PRELIMINARY PROGRAM



247TH ACS NATIONAL MEETING

DALLAS, March 16–20

THE DALLAS Convention Center will serve as the location for the 247th American Chemical Society National Meeting.

Symposia supporting the meeting's theme, "Chemistry & Materials for Energy," are organized by thematic program chair Michelle V. Buchanan, associate laboratory director for physical sciences at Oak Ridge National Laboratory.

ACS President Thomas J. Barton will host 29 technical divisions and seven committees in original programming over 806 half-day oral sessions and 127 poster sessions that include Sci-Mix. More than 10,000 papers will be presented, and more than 4,000 poster presentations will take place at the meeting.

Barton will also host numerous events and symposia during the meeting, including a public outreach event, "Exploring Our World through Chemistry," at the Perot Museum of Nature & Science on Saturday, March 15, at 10 AM. The event will pro-

MEETING INFO ON THE WEB www.acs.org/dallas2014 vide 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), one-on-one career assistance, and more than 30 career-related workshops.

The exposition will feature more than 200 companies that will showcase services, instruments, books, lab equipment, and much more in more than 300 booths.

The 2014 ACS national award winners will be recognized with a banquet on Tuesday at 6:30 PM, and Stephen J. Lippard, the Arthur Amos Noyes Professor of Chemistry at Massachusetts Institute of Technology, will deliver the Priestley Medal Address. Although the banquet is a ticketed event, all registered meeting attendees are welcome to the Priestley Medal Address at 9:30 PM, free of charge. The Arthur C. Cope Award winners will be recognized at the ACS fall national meeting in San Francisco.

If you have time to spare between these organized events, the Dallas Convention Center itself provides some history about the city—the lobbies and concourses are decorated with mosaics that tell the history of Dallas. Or if you want to venture off the convention center grounds, within walking distance are plenty of restaurants that specialize in Tex-Mex, seafood, Texas barbecue, or steak dinners.—EMILY BONES

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GENERAL MEETING INFORMATION

YOUR MEETING REGISTRATION en-

titles you to a wide range of programming, including 936 scientific sessions, invited symposia, poster sessions, special lectures and events, award presentations, workshops, and the exposition. Interact with chemical scientists from around the world by participating in social events, networking opportunities, exhibitor sessions, and educational activities, with many events offered at no additional charge. Certain workshops, short courses, and ticketed events require a separate entry fee, as indicated in this program.

EARLY REGISTRATION: UP TO FEB. 6

STANDARD REGISTRATION: FEB. 7-MARCH 20

ON-SITE ATTENDEE REGISTRATION: Dallas Convention Center, Lobby A/B

REGISTRATION

ALL ATTENDEES, including speakers and poster presenters, must register for the meeting to participate in the technical sessions. Sponsored speakers should contact their symposium organizer or division program chair to clarify the terms of their invitation and to determine who will complete the speaker's registration. Attendees must display their badge at all times for admission to all official ACS sessions and events.

Early Registration. Attendees with U.S. and Canadian addresses who register by Feb. 6 will receive their badge credentials by mail before the meeting. International registrants must pick up their badge credentials at ACS Attendee Registration.

Standard & On-Site Registration. Attendees who register after Feb. 6 must pick up their badge credentials on-site.

Registration Changes. Attendees can modify their existing registration or generate a receipt from the registration website by following the instructions in their confirmation message. Attendees can also contact the ACS National Meeting Registration Center before March 14 or update their registration on-site at ACS Attendee Registration. Bring your confirmation and/ or badge credentials with you to the meeting for faster processing.

REGISTRATION METHODS. All registrants will receive a confirmation via the original method of registration.

Internet. Register online at www.acs. org/dallas2014 until March 20. A valid credit card is required to register online, and online registrations are real-time transactions.

Telephone. Call the ACS National Meeting Registration Center by March 14 at (800) 251-8629 (U.S./Canada only) or (508) 743-0192 (international), Monday to Friday, 9 AM to 5 PM EST.

Fax/Mail. Submit the registration form (page 68) by fax: (508) 743-9604 or mail: ACS Registration, c/o CDS, 107 Waterhouse Rd., Bourne, MA 02532. Mailed registrations will be accepted until March 14.

On-site. Register during the meeting at ACS Attendee Registration at standard registration rates. ACS Attendee Registration will be open at the Dallas Convention Center, Lobby A/B, on Saturday, 3 to 6 PM; Sunday, 7:30 AM to 7:30 PM; Monday, 7:30 AM to 9:30 PM; Tuesday and Wednesday, 7:30 AM to 5:30 PM; and Thursday, 7:30 AM to 1 PM.

REGISTRATION PAYMENTS. Registration fees can be paid by check, money order, credit card (American Express, Discover, MasterCard, or VISA), or bank wire transfer. Make checks payable in U.S. dollars to the American Chemical Society, and include a completed registration form with each payment. Registration fees should not be combined with any other payment (such as membership dues). Purchase orders and training requests are not accepted. For wire transfer payments, contact the ACS Finance Department at (202) 872-6106 or e-mail bankwires@acs.org. Registration forms received without payment will not be processed.

REGISTRATION ASSISTANCE. The ACS National Meeting Registration Center will be available from 9 AM to 5 PM EST by telephone, fax, mail, or e-mail. Service representatives can be reached at (800) 251-8629 (U.S./Canada only) or (508) 743-0192 (international); fax: (508) 743-9604; e-mail: acs@xpressreg.net; or mail: ACS registration, c/o CDS, 107 Waterhouse Rd., Bourne, MA 02532.

Registration Cancellations/Refunds.

All cancellations and refund requests must be submitted in writing by March 8 to guarantee the registrant a full refund less a \$50 administrative fee. Refund requests made after March 8 will not be honored. Your registration badge credentials and a copy of your registration confirmation must be attached to your request. All refunds will be issued via the original payment method, and refunds will be processed within 30 days after the meeting. Send your request to ACS Registration Cancellation, c/o CDS, 107 Waterhouse Rd., Bourne, MA 02532 or fax (508) 743-9604 (save your fax confirmation sheet).

Social Event Ticket Cancellations/

Refunds. Social event cancellations received by March 8 entitle the registrant to a full refund. Refund requests made after March 8 will not be honored. Event tickets and a copy of your registration confirmation must be attached to your request.

Abstract Cancellations/Refunds. Abstract USB flash drives (thumb drives) and their shipping costs are nonrefundable.

	FEE					
REGISTRATION CATEGORY	EARLY BY FEB. 6	STANDARD AFTER FEB. 6				
MEMBERS						
ACS member or	\$380	\$455				
society affiliate						
Postdoctoral member	380	455				
Emeritus or retired member	195	235				
50-year member	No fee	No fee				
Unemployed member (Dues waiver required)	No fee	No fee				
Precollege teacher	105	105				
Graduate student	195	195				
Undergraduate	105	105				
One-day registrant	195	235				
NONMEMBERS						
Chemical scientist	\$660	\$790				
Postdoctoral scientist	660	790				
Visitor: Nonchemical scientist or chemical technician	380	455				
Precollege teacher	105	105				
Graduate student	380	380				
Undergraduate	195	195				
One-day registrant	380	455				
Guest of registrant ^a	40	40				
EXPOSITION-ONLY VISITORS						
Adult, exposition only	\$50	\$50				
Student, exposition only	25	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.



 Book your hotel for the American Chemical Society
 247th National Meeting & Exposition March 16- 20, 2014 in Dallas, TX



Enter the ACS Dallas, TX Housing Drawing by Staying at a Hotel Booked Through Orchid Event Solutions! The official ACS housing bureau is Orchid Event Solutions. ACS does not endorse any other housing company.

First Prize - A New iPad*

Second Prize - A New Kindle*

Top Reasons To Book Your Reservation Through Orchid Event Solutions:

- 1. All sleeping rooms booked through Orchid Event Solutions include complimentary internet access.
- 2. YOU WILL BE AUTOMATICALLY ENTERED INTO THE DRAWING when you stay at a hotel booked through Orchid Event Solutions.
- 3. DISCOUNTED RATES at the official hotels.
- 4. COMPLIMENTARY SHUTTLE SERVICE between Dallas Convention Center and the hotels on the ACS housing list.
- 5. MAKE YOUR RESERVATION ONLINE OR BY PHONE and receive instant acknowledgment of your reservation.
- 6. KEEP REGISTRATION FEES LOW by booking rooms through Orchid Event Solutions ultimately helping ACS meet its contractual obligations for the meeting.

Housing Opens November 26, 2013

Online at www.acs.org/meetings or by calling 1-866-847-8570

Monday - Friday, 7am - 6pm MST. Housing will close on Feb 17.

Rooms are limited, so make your reservation today.







ACS Chemistry for Life[®]

MARCH 16 - 20, 2014 • DALLAS, TX

4 ways to register: (see Registration Procedures)

Online: http://www.acs.org/meetings (credit cards only). Phone: 508-743-0192 or 800-251-8629, Monday - Friday, 9 AM to 5 PM EST (credit cards only) by March 14, 2014. Mail completed form with payment to: ACS Registration c/o CDS, 107 Waterhouse Road, Bourne, MA 02532 by March 14, 2014. Fax completed form with payment to: 508-743-9604 (credit cards only) by March 14, 2014.

- REGISTRANT INFORMATION -									
Dr. Prof. Mr. Ms.	🖵 Mrs.	ACS Membership #	(Requi	red for member discount)					
First Name		_ast Name							
Company/Institution/Agency									
Street Address									
City State/P	rovince	Zip/Postal Code		Country					
Phone Ext.	Fax	E-mail Address		Odditity					
				O all Neurobeau					
Emergency Contact Name		Emergency Contact Number		Cell Number					
With your approval, ACS show management wi									
How would you like to receive your meeting a			<i>l that apply)</i> 🗅 Mail	E-mail Do not contact me for non-officia	I purposes				
Do you require special services or auxiliary aids	in order to participate in the m	eeting? 📥 🗆 Yes 🗆 No Describe							
— DEMOGRAPHICS —			OBIES & FEES						
1. Professional Affiliation (check one)		ACS Members	EARLY STANDARD	Event No. Qty \$/Ticket	\$ TOTAL				
\Box (a) Academia \Box (b) Government \Box (c) Indu	ustry 📮 (d) Student	ACS Members	from Dec 18 after Feb 6	Eventine. Qty @/Hoter	φ IOI/IL				
□ (e) Other		ACS member or Society affiliate							
2. Highest Degree Received (check one)		Postdoctoral	\$380 \$455						
□ (A) A.S./A.A.S. (Associate Degree) □ (B) B.S.	S./B.A. (Baccalaureate Degree)	 Emeritus or retired 50-year 	\$195 \$235 No Fee No Fee	9. Social Event Subtotal \$					
C) M.S. (D) Ph.D. (E) Still in school (c		Unemployed	No Fee No Fee	If you register before the social event tickets are availa	ble, you can later				
□ (F) Other		(dues waiver required)		purchase your tickets by contacting the Customer Serv 743-0192 or 1-800-251-8629, if you are paying by check	c or money. If you				
3. Professional Concentration (check all that a	apply)	Graduate student	\$195 \$195	are paying by credit card, you can update your registration your confirmation number.	on online by using				
□ (A) Aerospace/Transportation □	(S) Inorganic	Undergraduate Student	\$105 \$105	ABSTRACT FEES					
	(T) Law/Legal Affairs	Precollege teacher	\$105 \$105		-Member				
- (-/	(U) Lubricants/Oils	One day member registrant Su M Tu W Th	\$195 \$235	ACS MEMBER Non- Flash Drive (pick up) @\$65 ea.	-MEMBER @\$90 ea.				
	(V) Marketing/Sales/Business			Flash Drive (ship) @\$73 ea	@\$98 ea.				
()	(W) Materials	Non-Members							
	(X) Metals/Metal Products	Chemical scientist	\$660 \$790	10. Abstract Subtotal \$ Abstracts ordered by February 6, 2014, will be shipped	for delivery prior				
	(Y) Nuclear (Z) Organic	Postdoctoral scientist	\$660 \$790	to the meeting. All other abstracts will be available for	pick-up onsite at				
	(AA) Paint/Coatings	Visitor: Non-chemical scientist	\$380 \$455	Attendee Registration. ACS will not be responsible for ab up during the meeting. Abstract flash drives will only be sl	nipped to U.S. and				
A CONTRACT OF	(BB) Personal Care/Cosmetics	Visitor: Chemical technician	\$380 \$455	Canadian street addresses (no P.O. boxes)					
	(CC) Pharmaceutical/Medicinal		\$380 \$380 \$195 \$195	GRAND TOTAL					
	(DD) Physical	Pre-College Teacher	\$105 \$105	11. Grand Total of 8-10 \$					
(M) Energy/Fuels	(EE) Polymers/Plastics	One-day registrant	\$380 \$455	Registrant Procedures: US and Canadian attendees	who register by				
(N) Environmental	(FF) Pulp/Paper/Wood			February 6, 2014, will receive their registration credentia mail prior to the meeting. Unless an international attended	ee has provided a				
	(GG) Rubber	Guest of Registrant (1)	\$40 \$40	US or Canadian mailing address on their registration form must be picked-up onsite at the Attendee Registration.	After February 6,				
	(HH) Soap/Detergent/Cleaners	(1) Guest Registration - A Spouse or family me			ndard rate on-line h 14, 2014				
	(II) Textiles/Fiber	having no affiliation with the field of chemica become a member of the ACS. Only one gues			g to the following				
□ (R) Health & Safety □ □ (KK) Other	(JJ) Toxicology	one-day registration.		entitled to a full refund, less a \$50 administrative fee.	Registrants must				
		Guest Name		return a copy of the registration confirmation along registration credentials before payment will be poster	d to the account.				
4. Is this your first ACS National Meeting?	Yes 🗅 No	Evenetian Visitore		All refunds are issued via the same method used for payn processed within 30 days after the conclusion of the meet	ting.				
5. What's your primary reason for attending th	is meeting?	Exposition Visitors Adult	\$50 \$50	 Submit your written cancellation to the ACS Regi Service Center by mail, fax or e-mail by March 8, 20 	014.				
Present a paper of poster			\$25 \$25	 Return your unused registration credentials to ACS b If you cancel before receiving your registration credential 	y March 8, 2014. entials, contact the				
Network with other scientists				ACS Registration Customer Service Center for furthe 3. Refund requests made after March 8, 2014, will not	er instructions.				
Investigate research or technical topics		8. Registration Subtotal	\$	 No cancellation or refund for Abstract flash drives an charges for mailing will be made. 					
Research or buy products inside Exposition		PAYMENT		charges for maning will be made.					
Search for a job in Career Services									
Obtain new skills and hand-on experience				tration to participate in the ACS National Meeting &	Exposition.				
 Participate in ACS governance activities Work during the meeting (staff/exhibitors) 		Paid by: Check - (made paya	able in US dollars to Am	erican Chemical Society)					
Other		Credit Card Type: VISA							
				order to participate in the 247th ACS National Meeting in Da					
6. Where are you staying (or planning to stay)	during the meeting?	Credit Card Number Exp Date							
Hotel Oth		Credit Card Billing Address & Zip							
7. What mode of transportation will you take to	o attend the meeting?	Card Holder Name							
Plane Train Car Other		Card Holder Signature							

The use of any device to capture images (e.g., cameras & camera phones) or sound (e.g., tape and digital recordings) or to stream, upload, or rebroadcast speakers or presentations is strictly prohibited at all official ACS meetings and events without express written consent from the ACS.

MEMBER REGISTRATION. You must enter a valid ACS membership number during registration in order to register as a member and receive your ACS member discount on registration fees. Your registration options will automatically appear in accordance with your current membership status in the ACS membership database. Your ACS membership number can be found on your ACS membership card or your *Chemical & Engineering News* address label. Address questions about your membership status to ACS Member Services at (800) 333-9511 (U.S./Canada only); (614) 447-3776 (international); or e-mail: service@acs.org.

NONMEMBER REGISTRATION. Save

money on discounted registration fees by joining ACS. You can join ACS now through the online ACS membership application at www.acs.org/join or by contacting ACS Member Services and then registering for the meeting at your member rate. To receive your meeting discount, you must join the society before you register for the meeting. New memberships or questions about membership status should be handled through ACS Member Services at (800) 333-9511 (U.S./Canada only); (614) 447-3776 (international); or e-mail: service@acs.org.

PRESS/MEDIA REGISTRATION. Press registration is complimentary for credentialed members of the news media (restricted to reporters and editors working full-time for print or broadcast news) who are approved by the ACS Office of Communications. Press badges may be picked up with valid media credentials from the Press Room at the Dallas Convention Center. For more information, visit www.acs.org/ pressroom.

EXPO-ONLY ADMISSION. All meeting attendees with a valid badge receive complimentary admittance into the exposition as part of their registration. Individuals who want to visit the exposition without registering for the meeting's technical sessions can register for an expo-only adult badge

MEETING INFO ON THE WEB

Registration, housing, technical programming, special events, participating exhibitors, and other meeting details are available at www.acs.org/ dallas2014. for \$50 or \$25 for students with school identification. Register online or in person at ACS Attendee Registration.

EXHIBITOR REGISTRATION. Exhibitor registration is handled exclusively through ACS National Expositions at www.acs.org/ expositions.

CAREER FAIR EMPLOYER REGISTRA-

TION. ACS Career Fair Employer registration is handled exclusively through ACS Careers at www.acs.org/careers.

TICKETED EVENTS

A VARIETY of social and special events will be held by event organizers during the meeting. Event participation is open to all interested registrants. View an updated listing of social and special events, including event locations, at www.acs.org/ dallas2014.

The following social events require purchase of a ticket (event number in red), which can be purchased through Attendee Registration. Tickets will remain on sale until the evening prior to the event, if available. All tickets are sold on a first-come, first-served basis. Cancellations or refund requests must be made by March 22. No tickets will be refunded after that date.

SATURDAY, MARCH 15

CTA 50 Year Anniversary Celebration & Texas BBQ/SE-01/\$60 6 to 9 PM, Gilley's Dallas, 1135 South Lamar St.

SUNDAY, MARCH 16

CHED High School-College Interface Luncheon/SE-02/\$40 (Included at no charge with high school teacher registration.) 11:45 AM to 1 PM, Dallas Convention Center

National Chemical Technician Award Banquet/SE-03/\$60 6 to 9 PM, Sheraton Dallas

MONDAY, MARCH 17

Women in the Chemical Enterprises Breakfast/SE-04/\$40 (regular)/

SE-05/\$20 (student)

7:30 to 9 AM, Sheraton Dallas (A limited number of student tickets are available. Students may purchase regular tickets if student tickets are sold out.)

CMA Luncheon/SE-06/\$50 (regular)/ SE-07/\$25 (student)

11:30 AM to 1:30 PM, Sheraton Dallas

CHAL Drug & Power Luncheon/ SE-08/\$40

Noon to 1:30 PM, Dallas Convention Center

Purdue University Alumni Reception/ SE-09/no charge

7 to 9 PM, Dallas Convention Center

TUESDAY, MARCH 18

Senior Chemists Breakfast/SE-10/\$15 7:30 to 9:30 AM, Sheraton Dallas

University of Minnesota Alumni & Friends Breakfast/SE-11/\$5 7:30 to 9:30 AM, Dallas Convention Center

COLL Luncheon/SE-12/\$40 Noon to 1:30 PM, Dallas Convention Center

WCC Luncheon/SE-13/\$50 (regular)/ SE-14/\$25 (student)

Noon to 1:30 PM, Sheraton Dallas (A limited number of student tickets are available. Students may purchase regular tickets if student tickets are sold out.)

MEDI Lunch & Learn/SE-15/\$15

Noon to 2 PM, Dallas Convention Center

CINF Luncheon/SE-16/\$15 12:15 to 1:30 PM, Dallas Convention Center

ENVR Reception/SE-17/\$10

6 to 7:30 PM, Old Red Museum, 1005 Houston St.

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

6:30 to 9:30 PM, Dallas World Aquarium, Reef Room & Port Hole, 1801 North Griffin St.

ACS National Awards Banquet Ceremony & General Meeting of the Society/SE-20/\$130

6:30 to 10 PM, The Fairmont Dallas



American Chemical Society

247th National Meeting & Exposition

Participating Hotel List

Dallas

FOR BEST AVAILABILITY, MAKE YOUR RESERVATION VIA THE INTERNET www.acs.org/dailas2014

OR BY PHONE (866) 847-8570 (U.S. & Canada) or 801-505-4140 (international).

ALL RATES INCLUDE COMPLIMENTARY INTERNET

	Single	Double	Triple	Quad	1			1		1						
Hotels*	(1 person)	(2 persons)	(3 persons)	(4 persons)	Maximum Occupants Per Room*	No Charge for Children Under This Age	Childcare Information Available	On ACS Shuttle Route	Per Day Hotel Parking Rates	Room-Service Available	Complimen- tary Internet	Pets Allowed*	Fitness Center	Swimming Pool	Accessible Rooms	Smoking Rooms* Available
1a- Aloft Dallas Downtown - King Bed	\$189	\$189	N/A	N/A	2	18	No	No	\$10	No	Yes	Yes	Yes	Yes	Yes	No
1b- Aloft Dallas Downtown - Two Beds	\$192	\$192	\$222	\$252	4	18	No	No	\$10	No	Yes	Yes	Yes	Yes	Yes	No
2- Crowne Plaza Dallas Downtown	\$179	\$179	N/A	N/A	4	N/A	No	Yes	\$14	Yes	Yes	Yes	Yes	Yes	Yes	No
3- Homewood Suites Dallas Downtown	\$169	\$169	\$189	\$209	4	N/A	Yes	Yes	\$12-\$22	No	Yes	No	Yes	Yes	Yes	No
4- Hotel Indigo Dallas Downtown	\$169	\$169	N/A	N/A	2	17	No	Yes	\$14-\$20	Yes	Yes	Yes	Yes	No	Yes	No
5- Hyatt Regency Dallas	\$204	\$204	\$229	\$254	4	18	Yes	Yes	\$19-\$26	Yes	Yes	Service	Yes	Yes	Yes	Yes
6- Magnolia Hotel Dallas	\$190	\$190	N/A	N/A	2	N/A	No	Yes	\$24	Yes	Yes	Yes	Yes	No	Yes	No
7- Marriott Dallas City Center	\$218	\$218	\$228	\$228	4	N/A	No	Yes	\$18-\$23	Yes	Yes	Service	Yes	No	Yes	No
8- Omni Dallas Hotel	\$234	\$254	\$274	\$294	4	17	Yes	No	\$18-\$28	Yes	Yes	Yes	Yes	Yes	Yes	No
9- Sheraton Dallas	\$199	\$199	\$209	\$219	4	18	Yes	Yes	\$21-\$29	Yes	Yes	Yes	Yes	Yes	Yes	No
10- The Adolphus	\$199	\$199	\$219	N/A	3	12	Yes	Yes	\$28	Yes	Yes	Yes	Yes	No	Yes	No
11- The Fairmont Dallas	\$189	\$189	\$219	\$249	4	17	Yes	Yes	\$25	Yes	Yes	Yes	Yes	Yes	Yes	No

The rates listed above do not include the current 15% room and occupancy tax per room per night, which is subject to change.

*Additional fees may apply if:

A rollaway bed is required. There are pets in guestrooms. Smoking occurs in guestrooms.

ENFL Division Dinner/SE-19/\$65 6:30 to 9 PM, Five Sixty Wolfgang Puck, 300 Reunion Blvd. East

ACCOMMODATIONS

ACS HAS CONTRACTED a selection of hotel rooms with competitive rates for the national meeting in Dallas. Orchid Event Solutions is the official housing bureau. ACS does not endorse booking hotel reservations through any other source. Reserve your hotel room directly through Orchid Event Solutions by Feb. 17. A listing of official hotels with their guaranteed ACS rates and amenities are listed above. All attendees who make reservations through Orchid Event Solutions will receive complimentary Internet access in their sleeping rooms and are automatically entered in the ACS Housing Drawing (see ad on page 67 for details).

Late Housing. Some hotels may have rooms available after Feb. 17. A listing

of these hotels will be posted on the ACS meeting website at www.acs.org/ dallas2014.

On-Site Housing. An on-site housing desk will be available during the meeting in the registration area of the Dallas Convention Center to assist with last-minute housing changes or needs.

RESERVATION METHODS. All registrants will receive confirmation for reservations made directly through Orchid Event Solutions. Review this document carefully for accuracy. Each confirmation contains a unique number that is proof of your reservation through Orchid Event Solutions. We strongly recommend that you bring your confirmation to the meeting. If you lose or do not receive your confirmation, you can obtain another copy online or by contacting Orchid Event Solutions. You will not receive a separate confirmation from the hotel.

Published ACS rates apply to hotel stays

between March 11 and 21. To extend your stay beyond these dates, you must reserve additional nights directly through the hotel.

Internet. Reserve online at www.acs. org/dallas2014. Online reservations require a valid credit card (American Express, Discover, MasterCard, or VISA), and you will receive a confirmation to your e-mail address within 24 hours.

Telephone. Call Orchid Event Solutions at (866) 847-8570 (U.S./Canada only) or (801) 505-4140 (international), Monday through Friday, 7 AM to 6 PM MST. Telephone reservations require a valid credit card (American Express, Discover, Master-Card, or VISA), and you will receive an acknowledgment to your e-mail address within 24 hours.

Fax/Mail. Fax the ACS Housing Form (available online) with your valid credit card information to (801) 355-0250 or mail the form with your valid credit card information or a check for the amount of



American Chemical Society 247th ACS National Meeting & Exposition March 16-20, 2014

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one night's room and tax made payable to Orchid Event Solutions and mail to ACS Housing, c/o Orchid Event Solutions, 175 South West Temple, Suite 140, Salt Lake City, UT 84101. Faxed and mailed reservations will be processed on a first-come, first-served basis and require 10 to 14 days to be confirmed. If your requested hotel is no longer available, we will attempt to honor your indicated preference according to cost and location.

RESERVATIONS, CHANGES & CANCEL-

LATION POLICY. Hotel reservations can be guaranteed by credit card (American Express, Discover, MasterCard, or VISA), check, or money order. Make checks payable in U.S. dollars to Orchid Event Solutions and include a completed ACS Housing Form with each mailed payment. Housing fees should not be combined with any other payment (such as registration or membership dues). Reservations received without payment will not be processed.

Although a valid credit card or check deposit for one night's room and tax is required to confirm a reservation, a payment will not be charged by Orchid Event Solutions. The credit card information or check deposit will be forwarded with your reservation to your hotel on Feb. 17 after 5 PM MST. Hotels may elect to charge a deposit of one night's room and tax to your credit card prior to your arrival. You will need to handle all payment arrangements directly with your assigned hotel. All hotel rooms are subject to 15% room and occupancy tax (subject to change).

Reservation changes and cancellations can be made without penalty until Feb. 17. Hotels do not have individual reservations or credit card guarantees yet. After Feb. 17, you may continue to make changes and cancellations through Orchid Event Solutions until March 6; however, canceled reservations may incur a \$25 fee that will be charged by Orchid Event Solutions. A one night's room and tax charge will be charged by the hotel for reservations that are not canceled 72 hours prior to arrival. Penalties for early departures may be enforced and vary by hotel, so call your hotel for details.

ACCOMMODATIONS FOR GUESTS WITH

DISABILITIES. If you require special hotel accommodations because of a disability, please indicate your requirements when you make your reservation. Be sure to reconfirm any special room arrangements directly with your hotel.

SUITES. Send your suite requests by e-mail to help@orchideventsolutions.com (Attn.: Katie McLaughlin). They will attempt to find you a suite at an official ACS property that fits your needs.

Hotels and Distance to Convention Center

- Aloft Dallas Downtown 0.3 miles
- Crowne Plaza Dallas Downtown 0.5 miles
- Homewood Suites Dallas Downtown 0.5 miles
- Hotel Indigo Dallas Downtown 0.85 miles
- 5. Hyatt Regency Dallas 0.7 miles
- 6. Magnolia Hotel Dallas 0.5 miles
- 7. Marriott Dallas City Center 1.2 miles
- Omni Dallas Hotel go to second floor and take the skybridge from the Omni to the Convention Center
- 9. Sheraton Dallas 1.0 miles
- 10. The Adolphus 0.5 miles
- 11. The Fairmont Dallas 0.9 miles

ECONOMICAL ALTERNATIVE. The following hotels are not part of the official ACS housing block but may be of interest to attendees on a restricted budget. Make your reservations directly with these properties and ask for the listed ACS rate. Properties are not included on the ACS shuttle route; therefore, daily transportation costs are the responsibility of the attendee.

Hyatt House Dallas Uptown, 1914 Harry Hines Blvd.; (214) 965-9990; ACS rate \$159 single/\$169 double occupancy.

Springhill Suites Dallas Downtown/West End, 1907 North Lamar St.; (214) 999-0500; ACS rate \$139 single/double occupancy.

KEEP YOUR MEETING COSTS AFFORD-ABLE. Attendee support of the official hotels allows ACS to utilize meeting space at a discount and to keep registration fees to a minimum. Stay in an official hotel whenever possible, and reserve your hotel room through Orchid Event Solutions at www. acs.org/dallas2014.

ACS GREENER MEETINGS

THE AMERICAN CHEMICAL SOCIETY

Department of Meetings & Expositions Services and the Committee on Meetings & Expositions are committed to greener meetings. For each national meeting, we collaborate with the destination city, convention center, and hotel and vendor partners to reduce our environmental footprint and raise the bar for industry best practices.

Visit www.acs.org/greenermeetings to read about our greener meeting initiatives and access our annual Event Sustainability Report.

ACS was the proud recipient of the Green Leader Award from the Capital Chapter of the Professional Convention Management Association in both 2011 and 2012. Here are a few reasons why:

■ ACS seeks sustainable convention center partners (both 2013 venues collaborated on show-specific sustainability initiatives).

■ ACS offsets all shuttle transport emissions (148 tons of carbon dioxide were offset in 2013).

■ ACS performs on-site walk-throughs for 80% of our hotel room block properties, surveying hotels on more than 40 sustainability practices.

■ ACS designates Sci-Mix as a "zero waste"

event, achieving diversion rates of 86%. ■ ACS served 35% of food ingredients from local farms (<150 miles) at the 246th Attendee Welcome Reception in Indianapolis. We look forward to bringing you healthy and local foods in Dallas as well.

Be A Catalyst For Change In Dallas. Facilities are only as effective as the people who operate and occupy them. As you enjoy your time in Dallas, please consider reducing your environmental impact through these easy actions:

 Bring a reusable water bottle from home and avoid the cost and waste associated with petroleum-based plastic water bottles.
 Responsibly dispose of paper, plastic, glass, and aluminum materials throughout the convention center and hotels.

■ Take advantage of linen reuse initiatives at your hotel, decline delivery of unread newspapers, and turn off the lights when you are not in your hotel room.

■ Enjoy the city, burn calories, and travel carbon dioxide-neutral by walking to and from your hotel.

■ When walking isn't an option, use the ACS carbon-offset shuttle service.

Suggestions? Send them to nationalmeetings@acs.org.

TRAVEL & TRANSPORTATION

DALLAS is easily accessible by air or train, and the city offers several options to get around, including the ACS shuttle, taxis, and buses.

AIRPORT. Dallas/Fort Worth International Airport (DFW) and Love Field offer connection to public transportation, hotel courtesy vehicles, car rental, and limousines. For more information on DFW visit dfwairport.com, and for Love Field visit dallas-lovefield.com.

AMTRAK. Dallas Union Station is located 16 miles from the airport and less than 1 mile from the convention center. Amtrak does not provide airport service. For more information or to purchase a ticket, call (800) 426-1122 or visit amtrak.com. Use reference code X69R-986 to receive a 10% discount off the lowest fare when making reservations over the phone.

TRANSPORTATION DISCOUNTS. ACS

has negotiated special travel discounts with the following partners. To get the best rates and avoid service fees, make reservations online (except Amtrak).

AIRLINES:

American Airlines

aa.com; (800) 433-1790 Promotion code: 7534AK

Delta

delta.com; (800) 221-1212 Meeting event code: NMGHE (U.S.), NMGHF (international) **United Airlines** united.com; (800) 426-1122

Offer code: ZQYZ872186

RENTAL CARS: Avis

avis.com; (800) 331-1600 AWD code: B923099

Dollar Rent A Car

dollar.com; (800) 800-4000 Corporate #: CM2379

Hertz

hertz.com; (800) 654-2240 Convention number: 02UZ0013

TRAIN: Amtrak

amtrak.com; (800) 872-7245 Reference code: X69R-986 (for phone reservations only)

AIRPORT GROUND TRANSPORTATION.

A ground transportation desk is located in each baggage claim area to assist travelers.

Bus/Rail. A two-hour bus/rail pass is \$2.50. Bus service runs every day from 5 AM to 11 PM. Bus 408, with service to down-town Dallas from DFW leaves Remote South Parking Lot every 30 to 60 minutes. For rail service, take Bus 500 from the terminal to Belt Line Station. DART Rail Orange Line services downtown Dallas.

Shuttle. Go Yellow Checker Shuttle will offer discount airport transportation from both DFW and Love Field. The one-way fare is \$15 or round-trip for \$30. Cash and major credit cards are accepted. The shuttle route has several stops in the downtown area including all major hotels. Visit yellowcheckershuttle.hudsonltd.net/ res?useridentry=g119953&login=go to make a reservation. If you need help, call (866) 903-1900.

Taxi. Taxi service is available on the upper level of Terminals A, B, C, and E, and on the lower level of Terminal D. Airport guest assistants are available at taxi stands

between 8 AM and midnight. Between midnight and 8 AM, dial (972) 574-5878 to request a taxi. Taxi fares vary, but most pickup fees are \$2.25-\$5.00, then 20 cents per 1/9 mile thereafter. For each extra passenger, add \$2.00. A full list of rates and approximate fares to various locations can be found at dfwairport.com/transport/taxis.

Train. The Trinity Railway Express is the Dallas/Fort Worth commuter rail line. It can be accessed from DFW and a two-hour pass is \$2.50. Service is available Monday through Saturday from the airport station. For more information, call Visit Dallas at (214) 571-1000 or go to visitdallas.com, and check out the Online Trip Planner.

TRAVELING TO MEETING VENUES

The Dallas Convention Center is located at 650 South Griffin St., Dallas, TX 75202.

ACS Shuttle. Complimentary shuttle service will be provided between the Dallas Convention Center and official ACS hotels, with the exception of hotels within walking distance. Buses will run from 7 AM to 11 PM from Sunday to Wednesday and 7 AM to 6 PM on Thursday. Buses will run approximately every 15 to 30 minutes. Visit the meeting website for a route map and to download the shuttle schedule.

If you require wheelchair access or for any other inquiries, please e-mail nationalmeetings@acs.org to schedule.

Parking. Daily parking is limited and expensive in downtown Dallas. You should contact your hotel to inquire about daily parking policies and fees.

GETTING AROUND THE CITY

Walking. The Dallas Convention Center and ACS hotels are conveniently located in the convention center district of Dallas. Do your part to reduce our environmental impact by walking to ACS properties.

Dallas Area Rapid Transit (DART). DART service runs every day from 5 AM to 11 PM. A two-hour pass is \$2.50, and a oneday pass is \$5.00. For more route information, visit dart.org.

ACS MEMBER SERVICES

ACS MEMBER SERVICES. ACS staff can assist you on-site with joining ACS, renewing memberships, completing adjustments to member records, and answering general membership questions. ACS members receive discounted rates when registering for the meeting.

ACS Member Services is located in Lobby A/B near registration in the Dallas Convention Center and is open on Saturday, March 15, 3 to 6 PM; Sunday, March 16, 7:30 AM to 9:30 PM; Monday, March 17, 7:30 AM to 9:30 PM; Tuesday, March 18 and Wednesday, March 19, 7:30 AM to 5:30 PM; and Thursday, March 20, 7:30 AM to 1 PM.

ONLINE SOCIAL NETWORKING TOOLS.

Start discussions and connect with other attendees on the ACS Network and the ACS Facebook page. Follow ACS national meetings on Twitter. Read and comment on CENtral Science blog posts about ACS meetings.

MEETING POCKET GUIDE. View highlights and meeting information for the spring national meeting using the Meeting Pocket Guide. Pocket guides will be available for free throughout the convention center and available at all official ACS hotels.

ATTENDEE NATIONAL MEETING E-

NEWSLETTER. Receive official updates on ACS national meetings, including locations, registration and housing dates, discounts, resources, and event details. You can sign up and manage your subscriptions with your free ACS ID. Subscribe at www. emailpref.acs.org.

BUSINESS CENTER. Located in Lobbies A and C of the convention center is a full-service operation with a range of services that include computer access and copying, faxing, printing, and shipping.

MEMBER INSURANCE PROGRAM. Ex-

position Booth No. 1024. The ACS Member Insurance Program is committed to offering quality comprehensive insurance plans and financial security programs to members and their families. Stop by the Member Insurance Booth to learn how you can sign up for Life & Health Insurance, Auto & Homeowners Plus, Disability Income, Long-Term Care, Medicare Supplement, Medical Discount Cards, Pet Insurance, and Professional Liability.

Also learn more about our newest offerings: commercial business insurance policies and prescription drug savings card.

We look forward to showing you how you can receive great value for your insurance dollars. For additional information, visit www.acs.org/insurance.

ON-SITE MEETING ARRANGEMENTS

ADA-COMPLIANT MEETING. The Dallas Convention Center provides service ramps to entrances and elevated areas, braille instructions and directions throughout the building, and pay phones on each level of the facility with (TDD) hearing-impaired functions. More information is available at dallasconventioncenter.com

ACS is dedicated to ensuring that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently because of the absence of auxiliary aids and services identified in the Americans with Disabilities Act. If you require special accommodations to participate in the meeting, communicate your needs to ACS Meeting Services by e-mail: nationalmeetings@acs.org; fax: (202) 872-6128; or (202) 872-6111 by Feb. 6 to allow enough time to fulfill your request. Keep in mind that ACS may not be able to accommodate last-minute requests.

If you have an emergency or need immediate assistance during the meeting, contact any ACS Operations Office.

ASSISTANCE. Our greeters will be positioned throughout the convention center and can help you navigate the On-site Program, find a particular session or room, and answer questions. Lost-and-found items at the convention center should be directed to the ACS Operations Office located in rooms A112/113. Messages left at the ACS Operations Office will be conveyed to attendees via the Meeting Mail system, but ACS cannot accept responsibility for the delivery of any messages, mail, and packages.

ATTENDEE BADGES. Attendees and guests must be registered and display their badges at all times to be admitted to all official ACS sessions and events.

ATTENDEE MESSAGING/MEETING

MAIL. After registering for the meeting, you will be assigned a temporary electronic mailbox to exchange personal messages with other registered attendees via Meeting Mail. Meeting Mail will be available before, during, and after the meeting at www. acs.org/dallas2014. Use the Meeting Mail terminals located in the Dallas Convention Center. Telephone messages left at the ACS Information Booth will be conveyed to attendees via the electronic message center,

but ACS cannot accept responsibility for the delivery of any messages. No one will be paged in meeting rooms.

AUDIOTAPING, PHOTOGRAPHY &

VIDEOTAPING. The use of any device to capture images (e.g., cameras and camera phones) or sound (e.g., tape and digital rebroadcast) of speakers or presentations is strictly prohibited at all ACS meetings and events without the express written consent from ACS.

CHILD CARE. Camp ACS will be available to all meeting attendees free of charge from 7 AM to 6 PM on Sunday, March 16, through Thursday, March 20. At Camp ACS, children two (and potty-trained) to 16 years of age can participate in age-appropriate activities, including arts and crafts and active games, while you enjoy the meeting. To ensure your child's participation, register online by March 7 at www.acs.org/dallas2014. For your child's safety, the location of Camp ACS will not be communicated until your registration is confirmed. Onsite registration will be accepted on a space-available basis.

COAT CHECK & LUGGAGE. A luggage and coat check station will be available during registration hours from Sunday through Thursday at the Dallas Convention Center, Lobby A/B. Items left beyond published hours of operation will be turned over to building security at the end of each day.

ELECTRONIC DEVICES. As a courtesy to other meeting attendees, electronic devices must be operated in silent/vibrate mode in technical or educational sessions. Cell phone conversations are not permitted in meeting rooms.

EMERGENCIES DURING ACS MEETING

EVENTS. ACS will place detailed instructions inside each meeting room to be used if an emergency occurs during an ACS meeting event. These instructions will revolve around following the established emergency guidelines of the facility where the emergency occurs. Report emergencies to the nearest security guard or to any ACS Operations Office during the meeting. Should a catastrophic event occur, attendees should follow safety and security instructions issued by the facility where they are located at the time of the event.

TIPS FOR A SAFE STAY IN DALLAS

Attendees should be aware of their surroundings at all times.

■ Don't wear your meeting badge outside the convention center or hotels.

■ Don't wear fancy jewelry or carry expensive technology in plain sight.

■ Carry your briefcase, tote bag, purse, or laptop carrier close to your body.

■ Don't leave valuables in your hotel room. Get a hotel safe deposit box.

■ Walk in open and in well-lit areas at night.

■ Travel in groups. Don't be a loner, particularly in the evening.

■ Use common sense. If someone or someplace looks suspicious, report it and/or avoid it.

■ If an emergency occurs during a meeting event, refer to detailed instructions placed by ACS staff inside each meeting room to follow in case of emergencies. Report emergencies to the nearest security guard or to any ACS Operations Office during the meeting.

■ If an emergency occurs outside an ACS event, contact police or emergency assistance by dialing 911 or seeking assistance from the facility where the emergency occurs.

■ Should a catastrophic event occur while the meeting is under way, follow safety and security instructions issued by the facility where you are located at the time of the event.

HOST LOCAL SECTION. ACS gratefully acknowledges the cooperation and assistance of the ACS Dallas-Fort Worth local sections and their members in handling local arrangements. Volunteers have planned many interesting activities; the Host Local Section booth will be located in the Dallas Convention Center, Lobby A/B.

INTERNATIONAL REGISTRANTS. Many international visitors are required to hold a visa to be admitted to the U.S. All visa applicants are advised to apply for their visa in their home country as soon as possible. Detailed information for international attendees can be found at www.acs.org/ dallas2014.

INTERNET & COMPUTER SERVICES.

Utilize our electronic communication services before, during, and after the meeting. Once you get to the meeting, you can access your e-mail and the Internet as well as your personal Meeting Mail mailbox from Meeting Mail terminals, which will be located throughout the Dallas Convention Center.

LITERATURE & PRODUCT DISTRI-

BUTION. Promotions, posters, and literature distribution by attendees, exhibitors, or other groups during the meeting must be done within their own contracted meeting space or exhibit booth and not in public meeting space, with the exception of designated marketing opportunities. No one is authorized to place any promotional items in public meeting space except the ACS Operations Office at a given location. Items left in violation of this policy will be removed and discarded. Literature distribution at specific division tables is under the control of that division, and permission must be secured from the division before placing any items on their table.

MEETING OFFICES. The following ACS offices will be located in the Dallas Convention Center:

Attendee Registration: Lobby A/B Career Fair: Hall B Exhibitor Registration: Lobby C Exposition: Hall C/D Finance Office: Room A101 Host Local Section Booth: Lobby A/B Member Services: Lobby A/B Press Center: Rooms A122/A123 Shuttle Desk: Outside of Lobby A/B

The following offices are located at the identified properties:

Operations Offices: Dallas Convention Center, Hyatt Regency Dallas, Marriott Dallas City Center, Omni Dallas Hotel, Sheraton Dallas

Governance Office: Sheraton Dallas Society Programs: Sheraton Dallas

MOTHERS ROOM. For your convenience and privacy, ACS will provide a room for nursing mothers at the Dallas Convention Center. Please see the Operations Office, in Rooms A112/A113, for access to the room.

SMOKING. ACS policy prohibits smoking in all rooms during ACS functions at the convention center and official hotels. Additionally, the convention center and many of the official hotels are designated as smoke-free environments at all times.

SPEAKER INSTRUCTIONS

ALL SPEAKERS and poster presenters must register and pay the appropriate reg-

istration fee to attend the meeting. Invited speakers should contact their symposium organizer or division program chair to clarify terms of their invitation.

All presenters should prepare for their presentation by verifying the following details: the status of your abstract at abstracts.acs.org (using your ACS ID to log in to the system); mode of presentation (oral or poster); and the time, length, and location of your presentation. Speakers should arrive in their presentation rooms at least 30 minutes before their scheduled speaking time. Poster presenters should set up their poster at least one hour before the start of their poster session. If you need to withdraw your presentation, please send a withdrawal notice to pacs@acs.org and contact your symposium organizer immediately.

TECHNICAL SESSION EQUIPMENT.

Each technical session meeting room will be equipped with the following: LCD projector, screen, podium, podium microphone or lapel microphone, and laser pointer. Speakers need to provide their own laptops or arrange for specialty equipment directly with their symposium organizer and/or division program chair. To request other specialty equipment (at the standard fee), contact an ACS Operations Office during the meeting.

SPEAKER READY ROOMS & AUDIO-VISUAL SERVICE CENTERS. Presenters

may use the speaker ready rooms to preview their presentation, ensure compatibility with our LCD projectors, or fulfill last-minute audiovisual equipment orders. We strongly recommend that all presenters come to the speaker ready room the day before their presentation to check for connectivity and resolution. The hours of operation will be from 3 to 5 PM Saturday and 7 AM to 6 PM Sunday through Thursday. Visit the ACS Operations Office at any ACS property for speaker ready room locations. Speaker ready rooms are not equipped with copy machines. There is a service center located in Lobbies A and C of the convention center that provides a range of services including computer access and copying, faxing, printing, and shipping.

POSTER SESSIONS. All materials must be confined to a 4-foot-high by 8-foot-wide display board in the convention center and 4-foot-high by 6-foot-wide display board in hotels. Presenters must mount their poster one hour before the scheduled session start time. Poster numbers supplied by ACS will be in the upper corner of each poster board and this number corresponds with the number assigned to each poster in the technical program. Pushpins will be available at the poster session. Presenters must remain with their posters for the duration of their scheduled session as indicated in the technical program. All posters must remain up until the session ends and then must be removed within one hour. ACS cannot assume responsibility for materials beyond these time limits.

SCI-MIX POSTER SESSION ONLY. Sci-

Mix presenters may begin poster setup at 7:15 PM (45 minutes before the session begins). Each presenter may be accompanied by one assistant only, and both people are required to check in before entering the hall. After exiting, presenters will not be permitted to reenter the hall until the session begins at 8 PM.

ABSTRACTS & PREPRINTS

ONLINE TECHNICAL PROGRAM. The technical program for the 247th national meeting is now available at www.acs.org/dallas2014. You can search by divisions or committees, symposia, speakers, or keywords from abstracts as well as presidential events and the multidisciplinary theme of "Chemistry & Materials for Energy."

ABSTRACTS (USB FLASH DRIVE). Abstracts of all scientific sessions at the meeting can be purchased in USB flash drive (thumb drive) format through ACS Attendee Registration either online by Feb. 6 or on-site in Dallas from March 16 to 20. The ACS member fee is \$65 each; the nonmember fee is \$90 each. Attendees can pick up their abstracts on-site at ACS Attendee Registration at the Dallas Convention Center. You can have a USB flash drive shipped to you if you place your order by Feb. 6, pay an \$8.00 postage fee per item, and provide a valid street address within the U.S. or Canada. If you are not attending the meeting, you can purchase abstracts only from the ACS Office of Society Services, 1155–16th St., N.W., Washington, DC 20036; (800) 227-5558. Abstract USB flash drives and their shipping costs are nonrefundable.

PREPRINTS/GRAPHICAL ABSTRACTS. Preprints and graphical abstracts from the

following divisions may be ordered directly from each division. You can purchase them via the information below or inquire about these products at the hospitality table for each division near their meeting rooms.

Energy & Fuels.

Visit proceedings.com/2256.html

Polymer Chemistry. Kathy Mitchem, e-mail: kathyl@vt.edu

Polymeric Materials: Science & Engineering Inc.

Visit pmse.sites.acs.org/pmsepreprints.htm



PRESIDENTIAL EVENTS

2014 ACS PRESIDENT Thomas J. Barton begins the ACS spring national meeting by inviting children and families to an ACS public outreach event at the Perot Museum of Nature & Science on Saturday, March 15, from 10 AM to 2 PM. The theme of the event is "Exploring Our World through Chemistry," and attendees can learn more about the fascinating world of chemistry through hands-on, age-appropriate activities.

Barton's first presidential symposium, "Engaging Chemistry Departments in the Preparation of Chemistry Teachers," is on Sunday, March 16. This symposium will present successful models for increasing the quality and quantity of chemistry teachers. Only 46% of public high school chemistry classes are taught by a teacher who earned a degree in chemistry, and an even smaller percentage—35%—of chemistry teachers in public high schools have majors and certification in chemistry.

The next presidential symposium is on Monday, March 17, and it will be a first of its kind. "Benefits of Chemistry in our Lives" will feature speakers who are all past ACS presidents. Presenters will touch upon all facets of life in which chemistry plays an increasingly important role in benefiting humankind.

Also a highlight at the ACS national meetings are the Kavli lectures, which

will take place on Monday, March 17, at the Dallas Convention Center. The first is The Kavli Foundation Emerging Leader in Chemistry Lecture from 4 to 5 PM, given by Emily A. Weiss, the Irving M. Klotz Research Professor at Northwestern University. From 5:30 to 6:30 PM is The Fred Kavli—Innovations in Chemistry Lecture, given by John A. Rogers, the Swanlund Professor of Materials Science & Engineering at the University of Illinois, Urbana-Champaign, which will focus on biodegradable electronics.

Another presidential event is the "Dreyfus Symposium on Chemical Instrumentation," a collaboration between ACS and the Camille & Henry Dreyfus Foundation that will take place all day on Tuesday, March 18. And last, the Earle B. Barnes Award for Leadership in Chemical Management will have a symposium in honor of William F. Banholzer, the former executive vice president and chief technology officer at Dow Chemical. Speakers include many of the leading CTOs in the chemical industry.

Details of presidential events and other recommended symposia can be found at www.acs.org/dallas2014 and in the on-site program.

2014 NATIONAL AWARDS

RECIPIENTS will receive their award during the ACS awards dinner and general meeting. The event will be held on Tuesday, March 18; see Ticketed Events on page 69 for details. Several awards will be presented at the Arthur C. Cope Award Symposium in conjunction with the 248th ACS national meeting in San Francisco in August.

ACS Award for Achievement in Research for the Teaching & Learning of Chemistry sponsored by Pearson Education, **Melanie Cooper**, Michigan State University. Address to be presented before the Division of Chemical Education.

ACS Award for Affordable Green Chemistry sponsored by Dow Chemical and endowed by Rohm and Haas, **Arthur J. Ragauskas**, Georgia Institute of Technology. Address to be presented before the Division of Energy & Fuels.

ACS Award for Computers in Chemical & Pharmaceutical Research sponsored by the ACS Division of Computers in Chemistry, **Martin Stahl**, Roche. Address to be presented before the Division of Computers in Chemistry.

ACS Award for Creative Advances in Environmental Science & Technology sponsored by the ACS Division of Environmental Chemistry and the ACS Publications journal Environmental Science & Technology, Harold B. Dellinger, Louisiana State University. Address to be presented before the Division of Environmental Chemistry.

ACS Award for Creative Invention sponsored by ACS Corporation Associates, **Marvin H. Caruthers**, University of Colorado, Boulder. Address to be presented before the Division of Biological Chemistry.

ACS Award for Creative Work in Fluorine Chemistry sponsored by Honeywell, **Teruo Umemoto**, UBE America. Address to be presented before the Division of Fluorine Chemistry at the ACS fall national meeting in San Francisco.

ACS Award for Creative Work in Synthetic Organic Chemistry sponsored by Aldrich Chemical Co. LLC, **Amir H. Hoveyda**, Boston College. Address to be presented before the Division of Organic Chemistry.

ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry sponsored by Strem Chemicals, **T. Don Tilley**, University of California, Berkeley. Address to be presented before the Division of Inorganic Chemistry.

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences sponsored by the Camille & Henry Dreyfus Foundation, **Rigoberto Hernandez**, Georgia Institute of Technology. Address to be presented before the Division of Physical Chemistry.

ACS Award for Encouraging Women into Careers in the Chemical Sciences sponsored by the Camille & Henry Dreyfus Foundation, **Sandra C. Greer,** Mills College. Address to be presented before the ACS Women Chemists Committee.

ACS Award for Research at an Undergraduate Institution sponsored by Research Corporation for Science Advancement, **Bert E. Holmes,** University of North Carolina, Asheville. Address to be presented before the Division of Fluorine Chemistry. ACS Award for Team Innovation sponsored by ACS Corporation Associates, **Ramin Amin-Sanayei, Kevin Hanrahan, John Stuligross, Roice Wille,** and **Kurt Wood,** Arkema. Address to be presented before the Division of Polymeric Materials: Science & Engineering at the ACS fall national meeting in San Francisco.

ACS Award in Analytical Chemistry sponsored by Battelle Memorial Institute, **Jonathan V. Sweedler**, University of Illinois, Urbana-Champaign. Address to be presented before the Division of Analytical Chemistry at the ACS fall national meeting in San Francisco.

ACS Award in Applied Polymer Science sponsored by Eastman Chemical, **Nicholas A. Peppas**, University of Texas, Austin. Address to be presented before the Division of Polymeric Materials: Science & Engineering.

ACS Award in Chromatography sponsored by Sigma-Aldrich/Supelco, **Susan Olesik**, Ohio State University. Address to be presented before the Division of Analytical Chemistry at the ACS fall national meeting in San Francisco.

ACS Award in Colloid & Surface Chemistry sponsored by Colgate Palmolive, **Kenneth B. Eisenthal**, Columbia University. Address to be presented before the Division of Colloid & Surface Chemistry.

ACS Award in Industrial Chemistry sponsored by the ACS Division of Business Development & Management and the ACS Division of Industrial & Engineering Chemistry, **David L. Hughes,** Merck & Co. Address to be presented before the Division of Industrial & Engineering Chemistry and the Division of Business Development & Management.

ACS Award in Inorganic Chemistry sponsored by Aldrich Chemical Co. LLC, **Guy Bertrand**, University of California, San Diego. Address to be presented before the Division of Inorganic Chemistry.

ACS Award in Organometallic Chemistry sponsored by Dow Chemical Co. Foundation, **Kenneth G. Caulton**, Indiana University, Bloomington. Address to be presented before the Division of Inorganic Chemistry.

ACS Award in Polymer Chemistry sponsored by ExxonMobil Chemical, **Karen L.** **Wooley,** Texas A&M University. Address to be presented before the Division of Polymer Chemistry.

ACS Award in Pure Chemistry sponsored by Alpha Chi Sigma Fraternity and Alpha Chi Sigma Educational Foundation, **Sara E. Skrabalak**, Indiana University, Bloomington. Address to be presented before the Division of Inorganic Chemistry.

ACS Award in Separations Science & Technology sponsored by Waters Corp., **Daniel W. Armstrong**, University of Texas, Arlington. Address to be presented before the Division of Industrial & Engineering Chemistry.

ACS Award in the Chemistry of Materials sponsored by E. I. du Pont de Nemours & Co., **A. Paul Alivisatos**, Lawrence Berkeley National Laboratory and the University of California, Berkeley. Address to be presented before the Division of Colloid & Surface Chemistry.

ACS Award in Theoretical Chemistry sponsored by Dell Inc., **Axel D. Becke**, Dalhousie University, in Nova Scotia. Address to be presented before the Division of Physical Chemistry.

Award for Volunteer Service to the American Chemical Society sponsored by ACS, **Robert A. Pribush**, Butler University. Address to be presented during the ACS ChemLuminary Awards at the ACS fall national meeting in San Francisco.

Arthur W. Adamson Award for Distinguished Service in the Advancement of Surface Chemistry sponsored by the ACS Division of Colloid & Surface Chemistry and the ACS Publications journal Langmuir, **Melissa A. Hines,** Cornell University. Address to be presented before the Division of Colloid & Surface Chemistry.

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry sponsored by the Alfred R. Bader Fund, **Laura L. Kiessling,** University of Wisconsin, Madison. Address to be presented before the Division of Organic Chemistry.

Earle B. Barnes Award for Leadership in Chemical Research Management sponsored by Dow Chemical Co. Foundation, **William F. Banholzer**, Dow Chemical. Address to be presented before the Division of Industrial & Engineering Chemistry. Ronald Breslow Award for Achievement in Biomimetic Chemistry sponsored by the Ronald Breslow Award Endowment, **Samuel H. Gellman,** University of Wisconsin, Madison. Address to be presented before the Division of Organic Chemistry.

Herbert C. Brown Award for Creative Research in Synthetic Methods sponsored by the Purdue Borane Research Fund and the Herbert C. Brown Award Endowment, **Paul Knochel**, Ludwig Maximilian University of Munich. Address to be presented before the Division of Organic Chemistry.

Alfred Burger Award in Medicinal Chemistry sponsored by GlaxoSmithKline, **John E. Macor**, Bristol-Myers Squibb. Address to be presented before the Division of Medicinal Chemistry.

James Bryant Conant Award in High School Chemistry Teaching sponsored by Thermo Fisher Scientific, **Kathleen A. Kitzmann**, Mercy High School, Farmington Hills, Mich. Address to be presented before the Division of Chemical Education.

Arthur C. Cope Award sponsored by the Arthur C. Cope Fund, **Stuart L. Schreiber**, Howard Hughes Medical Institute, Harvard University, and the Broad Institute. Address to be presented before the Division of Organic Chemistry at the ACS fall national meeting in San Francisco.

Arthur C. Cope Scholar Awards sponsored by the Arthur C. Cope Fund, Richard N. Armstrong, Vanderbilt University; Olafs Daugulis, University of Houston; Abigail G. Doyle, Princeton University; Raymond L. Funk, Pennsylvania State University; Seth Herzon, Yale University; Jeffrey N. Johnston, Vanderbilt University; Gary E. Keck, University of Utah; Benjamin List, Max Planck Institute for Coal Research, in Germany; Hung-Wen (Ben) Liu, University of Texas, Austin; and Tomislav Rovis, Colorado State University. Addresses to be presented before the Division of Organic Chemistry at the ACS fall national meeting in San Francisco.

F. Albert Cotton Award in Synthetic Inorganic Chemistry sponsored by the F. Albert Cotton Endowment Fund, **Larry G. Sneddon**, University of Pennsylvania. Address to be presented before the Division of Inorganic Chemistry. Peter Debye Award in Physical Chemistry sponsored by E. I. du Pont de Nemours & Co., **Henry F. Schaefer III**, University of Georgia, Athens. Address to be presented before the Division of Physical Chemistry.

Frank H. Field & Joe L. Franklin Award for Outstanding Achievement in Mass Spectrometry sponsored by Waters Corp., **Evan R. Williams,** University of California, Berkeley. Address to be presented before the Division of Analytical Chemistry.

Francis P. Garvan-John M. Olin Medal sponsored by the Francis P. Garvan-John M. Olin Medal Endowment, **Marsha I. Lester**, University of Pennsylvania. Address to be presented before the Division of Physical Chemistry.

James T. Grady-James H. Stack Award for Interpreting Chemistry for the Public sponsored by ACS, **Alan Alda**, Stony Brook University, SUNY. Address to be presented before the ACS Office of Communications.

Ernest Guenther Award in the Chemistry of Natural Products sponsored by Givaudan, **Dennis P. Curran,** University of Pittsburgh. Address to be presented before the Division of Organic Chemistry.

Kathryn C. Hach Award for Entrepreneurial Success sponsored by the Kathryn C. Hach Award Fund, **Joseph M. DeSimone**, University of North Carolina, Chapel Hill; **Benjamin W. Maynor**, Liquidia Technologies; and **Jason P. Rolland**, Diagnostics for All. Address to be presented before the Division of Polymeric Materials: Science & Engineering at the ACS fall national meeting in San Francisco.

Joel Henry Hildebrand Award in the Theoretical & Experimental Chemistry of Liquids sponsored by ExxonMobil Research & Engineering, **Jack H. Freed**, Cornell University. Address to be presented before the Division of Physical Chemistry.

Ralph F. Hirschmann Award in Peptide Chemistry sponsored by Merck Research Laboratories, **Samuel Danishefsky**, Columbia University and Memorial Sloan Kettering Cancer Center. Address to be presented before the Division of Organic Chemistry.

Frederic Stanley Kipping Award in Silicon Chemistry sponsored by Dow Corning, **Scott E. Denmark**, University of Illinois, Urbana-Champaign. Address to be presented before the Division of Organic Chemistry and to the U.S. based Silicon Symposium.

Irving Langmuir Award in Chemical Physics sponsored by General Electric Global Research and the ACS Division of Physical Chemistry, **Mark A. Johnson**, Yale University. Address to be presented before the Division of Physical Chemistry.

E. V. Murphree Award in Industrial & Engineering Chemistry sponsored by ExxonMobil Research & Engineering, Joan F. Brennecke, University of Notre Dame. Address to be presented before the Division of Industrial & Engineering Chemistry.

Nobel Laureate Signature Award for Graduate Education in Chemistry sponsored by Avantor Performance Materials, Livia S. Eberlin (student), Stanford University, and R. Graham Cooks (preceptor), Purdue University. Address to be presented before the Division of Analytical Chemistry.

James Flack Norris Award in Physical Organic Chemistry sponsored by the ACS Northeastern Section, **Matthew S. Platz**, University of Hawaii, Hilo. Address to be presented before the Division of Organic Chemistry.

George A. Olah Award in Hydrocarbon or Petroleum Chemistry sponsored by the George A. Olah Award Endowment, **Robert G. Bergman**, University of California, Berkeley. Address to be presented before the Division of Organic Chemistry.

George C. Pimentel Award in Chemical Education sponsored by Cengage Learning and friends and colleagues of George & Jeanne Pimentel, **Thomas J. Greenbowe**, Iowa State University. Address to be presented before the Division of Chemical Education.

Priestley Medal sponsored by ACS, **Stephen** J. Lippard, Massachusetts Institute of Technology. Address to be presented before the ACS National Awards Banquet Ceremony & General Meeting.

Glenn T. Seaborg Award for Nuclear Chemistry sponsored by the ACS Division of Nuclear Chemistry & Technology, **Walter Loveland**, Oregon State University. Address to be presented before the Division of Nuclear Chemistry & Technology.

Gabor A. Somorjai Award for Creative Research in Catalysis sponsored by the Gabor A. & Judith K. Somorjai Endowment Fund, **Mark E. Davis**, California Institute of Technology. Address to be presented before the Division of Catalysis Science & Technology.

E. Bright Wilson Award in Spectroscopy sponsored by the ACS Division of Physical Chemistry, **Richard P. Van Duyne**, Northwestern University. Address to be presented before the Division of Physical Chemistry.

Ahmed Zewail Award in Ultrafast Science & Technology sponsored by the Ahmed Zewail Endowment Fund established by Newport Corp., **Michael D. Fayer**, Stanford University. Address to be presented before the Division of Physical Chemistry.

National Fresenius Award sponsored by Phi Lambda Upsilon, the National Chemistry Honor Society, **William R. Dichtel**, Cornell University. Address to be presented before the Division of Polymeric Materials: Science & Engineering at the ACS fall national meeting in San Francisco.

STUDENT & TEACHER ACTIVITIES

EDUCATION-FOCUSED programs and specialty activities are being held for undergraduate students, graduate students, high school teachers, and chemical professionals. Explore these opportunities in depth at www.acs.org/ dallas2014.

UNDERGRADUATE PROGRAM. A vibrant program designed especially for undergraduate students has been planned by the Society Committee on Education's Undergraduate Programs Advisory Board. This educational and career-oriented program includes technical symposia and workshops on essential skills for employment in chemistry and success in graduate school. Eminent scientist Nate Lewis, the George L. Argyros Professor of Chemistry at California Institute of Technology, will discuss the technical, political, and economic challenges involved with widespread adoption of renewable energy technologies.

SUNDAY, MARCH 16

Undergraduate Hospitality Center, $8\,\mathrm{AM}$ to $5\,\mathrm{PM}$

Undergraduate Research Papers (Oral), (sponsored by CHED), 8:30 AM to 5 PM Making the Most of Your First ACS Meeting, 9 to 9:45 AM Graduate School Reality Check, Step I: Getting In, 10 to 11:15 AM Graduate School Reality Check, Step II: Chem Demo Exchange, 11 AM to 12:30 PM You're In—Now What? 11:15 AM to 12:15 PM

Technical Symposium: The Many Faces of Energy Research, 1 to 2:30 PM Networking Social with Graduate School Recruiters, 1 PM to 5 PM Panel Discussion: Careers Outside Academia, 2:45 to 4 PM Workshop: Improving Scientific Communication Skills, 2:45 to 4 PM Workshop: Making Demos Matter, 4 to 5:30 PM Student Chapter Awards Ceremony, 7 to 8:30 PM

Undergraduate Social, 8:30 to 11 PM

MONDAY, MARCH 17

Undergraduate Hospitality Center, 8 AM to 5 PM

Undergraduate Research Papers (Oral), (sponsored by CHED), 8:30 AM to 5 PM Technical Symposium: Materials Science & Energy Research, 9 to 10:30 AM Workshop: Award-Winning Outreach Programs—Chemists Celebrate Earth Day Ideas, 9:45 to 11:15 AM Workshop: How To Network 101, 10:45 AM

Workshop: How To Network 101, 10:45 AM to noon

Undergraduate Research Poster Session (sponsored by CHED), noon to 2 PM **Eminent Scientist Lecture,** 2:30 to 3:30 PM

Undergraduate Speed Networking with Industrial Chemists, $3:45\ to\ 5:15\ PM$ Sci-Mix/Successful Student Chapter Posters, $8\ to\ 10\ PM$

TUESDAY, MARCH 18

Chemistry & the Environment Film Series, noon to 2 \ensuremath{PM}

All events are sponsored or cosponsored by the Society Committee on Education's

Undergraduate Programs Advisory Board. Chair: Matthew Mio, University of Detroit, Mercy. Program Chair: Christopher Bradley, Mount St. Mary's University, in Emmitsburg, Md. For more information, go to www.acs.org/undergrad or contact the ACS Undergraduate Programs Office at (800) 227-5558 ext. 4480.

GRADUATE & POSTDOCTORAL PRO-

GRAM. The Graduate & Postdoctoral Scholars Office with support from the Graduate Education Advisory Board provides and promotes programs and resources for graduate students and postdoctoral scholars. All events will take place at the Dallas Convention Center.

MONDAY, MARCH 17

Graduate & Postdoctoral Scholars Reception, $7 \mbox{ to } 8{:}30 \mbox{ PM}$

For more information about this reception and other ACS programs offered to graduate students and postdocs, visit www.acs.org/grad or contact the ACS Graduate & Postdoctoral Scholars Office at graded@acs.org or (800) 227-5558 ext. 6864.

HIGH SCHOOL TEACHERS PROGRAM.

The Division of Chemical Education and the ACS Education Division are sponsoring the High School Teachers Program. It will include a presentation by the 2014 ACS James Bryant Conant awardee, Kathleen A. Kitzmann, as well as presentations on current pedagogies, resources, and activities that align with the meeting's theme "Chemistry & Materials for Energy." The High School/College Interface Luncheon will bring together educators from all grade levels with the goal of facilitating an exchange of ideas and networking among teachers.

High school teachers can register for the program directly through Attendee Registration; the special registration fee includes course materials, lunch, access to the full ACS meeting (Sunday through Thursday), and entry to the exposition (Sunday to Tuesday). Attendees can track professional development (based on clock hours) for sessions attended at the ACS national meeting. Upon completion and submission of ACS forms, participants will be mailed a certificate documenting their participation in the conference.

SUNDAY, MARCH 16

High School Teachers Program, 8:30 AM to 4:30 PM

For more information, contact the Office of High School Chemistry at k12education@acs.org or call (800) 227-5558 ext. 2105.

WORKSHOPS

THE FOLLOWING workshops require a separate registration process and/or entry fee to participate in the event, as indicated in this listing. Participation is open to all interested registrants.

Division of Chemical Health & Safety (CHAS)-sponsored workshop fees (unless otherwise indicated). CHAS member: \$325; non-CHAS member: \$375. Registration is required for all CHAS workshops. Register online at dchas.org.

Laboratory Waste Management. Friday, March 14, 8:30 AM to 4:30 PM. Dallas Convention Center. *Sponsored by CHAS*. Presenter: Russ Phifer. This comprehensive course will identify various regulatory requirements that apply to laboratories that generate hazardous waste, as well as provide insight to the options for onsite management and off-site disposal. The focus will include discussion of recycling/reclamation techniques, economical handling of waste, and liability issues.

NRCC CERTIFICATION EXAMS

WHAT: Certification exams of the National Registry of Certified Chemists WHEN: Sunday, March 16, 8 AM to noon WHERE: Dallas Convention Center HOW: Advance registration and completion (with approval) of application must be done before March 1.

Requests for applications and registration should be made by e-mail to rphifer@nrcc6.org with the subject line Chemical Hygiene Officer and your mailing address in the body of the e-mail, or request by mail to NRCC, 125 Rose Ann La., West Grove, PA 19390.

Call (610) 322-0657 with questions or visit nrcc6.org.

Laboratory Safety Workshop. Friday, March 14, 8:30 AM to 4:30 PM. Dallas Convention Center. Sponsored by CHAS. Presenters: James Kaufman and/or Jack Breazeale. This presentation on laboratory safety by the Laboratory Safety Institute has been attended by thousands of safety professionals. With experience in both industrial and academic laboratories, the presenters take a real-world approach to safety issues in the lab. Interactive demonstrations will teach you about issues such as creative wiring in the lab and how to work with administrators to keep a safe working environment. This workshop provides an excellent forum to speak openly about safety in the workplace.

How To Be a More Effective Chemical Hygiene Officer. Saturday, March 15, 8:30 AM to 4:30 PM. Dallas Convention Center. *Sponsored by CHAS*. Presenter: Russ Phifer. Take a close look at the Chemical Hygiene Officer (CHO) position, and prepare at the same time for the CHO Certification exam, which will be held on Sunday, March 16, through the National Registry of Certified Chemists. This workshop will focus on what you do and how you can do it better. The course covers all of the content areas of the certification exam. Request an application packet for the CHO Certification examination at www.acs.org/dchas.

Chemical Reactivity Hazards: Laboratory-Scale Recognition & Control. Saturday, March 15, 8:30 AM to 4:30 PM. Dallas Convention Center. Sponsored by CHAS. Presenter: Neal Langerman. This workshop addresses the risks associated with chemicals such as t-butyl lithium and processes such as thermal distillations. The objective is to provide participants with the knowledge and skills to screen processes for potential hazards, to recognize when reactive hazards are present, and to implement appropriate controls to reduce the risk of an incident associated with the hazards. Workshop attendees will review case studies of actual incidents and do screening examples to understand the screening and recognition process. Group discussions of control methods will allow participants to share their experiences and to evaluate methods for controlling reactivity risks.

Job Hazard Analysis Workshop. Saturday, March 15, 8:30 AM to 4:30 PM. Dallas Convention Center. *Sponsored by CHAS*. Presenter: Sammuela Sigmann. Job Hazard Analysis (JHA) is one method to consider hazards associated with lab research and guide the control of those hazards. JHA can assist a researcher in uncovering potential hazards in synthesis, instrumental studies, physical manipulations, and more. Identified hazards can then be mitigated or eliminated. In this workshop, participants will learn the basic principles, required elements, and format of the common JHA. To examine the technique, examples of completed tools such as nitric acid digestion of metal samples and cryogenic work will be used. Each participant will create a readyto-use JHA based on some task applicable to their lab, so attendees should come with a specific idea of a chemical or process they would like to investigate.

COACh: The Chemistry of Leadership.

Saturday, March 15, 8:30 AM to 5 PM. Hyatt Regency Dallas. *Sponsored by COACh*. This program will give participants some basic tools to develop their leadership skills. Participants will learn about leader-

2014 Leadership Development System Course Offerings

The following four-hour facilitated courses, sponsored by the ACS Leadership Development System, are \$150 for ACS members and \$300 for nonmembers. Scholarships are available. For course times, descriptions, scholarship information, or to register, go to www. acs.org/leaderdevelopment. For more information, contact Kareem Redmond, (202) 872-6015, or e-mail leaders@acs. org. Participation is open to all interested registrants.

Coaching & Feedback. Some managers who try coaching find it harder than expected. The reason? Many managers lack the skills and confidence to be effective in the coaching role. Yet, good coaching is central to your success as a leader and the success of your team members, employees, and volunteers. Coaching will help you increase performance, expand your team's capabilities, and improve relationships and morale. This course provides leaders with a proven process, practical tools, and a hands-on opportunity to coach volunteers.

Engaging Colleagues in Dialogue. Good communication makes a difference when interacting with others for school projects, with colleagues in the lab or office, or with volunteer committees. This course will help you improve your communication skills so that your message is clear and so that you can respond more effectively to others' messages. You will assess your own communication skills through conversations with others. Fostering Innovation. Keeping pace in an environment of constant change requires innovation. Whether you are part of a nonprofit, business, or academic environment, the ability to contribute to the creation of new ideas, new processes, and new approaches is a key to success. Coming up with new ideas is challenging, and few of us have the tools and skills to do this effectively. This course will teach a proven, systematic process to generate ideas. You will learn your innovation style and how to stimulate innovative thinking among team members and colleagues.

Leading without Authority. Leading volunteers comes with many challenges, including having no direct authority over the members. Leaders need to be able to engage and influence members to get things done, even when they may put up barriers or have different viewpoints. Learn practical tools to help you gain cooperation without formal authority and motivate your colleagues or volunteers.

Strategic Planning. The success of a team depends on its leader's ability to act as a guide. A strategic plan helps the group be productive and stay aligned with the organization's goals. This course will improve your understanding of how to develop a strategic plan and it will help translate high-level goals into actionable goals for your team using the ACS Board of Directors' strategic goals. ship (including their own style), explore what is known about gender and its role in leadership situations, reflect on their own leadership challenges, and do some self-assessment and planning to identify areas for skill enhancement. The program will involve a variety of instructional approaches, including presentation, small group discussion, and experiential learning. Preregistration is required; visit coach. uoregon.edu. For more information, contact Priscilla Lewis at coach@uoregon.edu or (541) 346-0116. Fee: Free.

COAChing Strong Women in the Art of Strategic Persuasion—Senior Faculty. Saturday, March 15, 8:30 AM to 5 PM. Hyatt Regency Dallas.

COAChing Strong Women in the Art of Strategic Persuasion—Junior Faculty. Saturday, March 15, 8:30 AM to 5 PM. Hyatt Regency Dallas.

Sponsored by COACh. These workshops will help professional women be more effective when leading or participating in discussions, meetings, or group negotiations. Learn about strategic rather than reactive behaviors and effective speaking voices while tuning out stress and tension, which will allow you to be heard. The workshops combine presentation, leadership training, and faculty development in an interactive format that encourages highly personal learning. Topics include communication styles effective for women; projecting confidence and credibility through voice, image, and body language; dealing with difficult conversations; and using powerful rather than weak words. Preregistration is required; visit coach.uoregon.edu. For more information, contact Priscilla Lewis at coach@uoregon.edu or (541) 346-0116. Fee: Free.

ACS SHORT COURSES

THE FOLLOWING short courses, specifically designed to improve the skills and marketability of chemical scientists and technicians, are offered in conjunction with the national meeting in Dallas. All courses will be held at the Omni Dallas Hotel, which is connected to the Dallas Convention Center. ACS member, early registration, and group discounts are available. A course fee and registration separate from the national meeting are required. For more information on ACS Short Courses in Dallas, to obtain pricing details, or to view

a full course catalog, visit proed.acs.org. If you have questions, call (202) 872-4508, fax (202) 872-6336, or e-mail shortcourses@ acs.org.

ANALYTICAL

1-D & 2-D NMR Spectroscopy: Structure Determination of Small-Molecule Organic Compounds, March 15–16 Fundamentals of High-Performance Liquid Chromatography, March 15–16 Introduction to Modern Mass Spectrometry, March 15–16 Understanding & Utilizing Atomic Force Microscopy: From Basic Modes to Advanced Applications, March 17

BIOLOGICAL/PHARMACEUTICAL/ MEDICINAL CHEMISTRY

Druglike Properties: Optimizing Pharmacokinetics & Safety in Drug Discovery, March 15–16

COMPUTERS/STATISTICS/ ENGINEERING

Chemical Engineering & Process Fundamentals for Chemists, March 15–16 Getting Started with Excel & VBA in the Laboratory, March 15–16 Process Capability: What It Is & How To Achieve It, March 17 Statistical Analysis of Laboratory Data, March 17–19

ORGANIC/PHYSICAL CHEMISTRY

1-D & 2-D NMR Spectroscopy: Structure Determination of Small-Molecule Organic Compounds, March 15–16 Organic Synthesis: Methods & Strategies for the 21st-Century Chemist, March 18–19

Particle Surface Modification Technologies for Improving Properties & Applications, March 17

POLYMER CHEMISTRY

Polymer Science & Technology, March 15–16

PROFESSIONAL DEVELOPMENT

Chemists in Chemical Industry: Roles, Responsibilities & Opportunities, March 17–18

Effective Technical Writing, March 15–16 Intellectual Property Strategies for Technical Professionals, March 18 Personal Branding for Technical Professionals, March 18 Project Management for Technical Professionals, March 18–19 REGULATORY/ENVIRONMENTAL Methods Development, Validation Procedures & Regulatory Compliance Issues, March 18–19 Qualification & Validation of Laboratory Instruments & Equipment for Regulatory & Quality System Compliance, March 17

ACS CAREER FAIR ON-SITE AND ONLINE

JOB SEEKERS, are you looking to jumpstart your job search or enhance your professional development? Employers, are you looking to hire scientists and engineers? Then you need to attend the ACS Career Fair, open Sunday, March 16, 9 AM to 5:30 PM; Monday, March 17, 8 AM to 5 PM; and Tuesday, March 18, 8 AM to 5:30 PM, in the Dallas Convention Center, Hall B. The Virtual Career Fair will be held on March 18 and 19, 9 AM to 6 PM. Whether on-site or online, the career fair is the place where the best talent and the best employers in chemistry meet.

During the career fair, participants can take full advantage of the following:

- Networking opportunities
- Résumé reviews
- One-on-one career consulting
- Interview practice and skills building
- More than 30 career-related workshops
 Keynote speakers presented live and via
- webcast
- Request live and virtual interviews

LET ACS HELP YOU REACH YOUR

CAREER GOALS. ACS will help you prepare for your next career move by providing resources that make it possible to map out your personal job search strategy, strengthen your résumé, and build your interview skills, all with the support of career consultants.

On-site job seekers must be ACS members, be registered for the national meeting, and complete career fair registration at www.acs.org/careers (pick up a career fair registration badge in Hall B of the convention center beginning Sunday, March 16). **Please note:** We cannot guarantee that you will secure interviews at the ACS Career Fair or online at the Virtual Career Fair. Interviewing is strictly contingent on the availability of positions and the credentials and qualifications that employers are seeking.

If you are unemployed, please contact Member Services at (800) 333-9511 to obtain your unemployment waiver.

GET ONLINE AND OPTIMIZE YOUR

JOB SEARCH! The virtual portion of the ACS Career Fair eliminates geographical barriers, enabling job seekers and employers to connect with each other from their home, from their office, or from the dedicated computer stations at the meeting. Interviews and informal discussions will take place in virtual booths via text or video chat. Additionally, job seekers can schedule time with ACS career consultants for one-on-one consultations and attend live events via webcast. In today's tough economy, it makes good sense to enhance your job search by participating fully in both the on-site and online ACS career fairs. Register at www.acs.org/vcf.

IDEAL FOR EMPLOYERS. Leading employers around the world trust and depend on ACS to provide them with the talent they need to innovate and excel. At our last event, more than 1,000 global job seekers—from recent grads to seasoned

professionals—met with on-site and virtual recruiters seeking to fill positions in all facets of chemistry, pharmaceuticals, and biotechnology. This career fair continues the innovation, with both onsite and online interviewing opportunities.

The ACS Careers Jobs Database can help manage your employer account, post jobs, search for qualified candidates, and schedule career fair interviews. Moreover, participating in the ACS Career Fair enables you to accomplish the following:

■ Connect with top talent via on-site and online interviews.

■ Screen candidates and make appointments in advance.

■ Find the personnel your company needs to thrive, from entry- to executive-level positions.

 Meet qualified candidates informally via on-site and online networking forums.
 Extend your presence for 90 days after the career fair via the ACS jobs database and your virtual booth.

ACS CAREER FAIR AND THE ACS EXPOSITION TEAM HAVE JOINED

FORCES. Employers can purchase booth space inside the exposition hall, enabling your company to maximize its ability to showcase products and services and connect with job seekers. Employers can sign up for the ACS Career Fair Recruiters Row package online at www.acs.org/ careers. Employers will receive an e-mail confirmation and must visit the ACS Career Fair Information Booth in the Dallas Convention Center, Hall B, to pick up their blue badge. For more information, please visit www.acs.org/careerfair. You can also contact Garretta Rollins at (800) 227-5558 ext. 6209 (U.S./Canada only), (202) 872-6209 (international), or e-mail g_rollins@ acs.org.

ONE-ON-ONE CAREER CONSULTING.

Individual 30-minute appointments with career consultants are available both onsite and online. These consults can help you strengthen your résumé, improve your interviewing skills, and design a job search or comprehensive professional growth strategy. Please bring a copy of your résumé or CV to all appointments. All oneon-one on-site career consulting sessions will take place in the Résumé Review/Mock Interview area in Hall B. Sign-up begins at 9 AM on Sunday, March 16, on a first-come, first-served basis.

CAREER AND PROFESSIONAL DEVEL-

OPMENT WORKSHOPS. More than 30 career-related workshops will help you with everything from your résumé to op-timizing job performance to how to ace an interview. Workshop times are subject to change. Please consult the online workshop schedule at www.acs.org/careerfair for locations and updates.

SUNDAY, MARCH 16

Working in Industry—Part I, 8:30 to 10:30 AM Acing the Interview, 8:30 AM to 12:30 PM Finding Your Path, 8:30 AM to 12:30 PM Foreign-National Scientist Obtaining a **Job In the U.S.,** 9 to 10:30 AM Writing Excellent Proposals, 10:45 AM to noon Working in Industry-Part II, 10:45 AM to 12:45 PM Working in Higher Education—Part I, 1:15 to 3:15 PM **Electronic Tools To Enhance Your Job** Hunt, 1:30 to 3 PM Acing the Interview, 1:30 to 5:30 PM Working in Government, 1:30 to 5:30 PM Soup to Nuts of Entrepreneurship, 3:30 to 5 PM Working in Higher Education—Part II, 3:30 to 5:30 PM

MONDAY, MARCH 17

Working in Higher Education—Part I, 8:30 to 10:30 AM

Working for Yourself, 8:30 AM to 12:30 PM Working in Government, 8:30 AM to 12:30 PM

Working in Higher Education—Part II, 10:45 AM to 12:45 PM

Working in Industry—Part I, 1:15 to 3:15 PM Acing the Interview, 1:30 to 5:30 PM Finding Your Path, 1:30 to 5:30 PM Working in Industry—Part II, 3:30 to 5:30 PM

TUESDAY, MARCH 18

Working in Industry—Part I, 8:30 to 10:30 AM

Acing the Interview, 8:30 AM to 12:30 PM Finding Your Path, 8:30 AM to 12:30 PM Working in Industry—Part II, 10:45 AM to 12:45 PM

Working in Higher Education—Part I, 1:15 to 3:15 PM

Working in Government, 1:30 to 5:30 PM Working for Yourself, 1:30 to 5:30 PM Working in Higher Education—Part II, 3:30 to 5:30 PM

WEDNESDAY, MARCH 19

Working in Industry—Part I, 8:30 to 10:30 AMAcing the Interview, 8:30 AM to 12:30 PMFinding Your Path, 8:30 AM to 12:30 PMWorking in Industry—Part II, 10:45 AM to12:45 PM

EXPOSITION

SEE WHAT'S NEW INSIDE THE EXPOSI-TION. Visit the ACS National Exposition at the Dallas Convention Center, Halls C/D, from Sunday, March 16, through Tuesday, March 18. The show hours will be Sunday, 6 to 8:30 PM, and Monday and Tuesday, from 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 be available to give demonstrations, answer questions, and discuss your specific 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 units 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/dallas2014 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 Dallas 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. Exhibitor workshop registration is available at www.acs.org/dallas2014.

Presentations, Prizes & Special Events (Booth #631). Visit the Daily Prize Raffle area on 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 and visit the exposition on Monday and Tuesday from 1 to 3 PM for afternoon treats, exciting perks, prizes, and networking opportunities inside the Town Center (Booth #1909). Also, participate in a live trivia event with the ACS International Center from 1 to 2 PM on Monday to test your knowledge of the world of chemistry inside the Town Center. Then, at 3 PM on Monday, head to the International Lounge (Lobby C) for a free T-shirt and refreshments.

Internet & Technology. Utilize free Internet access and leave messages for one another at the Meeting Mail terminals located inside the Town Center. Also, enjoy free Wi-Fi service at designated areas in the Dallas 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 \$50. Students with school identification can obtain an expo-only badge for \$25. Registration can be handled online, by mail, or in person at ACS Attendee Registration in Lobby A/B.

GOVERNANCE MEETINGS

For the complete list of committee meetings and agendas, please consult www.acs.org/dallas2014 or the on-site program distributed during the meeting.

BOARD & COUNCIL MEETINGS

ACS BOARD OF DIRECTORS. The ACS Board of Directors meeting, open to members who wish to participate, will be held in the Dallas Convention Center from noon to 1 PM on Sunday, March 16.

ACS COUNCIL. The ACS Council meeting will begin at 8 AM, Wednesday, March 19, at the Sheraton Dallas. The meeting will be preceded by a continental breakfast for councilors beginning at 7 AM. Councilors are asked to check in beginning at 7 AM and proceed to the breakfast area, keeping in mind that the meeting starts promptly at 8 AM. Space will be available for ACS members and nonmembers to observe the council in action. We hope that many will take advantage of this opportunity to learn firsthand of the society's operation. Alternate councilors and division and local section officers are particularly urged to attend.

COMMITTEE AGENDA

THE COMMITTEE ON COMMITTEES has clarified three types of committee meetings:

OPEN. May be attended by any ACS member. At these sessions, members are encouraged to voice concerns, issue compliments, offer suggestions, express interest in, or raise questions about matters over which the committee has purview. The assumption is that participation is welcomed and will be orderly and courteous. Only committee members can vote.

EXECUTIVE. Attendance and participation are limited to officially appointed/ elected committee members, associates, advisers, consultants, staff liaisons, and the appointed Committee on Committees liaison. Liaisons from other groups and ex officio and elected councilors may attend; participation by these groups would be at

the invitation of the chair. Only committee members can vote.

CLOSED. The committee chair must declare any EXECUTIVE session CLOSED when confidential or sensitive personnel, financial, or legal matters of the society are discussed. At that point, only officially appointed/elected committee members, associates, consultants, staff liaisons, and the appointed Committee on Committees liaison shall remain in the session. Others may stay in the session at the discretion of the chair. Once these discussions have been completed, the committee should return to EXECUTIVE mode.

DURING the open and executive committee meetings, ACS members are given a chance to express their views on issues under consideration before these issues are acted on by the board or the council, or to bring up other subjects that deserve attention. Members are urged to examine the agenda and make known any opinions or ideas they may have. If you cannot attend the particular sessions involved, write to the officers listed or ask someone attending the session to speak on your behalf. For further information, contact the officers listed.

BUDGET & FINANCE

Bonnie A. Charpentier, chair; b_ffeedback@acs.org

> Open Meeting Saturday, March 15, 8 AM to noon Sheraton Dallas

CHEMICAL ABSTRACTS SERVICE

Grace Baysinger, chair; graceb@stanford. edu

Executive Session Friday, March 14, 6:30 to 8:30 PM Sheraton Dallas

CHEMICAL SAFETY

Robert H. Hill, chair; safety@acs.org

Open Executive Session Monday, March 17, 8:30 to 11:30 AM Sheraton Dallas

CHEMISTRY & PUBLIC AFFAIRS

Susan B. Butts, chair; sbbuttsdc@gmail. com

Open Meeting Saturday, March 15, 8 AM to 4 PM Sheraton Dallas

CHEMISTS WITH DISABILITIES

Karl S. Booksh, chair; University of Delaware, Chemistry & Biochemistry Department, Newark, DE 19716

Combined Open Meeting and Executive Session Sunday, March 16, 8 AM to 4:30 PM Sheraton Dallas

COMMITTEES

Dawn A. Brooks, chair; 10762 Forest Lake Ct., Indianapolis, IN 46278

Open Executive Session Monday, March 17, 1:30 to 2:30 PM Sheraton Dallas

COMMUNITY ACTIVITIES

George L. Heard, chair; gheard@unca. edu

CCA/LSAC Joint Open Meeting Tuesday, March 18, 2 to 3:30 PM Sheraton Dallas

COUNCIL POLICY COMMITTEE

The Council Policy Committee will open the floor during its meeting at 11 AM on Tuesday, March 18, to councilors who would like to raise issues of concern that affect them and/or their local sections or divisions. For further information contact Alan M. Ehrlich, vice chair of CPC, at ehrlichpolin@verizon.net. For more committee meeting details and agendas, please consult the meeting website at www.acs.org/dallas2014 or the on-site program distributed during the meeting. Executive Session Sunday, March 16, 8 AM to noon Sheraton Dallas

CONSTITUTION & BYLAWS

Donna G. Friedman, chair; St. Louis Community College, 3400 Pershall Rd., St. Louis, MO 63135-1408

> Open Meeting Sunday, March 16, 1 to 1:30 PM Sheraton Dallas

Executive Sessions Sunday, March 16, 8:30 AM to 1 PM and 1:30 to 5 PM Sheraton Dallas

CORPORATION ASSOCIATES

Dawn Mason, chair; P.O. Box 431, Kingsport, TN 37662

> Open Meeting Monday, March 17, 8 AM to noon Sheraton Dallas

COUNCIL POLICY

Alan M. Ehrlich, vice chair; ehrlichpolin@ verizon.net

Open Meeting Tuesday, March 18, 9:30 AM to noon Sheraton Dallas

DIVISIONAL ACTIVITIES

Michael J. Morello, chair; mike.morello@pepsico.com

Open Session Sunday, March 16, 8 AM to noon Sheraton Dallas

ECONOMIC & PROFESSIONAL AFFAIRS

Louise M. Lawter, chair; 475 Prince William Ct., Yardley, PA 19067

Executive Session Saturday, March 15, 8 AM to 5:30 PM Sheraton Dallas Open Executive Session Sunday, March 16, 8 AM to noon Sheraton Dallas

EDUCATION

Andy D. Jorgensen, chair; University of Toledo, Department of Chemistry, MS 602, 2801 West Bancroft St., Toledo, OH 43606-3328

> Open Meeting Monday, March 17, 3 to 4 PM Sheraton Dallas

Executive Session Friday, March 14, 1 to 5:30 PM Sheraton Dallas

ENVIRONMENTAL IMPROVEMENT

Laura E. Pence, chair; lpence@hartford. edu

Open Executive Session Saturday, March 15, 4 to 6 PM Sheraton Dallas

ETHICS

Gregory M. Ferrence, chair; 4160 Department of Chemistry, Illinois State University, Normal, IL 61790-4160

Open Executive Session Sunday, March 16, 9 AM to 4:30 PM Sheraton Dallas

INTERNATIONAL ACTIVITIES

H. N. Cheng, chair; c/o ACS Office of International Activities, 1155—16th St., N.W., Washington, DC 20036

> Open Meeting Saturday, March 15, 1 to 5 PM Sheraton Dallas

Subcommittee Meetings Saturday, March 15, 9 AM to noon Sheraton Dallas

LOCAL SECTION ACTIVITIES

Martin D. Rudd, chair; martin.rudd@uwc. edu

LSAC/CCA Joint Open Meeting Tuesday, March 18, 2 to 3:30 PM Sheraton Dallas

Executive Session Sunday, March 16, 8 AM to noon Sheraton Dallas

MEETINGS & EXPOSITIONS

Will E. Lynch, chair; Department of Chemistry & Physics, Armstrong Atlantic State University, 11935 Abercorn St., Savannah, GA 31419-1997

> Open Executive Session Sunday, March 16, 7 AM to noon Sheraton Dallas

MEMBERSHIP AFFAIRS

James M. Landis Jr., chair; 131 Arthur Dr., Troy, MI 48083-1704

Executive Session Saturday, March 15, 5 to 7 PM and Sunday, March 16, 8:30 AM to 3 PM Sheraton Dallas

Open Meeting Sunday, March 16, 3 to 4 PM Sheraton Dallas

MINORITY AFFAIRS

Alvaro Ribes, chair; aribes@dow.com

Executive Session Sunday, March 16, 8 AM to noon Sheraton Dallas

Open Session Sunday, March 16, 1 to 2 PM Sheraton Dallas

NOMENCLATURE, TERMINOLOGY & SYMBOLS

Albert C. Censullo, chair; 1595 Cordova Dr., San Luis Obispo, CA 93405

> Executive Session Monday, March 17, 2 to 5 PM Sheraton Dallas

NOMINATIONS & ELECTIONS

D. Richard Cobb, chair; nomelect@acs. org

Open Meeting Monday, March 17, 11 AM to noon Sheraton Dallas

PATENTS & RELATED MATTERS

Brian G. R. Treco, chair; trecob@aol.com

Open Meeting Saturday, March 15, 9 AM to 5 PM Sheraton Dallas

PROFESSIONAL TRAINING

Anne B. McCoy, chair; Department of Chemistry, Ohio State University, 100 West 18th Ave., Columbus, OH 43210

> Open Meeting Sunday, March 16, noon to 1 PM Sheraton Dallas

PROJECT SEED

Sandra Bonetti, chair; Colorado State University, Pueblo, Department of Chemistry, 2200 Bonforte Blvd., Pueblo, CO 81001-4901

Open Meeting Sunday, March 16, 9:30 to 10:30 AM Sheraton Dallas

Executive Session Saturday, March 15, 10:30 AM to 5 PM Sheraton Dallas

PUBLICATIONS

Stephanie L. Brock, chair; Wayne State University, Chemistry, 5101 Cass Ave., Detroit, MI 48202-3929

> Open Meeting Friday, March 14, 4:30 to 5 PM Sheraton Dallas

Executive Session Friday, March 14, 1 to 4:30 PM Sheraton Dallas

SCIENCE

Katherine C. Glasgow, chair; Nomacorc LLC, 400 Vintage Park Dr., Zebulon, NC 27597-3803

Open Meeting Saturday, March 15, 9 AM to 4 PM Sheraton Dallas

SENIOR CHEMISTS

George Heinze, chair; 30 Bunker Hill Run, East Brunswick, NJ 08816-331

Open Meeting Monday, March 17, 8:30 AM to noon Sheraton Dallas

TECHNICIAN AFFAIRS

Susan S. Marine, chair; Miami University Middletown, 4200 East University Blvd., Middletown, OH 45042

Executive Session Sunday, March 16, 9 AM to 1:50 PM Sheraton Dallas

Open Session Sunday, March 16, 2 to 3 PM Sheraton Dallas

WOMEN CHEMISTS

Amber F. Charlebois, chair; charleb@fdu. edu

Closed Executive Session Saturday, March 15, 7:30 AM to 5 PM Sheraton Dallas

YOUNGER CHEMISTS

Douglas B. Hausner, chair; doug.hausner@gmail.com

Open and Executive Session Sunday, March 16, 8 AM to noon Sheraton Dallas

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