



248TH ACS NATIONAL MEETING

SAN FRANCISCO, Aug. 10–14

“CHEMISTRY & GLOBAL STEWARDSHIP” will be the theme in San Francisco this August. Among symposia centered around that idea, the American Chemical Society Division of Environmental Chemistry will celebrate “100 Years of Scientific Contribution for a Safer & Sustainable Environment.” Other symposia will focus on reaching beyond the scientific community, such as “Communicating to the Public & the Role of Social Media” and “Global Stewardship by Increasing Climate Science Literacy.”

ACS President Tom Barton will host 29 technical divisions and nine committees in original programming over 1,013 half-day oral sessions and 168 poster sessions, including Sci-Mix. More than 7,400 papers will be presented, and nearly 4,400 poster presentations will take place at the meeting.

In concert with the meeting theme, Bar-

ton will sponsor two presidential symposia. On Monday, Aug. 11, “Hydraulic Fracturing”—Where Are We & Where Are We Going” will probe the science behind this suddenly central energy extraction technology—and its environmental implications. On Tuesday, Aug. 12, “Photocatalytic Conversion of Water to Hydrogen & Oxygen,” coorganized with Daniel G. Nocera of Harvard University, will explore the state of the art in solar energy conversion.

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 Professional Education Short Courses have a separate registration and fee. For job seekers and employers, the career fair will provide opportunities for interviews (both on-site and online), one-on-one career assistance, and career-related workshops.

The exposition will feature more than 250 companies showcasing services, in-

struments, books, lab equipment, and much more in booths that number more than 350.—CRAIG BETTENHAUSEN

REGISTRATION CATEGORY	FEE— STANDARD AFTER JULY 15
MEMBERS	
ACS member or society affiliate	\$445
Postdoctoral member	445
Emeritus or retired member	235
50-year member	No fee
Unemployed member (Dues waiver required)	No fee
Precollege teacher	105
Graduate, less than postdoctoral	195
Undergraduate	105
One-day registrant	235
NONMEMBERS	
Chemical scientist	\$790
Postdoctoral scientist	790
Visitor: Nonchemical scientist or chemical technician	455
Precollege teacher	105
Graduate, less than postdoctoral	380
Undergraduate	195
One-day registrant	455
Guest of registrant ^a	40
EXPOSITION-ONLY VISITORS	
Adult, exposition only	\$50
Student, exposition only	25

^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.

MEETING INFO ON THE WEB
www.acs.org/sanfran2014

REGISTRATION

Early Registration. Early registration for the national meeting has been extended to July 15; registrations or payments received after July 15 will be processed at standard registration rates. U.S. registrants who registered by July 15 should receive their badge credentials in the mail before the meeting. International registrants and early registrants who do not receive their badge credentials before the meeting must pick them up at ACS Attendee Registration (Moscone Center, North Bldg., Lobby).

Standard & On-Site Registration. Standard registration rates are in effect until Aug. 14. Register online at www.acs.org/sanfran2014. 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 San Francisco, 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 Moscone Center, North Bldg., Lobby, 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:

American Airlines

aa.com; (800) 433-1790

Discount code: 4284AA

Delta

delta.com; (800) 328-1111

Discount codes: NMGHE, NMGHF (international)

United Airlines

united.com; (800) 426-1122

Discount code: ZQYZ872186

Amtrak

amtrak.com; (800) 872-7245

Discount code: X66S-905 (for phone reservations only)

FOR UP-TO-DATE EVENT LISTINGS, VISIT

www.acs.org/sanfran2014

RENTAL CARS:

AVIS

avis.com; (800) 331-1600

Discount code: B923099

Hertz

hertz.com; (800) 654-2240

Discount code: CV#02UZ0013

GO GREEN FROM SFO AND OAK

Book Your Airport Transfer. This year, ACS is launching our Group Networking Transportation service to transport you from the San Francisco and Oakland airports to your hotel. This service is \$25 per person one-way or \$45 per person round trip from SFO and \$30 per person one-way or \$60 per person round trip from OAK. A private car option is also available for greater comfort and convenience. Take advantage of this service, and benefit from automatic vehicle scheduling service, electronic departure notices, meet-and-greet staff at arrivals, and networking with other ACS meeting colleagues en route. Online assistance is available via a live chat box. Reserve your airport arrival and departure transportation today at <http://eda.webdestin.net/eventtariff/270>.

Take BART from SFO or OAK airport to San Francisco and Go Green at the 2014 ACS national meeting. BART costs much less than taxis and shuttles and is just as fast. Most important, taking BART keeps 20 lb of CO₂ per round trip out of the atmosphere and reduces the conference's carbon footprint. Take BART, and help sustain the air.

BART SFO Transfers—\$19.25 round trip. BART is providing ACS with a private page to prepurchase your round-trip transfer from SFO to San Francisco. We recommend buying your tickets early from this site to help us measure our conference carbon savings. If you're arriving at SFO, visit http://arestravel.com/6858_attraction-tickets_a199.html to purchase a round-trip SFO transfer voucher. Go to our Information desk located just outside the SFO station to exchange the voucher for your BART ticket.

BART OAK Transfers—\$14.10 round trip. Go to the AirBART shuttle stop on the traffic island outside the terminal, and take the AirBART bus. Deposit \$3.00 in the AirBART fare box when you board. Then purchase a round-trip ticket at the Coliseum station for \$8.10. Enter the fare gates, go up

the escalator, and take any San Francisco-bound train. It usually takes 45 minutes to take the AirBART shuttle and BART to San Francisco. Exit at the station that's closest to your hotel.

BART Station Exit for ACS Official Hotels (blocks)

Powell St. Station: Grand Hyatt San Francisco (3), Hotel Nikko (1.5), Hilton San Francisco Union Square (1.5), Hotel Palomar (1/2), InterContinental San Francisco (2), Parc 55 (1/2), San Francisco Marriott Marquis (1), Marriott Union Square—San Francisco (4), Sir Francis Drake Hotel (4), Mosser Hotel (1/2), Westin St. Francis (3).

Montgomery St. Station: Courtyard by Marriott San Francisco (4), Palace Hotel (0), Westin Market Street (1.5), W San Francisco (3).

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, first-served basis. Ticket sales will close at 6 PM the evening prior to the event. Some event organizers may offer a limited number of

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.

tickets for sale at the door of the events. Cancellations or refund requests are not accepted after July 14.

Locations and times are subject to change. To learn more about these events and to buy tickets or register, visit www.acs.org/sanfran2014.

FRIDAY, AUG. 8

CHAS Workshop: Laboratory Safety (R)
8 AM to 4:30 PM, InterContinental San Francisco

CHAS Workshop: Laboratory Waste Management (R)
8 AM to 4:30 PM, InterContinental San Francisco

SATURDAY, AUG. 9

Outreach Event Breakfast - CLOSED
7 to 8 AM, Moscone Center, West Bldg.

CHAS Workshop: How To Be a More Effective Hygiene Officer (R)
8 AM to 4:30 PM, InterContinental San Francisco

CHAS Workshop: Using Job Hazard Analysis in the Research Lab (R)
8 AM to 4:30 PM, InterContinental San Francisco

CHAS Workshop: Chemical Reactivity Hazards: Laboratory-Scale Recognition & Control (R)
8 AM to 4:30 PM, InterContinental San Francisco

COACHing Powerful Postdocs: Landing the First Academic Job
8:30 AM to 5 PM, InterContinental San Francisco

COACHing the COACHes
8:30 AM to 5 PM, InterContinental San Francisco

Public Outreach Event: Exploring Our World through Chemistry
10 AM to 2 PM, Children's Creativity Museum

Project SEED & Chemistry Olympiad Luncheon
Noon to 1 PM, Hilton San Francisco Union Square

COACH Reception

5 to 7 PM, InterContinental San Francisco

Phi Lambda Upsilon 36th Triennial Congress Reception - CLOSED

6 to 7 PM, W San Francisco

SUNDAY, AUG. 10

ACS Career Fair Workshop: Career Pathways I
8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Pathways II
8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Pathways III
8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Workshop
8 AM to 5:30 PM, Parc 55

NRCC Certification Exam
8 AM to noon, InterContinental San Francisco

ACS International Lounge
8 AM to 6 PM, Moscone Center

Greening Your Research
8:30 AM to 5:30 PM, Marriott Union Square—San Francisco

Society Communications—Improvisation Training for Chemists/SE-01/\$10
9 AM to 1 PM, Hilton San Francisco Union Square

Hospitality Center
9 AM to 5 PM, Moscone Center

Undergraduate Workshop: Nuclear Energy Stewardship
9:30 to 10:30 AM, Moscone Center

Undergraduate Workshop: Graduate School Reality Check: Getting In
10:30 to 11:45 AM, Moscone Center

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/sanfran2014.

DIGITAL MEETING PROGRAM AVAILABLE AT

www.acs.org/sanfran2014

SCHB/PROF Speaker & Member Luncheon

11:45 AM to 1:15 PM, Moscone Center

Undergraduate Workshop: Graduate School Reality Check: You're In—Now What?

11:45 AM to 1 PM, Moscone Center

ACS Board Open Session & Luncheon
(Open to staff and attendees)
11:45 AM to 1 PM, Moscone Center

CHED High School-College Interface Luncheon/SE-02/\$40
Noon to 1 PM, Moscone Center

TOXI Professional Development Workshop I/SE-03/\$40
Noon to 1 PM, InterContinental San Francisco

CHED—Sustain-Mix Luncheon Reception
12:10 to 1:20 PM, Moscone Center

Undergraduate Workshop: ACS Diversity Panel—Defining Diversity & Supporting Students
12:30 to 1:30 PM, Moscone Center

Leadership Development Workshop: Fostering Innovation (R)
1 to 5 PM, Parc 55

International Affairs—Next-Generation Ambassadors of Chemistry Symposium/SE-04/Free
1 to 5:30 PM, Moscone Center

Society Communications—Improvisation Training for Chemists/SE-01(A)/\$10
1:30 to 4:30 PM, Hilton San Francisco Union Square

Undergraduate Workshop: Networking Social with Graduate School Recruiters
2:30 to 5:30 PM, Moscone Center

Whalen Award Symposium
3 to 5:30 PM, InterContinental San Francisco

Director-at-Large Town Hall Meeting
4:15 to 5:15 PM, Hilton San Francisco Union Square

Chemistry & Global Stewardship Plenary Session

4 to 6 PM, Moscone Center

University of Wisconsin, Madison, Alumni & Friends

5 to 7 PM, InterContinental San Francisco

Chemistry at Illinois, Urbana-Champaign, Department of Chemistry

5 to 8 PM, San Francisco Marriott Marquis

BIOL Poster Session

5:30 to 7 PM, Moscone Center

CHED Social Reception

5:30 to 7 PM, Moscone Center

Diversity Reception

5:30 to 7 PM, Hilton San Francisco Union Square

ACS PRF/Research Corp. Reception

5:30 to 7:30 PM, InterContinental San Francisco

International Welcome Reception/ SE-05/Free

5:30 to 7:30 PM, Hilton San Francisco Union Square

District II Councilor Caucus

6 to 7 PM, Hilton San Francisco Union Square

District IV Councilor Caucus

6 to 7 PM, Hilton San Francisco Union Square

District V Councilor Caucus

6 to 7 PM, Hilton San Francisco Union Square

District VI Councilor Caucus

6 to 7 PM, Hilton San Francisco Union Square

Mid-Atlantic Councilor Caucus

6 to 7 PM, Hilton San Francisco Union Square

COLL Open Business Meeting/Social Hour with Poster Session

6 to 8 PM, Moscone Center, West Bldg.

INOR Poster Session

6 to 8 PM, Moscone Center

Attendee Welcome Reception/ACS Exposition Opening

6 to 8:30 PM, Moscone Center

Heroes of Chemistry Reception

6:30 to 7:30 PM, Palace Hotel

CINF Welcoming Reception

6:30 to 8:30 PM, Palace Hotel

"Journey to the Dark Side" Featuring Comedian Dr. Pete Ludovice/SE-07/\$20

7 to 8 PM, Moscone Center

CTA's 50th Anniversary Dinner/ SE-06/\$55

7 to 9 PM, Argonaut Hotel—Blue Mermaid Restaurant

CHED Poster Session

7 to 9 PM, Moscone Center

MEDI General Poster Session

7 to 9 PM, Moscone Center, West Bldg.

ORGN Poster Session

8 to 10 PM, Moscone Center

Heroes of Chemistry Afterglow Reception

9:30 to 11 PM, Palace Hotel

MONDAY, AUG. 11

WCC Women in the Chemical Enterprise Breakfast/SE-08/\$40 (regular)/SE-09/\$20 (student)

7:30 to 9 AM, Hilton San Francisco Union Square

CHED—Workshop 1

8 AM to noon, InterContinental San Francisco

Leadership Development Workshop: Leading Change (R)

8 AM to noon, Parc 55

ACS Career Fair Workshop: Career Pathways I

8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Pathways II

8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Pathways III

8 AM to 5:30 PM, Parc 55

International Lounge

8 AM to 6 PM, Moscone Center

International Town Hall

9 to 11 AM, Moscone Center

ACS & Congress 101: How To Get Involved with ACS Science Policy

9 AM to noon, W San Francisco

ACS Exposition

9 AM to 5 PM, Moscone Center

Hospitality Center

9 AM to 5 PM, Moscone Center

Women Chemists of Color Networking Social

10 AM to noon, Hilton San Francisco Union Square

Membership Rocks

11 to 11:30 AM, Moscone Center, South Bldg.

Undergraduate Workshop: Networking Basics for Students

11 AM to noon, Moscone Center

CMA Reception & Luncheon/SE-10/\$50 (regular)/SE-11/\$25 (student)

11:30 AM to 1:30 PM, Hilton San Francisco Union Square

SCHB/PROF Speaker & Member Luncheon

11:45 AM to 1:15 PM, Moscone Center

TOXI Professional Development Workshop II/SE-13/\$40

Noon to 1 PM, InterContinental San Francisco

CHAL—Drug & Power Luncheon/SE-12/\$40

Noon to 1:30 PM, Moscone Center

Eminent Scientist Lecture & Luncheon

Noon to 1:30 PM, Moscone Center

Meet & Greet The ACS President-Elect Candidates

1 to 3 PM, Moscone Center, South Bldg., Halls B & C

CHED—Workshop 2

1 to 5 PM, InterContinental San Francisco

Leadership Development Workshop: Collaborating Across Boundaries

1 to 5 PM, Parc 55

Federal Funders Town Hall & Speed Coaching Meeting

1 to 5 PM, Moscone Center, West Bldg.

Undergraduate Research Poster Session
2 to 4 PM, Moscone Center

ACS Fellows Ceremony & Reception
2 to 4:30 PM, Hilton San Francisco Union Square

Networking with the Rock Stars of Chemistry - CLOSED
3 to 4 PM, Moscone Center, South Bldg.

The Kavli Foundation Emerging Leader in Chemistry Lecture
4 to 5:05 PM, Moscone Center

Undergraduate Workshop: Undergraduate Speed Networking with Chemistry Professionals
4 to 5:30 PM, Moscone Center

AGFD—C4—Communicating Chemistry: California Cuisine/SE-14/\$15
4:30 to 6 PM, Art Institute of California, San Francisco

Harry's Party
5 to 7 PM, San Francisco Marriott Marquis

CHAL Reception
5 to 8 PM, Moscone Center, South Bldg.

ENFL Business Committee Meeting & Social Hour
5 to 8 PM, Moscone Center, South Bldg.

HIST Reception
5:15 to 6:30 PM, InterContinental San Francisco

The Fred Kavli Innovations in Chemistry Lecture
5:30 to 6:30 PM, Moscone Center

NUCL Social Hour
6 to 8 PM, San Francisco Marriott Marquis

FLUO Poster Session
6 to 8 PM, Moscone Center, West Bldg.

University of Pennsylvania Alumni Reception
6 to 8 PM, S & R Lounge

ACS Graduate & Postdoctoral Scholars Reception
7 to 8:30 PM, Moscone Center

Purdue University, Department of Chemistry Alumni Reception/SE-15/Free
7 to 8:30 PM, Moscone Center, West Bldg.

Working in Singapore—Opportunities in Materials Research & Engineering
7 to 9:30 PM, Hilton San Francisco Union Square

Sci-Mix Interdivisional Poster Session & Mixer—Drink Ticket with Registration
8 to 10 PM, Moscone Center

TUESDAY, AUG. 12

Senior Chemists Breakfast/SE-40/\$15
7:30 to 9:30 AM, Hilton San Francisco Union Square

University of Minnesota Alumni & Friends Breakfast/SE-16/\$5
7:30 to 9:30 AM, Moscone Center

Leadership Development Workshop: Leading Without Authority
8 AM to noon, Parc 55

ACS Career Fair Workshop: Career Pathways I
8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Pathways II
8 AM to 5:30 PM, Parc 55

ACS Career Fair Workshop: Career Pathways III
8 AM to 5:30 PM, Parc 55

International Lounge
8 AM to 6 PM, Moscone Center

ACS Exposition
9 AM to 5 PM, Moscone Center

Membership Rocks
11 to 11:30 AM, Moscone Center

WCC/Eli Lilly & Co. Award Poster Session
11 AM to noon, Hilton San Francisco Union Square

I&EC Graduate Symposia Luncheon/SE-17/\$50
11:45 AM to 1:15 PM, Moscone Center

SCHB/PROF Speaker & Member Luncheon
11:45 AM to 1:15 PM, Moscone Center



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Chemistry for Life®

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START A REACTION...**

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why you love
chemistry.

Speak
at your
child's
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career
day.

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**Chemistry
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www.acs.org/chemistryambassadors
Find everything you need
to get started!
AMERICAN CHEMICAL SOCIETY

FINAL PROGRAM

COLL Luncheon/SE-18/\$40
Noon to 1:45 PM, Moscone Center

**WCC Luncheon/SE-19/\$50 (regular)/
SE-20/\$25 (student)**
Noon to 1:30 PM, Hilton San Francisco
Union Square

CINF Division Luncheon/SE-21/\$15
12:15 to 1:30 PM, InterContinental San
Francisco

**AGFD Sterling B. Hendricks Memorial
Lecture Reception**
12:30 to 1:30 PM, San Francisco Marriott
Marquis

**Leadership Development Workshop:
Engaging & Motivating Volunteers**
1 to 5 PM, Parc 55

ENFL Poster Session
2 to 4 PM, Moscone Center

Division Councilors & Officers Caucus
3 to 6 PM, Hilton San Francisco Union
Square

**University of Rochester Alumni Social
Hour**
5 to 6:30 PM, Moscone Center, West Bldg.

**Analytical Division Reception/
SE-22/\$20**
5 to 7 PM, InterContinental San Francisco

PROF/SCHB Henry Hill Reception
5 to 7 PM, Marriott Union Square—San
Francisco

**Iota Sigma Pi—National Honor Society
for Women in Chemistry**
5 to 7 PM, Moscone Center

JPC Reception
5 to 7 PM, W San Francisco

UCLA Research Showcase
5 to 7 PM, Moscone Center

I&EC Poster Session
5:30 to 6:30 PM, Moscone Center

District I Councilor Caucus
5:30 to 7 PM, Hilton San Francisco Union
Square

MEDI Hall of Fame Ceremony
5:30 to 7:30 PM, Moscone Center

BIOL Poster Session
5:30 to 8 PM, San Francisco Marriott
Marquis

**Presidential LGBT Chemists & Allies
Reception**
6 to 7 PM, Marriott Union Square—San
Francisco

**ENVR Centennial Reception/SE-23/\$25
(regular)/SE-24/\$15 (student)**
6 to 7:30 PM, McLoughlin Gallery

COMP Poster & Awards Session
6 to 8 PM, San Francisco Marriott Marquis

CATL & INOR Poster Session
6 to 8 PM, Moscone Center

Penn State Alumni Reception
6 to 8 PM, Palace Hotel

POLY/PMSE Poster Session & Reception
6 to 8 PM, Moscone Center, West Bldg.

**AGFD—Agricultural & Food Chemistry
Annual Awards Banquet**
6 to 9 PM, North Beach Restaurant

**Chinese-American Chemical Society/
SE-25/\$35**
6 to 9 PM, Four Seas Restaurant

**TOXI Poster Session/Business Meeting/
Awards Banquet**
6 to 10:30 PM, Moscone Center

ENFL Division Dinner/SE-26/\$65
6:15 to 9:30 PM, Hornblower Bay Cruises,
Pier 3

Herman Skolnik Award Reception
6:30 to 8:30 PM, InterContinental San
Francisco

CARB Poster Session
6:30 to 9 PM, Moscone Center

**UC Berkeley Alumni & Friends
Reception**
7 to 8:30 PM, InterContinental San
Francisco

ANYL Poster Session
7 to 9 PM, Moscone Center

ChemLuminary Poster Session
7:30 to 9 PM, Palace Hotel

ORGN Poster Session
8 to 10 PM, Moscone Center

ChemLuminary Awards Event
9 PM to midnight, Palace Hotel

WEDNESDAY, AUG. 13

**ACS Career Fair Workshop: Career
Pathways I**
8 AM to 5:30 PM, Parc 55

**ACS Career Fair Workshop: Career
Pathways II**
8 AM to 5:30 PM, Parc 55

**ACS Career Fair Workshop: Career
Pathways III**
8 AM to 5:30 PM, Parc 55

International Lounge
8 AM to 6 PM, Moscone Center

AGFD Poster Session
1 to 3 PM, Moscone Center

ENVR Poster Session
6 to 8 PM, San Francisco Marriott
Marquis

POLY/PMSE Awards Reception
6 to 8:30 PM, Hilton San Francisco Union
Square

PHYS Poster Session
6 to 9 PM, Moscone Center

MEDI Poster Session with ORGN
7 to 11 PM, Moscone Center

THURSDAY, AUG. 14

**Leadership Development Workshop:
Advancing the Extraordinary Leader**
1 to 5 PM, Parc 55

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EXPOSITION

SEE WHAT'S NEW INSIDE THE EXPOSITION.

Visit the ACS National Exposition at the Moscone Center, Halls B & C, South Bldg., from Sunday, Aug. 10, through Tuesday, Aug. 12. 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 Directory that enables attendees to view videos,

press releases, brochures, and flyers of participating exhibitors. Access the Online Exposition at www.acs.org/sanfran2014 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 Moscone 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. Preregister at www.acs.org/sanfran2014 to reserve your seat.

Presentations, Prizes & Special Events. Visit the Daily Prize Raffle areas (#637 and #1137) from Sunday through Tuesday for a chance to win a prize and view the Outstanding Chemists of the Bay Area posters inside the Town Center (#1401). Also, don't forget to join us on Sunday from 6 to 8:30 PM for the Attendee Welcome Reception. Take a break, and visit the exposition on Monday and Tuesday

from 1 to 3 PM for treats in the Town Center. Meet the ACS president-elect candidates from 1 to 3 PM on Monday at the exposition's entrance aisle. On Tuesday inside the Town Center, stop by for the Division of Energy & Fuels poster session from 2 to 4 PM.

Internet & Technology. Use free Internet access, and leave messages for one another at the Meeting Mail terminals located throughout the exposition and Moscone Center. Also, enjoy free Wi-Fi service at designated areas in the Moscone 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 \$50. Students with school identification can obtain an expo-only badge for \$25. Registration can be handled online or in person at ACS Attendee Registration in the Moscone Center, North Lobby.

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/sanfran2014 to register for workshops.

MONDAY, AUG. 11

Is the Future of NMR on the Benchtop?

Sponsor: Thermo Scientific. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 1. 9:30 AM to noon. Benchtop NMR is an exciting and rapidly developing area of innovation. Many scientists remain curious about how it may fit their needs, balancing affordability and footprint against performance. This workshop will present some background about the technical breakthroughs that have allowed for the relatively minuscule form factor while still offering rich chemical information. There will also be a discussion about the financial advantages of adding benchtop NMR to a

laboratory that requires NMR capability, whether there is access to existing NMR facilities or not.

Green Chemistry & Beyond: Mass Spectrometry Applications. **Sponsor:** Extrel CMS. Moscone Center, Halls B & C, Exhibitor Workshop Room 2. 9:30 AM to noon. From surface science to green chemistry, Extrel's mass spectrometers allow users to get the most information from analysis. Workshops will focus on topics and instrumentation that solve the challenges of balancing professional objectives with environmental responsibility, including energy and biofuels; gasification, pyrolysis-MBMS, combustion analysis, and fermentation; atmospheric and environmental analysis; ambient air, flare gas, waste water, trace analysis, and emissions monitoring; surface analysis; and evolved gas analysis, thermal desorption, and outgassing. The ability to monitor and reduce pollutants continues to drive the need for mass spectrometry systems and components. Across the globe, from industrial processing plants to research laboratories, companies depend on Extrel's products

and support for environmental and green chemistry activities.

Compact Mass Spectrometry—Versatile Analysis at the Heart of the Chemist's Workflow & an Ideal Tool for Analysis of Natural Products, Including Marijuana.

Sponsor: Advion. Moscone Center, Room 206. 9:30 AM to noon. An increased variety of analytical equipment has migrated into the synthetic organic chemist's lab, providing faster answers, streamlined workflow, and time-compressed novel chemical entity discovery. This workshop will describe how a versatile compact mass spectrometer (CMS) can be simply integrated into many different techniques, including reaction monitoring by ASAP/CMS; direct injection (FIA/CMS); LC/CMS or (U) HPLC/CMS; mass-directed purification by normal-phase flash, prep-LC, or SFC; or TLC/CMS. Several examples of real-world applications using these techniques in Corinna Schindler's University of Michigan synthetic organic chemistry laboratory will be described. Applications for mass spectrometry in the fast-growing marijuana industry will also be described.

Discover New IUPAC Organic Nomenclature Rules with ACD/Name. *Sponsor:* Advanced Chemistry Development. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 1. 12:30 to 3 PM. Chemistry is a rapidly developing discipline, and chemical nomenclature rules cannot stand unchanged with the growing complexity of chemicals. In December 2013, the new "Nomenclature of Organic Chemistry: IUPAC Recommendations and Preferred Names" was published. The most important change is the concept of "Preferred IUPAC Name" (PIN). The new release of ACD/Labs nomenclature software now follows these new algorithms to generate IUPAC PINs, allowing you to generate names according to the old naming conventions at the same time. You can simply compare the two names to see if these changes affect your substances or not. The workshop will guide you through a summary of the changes in IUPAC organic nomenclature accompanied with clear examples of differences in naming generated with ACD/Name. After this workshop you will have a clear understanding of what has changed in organic nomenclature, what IUPAC PINs are, and how to pass this knowledge to your company or classrooms.

Infrared & Raman Imaging at the Speed of Light. *Sponsor:* Thermo Scientific. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 2. 12:30 to 3 PM. An overview of infrared and Raman imaging microscopes, comparing and contrasting these imaging techniques to find the best solution for your microsamples.

Good Titration Practices for Improved Analysis & Green Chemistry Objectives. *Sponsor:* Mettler Toledo. Moscone Center, Room 206. 12:30 to 3 PM. Join us at ACS for this "express course" taken from our popular Good Titration Practices and Insight! Education by Mettler Toledo. Gain a deeper understanding of the latest in general potentiometric and Karl Fischer titration procedures and approaches to help optimize your titration methods and your results. Learn valuable techniques and new ideas to solve future titration challenges and to minimize titrant and solvent use and reduce waste in keeping with green chemistry initiatives. Conducted in a moderate interactive format.

Sigma-Aldrich Partnerships. *Sponsor:*

Sigma-Aldrich. Moscone Center, Room 206. 3:30 to 6 PM. Advancing drug discovery through academic innovation and collaboration.

TUESDAY, AUG. 12

Evolving Analytical Solutions for the Pharmaceutical Synthetic Chemist.

Sponsor: Waters Corp. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 1. 9:30 AM to noon. *Presenter:* Michael D. Jones, manager, Waters. Synthetic chemists work in a wide range of industries, generating compounds for final products as well as key intermediates. A thorough understanding of the optimal synthetic route allows chemists to make knowledgeable decisions related to increasing purity and yield. In pharmaceuticals, medicinal chemistry departments also require high throughput and robust instrumentation. The workflow is highly dependent on the instrumentation, which ideally can allow a pharmaceutical organization to compartmentalize new entities into compound libraries. This can further increase the chances of bringing a lead compound through to the clinical phases. In this presentation, we will describe the use of UltraPerformance Convergence Chromatography (UPC²) for monitoring several synthetic processes as performed in a medicinal or synthetic chemistry laboratory. The benefits of this new technology are shown as complimentary additive capabilities that expand the current analytical technologies used in a synthetic laboratory environment. Specific examples will illustrate the benefits of implementing UPC² in terms of orthogonality to reversed-phase LC, simplifying workflows, analyzing structurally similar compounds, and proving the technique as an added-value technology that will aid better decisions to drive compounds to market.

Green Chemistry & Beyond: Mass Spectrometry Applications. *Sponsor:* Extrel CMS. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 2. 9:30 AM to noon. (See Monday for description.)

The Future of EndNote. *Sponsor:* Thomson Reuters. Moscone Center, Room 206. 9:30 AM to noon. EndNote has always been the most powerful tool for managing your research. Whether it's for maintaining your

CV, expediting funding applications, or writing a manuscript, EndNote will help reduce the time you spend searching, updating, and organizing your research and formatting documents. But EndNote is for more than just bibliographies. This year, we are building new tools and features that will transform the way researchers work. This includes better team workflow solutions, robust collaboration features, and a reenvisioned online experience, just to name a few. Join us for a first look at what's next for EndNote.

Analysis of Polymers by Vibrational Spectroscopy & Microscopy.

Sponsor: Bruker. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 1. 12:30 to 3 PM. The latest advances in FTIR and Raman instrumentation and applications will be reviewed during this seminar 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.

Advanced Polymer Characterization Workshop.

Sponsor: Tosoh Bioscience. Moscone Center, Exhibit Halls B & C, Exhibitor Workshop Room 2. 12:30 to 3 PM. Join us for the annual Advanced Polymer Characterization Workshop hosted by Tosoh Bioscience to learn about the newest innovations in GPC technology.

Thermo Scientific Workshops.

Sponsor: Thermo Scientific. Moscone Center, Room 206. 12:30 to 3 PM.

12:30 PM—*Presenter:* Wulff Niedner. Is UHPLC all about performance and not ease of use? Is throughput limited because data analysis and reporting are the bottlenecks? These are just two of the many questions surrounding UHPLC. We will show you how to use Thermo Scientific UHPLC to its full potential and the tools that work without compromise. Learn how we bring fact to these and other falsehoods surrounding UHPLC.

1:00 PM—*Presenter:* Sergio Guazzotti. "Faster, Smarter, Cheaper Analyses with New TSQ 8000 Evo Triple Quad GC-MS/MS." The Thermo Scientific TSQ 8000 Evo triple quadrupole GC-MS/MS is for labs looking for the next step up in triple quad

GC-MS/MS productivity. It is the latest evolution of the highly successful TSQ 8000 GC-MS/MS system and the evolution of unstoppable productivity, MS/MS simplicity, and ultimate performance SRM. An overview of the new technology will be presented.

1:50 PM—Presenter: Tina Settineri. “Increased Productivity & Confidence with the New Q Exactive HF Orbitrap Mass Spectrometry.” The Thermo Scientific Q Exactive Plus instrument was modified to include a compact ultra-high-field Orbitrap for higher scan speeds. Samples containing standard calibration mixtures, small- to medium-sized proteins, and HeLa protein digests were used for characterization of the Q Exactive HF in infusion and nanoLC/MS mode.

2:30 PM—Presenter: Art Fitchett. “High-Pressure IC Brings Speed & Resolution to Ion Chromatography.” High-pressure ion chromatography (HPIC) now brings faster analysis speed and higher component resolution to the technique of IC. Now operate at pressures up to 5,000 psi on an RFIC system with smaller particle-size columns for shorter retention times and higher efficiency separations. This presentation will show examples from a variety of application areas.

Flow Chemistry Educational Seminar.

Sponsor: Thales Nanotechnology. Moscone Center, Room 206. 3:30 to 6 PM. Flow chemistry is one of the hottest topics in organic chemistry today. The number of scientific articles published on this topic is rapidly increasing every year, and 20 out of the top 20 pharmaceutical companies are continuing to invest significantly in flow technology. Flow reactors can enable you to do things in compound synthesis that weren't possible before, including using lower or higher temperatures and pressures to access new chemistries and compounds; reducing your reaction times from hours to minutes; increasing selectivity and yields while reducing purification needs and waste at the same time; screening many different sets of conditions in one reaction, all with minimal amounts of potentially expensive or quantity-limited materials; and scaling up from milligrams to kilograms with minimal optimization. The goal of this seminar is to show you how flow chemistry can solve many chemistry problems. We will start with a general overview on the fundamentals of flow chemistry so chemists who are not experts in this field can understand the advantages. This will be followed by presentations from our own experts as well as our users to give you examples of what this technology can enable you to do.

WEDNESDAY, AUG. 13

Turbomole Training (Free). *Sponsor:* CAChe Research. Moscone Center, Room 206. 9 AM to noon. Turbomole hands-on training session for chemists who want to learn more about this popular quantum chemistry package and its capabilities. No prior Turbomole experience is necessary. An evaluation copy of Turbomole will be provided, but please bring your own laptop.

Designing Inhibitors with MOE Structure-Based Drug Design Tools. *Sponsor:* Chemical Computing Group. Moscone Center, Room 206. 3:30 to 6 PM. This course 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.

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