

## BTEC

## Biotechnology Secretariat

J. W. Finley, *Program Chair*

## TUESDAY AFTERNOON

**Nanostructured Materials for Future Therapy**  
**Chemistry and Structures** Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

## TUESDAY EVENING

**Nanostructured Materials for Future Therapy** Sponsored by POLY, Cosponsored by NANO, PMSE, and BTEC

## WEDNESDAY MORNING

**Nanostructured Materials for Future Therapy**  
**Nanostructured Materials for Tissue Engineering** Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

## WEDNESDAY AFTERNOON

**Nanostructured Materials for Future Therapy**  
**Functional Materials and Drug Delivery** Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

## THURSDAY MORNING

**Nanostructured Materials for Future Therapy**  
**Functional Materials and Drug Delivery** Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

## THURSDAY AFTERNOON

**Nanostructured Materials for Future Therapy**  
**Nanoparticles** Sponsored by POLY, Cosponsored by PMSE, BTEC, and NANO

## IAC

## International Activities Committee

P. Dorhout, *Program Chair*

## SUNDAY AFTERNOON

**Global Energy Challenges in the 21st Century** Sponsored by PRES, Cosponsored by COMSCI<sup>†</sup> and IAC<sup>‡</sup>

## CEPA

## Committee on Economic &amp; Professional Affairs

W. H. Batschelet, *Program Chair*

## SUNDAY MORNING

**Off the Beaten Path: Alternative Career Options for a Degree in Polymer Science** Sponsored by POLY, Cosponsored by CEPA

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

## SUNDAY AFTERNOON

**Nontraditional Careers in Chemistry** Sponsored by YCC, Cosponsored by Chemical Information Careers Committee, CINF, CHAL, SOCED, CEPA, SCHB<sup>‡</sup>, and POLY

## MONDAY AFTERNOON

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

## 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<sup>†</sup>, PROF, and CEPA

## CEI

## Committee on Environmental Improvement

E. Warren, *Program Chair*

## MONDAY MORNING

**Green Chemistry** Sponsored by YCC, Cosponsored by CHAS, I&EC, CEI, INOR, and ORGN

## ETHC

## Committee on Ethics

D. J. Chesney, *Program Chair*

## SUNDAY MORNING

**Plagiarism: What is it? What Can We Do About It?** Sponsored by CHED, Cosponsored by CHAL, ETHC, and CINF

## THURSDAY AFTERNOON

**Ethics of Access to Copyrighted Scientific Print Publications** Sponsored by CHAL, Cosponsored by ETHC<sup>‡</sup>

## CMA

## Committee on Minority Affairs

T. B. Higgins and M. Boyd, *Program Chairs*

## SUNDAY MORNING

Section A

Grand America Venezia Salon

**Teaching Chemistry to a Diverse Student Body** Cosponsored by CHED, WCC, and YCC

T. B. Higgins and M. Boyd, *Organizers*

9:00 Introductory Remarks.

9:15 **1.** An overview of teaching the general chemistry laboratory using the science writing heuristic. **T. J. Greenbowe**, J. Poock, B. Fetterly

9:35 **2.** Teaching chemistry laboratory using the science writing heuristic in a not so diverse mid-west classroom.

**T. J. Greenbowe**, J. Poock, B. Fetterly

9:55 **3.** Comparing in-class and online POGIL activities. **C. E. Brooms**, L. B. Sonnichsen

10:15 **4.** Implementing POGIL activities online: Hands-on demonstration. **C. E. Brooms**, L. B. Sonnichsen

10:35 Intermission.

10:45 **5.** Peer-led team learning: A strategy for improving success of a diverse population. **P. Varma-Nelson**

11:05 **6.** Training student peer leaders with sound pedagogy. **J. S. Blackerby**, P. Varma-Nelson

11:25 **7.** Center for Workshops in the Chemical Sciences (CWCS): Faculty participation in a community of scholars. **D. M. Collard**, C. B. Russell, J. C. Smith, L. J. Kaplan

11:45 **8.** Professional development opportunities for two-year college chemistry faculty: Having your cake and eating it too. **S. J. Donnelly**

12:05 Concluding Remarks.

## TUESDAY AFTERNOON

**ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in Honor of Shirley McBay** Sponsored by ENVIR, Cosponsored by CMA, CPS, and WCC

## NOM

## Committee on Nomenclature, Terminology and Symbols

P. F. Rusch, *Program Chair*

## SUNDAY AFTERNOON

**Finding a Common Vocabulary: Nanotechnology in Chemical Publication** Sponsored by CINF, Cosponsored by NOM<sup>†</sup> and NANO

## CPS

## Committee on Project Seed

J. J. Pak, *Program Chair*

## TUESDAY AFTERNOON

**ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in Honor of Shirley McBay** Sponsored by ENVIR, Cosponsored by CMA, CPS, and WCC

## COMSCI

## Committee on Science

D. J. Nelson, *Program Chair*

**SOCIAL EVENT:**  
Luncheon: Mon

## SUNDAY AFTERNOON

**Global Energy Challenges in the 21st Century** Sponsored by PRES, Cosponsored by COMSCI<sup>†</sup> and IAC<sup>‡</sup>

## MONDAY MORNING

Section A

Salt Palace Convention Center 150 G

**Chemical Synthetic Biology: Partnering for Innovation and Competitiveness**

D. J. Nelson, *Organizer*W. Colón and L. Echegoyen, *Organizers, Presiding*

8:30 Introductory Remarks.

8:40 **1.** Modern synthetic biology: Darwin from the atom up. **S. A. Benner**

9:20 **2.** Synthetic biology with DNA-lipid conjugates. **S. G. Boxer**

10:00 **3.** Proteins without alpha amino acids. **A. Schepartz**

10:40 **4.** Noncanonical amino acids in time-resolved proteomic analysis. **D. A. Terrell**

11:20 **5.** Development of unnatural base pair systems toward new biotechnology.

I. Hirao

12:00 **Boxed Lunch** (available for purchase through registration).

12:15 **6.** Finding a home at the NSF for your chemical biology proposal. **W. Colón**

## MONDAY AFTERNOON

Section A

Salt Palace Convention Center 150 G

**Chemical Synthetic Biology: Partnering for Innovation and Competitiveness**

D. J. Nelson, *Organizer*W. Colón and L. Echegoyen, *Organizers, Presiding*

1:20 **7.** Expanding the synthetic capabilities of the cell. **V. W. Cornish**

2:00 **8.** Foldamers: Potential building blocks for synthetic biology. **S. H. Gellman**

2:40 **9.** Primitive models for intracellular organization. **C. D. Keating**

3:20 **10.** Designed nucleic acid base replacements: Lessons for basic science. **E. T. Kool**

## SOCED

## Society Committee on Education

B. Balazs, *Program Chair*

## SOCIAL EVENTS:

**Chemical Industry Networking Roundtable:** Mon  
**Graduate School Recruiting Breakfast:** Mon  
**Networking Social with Graduate School Recruiters:** Sun  
**Student Affiliates Chapter Awards Ceremony:** Sun  
**Undergraduate Social:** Sun

## SUNDAY AFTERNOON

Section A

Salt Palace Convention Center 251 E

**Art Conservation and Archeological Research Symposium**

J. Kaup, *Organizer*

2:00 Introductory Remarks.

2:05 **1.** ARCHEM Project: Five years of archaeochemistry research in the eastern Mediterranean. **A. J. Koh**

2:30 **2.** Chemistry of 17th century golden age Dutch paintings: A series of case studies. **E. S. Uffelman**

2:55 **3.** Science's role in the study of works of art. **K. Trentelman**

3:20 Discussion.

## Nontraditional Careers in Chemistry

Sponsored by YCC, Cosponsored by Chemical Information Careers Committee, CINF, CHAL, SOCED, CEPA, SCHB<sup>‡</sup>, and POLY

‡ Cooperative Cosponsorship

## SUNDAY EVENING

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

## MONDAY MORNING

Section A

Salt Palace Convention Center  
255 A

**Advances in Nanotechnology** Cosponsored  
by NANO

J. Kaup, *Organizer*

- 9:30 Introductory Remarks.  
9:35 4. Gold and silver on the nanoscale:  
Science and art. **C. J. Murphy**  
10:00 5. Nanophotonics: From biology to  
technology. **M. H. Bartl**  
10:25 6. Single-walled carbon nanotubes: A  
new class of near-infrared fluorophores.  
**R. B. Weisman**  
10:50 Discussion.

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

## MONDAY AFTERNOON

Section A

Marriott Downtown  
Salon D

**Eminent Scientist Lecture featuring Luis  
Echevoyen**

J. Kaup, *Organizer*

- 3:30 Introductory Remarks.  
3:35 7. Buckyballs: From basic research to  
nanotechnology. **L. A. Echevoyen**  
4:15 Discussion.

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

**Undergraduate Research Poster Session:  
Analytical Chemistry** Sponsored by CHED,  
Cosponsored by ANYL and SOCED

**Undergraduate Research Poster Session:  
Biochemistry** Sponsored by CHED,  
Cosponsored by BIOL, BIOT, and SOCED

**Undergraduate Research Poster Session:  
Chemical Education** Sponsored by CHED,  
Cosponsored by SOCED

**Undergraduate Research Poster Session:  
Environmental Chemistry** Sponsored by  
CHED, Cosponsored by ENVR and SOCED

**Undergraduate Research Poster Session:  
Inorganic Chemistry** Sponsored by CHED,  
Cosponsored by SOCED

**Undergraduate Research Poster Session:  
Medicinal Chemistry** Sponsored by CHED,  
Cosponsored by MEDI and SOCED

**Undergraduate Research Poster Session:  
Nanotechnology** Sponsored by CHED,  
Cosponsored by SOCED and NANO

**Undergraduate Research Poster Session:  
Organic Chemistry** Sponsored by CHED,  
Cosponsored by SOCED

**Undergraduate Research Poster Session:  
Physical Chemistry** Sponsored by CHED,  
Cosponsored by PHYS and SOCED

**Undergraduate Research Poster Session:  
Polymer Chemistry** Sponsored by CHED,  
Cosponsored by PMSE, POLY, and SOCED

## WCC

Women Chemists  
CommitteeJ. M. Iriarte-Gross, *Program Chair*

## SOCIAL EVENTS:

**Breakfast:** Mon  
**Luncheon:** Tue  
**Reception:** Sat

## SUNDAY MORNING

**Francis P. Garvan–John M. Olin Medal:  
Symposium in Honor of Kathlyn A. Parker**  
Sponsored by ORGN, Cosponsored by WCC

**Teaching Chemistry to a Diverse Student  
Body** Sponsored by CMA, Cosponsored by  
CHED, WCC, and YCC

## MONDAY MORNING

Section A

Hilton  
Canyon C

**Alternative Energy Sources: Women at the  
Forefront of Science** Cosponsored by PROF

J. Kocsis and J. Cohen, *Organizers*

- 9:30 Introductory Remarks.  
9:35 1. Investigation of phosphate based  
materials for implantable battery applica-  
tions. **E. S. Takeuchi**, A. C. Marschlok,  
K. J. Takeuchi  
10:05 2. Evolution of crankcase lubricant  
technologies in response to global environ-  
mental challenges. **E. Bardasz**  
10:35 3. Sunshine to petrol. **E. B. Stechel**  
11:05 4. Component development for lithium  
ion batteries with high energy and power.  
**D. A. Strand**  
11:35 5. Tennessee Biofuels Initiative: From  
grow to go! **K. Tiller**  
12:05 6. A novel biocatalyst for cellulosic  
ethanol production. **S. Leschine**

## MONDAY AFTERNOON

**ACS Award in Organometallic Chemistry:  
Symposium in Honor of Odile Eisenstein**  
Sponsored by INOR, Cosponsored by WCC

## MONDAY EVENING

Section A

Salt Palace Convention Center  
Hall 5

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

C. DeSheles, *Organizer*

- 8:00–10:00  
7. ACS WCC attracting, developing and  
promoting women chemists. **A. S. Hinkle**,  
D. A. Brooks, R. S. Majerle, J. G. Palmer,  
J. L. Bryant, A. A. Garrison, J. Cohen  
8. Analysis of the doctoral training of faculty  
members at research universities.  
**V. Kuck**, M. Miller  
9. Chemistry of GRITS: A new southern  
tradition. **J. M. Iriarte-Gross**, C. DeSheles  
10. Chemistry outreach programs at the  
University of Texas at Tyler: Impacting the  
women of east Texas. **C. M. Ragain**  
11. Early lessons from an engineering dual  
degree program in chemistry and chemical  
or environmental engineering. **K. A. Mies**,  
C. C. Manning  
12. Eli Lilly/WCC travel award program: A  
look at success. **D. A. Brooks**,  
A. S. Hinkle  
13. Encouraging WISE women in chemistry  
and in other STEM fields. **C. DeSheles**,  
J. M. Iriarte-Gross  
14. Enhancing the graduate and postdoctoral  
experiences to foster a diverse workforce.  
**S. Watt**

15. Progress on PROGRESS: Advances in  
ACS support for women chemists.  
**D. McCarthy**

16. Reaching higher. **L. M. Simons**  
17. Women chemists association at the uni-  
versity of Utah. **E. B. Moore**, S. Chavez,  
J. Lanza, D. L. Neff, S. Podhajsky,  
K. H. Jensen, T. E. Cooper, V. Molinero,  
J. Shumaker-Perry

## TUESDAY MORNING

**George A. Olah Award in Hydrocarbon or  
Petroleum Chemistry: Symposium in  
Honor of Cynthia M. Friend**  
**Catalysis and Reaction Mechanisms**  
Sponsored by CATL (probationary),  
Cosponsored by COLL, FUEL, I&EC, PETR,  
WCC, and PHYS

**National Fresenius Award: Symposium in  
Honor of Teri W. Odom** Sponsored by  
COLL, Cosponsored by WCC and NANO

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

## TUESDAY AFTERNOON

Section A

Marriott Downtown  
Salon A

**ACS Award for Encouraging Women into  
Careers in the Chemical Sciences:  
Symposium in Honor of Mary F. Singleton**  
Cosponsored by HIST<sup>2</sup>, PROF, and CEPA

J. L. Bryant, A. S. Hinkle, D. A. McCarthy,  
and M. L. Wu, *Organizers*

- 2:00 Introductory Remarks.  
2:05 18. Progress for women in careers in  
the chemical sciences over the last 60  
years. **D. C. Hoffman**  
2:30 19. Cultivating diversity in science and  
engineering. **N. L. Briant**  
2:55 20. Determination of the 3-D structure  
of penicillin. **B. W. Low**  
3:20 21. How to start and grow a successful  
local WCC. **M. L. Wu**, E. Yamaguchi  
3:45 22. Women's colleges and women  
chemists. **D. A. McCarthy**  
4:10 23. **Award Address** (ACS Award for  
Encouraging Women into Careers in the  
Chemical Sciences, sponsored by The  
Camille and Henry Dreyfus Foundation,  
Inc). Lessons learned from a career in the  
chemical sciences. **M. F. Singleton**  
4:45 Concluding Remarks.

**ACS Award for Encouraging  
Disadvantaged Students into Careers in  
the Chemical Sciences: Symposium in  
Honor of Shirley McBay** Sponsored by  
ENVR, Cosponsored by CMA, CPS, and  
WCC

**George A. Olah Award in Hydrocarbon or  
Petroleum Chemistry: Symposium in  
Honor of Cynthia M. Friend**  
**Surface Chemistry of Oxides** Sponsored by  
CATL (probationary), Cosponsored by COLL,  
FUEL, I&EC, PETR, WCC, and PHYS

## WEDNESDAY MORNING

**George A. Olah Award in Hydrocarbon or  
Petroleum Chemistry: Symposium in  
Honor of Cynthia M. Friend**  
**Bimetallics and Electrocatalysis** Sponsored  
by CATL (probationary), Cosponsored by  
COLL, FUEL, I&EC, PETR, WCC, and PHYS

The official technical program  
for the 237th National Meeting  
is available online at  
[oasys2.confex.com/acs/237nm/  
techprogram/](http://oasys2.confex.com/acs/237nm/techprogram/).

## WEDNESDAY AFTERNOON

**George A. Olah Award in Hydrocarbon or  
Petroleum Chemistry: Symposium in  
Honor of Cynthia M. Friend**  
**Surface Characterization and Chemistry**  
Sponsored by CATL (probationary),  
Cosponsored by COLL, FUEL, I&EC, PETR,  
WCC, and PHYS

## YCC

Younger Chemists  
CommitteeK. Moss, *Program Chair*

## OTHER SYMPOSIA OF INTEREST:

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

## SUNDAY MORNING

**Teaching Chemistry to a Diverse Student  
Body** Sponsored by CMA, Cosponsored by  
CHED, WCC, and YCC

## SUNDAY AFTERNOON

Section A

Sheraton  
Executive Room B

**Nontraditional Careers in Chemistry**  
Cosponsored by Chemical Information  
Careers Committee, CINF, CHAL, SOCED,  
CEPA, SCHB<sup>2</sup>, and POLY

L. J. Ramillano and D. Levy, *Organizers*

- 1:00 Introductory Remarks.  
1:05 1. Are you prepared to run screaming  
from the lab? **K. P. McCue**  
1:25 2. Applying environmental chemistry in  
the field of environmental toxicology.  
**G. P. Cobb**  
1:45 3. Careers in patent law. **J. J. Hasford**  
2:05 4. Science, politics, and policy: Some  
nontraditional career alternatives.  
**D. J. Raber**  
2:25 Intermission.  
2:40 5. The academic research laboratory: A  
perfect place to prepare for a career in . . .  
scholarly publishing? **D. P. Martinsen**  
3:00 6. Publishing, communications and  
journalism. **M. Rouhi**  
3:20 7. Research and development within  
pharmaceutical and chemical industries.  
**P. Kotsonis**  
3:40 8. Small business as a career option.  
**S. V. Vercellotti**  
4:00 Concluding Remarks.

## SUNDAY EVENING

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

## MONDAY MORNING

Section A

Sheraton  
Granary Room

**Green Chemistry** Cosponsored by CHAS,  
I&EC, CEI, INOR, and ORGN

P. M. Smith and R. Konduri, *Organizers*

- 9:00 Introductory Remarks.  
9:05 9. What is really important in green  
chemistry's future? **T. J. Collins**