The Society of Rheology 84th Annual Meeting
Pasadena Convention Center, Pasadena, California

Meeting Schedule

Monday, February 11, 2013

	C106	*C107*	*C101*	*C105*
8:30		C. F. Zukoski (PL1) - *C102*		
9:20		Coffee Break		
10:00	SC1	PS1	BC1	EF1
10:25	SC2	PS2	BC2	EF2
10:50	SC3	PS3	BC3	EF3
11:15	SC4	PS4	BC4	EF4
11:40	SC5	PS5	BC5	EF5
12:05		Lunch Break		
1:30	SC6	PS6	BC6	EF6
1:55	SC7	PS7	BC7	EF7
2:20	SC8	PS8	BC8	EF8
2:45	SC9	PS9	BC9	EF9
3:10		Coffee Break		
3:35	SC10	EM1	BC10	EF10
4:00	SC11	EM2	BC11	EF11
4:25	SC12	EM3	BC12	EF12
4:50	SC13	EM4	BC13	EF13
5:15	SC14	EM5	BC14	EF14
5:40		End		

Tuesday, February 12, 2013

	C106	*C107*	*C101*	*C105*
8:30		R. H. Colby (PL2) - *C102*		
9:20		Coffee Break		
10:00	SC15	EM6	SA1	EF15
10:25	SC16	EM7	SA2	EF16
10:50	SC17	EM8	SA3	EF17
11:15	SC18	EM9	SA4	EF18
11:40	SC19	EM10	SA5	EF19
12:05		Lunch Break / Society Business Meeting		
1:30	SC20	PS10	SA6	SG1
1:55	SC21	PS11	SA7	SG2
2:20	SC22	PS12	SA8	SG3
2:45	SC23	PS13	SA9	SG4
3:10		Coffee Break		
3:35	SC24	PS14	SA10	SG5
4:00	SC25	PS15	SA11	SG6
4:25	SC26	PS16	SA12	SG7
4:50	SC27	PS17	SA13	SG8
5:15	SC28	PS18	SA14	SG9
5:40		End		
7:00		Awards Reception		
8:00		Awards Banquet		

Wednesday, February 13, 2013

	C106	*C107*	*C101*	*C105*
8:30		M. D. Graham (PL3) - *C102*		
9:20		Coffee Break		
10:00	SC29	PS19	SA15	BS1
10:25	SC30	PS20	SA16	BS2
10:50	SC31	PS21	SA17	BS3
11:15	SC32	PS22	SA18	BS4
11:40	SC33	PS23	SA19	BS5
12:05		Lunch Break		
1:30	SC34	PS24	SA20	BS6
1:55	SC35	PS25	SA21	BS7
2:20	SC36	PS26	SA22	BS8
2:45	SC37	PS27	SA23	BS9
3:10		Coffee Break		
3:35	SC38	PS28	SA24	BS10
4:00	SC39	PS29	SA25	BS11
4:25	SC40	PS30	SA26	BS12
4:50	SC41	PS31	SA27	BS13
5:15		End		
5:30		Poster Session & Reception		

Thursday, February 14, 2013

	C106	*C107*	*C101*	*C105*
8:00		C. M. Schroeder (AP1) - *C106*		
8:40	SC42	PS32	SA28	BS14
9:05	SC43	PS33	SA29	BS15
9:30	SC44	PS34	SA30	BS16
9:55		Coffee Break		
10:25	SC45	PS35	SA31	BS17
10:50	SC46	PS36	SA32	BS18
11:15	SC47	PS37	SA33	BS19
11:40	SC48	PS38	SA34	BS20
12:05	SC49	PS39	SA35	BS21
12:30		End		

Session and Room Codes

AP = Award Presentations
BC = Blends and Composites
BS = Rheology in Biological Systems
EF = Emulsions, Foams and Interfacial Rheology
EM = Electric and Magnetic Field Effects in Rheology
PL = Plenary Lectures
PS = Polymer Solutions and Melts
SA = Self-Assembling, Associating and Gel-Like Systems
SC = Suspensions and Colloids
SG = Solids and Glasses

C101 = Room C101
C102 = Rooms C102-C104
C105 = Room C105
C106 = Room C106
C107 = Room C107
CCLL = Conference Center Lower Level

Monday, February 11

Morning

8:30 **PL1.** Rheological consequences of localization. *C. F. Zukoski* C102-C104

9:20 COFFEE BREAK

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Blends and Composites**	**Emulsions, Foams & Interfacial Rheology**
10:00	**SC1.** Shear-induced aggregation and orientation of particles in a polymer solution: Formation and evolution of microstructure. *E. C. Peterson and V. Breedveld*	**PS1.** Emerging signs calling for a different framework for nonlinear rheology of entangled polymers. *S.-Q. Wang, Y. Wang, S. Cheng, Y. Lu, H. Wang, Z.-G. Wang and L. An*	**BC1.** Effect of carbon nano-tubes on the rheological properties of polymer nano-composites: A comparison between different nano-particle shapes. *H. Mahi and D. Rodrigue*	**EF1.** Equilibrium and dynamic surface properties of poly(ethylene oxide) based homopolymers and block copolymers. *Z. A. Zell, G. Leal and T. M. Squires*
10:25	**SC2.** Non-linear structure response of liquid state colloidal suspensions under oscillatory shear. *N. Y. Lin, S. Goyal, X. Cheng, R. Zia, F. Escobedo and I. Cohen*	**PS2.** Assumptions in entanglement models and their effect on non-linear rheology predictions. *M. Andreev, J. D. Schieber and R. Steenbakkers*	**BC2.** Wrinkling instabilities in polymer-supported nanotube films: Mitigating van der Waals attraction through excluded-volume interactions. *J. M. Harris, M. R. Semler, E. K. Hobbie, J. A. Fagan, J. Y. Huh and C. M. Stafford*	**EF2.** Comprehensive analysis of surfactant-biofilm interactions. *C. F. Wu, J. Y. Lim, L. Cegelski and G. G. Fuller*
10:50	**SC3.** Structure and rheology of vorticity-aligned string phase in sheared colloidal suspensions. *X. Cheng, N. Y. Lin and I. Cohen*	**PS3.** From non-Gaussian chain stretching to real "shear hardening" in simple shear of branched polystyrene solutions. *G. Liu, H. Lee, S. Cheng, H. Ma, R. Quirk, T. Chang and S.-Q. Wang*	**BC3.** Electrically percolating clusters in sheared carbon nanotube composites. *D. Moon, J. Obrzut, J. F. Douglas, T. Lam, R. Sharma, J. Liddle and K. B. Migler*	**EF3.** Unusual surface mechanical properties of poly(α-methylstyrene): Surface softening and stiffening at different temperatures. *T. B. Karim and G. B. McKenna*
11:15	**SC4.** Suspension structure visualization in simple and complex flows. *J. F. Gilchrist, T. Perera and B. Xu*	**PS4.** Tube models for branched polymers: Revisiting the "simple" case of star/linear blends. *P. S. Desai and R. G. Larson*	**BC4.** Shear and extensional flow-induced particle orientation in a polypropylene/clay nanocomposite. *W. R. Burghardt and E. M. McCready*	**EF4.** Producing high melt strength long-chain branched polylactide (PLA) for foaming. *N. Najafi, M.-C. Heuzey, P. Carreau and D. Therriault*
11:40	**SC5.** Phase separating mixtures of colloidal rods and spheres in shear flow. *D. Guu and P. Lettinga*	**PS5.** Particle tracking velocimetry of polybutadiene mixtures under nonlinear viscoelastic shear flows. *Y. Li, M. Hu, G. B. McKenna, C. J. Dimitriou, R. M. Mick, D. C. Venerus, H. Wang and L. Archer*	**BC5.** Rheology of the dispersed conductive filler, graphene nanowire, with poly vinylidene fluoride (PVDF) composite as a stress and strain sensing material. *B. E. Berwald and L. Rakesh*	**EF5.** Development of an engineering model to describe polyurethane foam expansion and cure. *L. A. Mondy, R. R. Rao, M. C. Celina, J. M. Kropka, E. M. Russick, N. B. Wyatt and B. Shelden*

12:05 LUNCH BREAK

Afternoon

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Blends and Composites**	**Emulsions, Foams & Interfacial Rheology**
1:30	**SC6.** Particle alignment in sheared vicoelastic fluids: Novel experimental results. *S. M. Van Loon, J. Vermant and C. Clasen*	**PS6.** Modelling flow-induced crystallisation in polymer melts: Crossing length-scales and modelling approaches. *R. S. Graham*	**BC6.** Tethered nanoparticle–polymer composites: Structure, dynamics and rheology. *S. Srivastava and L. Archer*	**EF6.** Response of capillary suspensions to external deformations. *E. Koos, W. Kannowade and N. Willenbacher*
1:55	**SC7.** Hydrocluster formation in colloidal suspensions: A mesoscale simulation study. *S. Jamali, M. Yamanoi and J. M. Maia*	**PS7.** Rheology during structure formation in polypropylene. *P. C. Roozemond, Z. Ma and G. Peters*	**BC7.** Effect on the drainage time of polymer-coated janus gold nanoparticles compatibilizing immiscible polymer blends. *C. Vannozzi*	**EF7.** Rheology and structure of ternary fluid/fluid/particle systems. *S. S. Velankar and S. P. Nagarkar*

2:20	**SC8.** Shear-induced diffusion in suspensions of curved fibers. *J. Wang, E. J. Tozzi, M. D. Graham and D. J. Klingenberg*	**PS8.** Melt fracture and wall slip of metallocene-catalyzed bimodal polyethylenes in capillary flow. *Y. Inn*	**BC8.** The effects of low level silanization on the rheology and microstructure of silica / PEG nanocomposite melts. *M. Ranka and C. Zukoski*	**EF8.** Highly porous ceramic foams from magnesium oxide-stabilized Pickering emulsions. *C. C. Roberts, L. G. Hughes, L. A. Mondy, A. M. Grillet, C. Diantonio, T. Chavez and D. Ingersoll*
2:45	**SC9.** Microstructure and rheology of suspensions at finite inertia. *H. Haddadi and J. Morris*	**PS9.** Analysis of forcespinning method of producing nanofibers at high throughput. *S. M. Taghavi, S. Padron, K. Lozano and R. G. Larson*	**BC9.** Comparison of diffusion models for fiber-fiber interactions within fiber-filled thermoplastics using bulk mechanical stiffness results. *B. Lewis and D. A. Jack*	**EF9.** Flow of concentrated emulsions: A cooperative process. *A. Colin*
3:10	COFFEE BREAK			
	Electric and Magnetic Field Effects			
3:35	**SC10.** Flow of biomass undergoing enzymatic hydrolysis. *E. J. Tozzi, D. M. Lavenson, M. Cardona, N. Karuna, T. Jeoh, P. A. Skovgaard, H. Jorgensen, R. L. Powell and M. J. McCarthy*	**EM1.** The bulk electroviscous effect. *A. S. Khair and A. G. Star*	**BC10.** Can only rheology be used to determine the phase separation mechanism in dynamically asymmetric polymer blends (PS/PVME)? *J. Khademzadeh Yeganeh, F. Goharpey and F. Reza*	**EF10.** Shear-induced migration of semi-dilute emulsion in a microchannel. *V. Mansard, F. Schembri, H. Bodiguel and A. Colin*
4:00	**SC11.** Comparing responses of different stiff particles using LAOS in combination with in situ time-resolved SANS. *P. Lettinga, S. A. Rogers and J. Kohlbrecher*	**EM2.** Electrohydrodynamic instabilities in thin viscoelastic films: AC and DC fields. *L. Espin, A. J. Corbett and S. Kumar*	**BC11.** Phase diagram of poly(ε-caprolactone) and polylactide biodegradable blend under oscillatory shear flow.*N. Noroozi, L. L. Schafer and S. G. Hatzikiriakos*	**EF11.** Nonlinear electrohydrodynamics of a viscous droplet. *P. F. Salipante and P. M. Vlahovska*
4:25	**SC12.** Response of an elastoviscoplastic material to oscillatory shear flow in the parallel plate and cylindrical Couette geometries. *J. J. Stickel, J. S. Knutsen and M. W. Liberatore*	**EM3.** Rheology and structure of magnetic colloidal liquid crystal composites. *H. Diestra-Cruz, C. Rinaldi and A. Acevedo*	**BC12.** Study of negative intrinsic viscosity in polymer melts. *M. Agarwal and C. Zukoski*	**EF12.** Fourier transform rheology as an innovative morphological characterization technique for the emulsion volume average radius and its distribution. *K. Reinheimer, D. Merger and M. Wilhelm*
4:50	**SC13.** A quantitative instantaneous approach to analyzing data from LAOS: Theory and applications. *S. A. Rogers*	**EM4.** Design of integrated electrorheological (ER) valves. *A. Helal, M. Telleria, J. Wang, B. Qian, M. Strauss, M. Murphy, A. Hosoi and G. H. McKinley*	**BC13.** Influence of temperature on shear stress growth and modeling parameters for long glass fiber thermoplastic composites. *M. J. Cieslinski and D. G. Baird*	**EF13.** Dynamic characterization of high internal phase emulsions during polymerization. *R. Foudazi, P. Gokun, D. L. Feke, S. J. Rowan and I. Manas-Zloczower*
5:15	**SC14.** Structure and flow behavior of cubic nanoparticle suspensions. *R. K. Mallavajula, D. L. Koch and L. Archer*	**EM5.** Magnetic fluids and magnetization relaxation equations. *P. N. Kaloni*	**BC14.** Study for extrusion of wood plastic composites. *K. Wilczynski, A. Nastaj, Z. Szymaniak, A. Lewandowski and K. J. Wilczynski*	**EF14.** Flow of a viscoelastic fluid around a deformable droplet. *B. Mena*
5:40	END			

Tuesday, February 12

Morning

8:30 **PL2.** Linear viscoelasticity of associating ionomers. *R. H. Colby* (Bingham Lecture) C102-C104

9:20 COFFEE BREAK

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Electric and Magnetic Field Effects**	**Self-Assembl, Assoc & Gel-Like Systems**	**Emulsions, Foams & Interfacial Rheology**
10:00	**SC15.** Rheological and diffusion properties of charged particles dispersions: From big colloids to nanosized bioparticles and electrolyte ions. *G. Naegele, C. Contreras-Aburto and M. Heinen*	**EM6.** Effects of environmental parameters on the electrospinnability and fiber morphology of polyethylene oxide. *L. Palangetic and C. Clasen*	**SA1.** Enormous elongation of (SIS)n type multiblock copolymers. *H. Watanabe and Y. Matsumiya*	**EF15.** Drop circulation and liquid-liquid extraction in Hele Shaw flow. *C. C. Roberts, S. A. Roberts, R. R. Rao and M. B. Nemer*
10:25	**SC16.** Self-suspended nanoparticle fluids - structure, rheology and dynamics. *P. Agarwal, S. Srivastava, S. A. Kim and L. Archer*	**EM7.** Fiber formation during electrospinning of low molecular weight polymer solutions due to the presence of small amounts of high molecular weight polymer. *N. K. Reddy, S. Srinivasan, L. Palangetic, R. E. Cohen, G. H. McKinley and C. Clasen*	**SA2.** A numerical study on the structure and rheology of transient self-associating polymer networks. *M. Wilson and A. Baljon*	**EF16.** Using the conformal decomposition finite element method to model microfluidic flows and droplet formation. *R. R. Rao, D. R. Noble, C. Brotherton, C. C. Roberts and S. A. Roberts*
10:50	**SC17.** Brownian dynamics simulations of a local-fluid-volume preserving model of solvent-free nanoparticle fluids. *A. Sarkar and D. L. Koch*	**EM8.** Tethered nanoparticles in oligomer with controllable electrostatic forces. *Y. Wen, K. Dobosz and L. Archer*	**SA3.** The rheological and molecular similarity of failure interfaces resulting from fracture and shear banding instabilities in model physically associating polymer gels. *K. A. Erk and K. R. Shull*	**EF17.** Linear stability of oscillating pinned bubbles in interfacial rheological measurements. *A. Kotula and S. Anna*
11:15	**SC18.** The shear and extensional rheology of nanoparticle-polymer suspensions and its effect on liquid transfer during gravure printing. *S. Khandavalli, A. Sankaran and J. Rothstein*	**EM9.** Visualizing 2-D phase transitions with paramagnetic colloids. *S. L. Biswal*	**SA4.** Strong and tough hybrid hydrogels composed of physical and covalent networks. *R. A. Weiss and J. Hao*	**EF18.** Rheological properties of methane hydrate slurries formed from AOT + water + oil emulsions. *E. B. Webb, C. A. Koh, E. D. Sloan, A. K. Sum and M. W. Liberatore*
11:40	**SC19.** Effects of temperature and sonication on the rheology and microstructure of nano-crystalline cellulose (NCC) aqueous suspensions. *S. Shafiei-Sabet, W. Y. Hamad and S. G. Hatzikiriakos*	**EM10.** Engineering improved magnetorheological (MR) fluids with the addition of non-magnetizable particles. *B. T. Wilson and D. J. Klingenberg*	**SA5.** Developing a constitutive framework for predicting large deformations of simple and thixotropic elasto-viscoplastic materials. *C. J. Dimitriou and G. H. McKinley*	**EF19.** High pressure rheology of Alaska heavy oil saturated with methane. *A. Bazyleva, B. Akeredolu and M. W. Liberatore*

12:05 LUNCH BREAK / SOCIETY BUSINESS MEETING C106

Afternoon

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-Assembl, Assoc & Gel-Like Systems**	**Solids and Glasses**
1:30	**SC20.** Dynamics of micelle-nanoparticle interactions in the shear templating of colloidal crystals. *B. A. Rolfe, J. Chun and Y. L. Joo*	**PS10.** Globule formation and breakup in dilute solutions of flexible polymers. *R. Radhakrishnan and P. T. Underhill*	**SA6.** LAOS rheological characterization of an elasto-viscoplastic gel. *A. A. Alicke, R. T. Leite and P. R. de Souza Mendes*	**SG1.** Boundary layer in yield stress fluids: How some liquid flows depend on the deformation in the solid regions. *P. Coussot, T. Chevalier, X. Chateau and S. Rodts*
1:55	**SC21.** Vibration-assisted convective assembly and deposition for monolayer particle coatings from suspension. *G. James, T. Muangnapoh and A. L. Weldon*	**PS11.** Extracting fundamental materials properties from rheological measurements. *F. Latinwo and C. M. Schroeder*	**SA7.** Low-dimensional rheological fingerprints of a transient polymeric hydrogel in LAOStrain (large-amplitude oscillatory shear strain). *N. A. Bharadwaj and R. H. Ewoldt*	**SG2.** Complex yielding of simple hard sphere glasses under oscillatory shear. *N. Koumakis, J. F. Brady and G. Petekidis*

2:20	**SC22.** Passive microrheology of two-dimensional colloidal crystals. *T. G. Mason*	**PS12.** When does polystyrene become a polymer? *Y. Wang, A. L. Agapov, F. Fan, A. P. Holt and A. P. Sokolov*	**SA8.** Self-assembly and gelation of conjugated polymers towards enhancing charge transport in organic photovoltaics. *G. Newbloom, K. Weigandt, P. de La Iglesia and D. Pozzo*	**SG3.** Spatially correlated stresses in soft-particle suspensions. *C. E. Maloney and K. Karimi*
2:45	**SC23.** Particle tracking of square platelet colloids in a two-dimensional crystal. *K. Mayoral, X. Zhu, D. Bikos, K. Zhao and T. G. Mason*	**PS13.** Viscoelastic and dielectric tests of segmental dynamics in type-B polymers. *Y. Matsumiya and H. Watanabe*	**SA9.** Flow induced crystallization and gelation of P3HT. *J. J. Wie, N. A. Nguyen, C. D. Cwalina and M. E. Mackay*	**SG4.** Comparison of failure strength vs. consolidation stress data and associated error limits from different shear cells when testing the reference material BCR-116 Limestone powder. *R. G. McGregor*
3:10	COFFEE BREAK			
3:35	**SC24.** Aging in colloidal systems: Analogies with Kovacs' structural recovery experiments. *G. B. McKenna, X. Di and X. Peng*	**PS14.** Stretching self-entangled molecules in planar elongational fields. *B. Renner and P. S. Doyle*	**SA10.** Superposition rheometry of a wormlike micellar surfactant solution. *S. Kim, J. Mewis, J. Vermant and C. Clasen*	**SG5.** The colloidal glass transition as rheological inverse of gelation. *H. H. Winter*
4:00	**SC25.** Analysis of gel yielding of thixotropic drilling fluids by means of rheometric tests. *C. O. Negrao, D. E. Andrade and A. T. Franco*	**PS15.** Viscoelastic and structural properties of dendrimers and hyperbranched polymers undergoing planar elongational flow from nonequilibrium molecular dynamics simulation. *E. Hajizadeh, B. D. Todd and P. J. Daivis*	**SA11.** Elastic instabilities in a microfluidic cross-slot flow of wormlike micellar solutions. *A. Q. Shen, N. Dubash and P. Cheung*	**SG6.** Symmetric aging behavior upon temperature up and down jumps of a soft glassy nano-clay suspension. *T. Dhavale and Y. M. Joshi*
4:25	**SC26.** Role of interparticle attraction in yielding behavior of microgel suspensions. *Z. Shao, A. S. Negi and C. O. Osuji*	**PS16.** Dynamics and rheology of dilute and entangled polymer solutions from molecular dynamics simulations. *Y. Yang, S. Nangia and R. Sureshkumar*	**SA12.** Extensional flow SANS of cetylpyridinium chloride wormlike micelles. *K. Weigandt, R. L. Jones, P. Butler and T. Perevozchikova*	**SG7.** Exploring the nature of strain hardening in uniaxial extension of polymer glasses in absence of strain localization. *P. Lin and S.-Q. Wang*
4:50	**SC27.** The medium amplitude oscillatory shear (MAOS) of semi-dilute colloidal dispersions. *J. W. Swan and N. J. Wagner*	**PS17.** Adsorption of single polymer molecules in shear flow near a planar wall. *S. Dutta, K. D. Dorfman and S. Kumar*	**SA13.** Microstructure and rheology of a flow-induced structured phase in wormlike micellar solutions. *J. J. Cardiel, A. Dohnalkova, N. Dubash, Y. Zhao, P. Cheung and A. Q. Shen*	**SG8.** Rheologically based strategies for long term durability of sealants. *C. C. White, D. Hunston and K. T. Tan*
5:15	**SC28.** Structural and mechanical manipulation of colloidal gels by shear. *N. Koumakis, R. Besseling, W. K. Poon, J. F. Brady and G. Petekidis*	**PS18.** The effects of non-conservative forces, compressibility, hydrodynamic interaction and inertia in the microrheology of viscoelastic materials. *A. Córdoba, J. D. Schieber and T. Indei*	**SA14.** Nonequilibrium thermodynamic modeling of the shear banding phenomenon of concentrated wormlike micellar solutions. *N. Germann, L. P. Cook, A. N. Beris and N. J. Wagner*	**SG9.** Using a 20 Ma fossil resin to test the super-Arrhenius behavior of glass forming systems. *J. Zhao and G. B. McKenna*
5:40	END			
7:00	AWARDS RECEPTION Athenaeum, Caltech			
8:00	AWARDS BANQUET Athenaeum, Caltech			

Wednesday, February 13

Morning

8:30 **PL3.** Drag reduction and the dynamics of turbulence in simple and complex fluids. *M. D. Graham* C102-C104

9:20 COFFEE BREAK

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-Assembl, Assoc & Gel-Like Systems**	**Rheology in Biological Systems**
10:00	**SC29.** State diagram of soft colloid / polymer mixtures. *D. Truzzolillo, D. Vlassopoulos and M. Gauthier*	**PS19.** Partitioned plate geometry to perform large amplitude oscillation shear (LAOS)measurements on polymers. *A. J. Franck*	**SA15.** Elastic turbulence in micellar solutions. *M. A. Fardin, G. H. McKinley, S. Lerouge and S. Manneville*	**BS1.** Asymmetric vesicle instabilities in uniaxial and planar extensional flows. *A. Spann, H. Zhao and E. Shaqfeh*
10:25	**SC30.** Overcoming kinetic barriers to self-assembly: Field-directed colloidal phase transitions. *E. M. Furst, J. W. Swan and P. Vasquez*	**PS20.** Non-linear rheology of model branched polymer systems under large amplitude oscillatory shear (LAOS). *B. C. Blackwell, R. H. Ewoldt, J. M. Soulages and A. H. Tsou*	**SA16.** Diffusive effects on the transient and steady state shear response of the VCM model for wormlike micellar mixtures. *L. Zhou, G. H. McKinley and L. P. Cook*	**BS2.** Brownain dynamics simulation of discrete red blood cell model based on kinetic theory with constraints. *K. H. Kim*
10:50	**SC31.** Brownian dynamics method for simulation of binding kinetics of patterned colloidal spheres with hydrodynamic interactions. *J. Liu and R. G. Larson*	**PS21.** Theory of low-dimensional asymptotic material functions from large-amplitude oscillatory shear (LAOS). *R. H. Ewoldt and N. A. Bharadwaj*	**SA17.** Novel simulation method for the rheology of semi-dilute threadlike micellar solutions. *W. Zou and R. G. Larson*	**BS3.** Modeling the concentration distribution of a low-Reynolds number suspension of vesicles and red blood cells in wall-bounded shear flow. *V. Narsimhan, H. Zhao and E. Shaqfeh*
11:15	**SC32.** Tuning rheological properties and structure of thermoreversible organohydrogels based on O/W nanoemulsions. *H. B. Eral, H. Z. An, E. R. Safai and P. S. Doyle*	**PS22.** Temperature rise in large-amplitude oscillatory shear flow from shear stress measurements. *A. J. Giacomin, R. B. Bird and H. M. Baek*	**SA18.** Flow induced irreversible gelation of non-ionic surfactants in a microfluidic device with microposts. *Y. Zhao, J. J. Cardiel, L. Tonggu, L. Wang and A. Q. Shen*	**BS4.** Response of endothelial cells to stagnation point flows. *M. A. Ostrowski, N. F. Huang, T. W. Walker, J. P. Cooke, A. R. Dunn and G. G. Fuller*
11:40	**SC33.** Microstructural processes during LAOS yielding of nanoemulsion gels. *J. Kim, Y. Gao and M. E. Helgeson*	**PS23.** A comparison of mechanical hole burning and Fourier transform rheology of polymer solutions. *N. Shamim and G. B. McKenna*	**SA19.** Rheological properties of commercial body washes: The effects of salts and perfume raw materials. *X. Tang, P. H. Koenig, S. D. McConaughy, M. R. Weaver and R. G. Larson*	**BS5.** Mechanical phenotyping of tumor cells using a microfluidic cell squeezer device. *Z. S. Khan, N. Kamyabi, S. Sennoune, R. Martinez-Zaguilan and S. A. Vanapalli*

12:05 LUNCH BREAK

Afternoon

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-Assembl, Assoc & Gel-Like Systems**	**Rheology in Biological Systems**
1:30	**SC34.** Mechanistic insights into flow induced segregation in blood and other multicomponent suspensions. *A. Kumar and M. D. Graham*	**PS24.** A new large-strain uniaxial extension rheometer for polymer melts. *M. Sentmanat*	**SA20.** Mechanical behavior of nanostructured block copolymer micelle solutions and particle loaded systems. *V. A. Cheng, M. Dao and L. M. Walker*	**BS6.** A multi-scale view of platelet adhesion in high shear. *S. Fitzgibbon and E. Shaqfeh*
1:55	**SC35.** Porous media model and collective behavior of colloidal particles trapped at a fluidic interface. *E. Shaqfeh, G. G. Fuller and S. Yan*	**PS25.** Creep measurements confirm steady flow after stress maximum in extension of branched polymer melts. *N. J. Alvarez, J. M. Román Marín, Q. Huang and O. Hassager*	**SA21.** Dynamics and microstructure of metallo-supramolecular networks obtained from polyethylene-oxides. *H. Goldansaz, D. W. Auhl and C. Bailly*	**BS7.** Stability and bifurcation in a simple model for shape changes in discoidal high-density lipoprotein. *E. Fried and Y.-C. Chen*

2:20	**SC36.** Hydrodynamic migration of soft spheres and rods in microflow. *Y.-L. Chen and C.-W. Hsu*	**PS26.** Stress relaxation of entangled polymer melts and solutions following uniaxial extension. *Q. Huang, Y. Matsumiya, O. Mednova, H. K. Rasmussen, J. M. Román Marín, N. J. Alvarez, K. Almdal, H. Watanabe and O. Hassager*	**SA22.** Self-assembly of novel dendronized polymers and cetyltrimethylammonium p-toluenesulfonate. *E. K. Penott-Chang, K. N. Silva, A. J. Müller, J. C. Cuggino, M. Calderón, C. I. Alvarez and M. C. Strumia*	**BS8.** Rapid isolation of viable circulating tumor cells from patient blood samples. *A. D. Hughes, J. C. Mattison, J. D. Powderly, B. T. Greene and M. R. King*
2:45	**SC37.** Simulation of a non-Newtonian dense granular suspension in a microfluidic contraction. *G. E. Mårtensson, A. Mark and T. Kurian*	**PS27.** Melt rheology and extensional flow-induced crystallization of poly(1-butene). *R. Pasquino, N. Ahmed and N. Grizzuti*	**SA23.** Surfactant-activated microgels. *K. Chari, R. Hsu, P. Bhargava, B. Figura, W. Yang, J.-H. Park, T. Clifford, M. Kadir and G. Benedikt*	**BS9.** Location-dependent intracellular particle-tracking using a cell-based coordinate system. *S. Abuhattum, D. Goldstein and D. Weihs*
3:10	COFFEE BREAK			
3:35	**SC38.** Fast evaporation of spreading droplets of colloidal suspensions. *K. L. Maki and S. Kumar*	**PS28.** X-ray scattering investigation of structural relaxation in an ordered block copolymer melt in uniaxial extensional flow. *E. M. McCready and W. R. Burghardt*	**SA24.** Microstructure and rheology of a thermoreversible gel under large amplitude oscillatory shear (LAOS) deformation using time-resolved oscillatory rheo-small-angle neutron scattering (tOr-SANS). *J. M. Kim, A. Eberle, A. K. Gurnon and N. J. Wagner*	**BS10.** Measuring the viscoelasticity of living cells with a cell monolayer rheometer. *C. M. Elkins and G. G. Fuller*
4:00	**SC39.** Microfluidic generation of droplets with a high-loading of nanoparticles for drug delivery to the lungs via microgel particles. *R. K. Prud'homme*	**PS29.** Breakdown of time-temperature superposition in transient responses of entangled melts to startup extension. *H. Sun and S.-Q. Wang*	**SA25.** Ultrafast ultrasonic imaging of carbon black gels under large amplitude oscillatory shear. *C. Perge, V. Grenard, T. Gibaud, N. Taberlet and S. Manneville*	**BS11.** Shear behavior of human skin: Large amplitude oscillatory shear and viscoelastic modeling. *G. Peters, E. Lamers and C. Oomens*
4:25	**SC40.** The collective dynamics of confined rigid spheres and deformable drops. *M. Loewenberg, J. Blawzdziewicz, P. J. Janssen, M. D. Baron, E. Wajnryb and P. D. Anderson*	**PS30.** Ultra-high strain extensional rheometry of polymer melts. *J. M. Maia and R. Andrade*	**SA26.** Gelation through colloidal assembly at liquid interfaces. *J. A. Witt and A. Mohraz*	**BS12.** In situ characterization of the rheology of Staphylococcus epidermidis biofilms. *L. Pavlovsky, J. G. Younger and M. J. Solomon*
4:50	**SC41.** Microfluidic fabrication of non-spherical endoskeleton droplets. *M. Caggioni, J. Lenis and P. T. Spicer*	**PS31.** A control scheme for filament stretching rheometers with application to polymer melts. *J. M. Román Marín, N. J. Alvarez, Q. Huang and O. Hassager*	**SA27.** Mechanics and microstructure of self-assembled molecular gels. *N. Dudukovic and C. Zukoski*	**BS13.** 3-D numerical investigation of biofilm dynamics. *Q. Wang and J. Zhao*
5:15	END			
5:30	POSTER SESSION & RECEPTION Conference Center Lower Level			

Thursday, February 14

Morning

8:00 **AP1.** New directions in single polymer dynamics: Molecular rheology, hybrid biomaterials, and microfluidic trapping. *C. M. Schroeder* (Metzner Award Presentation) C106

	C106	*C107*	*C101*	*C105*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-Assembl, Assoc & Gel-Like Systems**	**Rheology in Biological Systems**
8:40	**SC42.** Rheological properties of bubble suspensions in yield stress fluids. *L. Ducloué, T. L. Nguyen Thi, G. Ovarlez and X. Chateau*	**PS32.** Shear banding in polymer solutions: Breakdown of the homogeneity assumption. *M. Cromer, G. Leal and G. Fredrickson*	**SA28.** Formation and aging behavior of charged vesicle gels. *M. Seth and G. Leal*	**BS14.** Rheological properties and micro-flows of suspensions of the green micro-alga Chlorella vulgaris. *A. Soulies, J. Pruvost, J. Legrand, C. Castelain and T. I. Burghelea*
9:05	**SC43.** Gravity-induced flow of yield stress fluids being squeezed on a plane. *A. Potanin*	**PS33.** Mesoscale modeling and simulation of transient networks. *Y. Zeng, L. P. Cook, L. Zhou and G. H. McKinley*	**SA29.** A multidimensional Hebraud-Lequeux model. *M. Renardy*	**BS15.** Effect of rotational diffusion on the collective behavior of swimming microorganisms in viscoelastic fluids. *Y. Bozorgi and P. T. Underhill*
9:30	**SC44.** Uniaxial extensional flow of a thixotropic yield stress fluid. *Y. Renardy and H. V. Timme*	**PS34.** Influence of rheological properties on the micro-flow in aqueous polymeric solutions during solvent evaporation. *A. Babaie and B. Stoeber*	**SA30.** Diamondoid molecular gels. *M. Zhang and C. Zukoski*	**BS16.** Microfluidic inertioelastically-driven particle focusing in flows of non-Newtonian fluids for flow-cytometry and disease diagnostics. *T. J. Ober, E. J. Lim, M. Toner and G. H. McKinley*
9:55	COFFEE BREAK			
10:25	**SC45.** Visco-plastic settling rate models to determine sag potential of non-aqueous drilling fluids. *S. Kulkarni, S. Savari, K. Teke, R. Murphy and D. Jamison*	**PS35.** Dynamics of nanoparticles in non-Newtonian aqueous dispersions. *F. Babaye Khorasani, R. Krishnamoorti and J. C. Conrad*	**SA31.** The shear rheology and salt induced vorticity banding of graphene oxide. *M. P. Godfrin, F. Guo, I. Chakraborty, N. Heeder, A. Shukla, A. Bose, R. Hurt and A. Tripathi*	**BS17.** Effects of irreversible and reversible clustering on viscosity of concentrated protein solutions. *J. A. Pathak, P. S. Sarangapani, S. D. Hudson and K. B. Migler*
10:50	**SC46.** Shear thickening and shear-induced agglomeration of chemical mechanical polishing slurries under high shear. *N. C. Crawford, S. K. R. Williams, D. Boldridge and M. W. Liberatore*	**PS36.** Exploiting viscoelastic fluids for enhanced particle removal. *T. W. Walker, T. T. Hsu, C. W. Frank and G. G. Fuller*	**SA32.** A novel particulate / polymer composite made with xanthan gum. *R. Clark, R. Abson, S. Gaddipati, S. Hill, B. Wolf and J. Mitchell*	**BS18.** Rheology of clustered solutions of therapeutic monoclonal antibodies. *P. D. Godfrin, E. Yearley, T. M. Scherer, S. J. Shire, I. E. Zarraga, N. J. Wagner and Y. Liu*
11:15	**SC47.** Rheology of hydrate slurries. *C. Aichele and P. E. Clark*	**PS37.** Chaotic mixing in serpentine channels due to viscoelastically-induced secondary flows. *R. J. Poole, A. Lindner and M. A. Alves*	**SA33.** Effect of complex formation on the gel transition and strength of xanthan-gelatin mixtures. *A. R. Cameron-Soto and A. Acevedo*	**BS19.** Particulate formation from adsorbed protein layers under flow and agitation using neutron reflectivity and scattering. *R. L. Jones, T. Perevozchikova, K. Weigandt and C. Roberts*
11:40	**SC48.** Study of the rheology and slump retention properties of micro mortars. *X. Chen and M. Radler*	**PS38.** Instable flow of high molecular weight polyacrylamide in confined geometry. *J. Beaumont, L. Martinie, H. Bodiguel, H. Kellay and A. Colin*	**SA34.** Characterizing the viscoelasticity of soft contact lenses immersed in saline. *C. P. Lusignan, C. M. Jarman and W. J. Seyboth*	**BS20.** Transport properties of human lung mucus. *G. Forest, P. Vasquez, D. Hill, S. McKinley and J. Mellnik*
12:05	**SC49.** Converging flow rheometry for characterizing ceramic paste formulations. *K. A. Koppi and S. R. Lakso*	**PS39.** A weak-coupling expansion for viscoelastic fluid flows. *M. N. Moore and M. J. Shelley*	**SA35.** Mobile technology for measuring polymer hydration and viscosity. *J. Maxey, X. Ye, H. Chung and N. Tonmukayakul*	**BS21.** Extensional rheology of Mamaku gum solutions. *A. Jaishankar, M. Wee, L. Matia-Merino, K. K. Goh and G. H. McKinley*
12:30	END			

Poster Session

Wednesday 5:30 PM Conference Center Lower Level

PO1. Connecting nanoscale motion and rheology of gel-forming colloidal suspensions. *S. Ramakrishnan, R. Leheny and C. Redmon*

PO3. Shear thickening of corn starch suspensions: Does concentration matter? *N. C. Crawford and M. W. Liberatore*

PO4. Boundary driven compression of hard sphere suspensions at constant velocity and normal stress. *M. Wang and J. F. Brady*

PO5. Flow of biomass undergoing enzymatic hydrolysis. *E. J. Tozzi, M. J. McCarthy, D. M. Lavenson, M. Cardona, N. Karuna, T. Jeoh, P. A. Skovgaard, H. Jorgensen and R. L. Powell*

PO6. Capillary forces in model chocolate suspensions. *S. Hoffmann, E. Koos and N. Willenbacher*

PO7. Rheology of particle laden drilling fluid systems. *P. E. Clark*

PO8. Rheopectic suspensions with tunable, and even vanishing, yield stress. *G. Ovarlez and P. Coussot*

PO9. Rheology of rod-like nanoparticles in liquid crystal polymer solutions. *A. R. Cameron-Soto and A. Acevedo*

PO10. Comparison of Navier-Stokes-Fourier and bivelocity predictions with molecular dynamics simulations for rigid-body rotation of compressible gaseous continua. *S. Feng, A. Graham, A. M. Mertz and A. Redondo*

PO11. Self-diffusion and interaction of colloids in liquid crystals via Brownian dynamics simulation. *C. J. Santoni and U. M. Córdova-Figueroa*

PO12. Coarse-grained molecular dynamics simulations of PEGylated lipids and dendrimers. *H. Lee*

PO13. Mesoscopic simulation of entangled polymers via an alternative approach to Dissipative Particle Dynamics. *S. Khani, M. Yamanoi and J. M. Maia*

PO14. Automated hydrodynamic trap for single molecule polymer dynamics. *C. A. Brockman and C. M. Schroeder*

PO15. Wall slip analysis with FT rheology. *S. Ozkan*

PO16. Onset of whipping in the melt blowing process. *C. Chung and S. Kumar*

PO17. Nanorheology of ultrathin polymer films: Bubble inflation and liquid dewetting. *J. Wang and G. B. McKenna*

PO18. Homogeneous planar elongational flow and elastic instabilities in an optimized-shape cross-slot extensional rheometer. *S. J. Haward and G. H. McKinley*

PO19. The rheological properties of polyacrylonitrile (PAN) solutions in N,N-dimethylformamide (DMF) and dimethylsulfoxide (DMSO). *Y. Eom and B. C. Kim*

PO20. A simple method for determination of the normal stress differences in polymeric fluids. *M. Zhai and G. B. McKenna*

PO21. Enhanced charge transport through engineering the network structure of conjugated polymers for photovoltaic applications. *G. Newbloom, K. Weigandt, J. Richards, P. de La Iglesia and D. Pozzo*

PO22. Elastic internal yielding of cold drawn polymer glasses well below glass transition temperature. *S. Cheng and S.-Q. Wang*

PO23. Slip between polyolefins and extrusion die surfaces. *A. M. Schmalzer and A. J. Giacomin*

PO24. The effect of isomer on the rheological properties of polyetherimides. *M. Chellamuthu, G. Haralur and D. Doraiswamy*

PO25. Large-amplitude oscillatory shear of thixotropic viscoelastic constitutive models. *B. C. Blackwell and R. H. Ewoldt*

PO26. Dielectric relaxation of monodisperse linear PI: Contribution of constraint release. *Y. Matsumiya and H. Watanabe*

PO27. Rheology of linear and branched polylactides. *S. Nouri, P. G. Lafleur and C. Dubois*

PO28. Adhesive and rheological properties of lightly cross-linked fluorosilicone polymer gels. *N. B. Wyatt and A. M. Grillet*

PO29. Effect of supersaturation on the rheological, structural and dielectric properties of conjugated polymer organogels. *P. de La Iglesia and D. Pozzo*

PO30. Flavoring effect on the thermal gelation of HPMC physical gels. *C. A. Pinzon and A. Acevedo*

PO31. Steady-state rheology of hydroxypropyl methylcellulose solutions with dispersed drug particle inclusions. *M. Santiago-Vázquez and A. Acevedo*

PO32. Modification of tube models for entangled polymers in fast nonlinear flows: Microstructure change by disentanglement and configuration-dependent friction coefficient. *J. Park and N. Banerjee*

PO33. A study on the thermal stabilization of aliphatic polyketone. *S. Lee, W.-S. Bae, D. W. Chae and B. C. Kim*

PO34. The nematic liquid crystalline behavior of poly(2-cyano-p-phenylene terephthalamide) solutions in N-methyl-2-pyrrolidone/calcium chloride. *H. Y. Yoon, Y. Eom and B. C. Kim*

PO35. Importance of solvent quality on the hysteresis in the coil-stretch transition of flexible polymers. *R. Radhakrishnan and P. T. Underhill*

PO36. Phase separation of polymer solutions after exposure to shear and elongational flow. *K. H. Oh and V. Breedveld*

PO37. Particle tracking velocimetric study of real shear hardening and extreme recoverability in simple shear of branched polystyrene solutions. *G. Liu, S. Cheng, H. Lee, H. Ma, R. Quirk, T. Chang and S.-Q. Wang*

PO38. Anisotropic thermal transport in polymer networks subjected to uniaxial elongation. *D. Nieto Simavilla, D. C. Venerus and J. D. Schieber*

PO39. Understanding pressure sensitive adhesive performance from rheological testing. *B. Rajaram and G. W. Kamykowski*

PO40. Measurement of hydrodynamic resistance due to purely elastic instabilities in curvilinear microchannels. *D. E. Solomon and S. A. Vanapalli*

PO41. A somewhat exaggerated examination of the Cox-Merz "rule". *M. Shaw*

PO42. Relationship between shear rate, morphology and properties of EPCO/polyester-based TPE blends. *H. Hwang, J. S. Bae, Y. Eom and B. C. Kim*

PO43. Solventless fabrication of polymer-ionic liquid composites. *R. J. Frank-Finney and M. Gupta*

PO44. Investigation of rheological behavior and thermal conductivity of thermoplastic elastomers based on PP/EPDM by adding nano-ZnO particles. *T. Behrouz, F. Goharpey, H. Nazockdast, M. R. Kalaee and F. Soltani*

PO45. Linear viscoelastic and dielectric behavior of oligomeric sulfonated styrene. *Q. Chen and R. H. Colby*

PO46. Creep dynamics of non-entangled miscible polymer blends and block copolymers. *Q. Chen*

PO47. Osmotic effect on polymer dynamics in block copolymer nanodomains. *H. Watanabe and Y. Matsumiya*

PO48. The use of the linear amplitude sweep test and large amplitude oscillatory shear testing to characterize asphalt binder. *G. W. Kamykowski and B. Rajaram*

PO49. Transient and steady-state shear banding in aging soft glassy materials. *J. Martin and T. Hu*

PO50. Complex flows of soft glassy fluids: Simple shear, extensional and porous media flows. *A. Sarkar and D. L. Koch*

PO51. Apparent viscosity of bulk metallic glass in confined size. *Z. Shao, M. Gopinadhan, S. Mukherjee, Y. Liu, G. Kumar, J. Schroers and C. O. Osuji*

PO52. Passive microrheology: Non-intrusive measurement of the emulsions viscoelastic properties. *C. Tisserand, G. Smart, M. Fleury, R. Ramsch and G. Meunier*

PO53. Passive microrheology for the determination of the gel point. *G. Smart, C. Tisserand, M. Fleury and G. Meunier*

PO54. Microflows of ionic liquids. *C. T. Riche, N. Malmstadt and M. Gupta*

PO55. Flow induced torus-like micellar structures in surfactants solution. *J. J. Cardiel, A. Dohnalkova, L. Tonggu, L. Wang, Y. Zhao and A. Q. Shen*

PO56. Measuring viscosity of water using a dynamic shear rheometer: Issues and limitations. *M. Namani*

PO57. Viscoelasticity and shear-induced structure of transient nanoemulsion organohydrogels formed by polymer-surfactant complexation. *J. Kim, C. A. Hebebrand, E. Peirsegaele and M. E. Helgeson*

PO58. A shear cell for the direct visualization of constant-stress deformation in soft materials. *H. K. Chan and A. Mohraz*

PO59. Modeling gel breakdown in oilfield downhole fluids. *J. Maxey, D. Jamison and S. Kulkarni*

PO60. Structure and dynamics of cylindrical micelles and micelle-nanoparticle complexes from molecular dynamics simulations. *A. V. Sangwai, A. Sambasivam and R. Sureshkumar*

PO61. Capillary break-up, gelation and extensional rheology of hydrophobically modified cellulose ether solutions. *V. Sharma, S. J. Haward, A. Soderlund, P. Threlfall-Holmes and G. H. McKinley*

PO62. High pressure rheology of fracturing fluids and gels. *J. P. Eickhoff, G. G. Paroline and P. Heyer*

PO64. Electrorheological characterization of a starch in oil suspension. *A. Elmoumni and A. J. Franck*

PO65. Dielectric-rheology simultaneous analysis. *M. Yao*

PO66. Dynamical equations for the contact line of a sessile drop. *E. Fried and M. Jabbour*

PO67. Statistical-mechanical derivation of the Canham–Helfrich free-energy density. *E. Fried and B. Seguin*

PO68. Out of phase modulation of Taylor-Couette flow with viscoelastic fluid. *M. Riahi, S. Aniss, M. Ouazzani Touhami and S. Skali Lami*

PO69. Rheological characterization of monoclonal antibody solutions by multiple particle tracking microrheology. *H. T. Lam and E. M. Furst*

PO70. Deformation of mAb clusters at high concentration and shear rates. *R. Taing, J. Luoma, A. Patel, F. Lim and I. E. Zarraga*

PO71. Impact of external flow on the dynamic properties of microorganisms near surfaces. *S. Chilukuri, C. H. Collins and P. T. Underhill*

PO72. Mechanical response of a circulating tumor cell in a narrow microchannel. *Z. S. Khan, N. Kamyabi, S. Sennoune, R. Martinez-Zaguilan and S. A. Vanapalli*

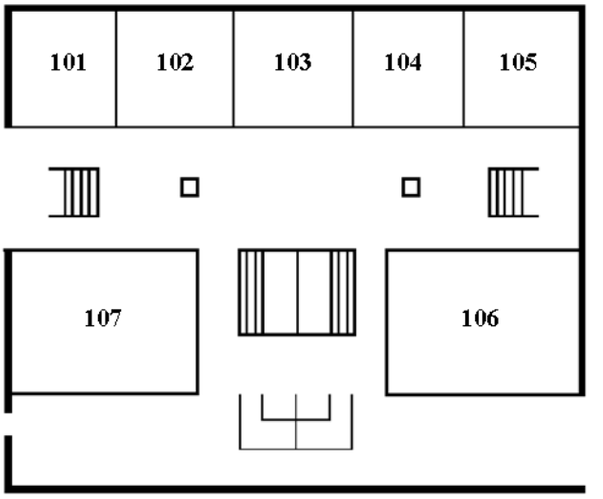
PO73. Nanoporous scaffold with enzyme encapsulation during flow-induced gelation. *Y. Zhao, J. J. Cardiel, J.-H. Kim, J.-H. Chung and A. Q. Shen*

PO74. A microfluidic study of nanoparticles in simulated blood flows: Understanding the effect of margination. *E. Carboni, G. Bouchillon, L. Shor, S. Torti and A. Ma*

PO75. Ewoldt fingerprints for large amplitude oscillatory shear flow analysis: Both kinds. *C. Aumnate and A. J. Giacomin*

PO76. The need to monitor the edge is part of the “folklore” of rheometry: Effects of over- and underfilling in rotational rheometry. *N. K. Reddy, R. Cardinaels and C. Clasen*

Pasadena Convention Center
Conference Building
Floor Plan



Lower Level

Social Program

Sunday, February 10	**Welcoming Reception** 6:30 PM – 8:30 PM Conference Center Lower Level *Hosted by TA Instruments*
Tuesday, February 12	**Society Business Meeting** 12:05 PM C106, Conference Center **Awards Reception** 7:00 PM – 8:00 PM Athenaeum, Caltech *Sponsored by a generous contribution from Xpansion Instruments* **Awards Banquet** 8:00 PM Athenaeum, Caltech
Wednesday, February 13	**Poster Session Reception** 5:30 PM – 7:30 PM Conference Center Lower Level *Sponsored by a generous contribution from Anton-Paar USA*

The Society gratefully acknowledges the generous support of Anton-Paar USA, TA Instruments, and Xpansion Instruments.