

# Gordon Research Conference: Colloidal, Macromolecular, and Polyelectrolyte Solutions

Harbortown Resort, Ventura, California — February 6-10, 2000

*Chair: Eric J. Amis, NIST — Vice Chair: Alice P. Gast, Stanford*

## Sunday 6 February 2000

### Colloids

- 7:30 PM Chip Zukoski, University of Illinois — *Nanoparticle phase behavior: Characterization with and without depletion interactions*
- 8:30 PM Seth Fraden, Brandeis University — *The role of entropy in the phase behavior of mixtures of rods and spheres*

## Monday 7 February 2000

### Colloids

- 9:00 AM Sharon Glotzer, NIST — *Emergence of nanoscale dynamical structure in glass-forming liquids and polymers*
- 10:00 AM David Weitz, Harvard University — *Relaxations in colloidal glasses and gels*
- 11:20 AM Erik Hobbie, NIST — *Internal dynamics of entropic colloidal gels*

### 4:30 PM Poster Session I

### Polyelectrolytes

- 7:30 PM Manfred Schmidt, University of Mainz — *New polyelectrolyte architectures: Synthesis and properties*
- 8:30 PM Giovanni Nisato, Philips Electronics — *Polyelectrolyte dendrimers: Structure and interactions*

## Tuesday 8 February 2000

### Polyelectrolytes

- 9:00 AM Michael Rubinstein, University of North Carolina — *Solutions of hydrophobic polyelectrolytes*
- 10:00 AM Arun Yethiraj, University of Wisconsin — *Liquid state theory for polyelectrolyte solutions*
- 11:20 AM Francisco Solis, Northwestern University — *Strong coupling approach to polyelectrolyte theory*

### Micelles

- 7:30 PM Jan Skov Pedersen, Risoe National Laboratory — *Scattering from neutral and charged wormlike micelles: Experiments and Monte Carlo simulations*
- 8:30 PM Francoise Winnik, McMaster University — *Responsive hydrophobically-modified polymers: pH/temperature controlled micellation in water and adsorption on liposome surface*

## Wednesday 9 February 2000

### Gels and Complex Fluids

- 9:00 AM Alice Gast, Stanford University — *Micromechanics of magnetorheological fluids*
- 10:00 AM Mitsuhiro Shibayama, Kyoto Institute of Technology — *Characterization of gelation by dynamic light scattering*
- 11:20 AM Ludwik Leibler, CNRS/Elf-Atochem — *From short polyelectrolyte rods to polyelectrolyte microgels: A search for simple colloids*

### 4:30 PM Poster Session II

### Biopolymers and Membranes

- 7:30 PM Fred MacKintosh, University of Michigan — *Biopolymers, membranes, and twisted ribbons: self assembled microstructures and their characterization*
- 8:30 PM Andy Marcus, University of Oregon — *Structure and dynamics of complex fluids using new approaches to fluorescence imaging and spectroscopy*

## Thursday 10 February 2000

### Surfaces

- 9:00 AM Claudine Williams, College de France — *Adsorption of polyelectrolytes on neutral surfaces*
- 10:00 AM Robert Tilton, Carnegie Mellon University — *Sculpting adsorbed polymer layers via polymer-surfactant complexation*
- 11:20 AM Steve Granick, University of Illinois — *A watered-down view of polymer surface diffusion*

### BioMEMS

- 7:30 PM David Duffy, Gamera Bioscience — *Microfabricated polymeric systems for bioanalytical and biomedical applications*
- 8:30 PM Andrea Chow, Caliper Technologies — *Exploiting colloidal forces and polyelectrolyte solutions in bioMEMS*

*Participants wishing to present posters should send title, author and affiliation lists to Alice Gast, at [alice@chemeng.stanford.edu](mailto:alice@chemeng.stanford.edu)*