18
16
14
12
10
8
6
4
2
0
0
200
400
600
800
1000
1200
New Sample
Aged 1 day


Viscosity vs. Shear Rate
Viscosity (Pa-s)
1
0.1
0.01
1
10
100
1000
Shear Rate (sec-1)
New Sample
Aged 1 day



Shear Stress vs. Shear Rate
Shear Stress (Pa)
250
200
150
100
50
0
0
500
1000
1500
Shear Rate (sec^{-1})
New Sample
Aged 1 day
Aged 6 days - run 1
Aged 6 days - run 2
Aged 6 days - run 3
Aged 6 days - run 4



Viscosity vs. Shear Rate
Viscosity (Pa-s)
10000
1000
100
10
1
0.1
0.01
0.01
1
100
10000
Shear Rate (sec^{-1})
New Sample
Aged 1 day
Aged 6 days - run 1
Aged 6 days - run 2
Aged 6 days - run 3
Aged 6 days - run 4

E-3 SETTLING VELOCITY

			META/AR/U/N									
			100 mL SV chamber			100	mL sample	250 mL SV chamber			200	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
1/16/2004 10:30				100	594.52			200	200	204.5494		
1/16/2004 10:35	0:05	0:05		100	594.52	0.00	0.0000	200	200	204.5494	0.00	0.0000
1/16/2004 11:05	0:35	0:30		100	594.52	0.00	0.0000	200	200	204.5494	0.00	0.0000
1/16/2004 13:15	2:45	2:10	0.2	99.8	593.33	1.19	0.5488	200	200	204.5494	0.00	0.0000
1/16/2004 15:55	5:25	2:40	0.2	99.8	593.33	0.00	0.0000	198	198	202.5039	2.05	0.7671
1/16/2004 21:45	11:15	5:50	0.8	99.2	589.76	3.57	0.6115	197	197	201.4811	1.02	0.1753
1/17/2004 12:10	25:40	14:25	12.75	87.25	518.72	71.04	4.9280	126	126	128.8661	72.62	5.0369
1/18/2004 9:45	47:15	21:35	26.25	73.75	438.46	80.26	3.7186	108	108	110.4567	18.41	0.8529
1/19/2004 8:45	70:15	23:00	45.2	54.8	325.8	112.66	4.8983	106	106	108.4112	2.05	0.0889
1/20/2004 11:00	96:30	26:15	44.4	55.6	330.55	-4.76	-0.1812	102.5	102.5	104.8316	3.58	0.1364
1/21/2004 9:45	119:15	22:45	45.6	54.4	323.42	7.13	0.3136	102	102	104.3202	0.51	0.0225
1/22/2004 20:00	153:30	34:15	47.4	52.6	312.72	10.70	0.3124	102	102	104.3202	0.00	0.0000
1/26/2004 10:30	240:00	86:30	49.4	50.6	300.83	11.89	0.1375	102	102	104.3202	0.00	0.0000
1/28/2004 12:20	289:50	49:50	49.5	50.5	300.23	0.59	0.0119	102	102	104.3202	0.00	0.0000

			META/5wt%/U/N									
			100 mL SV chamber			100	mL sample	250 mL SV chamber			200	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
1/16/2004 10:30				100	594.52			200	200	204.5494		
1/16/2004 10:35	0:05	0:05		100	594.52	0.00	0.0000	200	200	204.5494	0.00	0.0000
1/16/2004 11:05	0:35	0:30		100	594.52	0.00	0.0000	200	200	204.5494	0.00	0.0000
1/16/2004 13:15	2:45	2:10	0.2	99.8	593.33	1.19	0.5488	200	200	204.5494	0.00	0.0000
1/16/2004 15:55	5:25	2:40	0.2	99.8	593.33	0.00	0.0000	198	198	202.5039	2.05	0.7671
1/16/2004 21:45	11:15	5:50	0.4	99.6	592.14	1.19	0.2038	198	198	202.5039	0.00	0.0000
1/17/2004 12:10	25:40	14:25	0.4	99.6	592.14	0.00	0.0000	198	198	202.5039	0.00	0.0000
1/18/2004 9:45	47:15	21:35		100	594.52	-2.38	-0.1102	138	138	141.1391	61.36	2.8432
1/19/2004 8:45	70:15	23:00	30	70	416.16	178.36	7.7546	136	136	139.0936	2.05	0.0889
1/20/2004 11:00	96:30	26:15	30.8	69.2	411.41	4.76	0.1812	131	131	133.9798	5.11	0.1948
1/21/2004 9:45	119:15	22:45	32.8	67.2	399.52	11.89	0.5227	126	126	128.8661	5.11	0.2248
1/22/2004 20:00	153:30	34:15	35.4	64.6	384.06	15.46	0.4513	122	122	124.7751	4.09	0.1194
1/26/2004 10:30	240:00	86:30	40.2	59.8	355.52	28.54	0.3299	117	117	119.6614	5.11	0.0591
1/28/2004 12:20	289:50	49:50	42	58	344.82	10.70	0.2147	116	116	118.6386	1.02	0.0205

			187/5wt%/D/N									
			100 mL SV chamber			100	mL sample	250 mL SV chamber			202	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
1/28/2004 13:20			0	100	594.52			202	202	206.5949		
1/28/2004 13:22	0:02	0:02	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/28/2004 13:25	0:05	0:03	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/28/2004 13:30	0:10	0:05	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/28/2004 13:35	0:15	0:05	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/28/2004 13:45	0:25	0:10	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/28/2004 20:15	6:55	6:30	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/29/2004 14:25	25:05	18:10	0	100	594.52	0.00	0.0000	202	202	206.5949	0.00	0.0000
1/30/2004 10:35	45:15	20:10	1.5	98.5	585.6	8.92	0.4422	198	198	202.5039	4.09	0.2029
2/2/2004 10:00	116:40	71:25	20	80	475.62	109.99	1.5401	190	190	194.3219	8.18	0.1146
2/3/2004 10:30	141:10	24:30	25	75	445.89	29.73	1.2133	170	170	173.867	20.45	0.8349

			187/20wt%/D/N									
			100 mL SV chamber			100	mL sample	250 mL SV chamber			190	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
1/28/2004 13:20			0	100	594.52			190	190	194.3219		
1/28/2004 13:22	0:02	0:02	0	100	594.52	0.00	0.0000	190	190	194.3219	0.00	0.0000
1/28/2004 13:25	0:05	0:03	0	100	594.52	0.00	0.0000	190	190	194.3219	0.00	0.0000
1/28/2004 13:30	0:10	0:05	0	100	594.52	0.00	0.0000	190	190	194.3219	0.00	0.0000
1/28/2004 13:35	0:15	0:05	0	100	594.52	0.00	0.0000	190	190	194.3219	0.00	0.0000
1/28/2004 13:45	0:25	0:10	0	100	594.52	0.00	0.0000	190	190	194.3219	0.00	0.0000
1/28/2004 20:15	6:55	6:30	30.3	69.7	414.38	180.14	27.7137	144	144	147.2756	47.05	7.2379
1/29/2004 14:25	25:05	18:10	34.8	65.2	387.63	26.75	1.4727	134	134	137.0481	10.23	0.5630
1/30/2004 10:35	45:15	20:10	37	63	374.55	13.08	0.6486	129	129	131.9343	5.11	0.2536
2/2/2004 10:00	116:40	71:25	39.5	60.5	359.68	14.86	0.2081	125	125	127.8434	4.09	0.0573
2/3/2004 10:30	141:10	24:30	39.8	60.2	357.9	1.78	0.0728	125	125	127.8434	0.00	0.0000

			180/5wt%/U/N									
			100 mL SV chamber			99.8	mL sample	250 mL SV chamber			201	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
2/3/2004 12:00				99.8	593.33				201	205.5721		
2/3/2004 16:30	4:30	4:30		99.8	593.33	0.00	0.0000		201	205.5721	0.00	0.0000
2/4/2004 8:25	20:25	15:55		99.8	593.33	0.00	0.0000		201	205.5721	0.00	0.0000
2/5/2004 8:45	44:45	24:20	33.2	66.6	395.95	197.38	8.1115	144	144	147.2756	58.30	2.3957
2/5/2004 17:30	53:30	8:45	33.2	66.6	395.95	0.00	0.0000	143.5	143.5	146.7642	0.51	0.0584
2/6/2004 12:15	72:15	18:45	34.4	65.4	388.82	7.13	0.3805	139	139	142.1618	4.60	0.2455
2/8/2004 16:15	124:15	52:00	37.8	62	368.6	20.21	0.3887	129.5	129.5	132.4457	9.72	0.1868
2/9/2004 11:00	143:00	18:45	38.4	61.4	365.03	3.57	0.1902	127.5	127.5	130.4002	2.05	0.1091
2/10/2004 10:00	166:00	23:00	39.2	60.6	360.28	4.76	0.2068	125.5	125.5	128.3547	2.05	0.0889
2/11/2004 10:00	190:00	24:00	39.8	60	356.71	3.57	0.1486	124	124	126.8206	1.53	0.0639
2/12/2004 9:00	213:00	23:00	40.3	59.5	353.74	2.97	0.1292	123	123	125.7979	1.02	0.0445
2/13/2004 11:10	239:10	26:10	40.7	59.1	351.36	2.38	0.0909	122	122	124.7751	1.02	0.0391
2/14/2004 12:00	264:00	24:50	40.9	58.9	350.17	1.19	0.0479	121.5	121.5	124.2637	0.51	0.0206
2/17/2004 13:55	337:55	73:55	41.3	58.5	347.79	2.38	0.0322	120	120	122.7296	1.53	0.0208
2/19/2004 10:10	382:10	44:15	41.8	58	344.82	2.97	0.0672	119.5	119.5	122.2183	0.51	0.0116

			180/5wt%/U/N									
			100 mL SV chamber			99.8	mL sample	250 mL SV chamber			201	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
2/23/2004 11:50	479:50	97:40	42	57.8	343.63	1.19	0.0122	118	118	120.6841	1.53	0.0157
2/24/2004 17:40	509:40	29:50	42.2	57.6	342.44	1.19	0.0399	118	118	120.6841	0.00	0.0000
3/2/2004 14:00	674:00	164:20	42.7	57.1	339.47	2.97	0.0181	117.5	117.5	120.1728	0.51	0.0031
3/4/2004 17:10	725:10	51:10	42.8	57	338.88	0.59	0.0116	117	117	119.6614	0.51	0.0100
3/8/2004 16:15	820:15	95:05	42.9	56.9	338.28	0.59	0.0063	117	117	119.6614	0.00	0.0000

			189/5wt%/U/N									
			100 mL SV chamber			100	mL sample	250 mL SV chamber			202	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
2/3/2004 12:00			0	100	594.52			202	202	206.5949		
2/3/2004 16:30	4:30	4:30	1	99	588.57	5.95	1.3212	200	200	204.5494	2.05	0.4546
2/4/2004 8:25	20:25	15:55	7.2	92.8	551.71	36.86	2.3158	198	198	202.5039	2.05	0.1285
2/5/2004 8:45	44:45	24:20	11.2	88.8	527.93	23.78	0.9773	195	195	199.4356	3.07	0.1261
2/5/2004 17:30	53:30	8:45	12.3	87.7	521.39	6.54	0.7474	194	194	198.4129	1.02	0.1169
2/6/2004 12:15	72:15	18:45	14	86	511.29	10.11	0.5390	190.5	190.5	194.8333	3.58	0.1909
2/8/2004 16:15	124:15	52:00	17.4	82.6	491.07	20.21	0.3887	182	182	186.1399	8.69	0.1672
2/9/2004 11:00	143:00	18:45	18.3	81.7	485.72	5.35	0.2854	179.5	179.5	183.5831	2.56	0.1364
2/10/2004 10:00	166:00	23:00	19.4	80.6	479.18	6.54	0.2843	176	176	180.0035	3.58	0.1556
2/11/2004 10:00	190:00	24:00	20.4	79.6	473.24	5.95	0.2477	171.5	171.5	175.4011	4.60	0.1918
2/12/2004 9:00	213:00	23:00	21.6	78.4	466.1	7.13	0.3102	168	168	171.8215	3.58	0.1556
2/13/2004 11:10	239:10	26:10	22.8	77.2	458.97	7.13	0.2726	164	164	167.7305	4.09	0.1563
2/14/2004 12:00	264:00	24:50	23.8	76.2	453.02	5.95	0.2394	160	160	163.6395	4.09	0.1647
2/17/2004 13:55	337:55	73:55	26.2	73.8	438.75	14.27	0.1930	150.5	150.5	153.9234	9.72	0.1314
2/19/2004 10:10	382:10	44:15	27.6	72.4	430.43	8.32	0.1881	145.5	145.5	148.8097	5.11	0.1156
2/23/2004 11:50	479:50	97:40	29.8	70.2	417.35	13.08	0.1339	135.5	135.5	138.5822	10.23	0.1047
2/24/2004 17:40	509:40	29:50	30.4	69.6	413.79	3.57	0.1196	133	133	136.0253	2.56	0.0857
3/2/2004 14:00	674:00	164:20	32.7	67.3	400.11	13.67	0.0832	126	126	128.8661	7.16	0.0436
3/4/2004 17:10	725:10	51:10	33.3	66.7	396.54	3.57	0.0697	125	125	127.8434	1.02	0.0200
3/8/2004 16:15	820:15	95:05	34.4	65.6	390	6.54	0.0688	123.5	123.5	126.3092	1.53	0.0161

			META/5wt%/U/S					META/10wt%/U/S				
			100 mL SV chamber			100	mL sample	100 mL SV chamber			100	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
3/8/2004 17:45				100	594.52				100	594.5188		
3/10/2004 16:30	46:45	46:45	0.4	99.6	592.14	2.38	0.0509	0.4	99.6	592.1407	2.38	0.0509
3/11/2004 18:00	72:15	25:30	1.2	98.8	587.38	4.76	0.1865	0.8	99.2	589.7626	2.38	0.0933
3/12/2004 13:20	91:35	19:20	1.9	98.1	583.22	4.16	0.2153	1.2	98.8	587.3845	2.38	0.1230
3/15/2004 11:00	161:15	69:40	4.6	95.4	567.17	16.05	0.2304	2.2	97.8	581.4393	5.95	0.0853
3/16/2004 15:00	189:15	28:00	5.8	94.2	560.04	7.13	0.2548	2.6	97.4	579.0613	2.38	0.0849
3/17/2004 12:50	211:05	21:50	6.6	93.4	555.28	4.76	0.2178	3.0	97	576.6832	2.38	0.1089
3/18/2004 14:55	237:10	26:05	7.4	92.6	550.52	4.76	0.1823	3.2	96.8	575.4942	1.19	0.0456
3/23/2004 9:30	351:45	114:35	10.8	89.2	530.31	20.21	0.1764	4.2	95.8	569.549	5.95	0.0519
3/24/2004 10:50	377:05	25:20	11.4	88.6	526.74	3.57	0.1408	4.4	95.6	568.3599	1.19	0.0469
3/25/2004 11:20	401:35	24:30	12.0	88	523.18	3.57	0.1456	4.5	95.5	567.7654	0.59	0.0243
3/26/2004 10:50	425:05	23:30	12.6	87.4	519.61	3.57	0.1518	4.6	95.4	567.1709	0.59	0.0253
3/29/2004 13:35	499:50	74:45	14.2	85.8	510.1	9.51	0.1273	5.0	95	564.7928	2.38	0.0318
3/30/2004 8:40	518:55	19:05	14.5	85.5	508.31	1.78	0.0935	5.2	94.8	563.6038	1.19	0.0623
3/31/2004 9:25	543:40	24:45	15.0	85	505.34	2.97	0.1201	5.3	94.7	563.0093	0.59	0.0240
4/2/2004 11:35	593:50	50:10	16.0	84	499.4	5.95	0.1185	5.6	94.4	561.2257	1.78	0.0356
4/5/2004 9:10	663:25	69:35	17.3	82.75	491.96	7.43	0.1068	6.0	94	558.8476	2.38	0.0342
4/6/2004 13:20	691:35	28:10	17.7	82.3	489.29	2.68	0.0950	6.2	93.8	557.6586	1.19	0.0422
4/7/2004 16:30	718:45	27:10	18.1	81.9	486.91	2.38	0.0875	6.3	93.7	557.0641	0.59	0.0219
4/8/2004 10:35	736:50	18:05	18.4	81.6	485.13	1.78	0.0986	6.4	93.6	556.4696	0.59	0.0329
4/9/2004 11:00	761:15	24:25	18.8	81.25	483.05	2.08	0.0852	6.5	93.5	555.875	0.59	0.0243
4/12/2004 8:05	830:20	69:05	19.8	80.2	476.8	6.24	0.0904	6.8	93.25	554.3887	1.49	0.0215
4/13/2004 13:30	859:45	29:25	20.2	79.8	474.43	2.38	0.0808	6.9	93.1	553.497	0.89	0.0303
4/14/2004 9:45	880:00	20:15	20.6	79.45	472.35	2.08	0.1028	7.0	93	552.9024	0.59	0.0294
4/15/2004 9:45	904:00	24:00	20.8	79.2	470.86	1.49	0.0619	7.1	92.9	552.3079	0.59	0.0248
4/19/2004 12:40	1002:55	98:55	21.9	78.1	464.32	6.54	0.0661	7.6	92.4	549.3353	2.97	0.0301
4/21/2004 14:35	1052:50	49:55	22.4	77.6	461.35	2.97	0.0596	7.8	92.25	548.4435	0.89	0.0179
4/22/2004 14:45	1077:00	24:10	22.6	77.4	460.16	1.19	0.0492	7.8	92.2	548.1463	0.30	0.0123
4/23/2004 13:25	1099:40	22:40	22.8	77.2	458.97	1.19	0.0525	7.9	92.1	547.5518	0.59	0.0262
4/26/2004 8:25	1166:40	67:00	23.4	76.6	455.4	3.57	0.0532	8.1	91.95	546.66	0.89	0.0133

			META/5wt%/U/S					META/10wt%/U/S				
			100 mL SV chamber			100	mL sample	100 mL SV chamber			100	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
4/27/2004 10:55	1193:10	26:30	23.6	76.4	454.21	1.19	0.0449	8.2	91.8	545.7682	0.89	0.0337
4/28/2004 9:55	1216:10	23:00	23.8	76.2	453.02	1.19	0.0517	8.3	91.75	545.471	0.30	0.0129
4/29/2004 8:20	1238:35	22:25	24.0	76	451.83	1.19	0.0530	8.4	91.6	544.5792	0.89	0.0398
5/3/2004 8:15	1334:30	95:55	24.6	75.4	448.27	3.57	0.0372	8.6	91.4	543.3901	1.19	0.0124
5/4/2004 9:55	1360:10	25:40	24.8	75.2	447.08	1.19	0.0463	8.7	91.3	542.7956	0.59	0.0232
5/5/2004 12:00	1386:15	26:05	25.1	74.9	445.29	1.78	0.0684	8.8	91.2	542.2011	0.59	0.0228
5/6/2004 11:50	1410:05	23:50	25.3	74.7	444.11	1.19	0.0499	8.9	91.15	541.9038	0.30	0.0125
5/7/2004 17:00	1439:15	29:10	25.6	74.45	442.62	1.49	0.0510	8.9	91.1	541.6066	0.30	0.0102
5/10/2004 10:20	1504:35	65:20	26.1	73.95	439.65	2.97	0.0455	9.2	90.85	540.1203	1.49	0.0227

			META/10wt%/U/N					187/5wt%/D/S				
			250 mL SV chamber			127	mL sample	250 mL SV chamber			185	mL sample
Time	elapsed t (hr: min)	Δt (hr:min)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)	interface pos. (mL)	corr. interface pos (mL)	z (mm)	Δz (mm)	interface vel. (mm/hr)
4/23/2004 11:30				127	129.89				185	189.2082		
4/23/2004 13:25	1:55	1:55		127	129.89	0.00	0.0000	102.0	102	104.3202	84.89	44.2894
4/23/2004 16:10	4:40	2:45	126.0	126	128.87	1.02	0.3719	107.0	107	109.4339	-5.11	-1.8595
4/26/2004 8:25	68:55	64:15	122.5	122.5	125.29	3.58	0.0557	75	75	76.70602	32.73	0.5094
4/27/2004 10:55	95:25	26:30	120.5	120.5	123.24	2.05	0.0772	72	72	73.63778	3.07	0.1158
4/28/2004 9:55	118:25	23:00	119.5	119.5	122.22	1.02	0.0445	71	71	72.61503	1.02	0.0445
4/29/2004 8:20	140:50	22:25	117.5	117.5	120.17	2.05	0.0912	70	70	71.59228	1.02	0.0456
5/3/2004 8:15	236:45	95:55	112.0	112	114.55	5.63	0.0586	68	68	69.54679	2.05	0.0213
5/4/2004 9:55	262:25	25:40	111.5	111.5	114.04	0.51	0.0199	68	68	69.54679	0.00	0.0000
5/5/2004 12:00	288:30	26:05	110.0	110	112.5	1.53	0.0588	68	68	69.54679	0.00	0.0000
5/6/2004 11:50	312:20	23:50	109.5	109.5	111.99	0.51	0.0215	68	68	69.54679	0.00	0.0000
5/7/2004 17:00	341:30	29:10	108.5	108.5	110.97	1.02	0.0351	68	68	69.54679	0.00	0.0000
5/10/2004 10:20	406:50	65:20	107.5	107.5	109.95	1.02	0.0157	67	67	68.52404	1.02	0.0157

E-4 SOLIDS WEIGHT PERCENTAGE

Percentage Moisture

Date	Sample	Vessel	Vessel Mass (g)	T_0 Vessel and Sample Mass (g)	T_f Vessel and Sample Mass (g)	T_0 Sample Mass (g)	T_f Sample Mass (g)	Percent Moisture	Soli Per
12/24/2003	FY04 filtered solids	120 mL evap dish	75.0243	100.7265	83.054	25.7022	8.0297	68.8%	
12/24/2003	FY04 filtered solids	120 mL evap dish	75.4081	91.0106	79.975	15.6025	4.5669	70.7%	
1/8/2004	FY03 filtered solids	120 mL evap dish	75.0325	101.694	90.1789	26.6615	15.1464	43.2%	
1/8/2004	FY03 filtered solids	120 mL evap dish	75.4093	103.3425	91.354	27.9332	15.9447	42.9%	
1/12/2004	FY04 centrifuged solids	120 mL evap dish	75.0351	102.2763	80.0706	27.2412	5.0355	81.5%	
1/12/2004	FY04 centrifuged solids	120 mL evap dish	75.4104	118.9601	83.623	43.5497	8.2126	81.1%	
1/15/2004	FY04 centrifuged solids	120 mL evap dish	74.9941	118.4035	84.7328	43.4094	9.7387	77.6%	
3/18/2004	META / 20wt% / U / N	120 mL evap dish	74.9848	124.043	86.1125	49.0582	11.1277	77.3%	
3/18/2004	META / 20wt% / U / S	120 mL evap dish	75.3755	137.0081	91.7108	61.6326	16.3353	73.5%	
5/19/2004	META/20wt%/U/S	120 mL evap dish	74.9893	156.6018	96.9706	81.6125	21.9813	73.1%	
3/29/2004	META/AR/U/N	120 mL evap dish	74.9852	121.024	79.3727	46.0388	4.3875	90.5%	
3/29/2004	META/AR/U/N	120 mL evap dish	75.3755	130.8906	80.6225	55.5151	5.247	90.5%	
4/7/2004	META/AR/U/N	120 mL evap dish	74.988	121.515	79.3339	46.527	4.3459	90.7%	
4/7/2004	META/AR/U/N	120 mL evap dish	75.3813	131.3954	80.5479	56.0141	5.1666	90.8%	
4/15/2004	META/AR/U/N	120 mL evap dish	74.9874	127.8665	79.995	52.8791	5.0076	90.5%	
4/15/2004	META/AR/U/N	120 mL evap dish	75.3824	117.3947	79.2887	42.0123	3.9063	90.7%	
4/23/2004	187/5wt%/D/N	120 mL evap dish	74.9868	128.4902	79.5916	53.5034	4.6048	91.4%	
4/23/2004	META/5wt%/U/N	120 mL evap dish	75.3813	135.2266	81.844	59.8453	6.4627	89.2%	
4/28/2004	META/0wt%	120 mL evap dish	74.986	135.0657	80.2044	60.0797	5.2184	91.3%	
4/28/2004	187/0wt%	120 mL evap dish	75.3865	142.365	78.505	66.9785	3.1185	95.3%	
5/4/2004	META/15wt%/U/S	120 mL evap dish	74.9968	121.85	83.221	46.8532	8.2242	82.4%	
5/4/2004	187/20wt%/D/N	120 mL evap dish	75.382	144.01	89.7995	68.628	14.4175	79.0%	
5/4/2004	187/20wt%/D/S	120 mL evap dish	74.888	132.79	89.6689	57.902	14.7809	74.5%	
5/10/2004	META/5wt%/U/S	120 mL evap dish	74.99	139.7422	82.298	64.7522	7.308	88.7%	
5/10/2004	META/10wt%/U/S	120 mL evap dish	75.3833	136.5942	84.6038	61.2109	9.2205	84.9%	
5/20/2004	META/10wt%/U/N	120 mL evap dish	75.3754	129.37	82.4688	53.9946	7.0934	86.9%	
5/20/2004	187/5wt%/D/S	120 mL evap dish	74.8887	132.495	79.6504	57.6063	4.7617	91.7%	
6/4/2004	180/0wt%	120 mL evap dish	74.9903	137.8312	90.6845	62.8409	15.6942	75.0%	
6/4/2004	189/0wt%	120 mL evap dish	75.3833	142.4007	90.4102	67.0174	15.0269	77.6%	
4/5/2004	WM-187 as received	glass beaker base	36.29	58.108	37.845	21.818	1.555	92.9%	
4/6/2004	WM-187 supernate	glass beaker base	40.15	60.401	41.108	20.251	0.958	95.3%	
4/7/2004	WM-187 gravity settled sludge	glass beaker base	42.42	63.206	44.504	20.786	2.084	90.0%	
4/8/2004	WM-187 centrifuged sludge	glass beaker base	41.87	57.765	43.704	15.895	1.834	88.5%	
4/27/2004	WM-187 centrifuged sludge					20.174	2.239	88.9%	
4/27/2004	WM-187 centrifuged sludge					20.367	2.472	87.9%	

E-5 BULK DENSITY

Wet Solids Bulk Density

Date	Sample	Vessel	Vessel Mass (g)	Vessel and Sample Mass (g)	Sample Mass (g)	Sample Volume (mL)	Density (g/mL)
12/22/2003	FY04 filtered solids	25 mL grad cyl	63.2315	95.198	31.9665	25	1.27866
1/6/2004	FY03 filtered solids	25 mL grad cyl	63.2202	90.2636	27.0434	25	1.081736
1/8/2004	FY04 centrifuged solids	25 mL grad cyl	63.2139	92.6513	29.4374	25	1.177496

Dried Solids Bulk Density

Date	Sample	Vessel	Vessel Mass (g)	Vessel and Sample Mass (g)	Sample Mass (g)	Sample Volume (mL)	Density (g/mL)
12/24/2003	FY04 filtered solids	25 mL grad cyl	63.2285	71.2556	8.0271	13.25	0.6058189
1/8/2004	FY03 filtered solids	25 mL grad cyl	63.2262	78.3896	15.1634	21.75	0.6971678
1/12/2004	FY04 centrifuged solids	25 mL grad cyl	63.2228	76.4877	13.2649	12.25	1.082849
5/10/2004	187/20wt%/D/N	25 mL grad cyl			13.6072	17.5	0.7775543
5/10/2004	187/20wt%/D/S	25 mL grad cyl			14.6884	19.5	0.7532513
5/24/2004	META/20wt%/U/S	25 mL grad cyl			10.3712	14.5	0.7152552

Sample Bulk Density

Date	Sample	Sample Mass (g)	Sample Vol. (mL)	Density (g/mL)
1/14/2004	META / AR / U	72.7350	65.0	1.12
1/14/2004	187 / 5wt% / D	70.4022	66.0	1.07
1/14/2004	META / 5wt% / U	75.3557	66.5	1.13
1/14/2004	180 / 5wt% / U	69.0007	56.0	1.23
1/14/2004	189 / 5wt% / U	69.9303	55.0	1.27
1/14/2004	187 / 20wt% / D	71.0840	61.0	1.17
1/14/2004	META / 20wt% / U	73.1548	59.5	1.23
1/14/2004	META / 0wt%	69.5804	62.0	1.12
1/14/2004	187 / 0wt%	73.2010	69.5	1.05
1/14/2004	180 / 0wt%	76.8701	61.5	1.25
1/14/2004	189 / 0wt%	79.0573	60.5	1.31
4/23/2004	187/5wt%/D/S	71.5106	67.0	1.07
4/23/2004	META/10wt%/U/N	75.6030	66.0	1.15
4/23/2004	META/15wt%/U/S	73.7372	63.0	1.17
4/23/2004	187/20wt%/D/S	78.9818	66.0	1.20
4/23/2004	META/20wt%/U/S	83.2490	67.0	1.24
5/10/2004	META/5wt%/U/S	68.4386	60.5	1.13
5/10/2004	META/10wt%/U/S	76.4387	66.0	1.16

E-6 pH

Sample pH

Date	Sample	pH indicator strip	pH probe
1/15/2004	META / 0wt%	0	0.77
1/15/2004	187 / 0wt%	0	1.01
1/15/2004	180 / 0wt%	0	0.44
1/15/2004	189 / 0wt%	0	0.24