

# 249TH ACS NATIONAL MEETING

**DENVER**, March 22–26

"CHEMISTRY OF NATURAL RESOURCES" will be the theme of the ACS spring national meeting, which will be held in Denver's Colorado Convention Center and contracted hotels.

Numerous events throughout the meeting will support that theme, including a plenary session on Sunday, March 22, from 3 to 5 PM, featuring experts on geological gas hydrates, water scarcity, and biofuels.

ACS President Diane Grob Schmidt will host 29 technical divisions and eight committees in original programming over 857 half-day oral sessions and 130 poster sessions that include Sci-Mix. More than 10,000 papers will be presented, and nearly 4,000 poster presentations will take place at the meeting. There will also be more than 6,000 oral presentations.

Schmidt will also host numerous events and symposia during the meeting, including a public outreach event, "Exploring Our World through Chemistry," on Saturday, March 21, at 10 AM. Attendees can learn more about the world of chem-

MEETING INFO ON THE WEB www.acs.org/denver2015 istry through hands-on, age-appropriate activities.

Many education-focused programs for high school teachers, undergraduate and graduate students, postdocs, and chemical professionals will be offered. A range of professional development courses will be available; ACS Short Courses have a separate registration and fee. For job seekers and employers, the ACS Career Fair will provide opportunities for interviews (both on-site and online); job seekers will also find one-on-one career assistance, and more than 30 career-related workshops.

The exposition will feature more than 250 companies that will showcase services, instruments, books, lab equipment, and much more in more than 400 booths.

The 2015 ACS national award winners will be recognized with a banquet on Tuesday, March 24, at 7:30 PM, and Jacqueline K. Barton, the Arthur & Marian Hanisch Memorial Professor of Chemistry at Caltech, will deliver the Priestley Medal Address. Although the banquet is a ticketed event, the Priestley Medal Address, at 9:30 PM, is free for all registered meeting attendees. The Arthur C. Cope Award winners will be recognized at the fall national meeting in Boston. Around Denver, free tours are offered at the U.S. Mint, the Coors brewery, and the Colorado State Capitol, which tells the state's history in stained glass. Other cultural, entertainment, and gastronomic options abound in the Mile High City.—CRAIG BETTENHAUSEN

| REGISTRATION<br>CATEGORY         | FEE    |
|----------------------------------|--------|
| MEMBERS                          |        |
| ACS member or                    | \$470  |
| society affiliate                |        |
| Postdoctoral member              | 470    |
| Emeritus or retired              | 240    |
| member                           |        |
| 50-year member                   | No fee |
| Unemployed member                | No fee |
| (Dues waiver required)           |        |
| Precollege teacher               | 110    |
| Graduate student                 | 200    |
| Undergraduate                    | 110    |
| One-day registrant               | 240    |
|                                  |        |
| NONMEMBERS                       |        |
| Chemical scientist               | \$820  |
| Postdoctoral scientist           | 820    |
| Visitor: Nonchemical             | 470    |
| scientist or chemical            |        |
| technician                       |        |
| Precollege teacher               | 110    |
| Graduate student                 | 390    |
| Undergraduate                    | 200    |
| One-day registrant               | 470    |
| Guest of registrant <sup>a</sup> | 50     |
| -                                |        |
| EXPOSITION-ONLY                  |        |
| VISITORS                         |        |
| Adult, exposition only           | \$60   |
| Student, exposition only         | 30     |

a Registration is restricted to a spouse or family member of registered attendee having no affiliation with the field of chemical science and who is not eligible to become an ACS member. Only one guest registration is allowed per registering attendee, and the guest registration must be completed and paid by the registering attendee at time of original registration.

# **FINAL PROGRAM**

# REGISTRATION

**Early Registration.** Attendees who registered with U.S. addresses by Feb. 13 will receive their badge credentials by mail before the meeting. International and Canadian registrants must pick up their badge credentials at ACS Attendee Registration.

**Standard & On-Site Registration.** Standard registration rates are in effect until March 26. Register online at www.acs. org/denver2015. A valid ACS membership number must be entered during registration to register as a member and receive your member discount on registration fees. Please bring your e-mail confirmation for faster processing.

In Denver, attendees can pick up their badge credentials or complete a new registration using credit card, cash, check, or money order at ACS Attendee Registration in the Colorado Convention Center, Lobby A/F, on Saturday, 3 to 6 PM; Sunday, 7:30 AM to 7:30 PM; Monday, 7:30 AM to 9 PM; Tuesday, 7:30 AM to 5 PM; Wednesday, 7:30 AM to 4 PM; and Thursday, 7:30 AM to 1 PM.

# TRAVEL

**TRANSPORTATION DISCOUNTS.** ACS has negotiated special travel discounts with the following partners. To get the best rates and avoid service fees, it is recommended to make reservations online (except Amtrak).

# AIRLINES:

# Delta

delta.com; (800) 328-1111 (please note that ticketing charges will apply for bookings by phone) Discount Codes: NMK2Y, NMJTX (international)

# United

united.com; (800) 426-1122 Offer Code: ZT6E969361

# Southwest

swabiz.com Corporate ID: 99329790 Online Reservations Only

# TRAIN:

Amtrak amtrak.com; (800) 872-7245 Convention Fare Discount: #X03V-918

# RENTAL CARS:

Advantage Rent A Car advantage.com; (800) 777-5500 Discount Code: CD02C826E8

# Avis

avis.com; (800) 331-1600 Avis Worldwide Discount (AWD): B923099

# Hertz

hertz.com; (800) 654-2240 Discount Code: CV# 02UZ0014

**SUPERSHUTTLE.** ACS has established a 10% discount for attendees of our meeting. Take advantage of this savings by going to www.supershuttle.com or www.execucar. com and entering the discount code 94D3G in the "Group/Discount Code" box on the first page of the website.

# **EVENTS & ACTIVITIES**

**A VARIETY** of organizers will host special events during the meeting. Event participation is open to all interested registrants.

Some events require a ticket or registration to participate. The following events are coded to indicate what is required to participate: **(R)** registration, and payment when applicable, required; **SE-##** ticket required. **All nonticketed events require a visible registration badge for entry.** 

Tickets are sold on a first-come, firstserved basis. Ticket sales will close at 6 PM the evening prior to the event. Some event

# ACS BADGE REPRINT POLICY

**1st Badge Reprint:** No charge; upon proper identification and confirmation of registration payment, a duplicate badge is issued.

2nd Badge Reprint: Attendee completes a duplicate badge request, shows identification, a charge of \$25 is paid (cash/ credit card), a duplicate badge is issued. 3rd Badge Reprint: Attendee completes a duplicate badge request, shows identification, a charge of \$50 is paid (cash/ credit card), a duplicate badge is issued. Beyond 3rd Badge Reprint: Attendee completes a duplicate badge request, shows identification, a charge of \$100 is paid (cash/credit card), a duplicate badge is issued.

# FOR UP-TO-DATE EVENT LISTINGS, VISIT www.acs.org/denver2015

organizers may offer a limited number of tickets for sale at the door of the events. Cancellations or refund requests are not accepted after March 6.

Locations and times are subject to change. To learn more about these events and to buy tickets or register, visit www.acs.org/denver2015.

# FRIDAY, MARCH 20

# CHAS Workshop: Laboratory Waste Management

7:30 AM to 5:30 PM, Embassy Suites Denver—Downtown Convention Center, Cripple Creek Ballroom 2

# **CHAS Workshop: Laboratory Safety**

7:30 AM to 5:30 PM, Embassy Suites Denver—Downtown Convention Center, Cripple Creek Ballroom 1

# **SATURDAY, MARCH 21**

CHAS Workshop: How To Be a More Effective Chemical Hygiene Officer 7:30 AM to 5:30 PM, Embassy Suites Denver—Downtown Convention Center, Silverton Ballroom 1

**CHAS Workshop: Reactivity Hazards: Laboratory-Scale Recognition & Control** 7:30 AM to 5:30 PM, Embassy Suites Denver—Downtown Convention Center, Cripple Creek Ballroom 1

# CHAS Workshop: Job Hazard Analysis

7:30 AM to 5:30 PM, Embassy Suites Denver—Downtown Convention Center, Cripple Creek Ballroom 2

# COACh Workshop: COAChing Strong Women in the Art of Strategic Persuasion—Junior Faculty

8:30 AM to 5 PM, Grand Hyatt Denver, Mt. Harvard

# COACh Workshop: COAChing Strong Women in the Art of Strategic Persuasion—Senior Faculty 8:30 AM to 5 PM, Grand Hyatt Denver, Mt. Princeton

COACh-the-COAChes 8:30 AM to 5 PM, Grand Hyatt Denver, Mt. Wilson

### Presidential Outreach Event—Exploring Our World through Chemistry 10 AM to 2 PM, Denver Zoo, 2300 Steele St., Denver

**COACh Reception** 5 to 7 PM, Grand Hyatt Denver, Maroon Peak

### **SUNDAY, MARCH 22**

ACS Career Fair Workshops: Career Workshop 7 AM to 6 PM, Colorado Convention Center, Room 701

# **CHAS Executive Committee Meeting** 8 AM to noon, Embassy Suites Denver— Downtown Convention Center,

Silverton Ballroom 3
CHED Workshop 1

8 AM to noon, Sheraton Denver Downtown, Plaza Court 3

# **NRCC Certification Exams**

8 AM to noon, Embassy Suites Denver— Downtown Convention Center, Rexford Room

**Undergraduate Hospitality Center** 8 AM to 5 PM, Sheraton Denver Downtown, Majestic Ballroom

# Undergraduate Workshop: Making the Most of Your First National Meeting

9 to 9:45 AM, Sheraton Denver Downtown, Majestic Ballroom

# Society Communication Workshop: Improv Training Room 1/SE-03/ SE-03A/\$10

9 AM to noon, The Curtis—a DoubleTree by Hilton, Dodgeball Room

# Undergraduate Workshop: Graduate School Reality Check, Part I: Getting In 10 to 11:15 AM, Sheraton Denver Downtown, Plaza Ballroom AB

# Harvey Mudd College Alumni & Friends Brunch

10 AM to 1 PM, Hotel Monaco—Panzano, 1717 Champa St., Denver

# DIGITAL MEETING PROGRAM AVAILABLE AT

http://cenm.ag/denver2015fp

### **Chem Demo Exchange** 11 AM to 12:15 PM, Colorado Convention Center, Hall B2

# Undergraduate Workshop: Graduate School Reality Check, Part II: You're In— Now What?

11:15 AM to 12:15 PM, Sheraton Denver Downtown, Plaza Ballroom AB

# SCHB Luncheon

11:30 AM to 1:30 PM, Embassy Suites Denver—Downtown Convention Center, Silverton Balloom 2

# ACS Board Open Session & Luncheon

(Open to staff and attendees) 11:45 AM to 1:30 PM, Colorado Convention Center, Four Seasons Ballroom 4

### CHED High School-College Interface Luncheon/SE-05/No fee

(Included at no charge with high school teacher registration) Noon to 1 PM, Sheraton Denver Downtown, Silver Room

# ACS Career Fair Workshops: Career Pathways I

Noon to 6 PM, Colorado Convention Center, Room 602

# ACS Career Fair Workshops: Career Pathways III Noon to 6 PM, Colorado Convention Center, Room 606

# **Undergraduate Workshop: How To Be a Successful ACS Student Chapter** 1 to 2:30 PM, Sheraton Denver Downtown, Plaza Ballroom DE

# Undergraduate Workshop: Networking Social with Graduate School & Research Opportunity Representatives

1 to 5:30 PM, Sheraton Denver Downtown, Grand Ballroom

### **CHED Workshop 2** 1 to 5 PM, Sheraton Denver Downtown, Plaza Court 4

# Society Communication Workshop: Improv Training Room 4/SE-04/ SE-04A/\$10

1:30 to 4:30 PM, The Curtis—a DoubleTree by Hilton, Keep Away Room

# Come Get the Scoop in Denver—An Afternoon Treat with ACS Leaders (cosponsored by CPC)

2:45 to 4 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial B

### Undergraduate Workshop: Can You Have a Life & Career? (cosponsored by WCC)

2:45 to 4 PM, Sheraton Denver Downtown, Plaza Ballroom DE

### Undergraduate Workshop: Improving Scientific Communication Skills

4 to 5:30 PM, Sheraton Denver Downtown, Plaza Ballroom AB

### Undergraduate Workshop: Careers in Teaching Chemistry

4 to 5:30 PM, Sheraton Denver Downtown, Plaza Ballroom DE

# **Nominees Town Hall Meeting**

4:30 to 5:30 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial FG

# Grady-Stack Award Reception Honoring Deborah Blum

4:30 to 6 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial A

# ACS Diversity Reception

5 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial C

# University of Wisconsin, Madison Alumni & Friends

5 to 7 PM, Marriott City Center Denver, Penrose Ballroom 1

Event codes indicate what is required to participate: **(R)** registration, and payment when applicable, required; **SE-##** ticket required; all nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/denver2015.

# **EXPOSITION**

# SEE WHAT'S NEW INSIDE THE

**EXPOSITION.** Visit the ACS National Exposition at the Colorado Convention Center, Halls A/F, from Sunday, March 22, through Tuesday, March 24. The show hours will be Sunday, 6 to 8:30 PM, and Monday and Tuesday, 9 AM to 5 PM.

Companies will showcase services, instruments, books, computer hardware, scientific software, and an array of chromatographic, lab, and safety equipment. Technical personnel will give demonstrations, answer questions, and discuss your needs and interests. You can also visit the ACS Career Fair Recruiters Row inside the exposition, where employers will showcase their products and services. Also, join us at the ACS Booth in the middle of the exposition floor, where ACS staff members will present the many benefits, services, products, and merchandise offered by ACS.

**Online Exposition.** The Online Exposition is a component within the Exhibitor Direc-

tory that enables attendees to view videos, press releases, brochures, and flyers of participating exhibitors. Access the Online Exposition at www.acs.org/denver2015 to learn more about exhibiting companies and to download product information that meets your needs.

Free Exhibitor Workshops. Free workshops will be hosted by exhibitors on the exposition floor and in private rooms inside the Colorado Convention Center. These workshops will introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications that may improve your productivity. Register at www.acs.org/ denver2015 to reserve your seat.

### Presentations, Prizes & Special Events.

Visit the Daily Prize Raffle area (#339) from Sunday through Tuesday for a chance to win a prize. Also, don't forget to join us on Sunday from 6 to 8:30 PM for the Attendee Welcome Reception. Get your badge scanned by 20 exhibitors on Sunday through Tuesday and be entered into a raffle for a terrific prize.

Visit the Town Center from Sunday

through Tuesday to connect with your colleagues. On Tuesday, stop by the Town Center for the Division of Energy & Fuels (ENFL) poster session from 2 to 4 PM. Light refreshments will be served.

Internet & Technology. Get free Internet access and leave messages for one another at the Meeting Mail terminals located throughout the exposition and Colorado Convention Center. Also, enjoy free Wi-Fi service at designated areas in the Colorado Convention Center.

Admission Requirements & Expo-Only Registration. Exposition admission is complimentary for all national meeting registrants; however, you are required to wear your badge. Individuals who want to visit the exhibits without registering for the technical component of the national meeting can obtain an expo-only badge for \$60. Students with school identification can obtain an expo-only badge for \$30. Registration can be handled online or in person at ACS Attendee Registration in the Colorado Convention Center, Lobby A/F.

# EXHIBITOR WORKSHOPS

**EXHIBITING COMPANIES** will host free education sessions for attendees that will introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications for existing instrumentation. Visit www.acs.org/denver2015 to register for workshops.

# **SUNDAY, MARCH 22**

Characterizing Structure & Chemistry of Functional Nanomaterials. Sponsor: FEI Co., 3:30 to 6 PM, Colorado Convention Center, Room 103. The development of technologies for efficient resource usage, energy conversion, transportation, or environmental protection relies heavily on advances in developing new and improved nanostructures and nanomaterials. Characterization on length scales down to subnanometer and focus on structural evolution with the link to the nanomaterial's performance play a crucial role in obtaining detailed knowledge about the relationship between structure, unique property, and function in these systems of reduced dimensions. In this workshop, we will profile use cases in catalyst development and polymer engineering and take you through different electron microscopy characterization methods and routines that will enable you to get more insights into structure and chemistry of your functional nanomaterials.

# **MONDAY, MARCH 23**

**Spectroscopy Simplified: How To Run a Research FTIR.** *Sponsor*: Thermo Scientific, 9:30 AM to noon, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 1. This workshop will demonstrate the power and flexibility of the Thermo Scientific Nicolet iS50 FTIR spectrometer system and its unique capabilities to simplify its operation down to the touch of a button. The Nicolet iS50 research FTIR spectrometer system was designed to meet the needs of a dynamic research laboratory, providing the capability to configure the system with a number of spectral ranges, beam paths, and accessories. With this versatility, most users will assume the software will then be complicated to operate, requiring dedicated operators to maximize the productivity of the system. Yet with the unique touchpoint operation of the iS50, most system capabilities can be used with just the push of a button.

Innovative Technologies To Engage Your Student's Learning Experience. Sponsor: McGraw-Hill Higher Education, 9:30 AM to noon, Colorado Convention Center, Room 103.

9:30 AM—*Flipping the Classroom.* Presenter: Danaè Quirk Dorr, Minnesota State University, Mankato. The flipped classroom model has become one of the hottest topics in the higher education space in recent years thanks to a real improvement in technology and an overall change in scholarly mind-set. Learn about strategies and tools available to help you flip.

11 AM—*Teaching Organic Chemistry in the* 21st Century: The Rewards of Technology. Presenters: Philip A. Janowicz, California State University, Fullerton, and Michael Lewis, St. Louis University. Organic chemistry students are performing better using online homework. Janowicz will talk more in depth about his study on ACS exam scores for students who completed online homework versus those who completed written homework. Lewis will discuss how to flip an organic chemistry classroom.

**Driving Separations Success.** *Sponsor:* Waters Corp., 9:30 AM to noon, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 2.

9:45 AM—Part 1: Meeting the Challenges of Food Quality Control Using UPLC. Focusing on UPLC for food testing using optical (non-MS) detectors and MS detectors, this session will cover applications including quality and nutrition: sweeteners, soft drink additives, amino acids, dairy (whey proteins, sugars, vitamins, preservatives), and safety: PAHs and aflatoxins.

11 AM—Part 2: Driving LC Success: Technical Seminar: Systematic Protocol. This technical seminar will teach a systematic protocol that can alleviate challenges in method development. This generic protocol will lead you toward successful and robust chromatographic separations.

SciFinder Training Session System with the Touch of a Button. *Sponsor*: CAS, 12:30 to 3 PM, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 1. Come learn about how SciFinder brings data to your lab, as well as details and tips for refining and using your results with powerful features such as relevance ranking, experimental procedure information, and SciPlanner.

Protecting Our Natural Resources with GC/MS & LC/MS from Thermo Fisher

**Scientific.** *Sponsor*: Thermo Scientific, 12:30 to 3 PM, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 2. Our natural resources are a precious commodity, and keeping them clean and pure can be a daunting task. This workshop will highlight two technologies from Thermo Fisher that are used to help ensure that the world is a cleaner, safer, and healthier place.

12:30 PM—Learn how you can access the next evolution of GC/MS/MS technology to achieve more at faster speeds. This means more capacity, more information, more compounds, and more results per unit time for higher levels of productivity and efficiency in analytical workflows.

1:45 PM—Significant advances in triplequadrupole technologies have resulted in two state-of-the-art, next-generation instruments. See details of the groundbreaking advances "from an ion's view," and hear about transformations in your targeted quantitative workflows.

Innovative Technologies To Engage Your Students' Learning Experience. Sponsor: McGraw-Hill Higher Education, 12:30 to 3 PM, Colorado Convention Center, Room 103.

1 PM—Moving Beyond Traditional Homework with ALEKS. Presenter: Tracy McGill, Emory University. Are you struggling to find which adaptive online learning system is right for you? McGill will share why ALEKS for Chemistry is the perfect choice for her and her students. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course.

2:30 PM—Revolutionizing the Lab Experience: LearnSmart Labs for General Chemistry. Presenters: Deborah Exton, University of Oregon, and Jimmy Reeves, University of North Carolina, Wilmington. Learn-Smart Labs provides an adaptive, interactive, and personalized lab experience that encourages students to theorize and experiment like scientists do. In the realistic LearnSmart Labs environment, students can practice the scientific method, safely develop and test hypotheses, and think critically about their findings before ever setting foot in a physical lab.

Online Homework with Targeted Instructional Feedback Leads to Improved Student Learning Outcomes. *Sponsor*: Sapling Learning, 3:30 to 6 PM, Colorado Convention Center, Room 103. Sapling Learning delivers online homework that engages students and empowers educators. Still, homework is only one piece of a full course solution. In this workshop, hear about the various ways that Sapling Learning provides or enables educators to select the best course materials for them. Whether you use a printed textbook, lecture slides, open educational resources, or some combination thereof, you can learn how to provide a unified learning experience for your students. You'll learn about the suite of options from Sapling Learning and our partners and how to incorporate them into a seamless learning experience. Our discussion will include used textbooks and instructor-generated content, and you will hear from faculty who are successfully implementing these varied resources. Each attendee will receive a free copy of the eTextbook "Chemistry," by John Olmsted and Greg Williams.

# **TUESDAY, MARCH 24**

SciFinder Training Session System with the Touch of a Button. *Sponsor*: CAS, 9:30 AM to noon, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 1. See SciFinder Training for Monday, 12:30 to 3 PM.

A Survey of Accelerated Materials Research Using Raman Microscopy & Imaging. Sponsor: Thermo Scientific, 9:30 AM to noon, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 2. Raman spectroscopy is essential to competitive academic research in many applied scientific disciplines, including materials science, life sciences research, and chemical and biological engineering. Advances in Raman microscopy and imaging have made the technique accessible to a wide variety of researchers, regardless of expertise or field of study.

A case study showing how one leading research university has transformed its approach to research, including obtaining results faster, increasing the number and quality of publications, and improving funding successes, will be shared. See examples of current research using advanced Raman microscopy, which has been designed for greater accessibility and significantly enhanced productivity than previously possible.

# Analysis of Polymers by Vibrational

**Spectroscopy & Microscopy**. *Sponsor:* Bruker, 12:30 to 3 PM, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 2. The latest advances in FTIR and Raman instrumentation and applications will be reviewed, with a thorough discussion of the following topics: polymers identification and classification, additives and contaminations, fast reaction monitoring, defects analysis using vibrational microscopy, chemical imaging, and depth profiling.

# Compact Mass Spectrometry: A Swiss Army Knife Approach to Chemistry

Challenges. Sponsor: Advion, 9:30 AM to noon, Colorado Convention Center, Room 103. Chemists ask many questions that each require a different approach. Advion offers a compact mass spectrometer that couples to any range of techniques to provide chemists with a complete answer to the questions they ask. This workshop will show examples using a direct sample analysis approach valuable to reaction monitoring, compound identification, natural product analysis, and food safety. Attendees who wish to learn more about an affordable mass spectrometer that does not require sample prep, has an easy user interface (including TLC and Direct Sample Analysis Probe), and offers answers in less than a minute are encouraged to attend.

# Intelligent Real-Time Reaction Monitoring in the Fume Hood Using

Benchtop NMR. Sponsor: Thermo Scientific, 12:30 to 3 PM, Colorado Convention Center, Exhibit Halls A/F, Exhibitor Workshop Room 1. Teaching reaction kinetics, thermodynamics, and pathways is a standard part of any undergraduate organic chemistry curriculum. Having hands-on access for the student to measure reaction mechanics in real time in the laboratory may give them insights not previously available in the classroom alone. This workshop will demonstrate a new capability of the Thermo Scientific picoSpin NMR spectrometer to intelligently measure reaction pathways from a reactor in real time. Watch products form in increasing concentration, right next to the apparatus.

Advances in Atomic & Molecular Spectroscopy. *Sponsor*: Agilent Technologies,

12:30 to 3 PM, Colorado Convention Center, Room 103. Recent innovation in FTIR, atomic spectroscopy, and elemental analysis (including ICP/MS) technology has allowed for more sensitive, accurate, and flexible measurements of organic and inorganic materials. This workshop will focus on two main techniques, FTIR and atomic spectroscopy/ spectrometry.

12:30 to 1:30 PM—Innovations in FTIR: How New Technology Is Changing Infrared Analysis

1:45 to 2:45 PM—New Elemental Analysis Solutions and Advanced Applications Using Next-Generation MP/AES, ICP/OES, ICP/ MS, and ICP/QQQ

# Chromatography & Mass Spectrometry Tips, Tricks & Advanced Techniques.

Sponsor: Agilent Technologies, 3:30 to 6 PM, Colorado Convention Center, Room 103. Stay up to date on the latest technology and applications using HPLC, LC/MS, GC, and GC/MS. This workshop will focus on implementing 2-D HPLC and other advanced HPLC techniques in your lab, ion mobility qTOF for advanced molecular analysis, and improving GC/ MS capability using some new tips and tricks.

3:30 to 4:15 PM—Demystifying 2-D HPLC: Techniques You Can Use Tomorrow

4:15 to 5:00 PM—Advantages of Ion Mobility qTOF for Characterization of Large Biological Molecules

5 to 5:45 PM—GC/MS: Advanced Topics and Helpful Tips & Tricks

# WEDNESDAY, MARCH 25

New Developments in Isothermal Titration Calorimetry from MicroCal. *Sponsor*: Malvern Instruments, 9:30 AM to noon, Colorado Convention Center, Room 103. Measurements and characterization of binding interactions between proteins and low-molecular-weight (LMW) ligands are fundamental for drug discovery. Among the most recognized challenges in characterizing binding interactions are the need to (1) accurately assess a wide span of binding affinities ( $K_d$ ) and (2) accurately rank and characterize LMW ligands based on affinity, mechanism of action, and energetics of interaction. Reliable interpretation of binding data can be complicated by the presence of inactive protein fractions or inaccurate assessment of protein concentration. Assessment of these data can be further hampered by inherent uncertainty in the concentration of compound stocks. This uncertainty results from inaccurate measurement, limited solubility, or potential chemical heterogeneity of the compounds, such as the presence of enantiomers and isomers. Isothermal titration calorimetry (ITC) directly measures heat released or absorbed in a binding event, providing means for studying protein-small molecule interactions in solution without the need for labeling or immobilization.

This workshop will present the new developments in highly sensitive MicroCal ITC instrumentation and data analysis. We will discuss the improvements in data quality that enable increased confidence when analyzing challenging data with low heats when sample is precious or low concentrations are required to accurately quantitate low-nanomolar-affinity interactions. We will present the new developments in MicroCal ITC software that allow automated data analysis, minimizing analysis time and user subjectivity in assessing data quality.

# Designing Inhibitors with MOE Structure-Based Drug Design Tools.

Sponsor: Chemical Computing Group, 3:30 to 6 PM, Colorado Convention Center, Room 103. This workshop covers the application of in silico structure-based drug design (SBDD) tools for the rational design of Tarceva-based EGFR kinase inhibitors. Starting with raw PDB protein-ligand 3-D structures, all the steps required to initiate and advance an SBDD study are covered: preparing PDB structures for modeling, binding pocket visualization, protein-ligand contact analysis, and the use of SAR for in situ modeling (modifying and optimizing ligands in the binding pocket) to design new compounds. Advanced topics such as pharmacophore query generation, protein-ligand docking, protein alignments for binding-site comparison, and in situ combinatorial synthesis will also be covered.

# **EXHIBITORS**

The following list exhibitors, as of February 9th, and is the property of the American Chemical Society. Any unauthorized use of this list, or any part thereof, either directly or indirectly, is strictly prohibited.

Visit the Online ACS National Exposition at www.acs.org/denver2015 to download the updated exhibitor list and access product information.

ACS Career Navigator™ is your source for career resources and training at the ACS National Meeting in San Francisco. Visit us in the ACS Booth to discover the resources you need to achieve your goals and advance your career. 624

ACS Committee on Chemical Safety, P.O. Box 152329, , CA, United States 92195, 619-990-4908, The ACS Committee on Chemical Safety (CCS) and the Division of Chemical Health and Safety (CHAS) provide leadership and technical guidance to all ACS members and the community regarding the safe and proper handling of chemicals. Chemical safety practices are supported across the entire chemical enterprise from K-12 through college and graduate school into the industrial and academic workplace. **425** 

ACS Division of Small Chemical Businesses (SCHB), 4344 Moorpark Ave. Ste # 15an Jose, CA 95129 United States, 408-834-8597, Fax: 408-351-7900 Email: expo-booth@acs-schb.org, Internet: http://www.acs-schb.org

The ACS Division of Small Chemical Business (SCHB) has objectives "To aid in the formation, development, and growth of small chemical businesses."

SCHB helps chemists working in small enterprises, including self-employed, with the legal, social, educational, legislative, regulatory, and economic aspects of their unique professional status. SCHB serves as a clearing house of information, a forum for discussion, and a liaison between small businesses and students. **332** 

ACS Education, 1155 16th Street, NW, Washington, DC 20036, 202-872-6269, fax: 202-833-7732, e-mail:education@acs.org, Internet: www.acs.org/ education The ACS Education Division serves learners and educators by building communities and providing effective chemistry education resources, grants, communities, professional development opportunities, standards and guidelines. Stop by our booth to find information that can support your efforts to provide innovative, relevant, and effective chemistry education from kindergarten through professional education. **624** 

ACS Green Chemistry Institute, 1155 16th Street, NW, Washington, DC 20036, 202-872-6102, fax: 202-776-8009, e-mail:gci@acs.org, Internet: www.acs.org/gci The ACS Green Chemistry InstituteÅ® believes that innovation in sustainable and green chemistry and engineering (GC&E) is vital to solving environmental and human health challenges. Our mission is to catalyze and enable the implementation of GC&E throughout the global chemical enterprise and empower you to reimagine a sustainable future. 524

ACS Meetings & Expositions, 1155 Sixteenth Street NW, Washington, DC, United States 20036, 800-227-5558, fax: 202-872-6128, e-mail: m\_stevenson@acs.org, Internet: www.acs.org/ meetings The ACS Meetings booth displays information on current and future regional meet ings also spring and fall National Meetings. Register for a regional meeting or get information on submitting an abstract to a meeting in your region. The programming is diverse and exciting! Meet the volunteers who are planning these meetings at the booth. Visit the regional meetings website at www.acs.org/regionalmeetings for a tour of this year's conferences. Information on future national meetings will be on display. **624** 

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# Academic & Educational Services

| CDS Analytical, LLC<br>Cengage Learning, Inc.<br>Chengdu Aslee Biopharmaceuticals, Inc.<br>CRC Press<br>De Gruyter<br>Dotmatics Inc.<br>Extrel CMS<br>Frontiers<br>Gaussian<br>IIE/Council for International Exchange Of<br>Scholars<br>InfoChem GmbH<br>JoVE<br>Kimble Chase LLC<br>Late Nite Labs, Ltd.<br>Magritek Inc.<br>Maruzen Co., Ltd.<br>McGraw-Hill Education<br>MicroLAB, Inc.<br>Nanalysis Corp.<br>Neaspec GmbH<br>NIST<br>NT-MDT Co.<br>OpenStax College, Rice University<br>PASCO scientific<br>Pearson<br>periodictable.co.uk<br>Pine Research Instrumentation<br>Precision Glassblowing of Colorado<br>Royal Society of Chemistry<br>Sapling Learning<br>Semichem<br>Serena Software<br>Sigma-Aldrich<br>Specac, Ltd.<br>Springer<br>Taylor & Francis (Journals) | 425<br>624<br>524<br>6,917<br>302<br>81114<br>1133<br>709<br>837<br>318<br>717<br>839<br>400<br>902<br>809<br>207<br>1215<br>1208<br>809<br>207<br>1215<br>1208<br>809<br>207<br>1215<br>1208<br>81124<br>317<br>800<br>313<br>219<br>1308<br>810<br>219<br>1029<br>427<br>701<br>1200<br>404<br>343<br>219<br>1029<br>427<br>701<br>1200<br>404<br>313<br>219<br>1200<br>801<br>215<br>1308<br>809<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1215<br>800<br>1200<br>800<br>1215<br>800<br>1200<br>800<br>1215<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>800<br>1200<br>12 |
|--|--|
| The Committee for Cannabis Chemistry<br>Division Formation<br>University Science Books<br>Vernier Software & Technology<br>W.H. Freeman & Company<br>W.W. Norton<br>Waters Corp.<br>Wavefunction, Inc.<br>WebAssign  | 237<br>605<br>901<br>401<br>607<br>1117<br>508<br>201  |
|  |  |

# Accessible Products

| AdValue Technology<br>Anasys Instruments Corp. | 1325<br>540 |
|--|-------------|
| Chengdu Aslee Biopharmaceuticals, Inc.         | 1133        |
| Late Nite Labs, Ltd.                           | 1208        |
| Maruzen Co., Ltd.                              | 808         |
| Nanalysis Corp.                                | 1111        |
| NIST   | 325         |
| NT-MDT Co.                                     | 1000        |
| PASCO scientific                               | 219         |
| Pine Research Instrumentation                  | 1029        |
| ViridisChem, Inc.                              | 538         |

# Analytical Research

| Advion<br>AIP Publishing - The Journal of Chemical  | 1033  |
|---|---|
| AIP Publishing – The Journal of Chemical<br>Physics<br>Anasys Instruments Corp.<br>Brookhaven Instruments Corp. | $\begin{array}{c} 1033\\ 831\\ 540\\ 1424\\ 6,917\\ 1400\\ 409\\ 302\\ 1137\\ 717\\ 1400\\ 400\\ 511\\ 107\\ 808\\ 417\\ 1107\\ 808\\ 417\\ 1107\\ 808\\ 417\\ 1025\\ 1000\\ 1001\\ 1027\\ 1029\\ 2025\\ 404\\ 1216\\ 810\\ 914\\ 1032\\ 939\\ 237\\ 538\\ 508\\ 933\\ 933\\ \end{array}$ |
| Wyatt Technology Corp.  | 1010  |

# Career Development & Training

| Chemistry At Your Fingertips                               | 443 |
|--|-----|
| Nat'l Res. Council/ Nat'l Academies                        | 504 |
| Royal Society of Chemistry                                 | 701 |
| SCIENCE/AAAS   | 829 |
| The Committee for Cannabis Chemistry<br>Division Formation | 237 |

# Chemicals / Reagents / Raw Materials

| AK Scientific, Inc.<br>Alfa Aesar-A Johnson Matthey Co. | 536<br>909 |
|---|------------|
| Ark Pharm, Inc.   | 812        |
| CDS Analytical, LLC                                     | 302        |
| Chengdu Aslee Biopharmaceuticals, Inc.                  | 1133       |
| Grace Discovery Sciences                                | 1314       |
| Guizhou Wylton Jinglin Electronic                       |            |
| Material Co., Ltd.                                      | 929        |
| HE Chemical   | 1206       |
| Indofine Chemical Co.                                   | 1318       |
| Interchim Inc.  | 905        |
| Kimble Chase LLC  | 1215       |
| Malvern Instruments, Inc.                               | 1107       |
| Matrix Scientific                                       | 714        |
| Metrohm USA, Inc.                                       | 416        |
| Neaspec GmbH  | 927        |
| Oakwood Products Inc.                                   | 600        |
| Oxchem Corporation                                      | 308        |
| Pharmablock USA, Inc.                                   | 403        |
| Pine Research Instrumentation                           | 1029       |
| Poly-Med Inc.   | 904        |
| Rapp Polymere GMBH                                      | 1113       |
| Richman Chemical Inc.                                   | 405        |
| Rieke Metals, LLC                                       | 336        |
| Rigaku Americas Corp.                                   | 1025       |

| Sigma-Aldrich                    | 1216     |
|----------------------------------|----------|
| Sorbent Technologies             | 914      |
| Strem Chemicals                  | 813      |
| Supra Sciences                   | 437      |
| Synquest Laboratories, Inc.      | 513      |
| TCI Ámerica                      | 1004     |
| Thrupore Technologies LLC        | 542      |
| Waters Corp.                     | 1117     |
| Weihai CY Dendrimer Technology   |          |
| Co.,Ltd.                         | 243,1319 |
| Wuxi AppTec (Shanghai) Co., Ltd. | 933      |
|                                  |          |

# Laboratory Equipment & Services

| ACS Committee on Chemical Safety     | 425       |
|--------------------------------------|-----------|
| Advion                               | 1033      |
|                                      |           |
| AGI USA Inc.                         | 1007      |
| Anasazi Instruments Inc.             | 1027      |
| Anasys Instruments Corp.             | 540       |
| Biotage                              | 1024      |
|                                      | 1424      |
| Brookhaven Instruments Corp.         |           |
| Bruker                               | 916,917   |
| Camag Scientific, Inc.               | 409       |
| CDS Analytical, LLC                  | 302       |
| CEM Corp.                            | 817       |
| Chamalaas Life Saianaas              |           |
| Chemglass Life Sciences              | 514       |
| Chemrus Inc.                         | 334       |
| Edinburgh Instruments                | 1224      |
| Eicom UŠA                            | 338       |
| FEI Company                          | 1400      |
|                                      |           |
| Formulaction USA                     | 532       |
| FRITSCH Milling and Sizing           | 1217      |
| Grace Discovery Sciences             | 1314      |
| Heidolph North America               | 1201      |
| Hidon Analytical Inc.                | 511       |
| Hiden Analytical Inc.                |           |
| INTAVIS Bioanalytical Instruments AG | 314       |
| Interchim Inc.                       | 905       |
| J-KEM Scientific                     | 424       |
| Kimble Chase LLC                     | 1215      |
|                                      |           |
| Knauer                               | 1110      |
| Krüss America, LLC                   | 331       |
| Late Nite Labs, Ltd.                 | 1208      |
| Magritek Inc.                        | 937       |
|                                      |           |
| Malvern Instruments, Inc.            | 1107      |
| Maruzen Co., Ltd.                    | 808       |
| Metrohm USA, Inc.                    | 416       |
| MicroLAB, Inc.                       | 317       |
| Midland Scientific, Inc.             | 1300      |
|                                      |           |
| Molymod Models - Spiring Ltd         | 406       |
| Nanalysis Corp.                      | 1111      |
| NanoMagnetics Instruments            | 1418      |
| Neaspec GmbH                         | 927       |
|                                      | 325       |
| NIST                                 |           |
| NT-MDT Co.                           | 1000      |
| Parr Instrument Co.                  | 1001      |
| Particle Sizing Systems              | 1127      |
| Parkin Elmar Caro                    | 1104      |
| PerkinElmer Corp.                    |           |
| Pine Research Instrumentation        | 1029      |
| Precision Glassblowing of Colorado   | 427       |
| Proton OnSite                        | 414       |
| PSS USA, Inc.                        | 235       |
|                                      | 1025      |
| Rigaku Americas Corp.                |           |
| Rudolph Research Analytical          | 301       |
| Shimadzu Scientific Instruments Inc. | 613       |
| Sigma-Aldrich                        | 1216      |
| Sorbent Technologies                 | 914       |
|                                      |           |
| Specac, Ltd.                         | 1032      |
| StellarNet Inc.                      | 1125      |
| Supercritical Fluid Technologies     | 908       |
| Teledyne Isco - Chromatography       | 716       |
|                                      | 1225      |
| ThalesNano Nanotechnology Inc.       |           |
|                                      | 1014,1015 |
| Tosoh Bioscience LLC                 | 501       |
| Vacuum Atmospheres Co.               | 1100      |
| Vacuum Technology Inc.               | 311       |
| Varniar Softwara & Tashnalasu        | 901       |
| Vernier Software & Technology        |           |
| Waters Corp.                         | 1117      |
| Wuxi AppTec (Shanghai) Co., Ltd.     | 933       |
| Wyatt Technology Corp.               | 1010      |
| Xenocs                               | 941       |
|                                      | / + 1     |
| Yamazen Science, Inc.                | 1304      |

| Other   |                                 |
|---|---------------------------------|
| ACS Committee on Chemical Safety<br>ACS Meetings & Expositions<br>ACS Member Insurance Program<br>ACS Publications<br>ACS Web Strategy & Operations<br>AIP Publishing – The Journal of Chem | 425<br>624<br>624<br>624<br>624 |
| Physics   | 831                             |
| Bentham Sciences Publishers Ltd.  | 1309                            |
| Chemistry At Your Fingertips  | 443                             |
| Elsevier  | 211                             |
| Frontiers   | 839                             |
| ICE Publishing  | 1331f                           |
| J-KEM Scientific  | 424                             |
| JEOL USA, Inc.  | 1101                            |
| Metrohm USA, Inc.   | 416                             |
| Nat'l Res. Council/ Nat'l Academies   | 504                             |
| Nature Publishing Group   | 601                             |
| Paraza Pharma Inc.  | 1410                            |
| periodictable.co.uk   | 439                             |
| Restek Corp.  | 506                             |
| Richman Chemical Inc.   | 405                             |
| Royal Society of Chemistry  | 701                             |
| SCIENCE/AAAS  | 829                             |
| Sigma-Aldrich   | 216                             |
| Thermo Scientific   | 1014,1015                       |
| US EPA Green Chemistry Program  | 528                             |

# R&D and Manufacturing Services

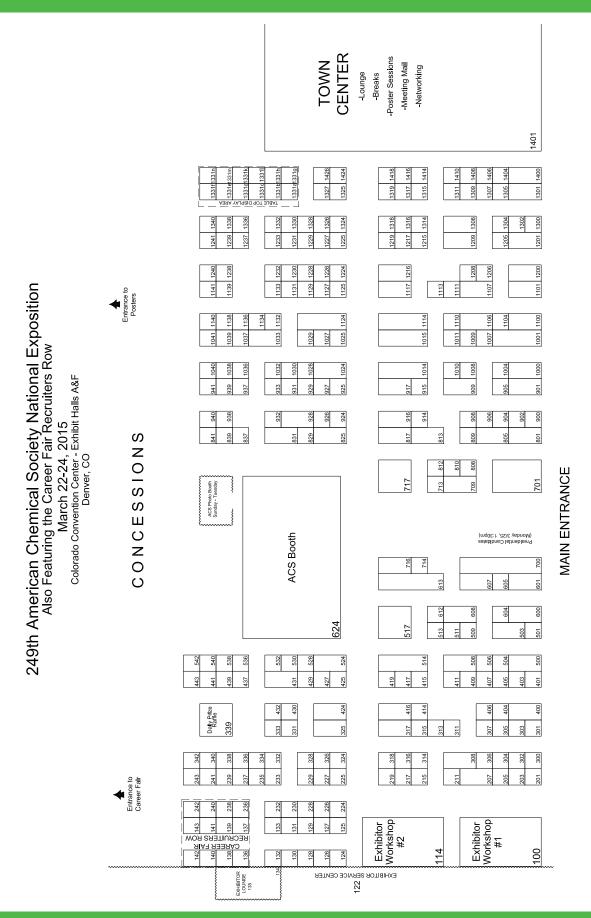
| Ark Pharm, Inc.<br>Boulder Scientific Co.<br>CDS Analytical, LLC<br>Chengdu Aslee Biopharmaceuticals, Inc.<br>Dotmatics Inc.<br>Gaussian<br>Guisheu Witten Linglin Electronic  | 812<br>841<br>302<br>1133<br>318<br>400  |
|--|--|
| Guizhou Wylton Jinglin Electronic<br>Material Co., Ltd.<br>HE Chemical<br>Indofine Chemical Co.<br>Interchim Inc.<br>Magritek Inc.<br>NanoMagnetics Instruments<br>NT-MDT Co.<br>Oakwood Products Inc.<br>Pharmablock USA, Inc.<br>PharmAgra Labs, Inc.<br>PIKE Technologies<br>Pine Research Instrumentation<br>Poly-Med Inc. | 929<br>1206<br>1318<br>905<br>937<br>1418<br>1000<br>600<br>403<br>509<br>415<br>1029<br>904 |

# Scientific Computer & Data Management

# Technical Literature / Websites / Databases

| Cambridge Crystallographic Data Ctr.<br>InfoChem GmbH<br>Lab Manager/LabX<br>NIST<br>NT-MDT Co.<br>Pine Research Instrumentation | 604<br>809<br>1331a<br>325<br>1000<br>1029 |
|--|--|
| Royal Society of Chemistry   | 701  |
| Sigma-Aldrich  | 1216                                       |
| The Committee for Cannabis Chemistry<br>Division Formation   | 237  |

| ViridisChem, Inc.  | 538   |
|--|---|
| W.H. Freeman & Company   | 401   |
| Testing & Measurement<br>Instrumentation   |   |
| Advion<br>Anasys Instruments Corp.<br>Anton Paar USA<br>Brookhaven Instruments Corp. | 1033<br>540<br>324<br>1424<br>6,917<br>1400<br>1217<br>1400<br>1217<br>1400<br>1217<br>1400<br>1217<br>1400<br>1217<br>1005<br>424<br>110<br>331<br>937<br>1107<br>416<br>1300<br>1418<br>927<br>325<br>1001<br>1127<br>1001<br>1127<br>1001<br>427<br>2350<br>1001<br>1127<br>1001<br>1127<br>1001<br>1127<br>1001<br>1127<br>1001<br>1127<br>1001<br>1107<br>1107 |
| Speciac, Ltd.  | 1032  |
| StellarNet Inc.  | 1125  |
| STOE & Cie GmbH  | 939   |
| Thermo Scientific 1014   | 1,1015  |
| Vernier Software & Technology  | 901   |
| Waters Corp.   | 1117  |
| Wyatt Technology Corp.   | 1010  |
| Xenocs   | 941   |



# FINAL PROGRAM

# Chemistry at Illinois Alumni & Friends Reception

5 to 8 PM, Marriott City Center Denver, Penrose Ballroom 2

# **CHED Social Reception**

5:30 to 7 PM, Colorado Convention Center, Room 207

# International Welcome Reception/ SE-06/No Fee

5:30 to 7:30 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial D

# Research Corporation Reception in Honor of the Awardee for Research at an Undergraduate Institution

5:30 to 7:30 PM, Marriott City Center Denver, Colorado Ballroom E

# COLL Social Hour/Poster Session/Open Business Meeting

5:30 to 8 PM, Colorado Convention Center, Hall E

# **CINF Open Business Meeting**

6 to 6:30 PM, Embassy Suites Denver— Downtown Convention Center, Silverton Ballroom 3

# District II Councilor Caucus

6 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Mineral C

### **District IV Councilor Caucus** 6 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Mineral E

**District V Councilor Caucus** 

6 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Mineral F

# **District VI Councilor Caucus**

6 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Mineral G

# Mid-Atlantic Councilor Caucus

6 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Mineral D

### **CELL & INOR Poster Sessions** 6 to 8 PM, Colorado Convention Center,

6 to 8 PM, Colorado Convention Center, Hall C

### **Expo Attendee Welcome Reception** 6 to 8:30 PM, Colorado Convention Center, Halls A/F

**CINF Welcoming Reception** 6:30 to 8:30 PM, Embassy Suites Denver— Downtown Convention Center, Silverton Ballroom 3

ACS Student Chapter Awards Ceremony 7 to 8:30 PM, Colorado Convention Center, Bellco Theater

# **CHED Poster Session** 7 to 9 PM, Colorado Convention Center, Hall C

**MEDI Poster Session** 7 to 9 PM, Colorado Convention Center, Hall E

**ORGN Poster Session** 8 to 10 PM, Colorado Convention Center, Hall C

**BIOL Poster Session** 8:15 to 9:45 PM, Colorado Convention Cen ter, Hall B2

**Undergraduate Research Social** 8:30 to 11 PM, Colorado Convention Center, Four Seasons Ballroom

# MONDAY, MARCH 23

# WCC Women in the Chemical Enterprise Breakfast/SE-01/\$40 (regular)/ SE-02/\$20 (student)

7:30 to 9 AM, Hyatt Regency Denver at Colorado Convention Center, Centennial E (A limited number of student tickets are available. Students may purchase regular tickets if student tickets are sold out.)

**CHED Workshop 3** 8 AM to noon, Sheraton Denver Downtown, Plaza Court 3

**Undergraduate Hospitality Center** 8 AM to 5 PM, Sheraton Denver Downtown, Majestic Ballroom

# ACS Career Fair Workshop: Career Pathways I

8:30 AM to 5:30 PM, Colorado Convention Center, Room 602

# ACS Career Fair Workshop: Career Pathways II

8:30 AM to 5:30 PM, Colorado Convention Center, Room 604 ACS Career Fair Workshop: Career Pathways III 8:30 AM to 5:30 PM, Colorado Convention Center, Room 606

University of Wisconsin, Milwaukee, Workshop: Scale Interventions for Lecture & Laboratory 9 AM to noon, Sheraton Denver Downtown, Plaza Court 2

ACS Exposition 9 AM to 5 PM, Colorado Convention Center, Halls A/F

**Undergraduate Workshop: Networking 101** 9:45 to 11 AM, Colorado Convention Center, Room 601/603

Undergraduate Workshop: Chemists Celebrate Earth Day (cosponsored by Committee on Community Activities) 9:45 to 11:45 AM, Sheraton Denver Downtown, Grand Ballroom II

**Undergraduate Poster Session** 11 AM to 2 PM, Colorado Convention Center, Hall E

# Committee on Minority Affairs Luncheon/SE-07/\$50

11:30 AM to 1:30 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial E

# SCHB Luncheon

11:30 AM to 1:30 PM, Embassy Suites Denver—Downtown Convention Center, Silverton Ballroom 2

# CHAL Luncheon/SE-08/\$40

Noon to 1:30 PM, Embassy Suites Denver— Downtown Convention Center, Silverton Ballroom 3

# CHED Workshop 4

1 to 5 PM, Sheraton Denver Downtown, Plaza Court 4

**College of Wooster Alumni, Students, Faculty & Friends of Helen Murray Free** 2:30 to 4:30 PM, Colorado Convention Center, Room 701

# Younger Chemistry Education Scholars Social

3 to 5 PM, Sheraton Denver Downtown, Windows Room

### WCC Just Cocktails

3:30 to 4:30 PM, Hyatt Regency Denver at Colorado Convention Center, Capital 5

# Undergraduate Speed Networking with Chemistry Professionals

3:45 to 5:15 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial D

### The Kavli Foundation Emerging Leader In Chemistry Lecture

4 to 5:05 PM, Colorado Convention Center, Bellco Theater

**CHAL Reception** 5 to 8 PM, Grand Hyatt Denver, Capital Peak

# The Fred Kavli Innovations in Chemistry Lecture

5:30 to 6:30 PM, Colorado Convention Center, Bellco Theater

# **BMGT Reception**

5:30 to 7:30 PM, Embassy Suites Denver— Downtown Convention Center, Crystal Ballroom B&C

SCHB/Hach Award Reception 5:30 to 7:30 PM, Cactus Club, 1621 Blake St., Denver

# University of Pennsylvania Alumni Reception

6 to 8 PM, Crimson Room Lounge, 1403 Larimar St., Denver

# **Colorado State University Chemistry Alumni & Friends Reception** 7 to 8 PM, CSU Denver Event Center,

475—17th St., Suite 200, Denver

# Purdue Department of Chemistry Alumni Event/SE-10/\$10

7 to 8:30 PM, The Curtis—a DoubleTree by Hilton, Keep Away Room

# **NUCL Social Hour**

7 to 9 PM, Embassy Suites Denver— Downtown Convention Center, Silverton Ballroom 2

# ACS Graduate & Postdoctoral Scholars Reception

7 to 8:30 PM, Colorado Convention Center, Four Seasons Ballroom 4

**2015 CARB Award Banquet/SE-09/\$60** 7 to 10 PM, Appaloosa Grill, 535—16th St., Denver

# Sci-Mix Interdivisional Poster Session & Mixer

(Drink ticket included with registration) 8 to 10 PM, Colorado Convention Center, Hall C

(continued on page 50)

Event codes indicate what is required to participate: **(R)** registration, and payment when applicable, required; **SE-##** ticket required; all nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/denver2015.



# SHARE CHEMISTRY. START A REACTION...



# FINAL PROGRAM

# TUESDAY, MARCH 24

Senior Chemists Breakfast/SE-11/\$20 7:30 to 9:30 AM, Hyatt Regency Denver at Colorado Convention Center, Centennial A/B

# University of Minnesota Alumni & Friends Breakfast/<mark>SE-20</mark>/\$5.00

7:30 to 9:30 AM, Colorado Convention Center, Room 207

ACS Career Fair Workshop: Career Pathways I 8:30 AM to 5:30 PM, Colorado Convention Center, Room 602

# ACS Career Fair Workshop: Career Pathways II

8:30 AM to 5:30 PM, Colorado Convention Center, Room 604

### ACS Career Fair Workshop: Career Pathways III 8:30 AM to 5:30 PM, Colorado Convention Center, Room 606

ACS Exposition 9 AM to 5 PM, Colorado Convention Center, Halls A/F

**Alpha Chi Sigma Fraternity Luncheon** 11 AM to 1:30 PM, Bubba Gump Shrimp Co. 1437 California St., Denver

**SCHB Luncheon** 11:30 AM to 1:30 PM, Embassy Suites Denver—Downtown Convention Center, Silverton Ballroom 2

# WCC Eli Lilly Travel Award Poster Session & Lunch/SE-14/\$50 (regular)/ SE-15/\$25 (student)

11 AM to 1:30 PM, Hyatt Regency Denver at Colorado Convention Center, Centennial A–C

**CINF Luncheon/SE-12/No Fee** Noon to 1:30 PM, Embassy Suites Denver—Downtown Convention Center, Silverton Ballroom 3

**COLL Luncheon/SE-13/\$40** Noon to 1:45 PM, Marriott City Center Denver, Penrose Ballroom 1 **Committee on Environmental Improvement (CEI) Film Series** Noon to 2 PM, Sheraton Denver Downtown, Grand Ballroom 1

# PerkinElmer Workshop: Nano FFF & SP-ICP-MS

Noon to 6 PM, Colorado School of Mines 1500 Illinois St., Golden, CO

**ENFL Poster Session** 2 to 4 PM, Colorado Convention Center, Halls A/F

AGFD Poster Session 3:30 to 5:30 PM, Colorado Convention Center, Hall C

**Dow Energy-Water Nexus Reception** 4 to 5 PM, Colorado Convention Center, Room 207

Division Councilors & Division Officers Caucus 4 to 6 PM, Colorado Convention Center, Room 502

I&EC Poster Session 5 to 6:30 PM, Colorado Convention Center, Hall C

**District I Councilor Caucus** 5:30 to 7 PM, Hyatt Regency Denver at Colorado Convention Center, Mineral C

**ENVR Reception/SE-16/\$10** 6 to 7:30 PM, Wynkoop Brewing Co. 1634—18th St., Denver

AGFD Chair's Reception 6 to 8 PM, Embassy Suites Denver— Downtown Convention Center, Crystal Ballroom B

**PMSE/POLY Joint Poster Session** 6 to 8 PM, Colorado Convention Center, Hall E

CATL & INOR Poster Session 6 to 8 PM, Colorado Convention Center, Hall C

**COMP Poster & Awards Session** 6 to 8:30 PM, Colorado Convention Center, Hall B2

**BIOT Poster Session** 6 to 9 PM, Grand Hyatt Denver, Imperial Ballroom

# ACS National Awards Reception, Banquet Ceremony & General Meeting of the Society/SE-17/\$130

6:30 to 10 PM, Sheraton Denver Downtown, Plaza Ballroom BCEF

# CELL Anselme Payen Award Banquet/ SE-18/\$65

6:30 to 10 PM, Coohills Restaurant, 1400 Wewatta St., Denver

**CARB & ANYL Poster Sessions** 7 to 9 PM, Colorado Convention Center, Hall C

**ENFL Division Dinner/SE-19/\$65** 7:30 to 9 PM, Maggiano's Little Italy, 500—16th St., Ste. 150, Denver

**ORGN Poster Session** 8 to 10 PM, Colorado Convention Center, Hall C

# WEDNESDAY, MARCH 25

ACS Career Fair Workshop: Career Pathways I 8:30 AM to 5:30 PM, Colorado Convention Center, Room 602

ACS Career Fair Workshop: Career Pathways II 8:30 AM to 5:30 PM, Colorado Convention Center, Room 604

ACS Career Fair Workshop: Career Pathways III 8:30 AM to 5:30 PM, Colorado Convention Center, Room 606

PerkinElmer Workshop: Nano FFF & SP-ICP-MS Noon to 6 PM, Colorado School of Mines, 1500 Illinois St., Golden, CO

**POLY/PMSE Awards Reception** 5:30 to 8:30 PM, Sheraton Denver Downtown, Plaza Ballroom A/B

PHYS & ENVR Poster Sessions 6 to 8 PM, Colorado Convention Center, Hall C

Joint MED & ORGN Poster Session 7 to 10 PM, Colorado Convention Center, Four Seasons Ballroom