

PRES

Presidential Event

T. H. Lane, ACS President,
Program Chair

OTHER SYMPOSIA OF INTEREST:

Naturally Nano (see *CHED*, Tue)

Excellence in Graduate Polymer Research (see *POLY*, Sun, Mon)

The Chemistry of Chocolate (see *CHAL*, Sun)

SUNDAY AFTERNOON

Section A

Salt Palace Convention Center
Ballroom A

Global Energy Challenges in the 21st Century Cosponsored by COMSCI[†] and IAC[‡]

F. Walworth and A. Harris, *Organizers*

C. Ribes, *Presiding*

- 1:30** Introductory Remarks.
Bruce E. Bursten, ACS Immediate Past President.
- 1:45** 1. Photocatalytic hydrogen production utilizing solar energy. **C. Li**
- 2:15** 2. Global energy challenges in North America. **P. M. Dehmer**
- 2:45** Intermission.
- 2:55** 3. Biomass conversion and bioenergy. **P. C. Vieira**
- 3:25** Global energy challenges in Europe. **3:55** Panel Discussion.

The Chemistry of Chocolate Sponsored by CHAL, Cosponsored by PRES

SUNDAY EVENING

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

MONDAY MORNING

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

MONDAY AFTERNOON

Section A

Grand America
Grand Salon

Leadership: Facing the Challenges of Today and Tomorrow

C. A. Duane and L. McQuire, *Organizers*

E. C. Bigham, *Presiding*

- 1:30** Introductory Remarks. **Eric C. Bigham**, ACS Board of Directors.
- 1:35** 4. Meeting the challenges: Building skills, and developing leaders. **J. R. Folkman**
- 2:05** 5. Carrying the banner for science education in England. **J. Holman**
- 2:35** 6. Leadership as a competitive advantage. **C. A. Martin**
- 3:05** Intermission.
- 3:15** 7. Transferable leadership. **M. M. Qualls**
- 3:45** 8. Leadership at the forefront of my career. **O. I. Asensio**
- 4:15** Concluding Remarks.
Thomas H. Lane, ACS President.

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

‡ Cooperative Cosponsorship

TUESDAY MORNING

Naturally Nano Sponsored by CHED, Cosponsored by PRES[†], NANO, BIOT[‡], I&EC, and INOR[‡]

TUESDAY AFTERNOON

Naturally Nano Sponsored by CHED, Cosponsored by PRES[†], NANO, BIOT[‡], I&EC, and INOR[‡]

NANO

Nanoscience: Challenges For the Future

P. S. Weiss, *Program Chair*

SUNDAY MORNING

Anselme Payen Symposium: Wood Components: Molecular Structure, Nanoarchitecture and Source for Functionalized Biomaterials Sponsored by CELL, Cosponsored by NANO

Chemical Methods of Nanofabrication Sponsored by PHYS, Cosponsored by NANO[†]

Detection and Monitoring of Engineered Nanoparticles in Environmental and Biological Systems Sponsored by COLL, Cosponsored by ENVR[‡] and NANO

Frontiers in Imaging Biological Nanostructures Sponsored by BIOL, Cosponsored by ANYL, COLL, PHYS, POLY, and NANO[†]

Frontiers in Nanoparticle and Nanoporous Materials Surface Enhanced Raman Spectroscopy Sponsored by COLL, Cosponsored by NANO

Geochemistry of Engineered Nanoparticles in the Environment Sponsored by ENVR, Cosponsored by NANO

Green Nanoscience Sponsored by INOR, Cosponsored by COLL, POLY, and NANO

Integrating Nanoscience into the College and High School Classroom High School Classroom Sponsored by CHED, Cosponsored by NANO[†]

Molecular Hydrogen in Nanoporous Materials: Meeting Ground for Theory and Experiment Accurate Calculation of Interactions of Dihydrogen with Nanoporous Materials Sponsored by PHYS, Cosponsored by NANO

Nano Meets Neuro: Novel Challenges for Nanoscience in Probing Brain Chemistry Sponsored by MEDI, Cosponsored by ANYL, BIOL, COLL, and NANO[†]

Nanostructured Block Copolymer Materials Synthesis Sponsored by PMSE, Cosponsored by NANO

Nanotechnology and the Environment: Emphasis on Green Nanotechnology Sponsored by I&EC, Cosponsored by INOR and NANO

Polymers and Carbon Nanotubes Tutorial on Carbon Nanotubes Sponsored by POLY, Cosponsored by COLL, I&EC, PHYS, PMSE, and NANO

Solvent Free and Almost Solvent Free Nanofluids Nanofluid Syntheses, Properties, and Applications Sponsored by COLL, Cosponsored by NANO

SUNDAY AFTERNOON

Section A

Salt Palace Convention Center
Hall 2

Keynote Address on Nanoscience

P. S. Weiss, *Organizer*

5:00 1. From nature and back again: Giving new life to materials for energy. **A. M. Belcher**

Section B

Salt Palace Convention Center
260

Genetically Designed Molecular Materials Peptide Binding, Kinetics and Assembly Cosponsored by BIOL and MEDI

M. Sarikaya and C. Tamerler, *Organizers*

- 1:00** Introductory Remarks.
- 1:05** 2. Biohesion: Coupling synthetic and biological entities using genetically engineered peptides. **M. Sarikaya**, C. Tamerler
- 1:35** 3. Modeling binding affinity at peptide-surface interfaces: The role of mutations. **T. R. Walsh**, R. Notman, A. A. Skelton, T. Liang, S. M. Tomasio
- 2:05** 4. Mechanisms and dynamics of protein clustering on a solid surface. **P. Mulheran**
- 2:35** 5. Mobility of inorganic binding peptides on solid surfaces. **C. R. So**, H. Meskine, C. Tamerler, P. Mulheran, M. Sarikaya
- 2:55** 6. Chemical dynamics of protein adsorption and desorption on regulated surfaces in aqueous solutions. **N. Saito**, J. Hieda, O. Takai
- 3:25** 7. Biointerfacial aspects of mussel adhesive proteins and their biomimetic analogs. **P. B. Messersmith**

Anselme Payen Symposium: Wood Components: Molecular Structure, Nanoarchitecture and Source for Functionalized Biomaterials Sponsored by CELL, Cosponsored by NANO

Chemical Methods of Nanofabrication Sponsored by PHYS, Cosponsored by NANO[†]

Detection and Monitoring of Engineered Nanoparticles in Environmental and Biological Systems Sponsored by COLL, Cosponsored by ENVR[‡] and NANO

Finding a Common Vocabulary: Nanotechnology in Chemical Publication Sponsored by CINP, Cosponsored by NOM[‡] and NANO

Frontiers in Imaging Biological Nanostructures Sponsored by BIOL, Cosponsored by ANYL, COLL, PHYS, POLY, and NANO[†]

Frontiers in Nanoparticle and Nanoporous Materials Surface Enhanced Raman Spectroscopy Sponsored by COLL, Cosponsored by NANO

Geochemistry of Engineered Nanoparticles in the Environment Sponsored by ENVR, Cosponsored by NANO

Integrating Nanoscience into the College and High School Classroom Sponsored by CHED, Cosponsored by NANO[†]

Molecular Hydrogen in Nanoporous Materials: Meeting Ground for Theory and Experiment Metal-organic Frameworks Sponsored by PHYS, Cosponsored by NANO

Nano Meets Neuro: Novel Challenges for Nanoscience in Probing Brain Chemistry Sponsored by MEDI, Cosponsored by ANYL, BIOL, COLL, and NANO[†]

Nanoscience: Characterization and Applications Sponsored by INOR, Cosponsored by COLL, POLY, and NANO

Nanostructured Block Copolymer Materials Solutions and Gels Sponsored by PMSE, Cosponsored by NANO

Nanotechnology and the Environment: Emphasis on Green Nanotechnology Sustainable Synthesis of Nanomaterials Sponsored by I&EC, Cosponsored by INOR and NANO

Nanotechnology in Catalysis VI Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, PETR, and NANO

Polymers and Carbon Nanotubes Dispersion and Functionalization Sponsored by POLY, Cosponsored by COLL, I&EC, PHYS, PMSE, and NANO

Solvent Free and Almost Solvent Free Nanofluids Nanofluids and Materials Sponsored by COLL, Cosponsored by NANO

MONDAY MORNING

Section B

Salt Palace Convention Center
260

Genetically Designed Molecular Materials Peptide-Based Molecular Erectors for Functional Systems Cosponsored by BIOL and MEDI

M. Sarikaya and C. Tamerler, *Organizers*

- 8:30** 8. Toward protein based charge transfer processes in electronic devices. **A. Offenhäuser**, **D. Mayer**
- 9:00** 9. Bioreorganization surface with hierarchical structure. **O. Takai**, N. Saito, H. Sato, Y. Miura, K. Kobayashi
- 9:30** 10. Ellipsometry based sensor surfaces for oligonucleotide and oligopeptide probes. **B. Garipcan**, M. O. Caglayan, G. Demirel, B. Olman, B. Celen, O. K. Nazli, **E. Piskin**
- 10:00** 11. Bioferrofluidics for rapid, labor-free and cost-effective detection and diagnostics. **B. Fischer**, A. Kose, M. Gungormus, M. Sarikaya, C. Tamerler, **H. Koser**
- 10:30** 12. Peptide nucleic acids for molecular assembly and electronic functionality. **C. S. Ozkan**
- 11:00** 13. Quartz binding peptides as molecular linkers for co-assembling nanoentities on multifunctional micropatterned substrates. **T. Kacar**, J. Ray, M. Gungormus, E. E. Oren, C. Tamerler, M. Sarikaya
- 11:20** 14. Adsorption of protein on polyelectrolyte brush surface. **A. Higuchi**, H. Tatematsu, T. Fujima, N. Saito, O. Takai
- 11:40** 15. Surface plasmon enhanced fluorescence of bionanoengineered hybrid system. **A. K. Y. Jen**, K. Leong, M. T. Zin, H. Ma, F. Huang, M. Sarikaya

Advances in Nanotechnology Sponsored by SOCED, Cosponsored by NANO

Anselme Payen Symposium: Wood Components: Molecular Structure, Nanoarchitecture and Source for Functionalized Biomaterials Sponsored by CELL, Cosponsored by NANO

Photographing or recording meeting sessions and/or activities other than your own are prohibited at all official ACS events without written consent from ACS.