

Nanostructured Materials for Future Therapy

Functional Materials and Drug Delivery
Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

THURSDAY AFTERNOON

Section A

Sheraton
Seasons Ballroom North

General Papers/New Concepts in Polymeric Materials Synthesis & Characterization

V. G. Viner, *Presiding*

J. L. P. Jessop, *Organizer, Presiding*

- 1:30** Introductory Remarks.
1:35 394. Effect of bromine substitution and position on the thermal stability and thermal decomposition kinetics of brominated resole phenolic resins. **M. E. Moore**, M. Hosur, A. G. Ludwick, S. Jeelani
1:55 395. Absorption spectroscopy study of self assembled multilayer films of polyelectrolytes containing azobenzene chromophores. **N. M. Ahmad**, C. J. Barrett
2:15 396. Frontal cationic curing of epoxy resins: The effect of fillers and catalyst concentration on the front velocity, front temperature and mechanical properties. S. Scognamiglio, A. Mariani, C. Bounds, M. Luger, **J. A. Pojman**
2:35 397. Effect of reactive and nonreactive additives on the frontal polymerization of multifunctional acrylates. **V. G. Viner**, J. A. Pojman
2:55 398. Examination of thin film modulus for a series of poly (alkyl methacrylates). **J. M. Torres**, C. M. Stafford, B. D. Vogt
3:15 Intermission.
3:30 399. Tailoring hydrophobic and inclusive interactions in modified poly (acrylic acid) solutions. J. Wang, H. Ke, P. Liu, L. Zheng, L. Li, **X. Guo**, S. F. Lincoln
3:50 400. Study of gel fractions in the gelation of poly(acrylamide) and poly(acrylamide-co-N,N-dimethylacrylamide). **J. Yu**, D. Zhao, L. Liu, X. Liu, C. Liu, Q. Chen, F. Liu
4:10 401. Formation of sparse network microstructures by photopolymerization-induced phase separation and subsequent solidification of solvent. **D. M. Hess**, A. J. Guenther
4:30 402. Flexoelectric networks from bent-core nematic liquid crystal polymers. **R. Verduzco**, M. Chambers, A. Jákli, S. N. Sprunt, J. T. Gleeson
4:50 Concluding Remarks.

Section B

Sheraton
Harvest

General Papers/New Concepts in Polymeric Materials Nanomaterials & Dielectric Materials

J. L. P. Jessop, *Organizer*

Z. Lin, *Presiding*

- 1:30** Introductory Remarks.
1:35 403. Single walled carbon nanotube fluorescence modulation in response to hydrogel swelling. **P. W. Barone**, J. Zhang, R. Ortiz, M. S. Strano
1:55 404. Preparation of block copolymer nanostructures using metal-ligand interactions. **A. O. Moughton**, K. Stubenrauch, R. K. O'Reilly
2:15 405. Effects of different graft copolymer constituent groups on sedimentation characteristics of coated iron nanoparticles. **H. Kalita**, B. J. Chisholm, A. Bezbaruah
2:35 406. Rheological connection to phase separation of hairy nanoparticles in polymer melts. **X. Wang**, V. Foltz, M. Rackaitis, G. G. A. Bohm
2:55 407. Effect of polyhedral oligomeric silsesquioxane (POSS) substituents on the rheological behavior in butyl methacrylate/POSS copolymers. **L. M. McGrath**, S. A. Weber, G. R. Yandek, J. M. Mabry

3:15 Intermission.

- 3:30 408.** Anisotropic conductivity in polymer films using the micropores generated via solvent crazing. **P. Goel**, O. Weichold, M. Möller
3:50 409. Designing high performance polymer dielectrics for wide-temperature power electronics applications. **N. Venkatasubramanian**, Z. Bai, J. T. Stricker, T. D. Dang
4:10 410. High temperature polynorbomene copolymer dielectric materials. **S. M. Dirk**, P. S. Sawyer, J. S. Wheeler, M. E. Stavig, B. A. Tuttle
4:30 411. Low-*k* materials patternable in environmentally friendly solvents. **E. Murotani**, J. K. Lee, M. Chatzichristidi, A. A. Zakhidov, P. G. Taylor, C. K. Ober
4:50 Concluding Remarks.

Section C

Sheraton
Smokehouse Gavel Rooms

Novel Applications of Supramolecular Materials

C. W. Bielawski, *Organizer*

B. M. Rambo, *Presiding*

- 1:30 412.** Self-assembling boronate-linked materials. R. W. Tilford, B. M. Rambo, J. Liu, L. M. Lanni, W. Niu, J. J. Lavigne
1:50 413. Withdrawn.
2:10 414. Self-assembly of coordination polymers into tunable helical structures. **H.-J. Kim**, M. Lee
2:30 415. Supramolecular block copolymer self assembly and nanolithography. **C. Tang**, M. D. Dimitriou, G. H. Fredrickson, E. J. Kramer, C. J. Hawker
2:50 416. Self-assembly of porphyrin trimers in solution and at the liquid-solid interface. **N. Veling**, R. van Hameren, J. A. A. W. Elemans, A. E. Rowan, R. J. M. Nolte
3:10 Intermission.
3:30 417. Iodinated shell crosslinked nanoparticles: Toward the development of X-ray contrast agents. **J. L. Sorrells**, N. S. Lee, C. L. Kahakachchi, W. McGhee, D. A. Moore, T. Rogers, K. L. Wooley
3:50 418. Self-assembly of chiral star-shaped oligo(*p*-phenylene vinylene) substituted hexaarylbenzenes. **M. Wolffs**, R. A. A. Bovee, X. Lou, J. L. J. van Dongen, A. P. H. J. Schenning, Z. Tomovic, E. W. Meijer
4:10 419. Soft matter nanoparticles by design: Supramacromolecular building blocks for future functional materials. V. Y. Lee, E. A. Appel, H. Nuno, M. Tjo, M. Maksimov, V. Ganapati, M. McNeil, J. L. Hedrick, R. D. Miller, **J. Sly**
4:30 420. Tuning the selectivity of complementary quadruple hydrogen bonding. **T. F. A. de Greef**, T. Felder, G. Ercolani, G. B. W. L. Ligthart, E. W. Meijer, R. P. Sijbesma
4:50 421. Responsive nanoporous colloidal films and membranes. I. Zharov, **O. A. Schepelina**, A. E. Abelow
5:10 Concluding Remarks.

Nanostructured Materials for Future Therapy

Nanoparticles Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

Please refrain from using cellular telephones and cameras during technical sessions.

PROF**Division of Professional Relations**

R. D. Libby and D. J. Chesney,
Program Chairs

SUNDAY EVENING

Excellence in Graduate Polymer Research
Sponsored by POLY, Cosponsored by PROF, SOCED, YCC, and PRES

MONDAY MORNING

Alternative Energy Sources: Women at the Forefront of Science Sponsored by WCC, Cosponsored by PROF

Excellence in Graduate Polymer Research
Sponsored by POLY, Cosponsored by PROF, SOCED, YCC, and PRES

MONDAY AFTERNOON

ACS Award in Industrial Chemistry: Symposium in Honor of George G. I. Moore Sponsored by BMGT, Cosponsored by ORGN⁺ and PROF, Financially supported by 3M

Excellence in Graduate Polymer Research
Sponsored by POLY, Cosponsored by PROF, SOCED, YCC, and PRES

Overcoming Issues in Graduate School
Sponsored by YCC, Cosponsored by PROF and CEPA

MONDAY EVENING

Section A

Salt Palace Convention Center
Hall 5

Professionalism in the Twenty-First Century

D. J. Chesney and R. D. Libby,
Organizers

8:00-10:00
1-6. See subsequent listings.

Utilizing the X Factor: Empowering the Next Generation of Women Chemists
Sponsored by WCC, Cosponsored by PROF and CHED

TUESDAY MORNING

Section A

Little America
Arizona

Professionalism in the Twenty-first Century: Poster Session and Town Hall Forum Cosponsored by WCC

R. D. Libby and D. J. Chesney,
Organizers

10:00-12:00

- Issues for the Division of Professional Relations town hall forum. **D. J. Chesney**
- The ACS ethics committee: Relevant or not? **D. J. Chesney**
- Developing soft skills provides career options. **J. K. Borchardt**
- How students (and working chemists) can reduce their ACS meeting expenses. **J. K. Borchardt**
- Opportunities and challenges in a global workplace. **L. M. Balbes**
- Ethics in academia: Gender and cultural issues. **S. M. Schelble**

TUESDAY AFTERNOON

ACS Award for Encouraging Women into Careers in the Chemical Sciences: Symposium in Honor of Mary F. Singleton
Sponsored by WCC, Cosponsored by HIST⁺, PROF, and CEPA

SCHB**Division of Small Chemical Businesses**

J. H. Lauterbach and J. E. Sabol,
Program Chairs

SOCIAL EVENT:
Reception: Tue

BUSINESS MEETING:
Exec. Meeting: Mon

SUNDAY AFTERNOON

Nontraditional Careers in Chemistry
Sponsored by YCC, Cosponsored by Chemical Information Careers Committee, CINF, CHAL, SOCED, CEPA, SCHB⁺, and POLY

TUESDAY MORNING

Section A

Salt Palace Convention Center
Ballroom A

True Stories of Operating a Successful Small Chemical Business

J. H. Lauterbach, *Organizer*

- 9:05** Introductory Remarks.
9:10 1. Commercialization of a hand-portable GC-MS. **D. W. Lator**
9:35 2. Enhancement of thermal properties of microencapsulated phase change materials by multivalued carbon nanotubes. **C. Thies**
10:00 3. Withdrawn.
10:25 Intermission.
10:45 4. Traveling chemist: Working as a consultant. **J. Gerlach**
11:10 5. Optimization of octadentate 1,2-HOPO sensitized Eu luminescence in aqueous solution. **A. D'Aléo**, E. G. Moore, C. J. Jocher, J. Xu, K. N. Raymond
11:35 Concluding Remarks.

Legal Perspectives on a Shrinking World: Intellectual Property, Business and Regulatory Issues in Nanotechnology
Sponsored by CHAL, Cosponsored by SCHB and NANO

TUESDAY AFTERNOON

Section A

Salt Palace Convention Center
Ballroom A

Small Chemical Businesses and Nanoscience Cosponsored by NANO

M. Lefenfeld, *Organizer*

- 1:30** Introductory Remarks. **M. Lefenfeld**.
1:35 6. Commercializing "Small": What is the "Nano" business model? **G. M. Whitesides**
2:05 7. Unique molecular architectures enabling new polymer applications. **T. M. Swager**
2:35 8. The blending of research and teaching with entrepreneurship: The launching of Liquidia Technologies. **J. M. DeSimone**
3:05 9. A small company made it possible to develop a novel approved anticancer compound. **R. Breslow**
3:35 Intermission.
4:05 10. From laboratory to the real world: Some thoughts on commercializing the results of your research. **J. A. Rogers**
4:35 11. Reducing risk is better than reducing fear in a high-tech business startup. **M. Dantus**
5:05 12. Fundamental research and technology transfer. **R. H. Grubbs**
5:35 Concluding Remarks.