

Jefferson Memorial



ACS NATIONAL MEETING

254th ACS National Meeting

Washington, D.C., August 20–24

“Chemistry’s Impact on the Global Economy” will be the theme in Washington, D.C., this August. Many notable symposia are scheduled, including “Building a Safety Culture across the Chemical Enterprise” and “Working in the Public

Sector: Running for Elected Office.” ACS President Allison A. Campbell will lead an invitation-only ACS Chemistry on the Hill Advocacy Workshop on Sunday morning, Aug. 20, to help younger chemists learn to engage with Congress.

Campbell will host 29 technical divisions and five committees in original programming, including 1,035 half-day oral sessions, 146 poster sessions, and Sci-Mix. More than 9,370 papers and 2,720 posters

will be presented at the meeting.

In concert with the meeting theme, Campbell will sponsor several presidential events. “Science Communications: The Art of Developing a Clear Message” on Sunday, Aug. 20, will help members learn to clearly communicate research. On Tuesday, Aug. 22, “Understanding the Chemistry of Our Planet” will highlight the importance of chemistry to life on Earth. Details on these and other presidential events can be found at www.acs.org/wdc17.

Many education-focused programs for high school teachers, undergraduate and graduate students, postdocs, and chemical professionals will be offered. A range of professional development courses will be available; ACS Professional Education Short Courses have a separate registration and fee. For job seekers and employers, the career fair will provide opportunities for on-site interviews, one-on-one career assistance, and career-related workshops.

The exposition will feature more than 250 companies showcasing services, instruments, books, and lab equipment.—ALEXANDRA TAYLOR

REGISTRATION CATEGORY

FEE

MEMBERS

ACS affiliate	\$535
Postdoctoral member	535
Emeritus or retired member	270
50-year member	No fee
Unemployed member (Dues waiver required)	No fee
Precollege teacher	110
Graduate student	225
Undergraduate student	110
One-day registrant	270

NONMEMBERS

Chemical scientist	\$935
Postdoctoral scientist	935
Visitor: Nonchemical scientist or chemical technician	535
Precollege teacher	110
Graduate student	445
Undergraduate student	225
One-day registrant	535
Guest of registrant ^a	45

EXPOSITION-ONLY

VISITORS

Adult	\$60
Student	30

^a Registration is restricted to a spouse or family member of a 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 the time of original registration.

MEETING INFO ON THE WEB

www.acs.org/wdc17

**JOIN US FOR THE
ACS BOARD OF DIRECTORS
REGULAR SESSION**



**Sunday, August 20, 2017
Noon - 1:00 p.m.**

Walter E. Washington Convention Center – Ballroom
Doors open at 11:45 a.m.

Sandwiches and soft drinks while supplies last

ACS NATIONAL MEETING

General meeting information

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 in the U.S. who registered prior to July 10 will receive their badge credentials by mail before the meeting. International registrants must pick up their badge credentials at ACS attendee registration (this includes Canada and Mexico).

Standard & on-site registration. Attendees who register after July 10 must pick up their badge credentials on-site at attendee registration areas. On-site registration will be available at the Walter E. Washington Convention Center, Salons G-I; the Marriott Marquis Washington DC, Meeting Level 1; and the Grand Hyatt Washington, Independence Foyer. Cash transactions will not be available at the satellite registration areas. Only checks and credit cards can be used to make purchases at the satellite registration areas. ACS attendee registration will open at the Walter E. Washington Convention Center, Salons G-I, on Saturday, 3 to 6 PM; Sunday, 7:30 AM to 7:30 PM; Monday, 7:30 AM to 9 PM; Tuesday, 7:30 AM to 5 PM; Wednesday, 7:30 AM to 4 PM; and Thursday, 7:30 AM to 1 PM. The satellite registration areas will follow the same schedule but are subject to change depending on the activity at the location.

Satellite registration & on-site program pickup. Printed copies of the on-site program book will no longer be available for free. In support of ACS's sustainability efforts, we encourage the use of the ACS Washington, D.C., mobile app and digital program for quick access to the meeting's full technical program, maps, and search features.

Prefer a printed on-site program? The on-site program book will now be available for a \$20 fee. The author index will be included in the printed program booklet. Purchase your copy during the registration process or visit the locations listed

below. Limited quantities will be available. Replacement copies also cost \$20. Cash transactions will not be permitted at the satellite registration areas. Only credit cards or checks can be used to make purchases at the satellite registration areas. Printed programs can be picked up or purchased at the following locations:

- Walter E. Washington Convention Center, Salons G-I
- Marriott Marquis Washington DC, Meeting Level 1
- Grand Hyatt Washington, Independence Foyer

Learn about ACS national meeting sustainability efforts at www.acs.org/green-meetings. Questions? Contact national-meetings@acs.org.

Travel

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

AIRLINES:

Delta
delta.com/meeting; (800) 328-1111
 Discount code: NMPBR

United Airlines
united.com; (800) 426-1122
 Discount code: ZWME244449

Southwest Airlines
swabiz.com
 Discount code: 99331750 (online reservations only)

RAIL:
Amtrak
 (800) 872-7245
 Discount code: X91C-958 (phone reservations only)

CAR RENTAL:
Avis
avis.com; (800) 331-1600
 Discount code: B923099

Advantage Rent A Car
 (800) 777-5500
 Discount Code: CD02C826E8

Hertz

hertz.com; (800) 654-2240
 Discount code: CV# 02UZ0016

AIRPORT GROUND TRANSPORTATION.

Reagan National Airport is located across the Potomac River in Virginia and is the closest airport to D.C. It is accessible via its own Metro stop on the Blue and Yellow Lines. To catch a taxi, look for the official taxi stand outside baggage claim. A ride into downtown D.C. will cost \$15-\$20.

Dulles Airport is located 26 miles from D.C. in suburban Virginia. Taxi stands are located outside the main terminal at Doors 2 and 6. A ride into D.C. will cost \$60-\$68. Washington Flyer also offers a Silver Line Express Bus that drops off at the Wiehle-Reston East Metro station about 15 minutes away. Silver Line Express Bus fare is \$5.00 one way. Purchase tickets inside the airport at Arrival Door 4. Visit bit.ly/2s9qhSQ for more information.

Baltimore-Washington International (BWI) Airport is a bit further out, in Baltimore. BWI is accessible via an Amtrak or MARC train route that stops at D.C.'s Union Station. A reserved seat on the train will cost up to \$30. Please visit bit.ly/1GuPKrv for more information.

TRAVELING TO MEETING VENUES.

The Walter E. Washington Convention

ACS badge reprint policy

First badge reprint: No charge; upon proper identification and confirmation of registration payment, a duplicate badge is issued.

Second badge reprint: Attendee completes a duplicate badge request, shows identification, and pays a charge of \$25 (cash/credit card), and a duplicate badge is issued.

Third badge reprint: Attendee completes a duplicate badge request, shows identification, and pays a charge of \$50 (cash/credit card), and a duplicate badge is issued.

Beyond third badge reprint: Attendee completes a duplicate badge request, shows identification, and pays a charge of \$100 (cash/credit card), and a duplicate badge is issued.

Center is located at 801 Mt. Vernon Place N.W.

Parking. Most hotels have parking facilities, and visitors can find convenient street or garage parking with apps such as ParkWhiz or SpotHero.

Metrorail. The Walter E. Washington Convention Center has a dedicated Metro station serviced by the Yellow and Green Lines. Metro operates from 5 AM to 11:30 PM Monday through Thursday, 5 AM to 1 AM on Friday, 7 AM to 1 AM on Saturday, and 8 AM to 11 PM on Sunday.

ACS shuttle. Complimentary shuttle service will be provided between the Walter E. Washington Convention Center and official ACS hotels, with the exception of hotels within walking distance.

Events & activities

A variety of organizers will host special events during the meeting. Event participation is open to all interested registrants. **All nonticketed events require a visible registration badge for entry.**

Tickets are sold on a first-come, first-served basis. Ticket sales will close at 6 PM the evening before the event. Some event organizers may offer a limited number of tickets for sale at the door of the events. The deadline for cancellation and refund requests was July 20.

Locations and times are subject to change. To learn more about these events and to buy tickets or register, visit www.acs.org/wdc17.

► Friday, Aug. 18

CHAS Laboratory Waste Management Workshop

8 AM to 5 PM, Walter E. Washington Convention Center, Rooms 208A–B

CHAS Laboratory Safety Workshop: Advanced Concepts

8 AM to 4 PM, Walter E. Washington Convention Center, Room 209A

► Saturday, Aug. 19

CHAS Workshop: How To Be a More Effective Chemical Hygiene Officer

8 AM to 5 PM, Walter E. Washington Convention Center, Rooms 208A–B

CHAS Workshop: Reactive Chemical Management for Laboratories & Pilot Plants

8 AM to 5 PM, Walter E. Washington Convention Center, Room 209A

Presidential Outreach Event: Exploring Our World through Chemistry

Noon to 4 PM, American Chemical Society, 1155 16th St. N.W.

COACH Reception

5 to 7 PM, Renaissance Washington DC Downtown, Meeting Room 16

► Sunday, Aug. 20

Career Pathways I

7:30 AM to 5:30 PM, Westin Washington DC City Center, Section A

Career Pathways II

8 AM to 5:30 PM, Westin Washington DC City Center, Section B

Career Pathways III

8 AM to 5 PM, Westin Washington DC City Center, Section C

Undergraduate Hospitality Center

8:30 AM to 5 PM, Grand Hyatt Washington, Independence Ballroom A

Graduate School Reality Check, Part I: Getting In

10:30 to 11:45 AM, Grand Hyatt Washington, Farragut Square/Lafayette Park

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

11:45 AM to 1 PM, Grand Hyatt Washington, Farragut Square/Lafayette Park

ACS Board Luncheon & Meeting

11:45 AM to 1 PM, Walter E. Washington Convention Center, Ballrooms A–B

CHED High School/College Interface Luncheon/SE-01/\$45

(All teachers receive ticket with registration.)

Noon to 1 PM, Grand Hyatt Washington, Independence D–E

Networking Basics for Students

1 to 2:30 PM, Grand Hyatt Washington, Farragut Square/Lafayette Park

Networking Social with Graduate School & Recruiters

2 to 5 PM, Walter E. Washington Convention Center, Hall C

Chemistry's Impact on the Global Economy Plenary Session

3 to 6 PM, Walter E. Washington Convention Center, Ballrooms A–B

Discoveries Using Flow: Drug Development & Beyond

3:30 to 6 PM, Walter E. Washington Convention Center, Room 103A

IAC Networking Globally: Diplomacy & Science/SE-02/no charge

4 to 5:30 PM, Marriott Marquis Washington DC, Chinatown

Director-at-Large Town Hall Meeting

4:30 to 5:30 PM, Marriott Marquis Washington DC, Marquis Ballroom, Salons 1–3

Grady-Stack Award Reception Honoring Thomas Hager

4:45 to 6 PM, Walter E. Washington Convention Center, South Prefunction

AGFD Poster Session

5 to 7 PM, Walter E. Washington Convention Center, Hall C

Diversity Reception

5 to 7 PM, Marriott Marquis Washington DC, Independence A–C

On-site program book no longer free

The on-site program book is available for \$20. In response to numerous requests, the author index will be included in the printed program booklet. Satellite registration and on-site program purchase/pickup will be located at the Marriott Marquis Washington DC and Grand Hyatt Washington hotels. Credit cards, debit cards, and checks will be accepted at these locations.

In support of ACS's sustainability efforts, we encourage our meeting attendees to download the ACS Washington, D.C., mobile application or access the ACS Washington, D.C., digital meeting program with author index in early August. These digital options will provide quick access to the full technical program, along with special features so you can easily build your schedule.

FOR UP-TO-DATE EVENT LISTINGS, VISIT www.acs.org/wdc17

MEETING INFO ON THE WEB

Registration, housing, technical programming, special events, participating exhibitors, and other meeting details are available at www.acs.org/wdc17.

UW-Madison Alumni & Friends Reception

5 to 7 PM, Walter E. Washington Convention Center, Room 146C

CHED Social Reception

5:30 to 7 PM, Walter E. Washington Convention Center, Room 207A

ACS PRF/Research Corps Reception

5:30 to 7:30 PM, Marriott Marquis Washington DC, Tulip

INOR Poster Session

5:30 to 7:30 PM, Walter E. Washington Convention Center, Hall D

International Welcome Reception/**SE-03/no charge**

(Auto ticket to all international attendees)
5:30 to 7:30 PM, Marriott Marquis Washington DC, Independence D-H

ORGN Poster Session

5:30 to 7:30 PM, Walter E. Washington Convention Center, Hall D

COLL Social Hour/Poster Session

5:30 to 8 PM, Walter E. Washington Convention Center, Halls A-B

Gordon Hammes Award Lecture Reception

5:45 to 6:45 PM, Walter E. Washington Convention Center, Room 145B

District II Councilor Caucus

6 to 7 PM, Marriott Marquis Washington DC, Marquis Ballroom, Salon 10

District III Councilor Caucus

6 to 7 PM, Marriott Marquis Washington DC, Marquis Ballroom Salon 12

District IV Councilor Caucus

6 to 7 PM, Marriott Marquis Washington DC, Marquis Ballroom Salon 13

District V Councilor Caucus

6 to 7 PM, Marriott Marquis Washington DC, Marquis Ballroom Salon 14

District VI Councilor Caucus

6 to 7 PM, Marriott Marquis Washington DC, Marquis Ballroom Salon 15

CARB General Posters

6 to 8 PM, Walter E. Washington Convention Center, Hall D

SCHB Poster Session

6 to 8 PM, Walter E. Washington Convention Center, Halls A-B

Attendee Welcome Reception

6 to 8:30 PM, Walter E. Washington Convention Center, Halls A-B

CINF Welcoming Reception & Poster Session

6:30 to 8:30 PM, Grand Hyatt Washington, Farragut Square/Lafayette Park

Heroes of Chemistry Awards/ SE-14/\$130

6:30 to 10 PM, JW Marriott Washington DC, Grand Ballroom

Analytical Division Poster Session

7 to 9 PM, Walter E. Washington Convention Center, Hall D

CELL General Posters

7 to 9 PM, Walter E. Washington Convention Center, Hall D

MEDI Poster Session

7 to 9 PM, Walter E. Washington Convention Center, Hall E

Chemistry Rocks! Concert: Celebrating 30 Years of National Chemistry Week

7:30 to 9 PM, Marriott Marquis Washington DC, Independence D-H

CHED Poster Session

8 to 10 PM, Walter E. Washington Convention Center, Hall D

► **Monday, Aug. 21****YCC Member Insurance 5K Fun Run/ SE-04/\$30 (regular)/SE-05/\$15 (student)**

6:45 to 8 AM, Walter E. Washington Convention Center

WCC Women in the Chemical Enterprise (WICE) Breakfast/SE-06/\$40 (regular)/SE-07/\$20 (student)

7:30 to 9 AM, Marriott Marquis Washington DC, Independence E

C&EN DIGITAL MEETING
PROGRAM AVAILABLE AT
cenm.ag/dc2017

Career Pathways I

7:30 AM to 5:30 PM, Westin Washington DC City Center, Section A

Career Pathways II

8 AM to 5:30 PM, Westin Washington DC City Center, Section B

Career Pathways III

8 AM to 5 PM, The Westin Washington DC City Center, Section C

Undergraduate Hospitality Center

8:30 to 10:30 AM, Grand Hyatt Washington, Independence Ballroom A

Guinness World Event

9 AM to noon, Walter E. Washington Convention Center, Ballrooms A-B

ACS Exposition

9 AM to 5 PM, Walter E. Washington Convention Center, Halls A-B

Illuminating Your Insights with Wiley Spectra Libraries

9:30 AM to noon, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 1

Teaching Laboratory Safety in the Undergraduate Chemistry Curriculum

9:30 AM to noon, Walter E. Washington Convention Center, Room 103A

30-Minute Workflow Innovations

9:30 AM to noon, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2

ACS Women Chemists of Color Networking Event/SE-08/no charge

10 to 11:30 AM, Marriott Marquis Washington DC, Scarlet Oak

Caffeination Station

10:30 to 11:30 AM, Grand Hyatt Washington, Independence Ballroom A

Career Center Session

11 AM to noon, Grand Hyatt Washington, Farragut Square/Lafayette Park

Committee on Minority Affairs Luncheon/ SE-09/\$50 (regular)/SE-10/\$25 (student)

11:30 AM to 1:30 PM, Marriott Marquis Washington DC, Independence A-D

ENFL Business Meeting & Social

11:30 AM to 1:30 PM, Walter E. Washington Convention Center, Ballroom C

AGRO Graduate Student Lunch

11:45 AM to 1 PM, Renaissance Washington DC Downtown, Meeting Room 12

CHAL Awards & Networking Lunch/SE-11/\$40

Noon to 1:30 PM, Corduroy Restaurant, 1122 9th St. N.W.

Eminent Scientist Lecture & Luncheon/SE-12/no charge

(All undergraduates receive ticket with registration.)
Noon to 1:30 PM, Grand Hyatt Washington, Independence Ballroom A

Benchtop NMR: Applications in Industry & Academia

12:30 to 3 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2

NMR as a Quantitative Method & What Can NMR Do for the Chemist?

12:30 to 3 PM, Walter E. Washington Convention Center, Room 103A

Strategic Planning

1 to 5 PM, Westin Washington DC City Center, Monticello East

ACS Fellows Ceremony & Reception

2 to 4 PM, Marriott Marquis Washington DC, Marquis Ballroom, Salon 5

ENFL Poster Session

2 to 4 PM, Walter E. Washington Convention Center, Halls A–B

Undergraduate Research Poster Session

2 to 4 PM, Walter E. Washington Convention Center, Hall D

WCC Open Meeting & “Just Cocktails” Reception

4 to 5 PM, Marriott Marquis Washington DC, University of DC

The Kavli Foundation Emerging Leader in Chemistry Lecture

4 to 5:15 PM, Walter E. Washington Convention Center, Ballrooms A–B

The Fred Kavli Innovations in Chemistry Lecture

5:15 to 6:30 PM, Walter E. Washington Convention Center, Ballrooms A–B

Chinese-American Chemical Society**Banquet Dinner/SE-13/\$40**

6:30 to 9:30 PM, Tony Cheng's Seafood Restaurant, 619 H St. N.W.

ACS Graduate & Postdoctoral Scholars Reception/SE-15/no charge

7 to 8:30 PM, Walter E. Washington Convention Center, Ballroom C

Finding Balance between Work & Life/Mixer for Younger Chemists/SE-16/no charge

7 to 8:30 PM, Baby Wale, 1124 9th St. N.W.

Sci-Mix Interdivisional Poster Session (Drink ticket with registration)

8 to 10 PM, Walter E. Washington Convention Center, Halls D–E

► Tuesday, Aug. 22**Senior Chemists Breakfast/SE-17/\$20**

7:30 to 9:30 AM, Marriott Marquis Washington DC, Independence E–H

University of Minnesota Alumni & Friends Breakfast/SE-28/\$5.00

7:30 to 9:30 AM, Renaissance Washington DC Downtown, Mt. Vernon Square A

Career Pathways I

7:30 AM to 5:30 PM, Westin Washington DC City Center, Section A

Fostering Innovation

8 AM to noon, Westin Washington DC City Center, Monticello East

National Science Foundation at the ACS Meeting: Meet the Federal Grant Funders & Speed Coaching with Program Officers

8 AM to 5 PM, Walter E. Washington Convention Center, Ballroom C

Career Pathways II

8 AM to 5:30 PM, Westin Washington DC City Center, Section B

Event participation is open to all interested registrants. Some events require a ticket or registration to participate. Payment and **SE-##** ticket requirements, when applicable, are indicated in the event list. All nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/wdc17.

Career Pathways III

8 AM to 5 PM, Westin Washington DC City Center, Section C

C&EN Talk with Phil Baran

9 AM to noon, Walter E. Washington Convention Center, Ballrooms A–B

ACS Exposition

9 AM to 5 PM, Walter E. Washington Convention Center, Halls A–B

Mass Spectrometry for Chemists: Direct Analysis of TLC Plates (Solids & Gases)

9:30 AM to noon, Walter E. Washington Convention Center, Exhibit Hall A, Workshop Room 4

C&EN Master Class with Phil Baran & IKA

10 AM to 1 PM, Walter E. Washington Convention Center, Ballrooms A–B

WCC Eli Lilly Travel Award Poster Session

11 AM to noon, Marriott Marquis Washington DC, Independence E–H

ACS Town Hall: National Academies' Frontiers of Materials Research Decadal Survey

11:30 AM to 3 PM, Marriott Marquis Washington DC, George Washington University

CINF Division Luncheon/SE-18/\$30

Noon to 1:30 PM, Grand Hyatt Washington, Constitution Ballroom B

COLL Luncheon/SE-19/\$45

Noon to 1:30 PM, Renaissance Washington DC Downtown, Mt. Vernon Square A

WCC Luncheon/SE-20/\$50 (regular)/SE-21/\$25 (student)

Noon to 1:30 PM, Marriott Marquis Washington DC, Independence E–H

Chromatographers, Join the Mass Movement toward Mass Spectrometry!

12:30 to 1:45 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2

Rapid Materials Identification & Reverse Engineering Using Raman Spectroscopy

12:30 to 3 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 1

Research in Germany Science Lunch

12:30 to 3 PM, Walter E. Washington Convention Center, Exhibit Hall A, Workshop Room 4

Accelerating Organic Synthesis without Microwaves

12:30 to 3 PM, Walter E. Washington Convention Center, Room 103A

Sterling Hendricks Reception (AGRO/AGFD)

1 to 2 PM, Renaissance Washington DC Downtown, Congress Ballroom C

Leading without Authority

1 to 5 PM, Westin Washington DC City Center, Monticello East

Selecting the Correct Column for Better Chromatography

1:45 to 2:45 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2

Division Officers & Councilors Caucus (DOC/DCC)

4 to 5:30 PM, Walter E. Washington Convention Center, Room 204C

**Analytical Division Reception/
SE-22/\$25 (regular)/SE-23/\$5.00 (student)**

5 to 7 PM, Grand Hyatt Washington, Lafayette Park

HIST "No Belles" Theater Performance

5 to 7 PM, Grand Hyatt Washington, Constitution Ballroom B

University of Maryland, College Park, Alumni & Friends Social Hour

5 to 7 PM, Grand Hyatt Washington, Penn Quarter A

AGRO Blues-N-Brews

5:15 to 6:30 PM, Renaissance Washington DC Downtown, Congress Ballroom C

Division Officers & Councilors Caucus (DOC/DCC) Reception

5:30 to 6:30 PM, Walter E. Washington Convention Center, Rooms 203A-B

District I Councilor Caucus

5:30 to 7 PM, Marriott Marquis Washington DC, Magnolia

ACS Presidential LGBTQ & Allies Reception

5:30 to 7:30 PM, W Washington DC, Altitude

INOR Poster Session

5:30 to 7:30 PM, Walter E. Washington Convention Center, Hall D

ORGN Poster Session

5:30 to 7:30 PM, Walter E. Washington Convention Center, Hall D

MEDI Hall of Fame

5:30 to 7:30 PM, Walter E. Washington Convention Center, Rooms 150A-B

ENVR Division Reception/SE-25/\$20

6 to 7:30 PM, Pennsylvania 6, 1350 I St. N.W.

CATL Poster Session

6 to 8 PM, Walter E. Washington Convention Center, Hall D

COMP Poster Session

6 to 8 PM, Walter E. Washington Convention Center, Hall C

I&EC General Posters

6 to 8 PM, Walter E. Washington Convention Center, Hall D

POLY/PMSE Poster Session

6 to 8 PM, Walter E. Washington Convention Center, Hall E

Herman Skolnik Award Reception Honoring David Winkler

6:30 to 8:30 PM, Grand Hyatt Washington, Independence Ballroom A

ENFL Division Dinner/SE-24/\$60

6:30 to 9 PM, Acadiana, 901 New York Ave. N.W.

Journey to Mars Reception/SE-27/\$60 (members)/SE-27/\$110 (nonmembers)/SE-27/\$10 (students)

6:30 to 10:30 PM, National Air & Space Museum, Independence Ave. and 6th St. S.W.

TOXI General Poster Session Dinner

6:30 to 10:30 PM, Walter E. Washington Convention Center, Ballroom C

BIOL Poster Session

7 to 9 PM, Walter E. Washington Convention Center, Hall E

ENVR Division Dinner/SE-26/\$60

7:30 to 9 PM, Pennsylvania 6, 1350 I St. N.W.

19th Annual ChemLuminary Awards Poster Session & Reception

8 to 9 PM, JW Marriott Washington DC, Capitol Ballroom

GEOC General Poster Session

8 to 10 PM, Walter E. Washington Convention Center, Hall D

19th Annual ChemLuminary Awards

9 to 10 PM, JW Marriott Washington DC, Grand Ballroom

19th Annual ChemLuminary Awards After-Party

10 PM to midnight, JW Marriott Washington DC, Capitol Ballroom

► Wednesday, August 23**Council Meeting Breakfast**

7 to 8 AM, Marriott Marquis Washington DC, Marquis Ballroom, Salons 1-6

Career Pathways I

7:30 AM to 5:30 PM, Westin Washington DC City Center, Section A

Council Meeting

8 AM to 1 PM, Marriott Marquis Washington DC, Marquis Ballroom, Salons 1-6

Career Pathways II

8 AM to 5:30 PM, Westin Washington DC City Center, Section B

Career Pathways III

8 AM to 5 PM, Westin Washington DC City Center, Section C

AGRO Poster Session

Noon to 2 PM, Walter E. Washington Convention Center, Hall D

Structure-Based Drug Design & Ligand Modification

3:30 to 6 PM, Walter E. Washington Convention Center, Room 103A

POLY/PMSE Awards Session

5:30 to 8 PM, Marriott Marquis Washington DC, Marquis Ballroom, Salon 6

AGRO Awards Social

6 to 8 PM, Renaissance Washington DC Downtown, Congress Ballroom C

ENVR General Posters

6 to 8 PM, Walter E. Washington Convention Center, Hall D

PHYS Poster Session

6 to 8 PM, Walter E. Washington Convention Center, Hall D

MEDI/ORGN Joint Poster Session

7 to 11 PM, Walter E. Washington Convention Center, Hall E

254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Chemistry's Impact on the Global Economy



Thematic Program organized by Nancy B. Jackson,
Retired, Sandia National Laboratories

Plenary Session

Sunday, August 20, 2017 3:00 – 6:00 PM

Walter E. Washington Convention Center, Ballroom A&B

Moderated by Thomas M. Connelly, Jr.,
Executive Director and CEO of the American Chemical Society



Nancy B. Jackson



Dr. Chuck Kahle

Dr. Chuck Kahle is the former Chief Technology Officer and Vice President of coatings research and development for PPG Industries. His responsibility included product development globally, administration of a \$500 million annual R&D budget and delivery of products that drove profitable growth from laboratories in the Americas, Europe, and Asia.

Chemistry's Impact on the Global Economy

Chemistry contributes to many sectors of the global economy - agriculture, pharma, commodity chemicals, basic materials and energy, to name a few. Dr. Kahle will examine the key dimensions of the industrial chemistry enterprise, and its trajectory, in the US, and beyond. Factors that are determining the growth rate of the enterprise will be explored, such as the rate of technology innovation, and the increasing emphasis on mergers and acquisitions within the industry. Emphasis will be given to the role of innovation in the enterprise, including ideas on how to accelerate the rate of chemistry innovation and how to improve success rates for innovations through stronger business cases and better market insights.



Prof. Joseph DeSimone

Prof. Joseph M. DeSimone is the Chancellor's Eminent Professor of Chemistry at the University of North Carolina at Chapel Hill, and William R. Kenan, Jr. Distinguished Professor of Chemical Engineering at North Carolina State University and of Chemistry at UNC.

Digital Light Synthesis to Drive Additive Manufacturing: Convergence of Hardware, Software and Molecular Science

This lecture will describe a new advance in additive manufacturing, referred to as Digital Light Synthesis, which is rapid, uses materials that have the requisite properties to yield final parts, and is economically competitive. Our approach promises to advance the industry beyond basic prototyping, which is what 3D printing has primarily been limited to, to truly enable 3D manufacturing.

Exposition

SEE WHAT'S NEW INSIDE THE EXPOSITION. Visit the ACS National Exposition at the Walter E. Washington Convention Center, Halls A–B, from Sunday, Aug. 20, through Tuesday, Aug. 24. The show hours will be Sunday, 6 to 8:30 PM, and Monday and Tuesday, 9 AM to 5 PM.

Companies will showcase services, instruments, books, computer hardware, scientific software, and an array of chromatographic, lab, and safety equipment. Technical personnel will give demonstrations, answer questions, and discuss your needs and interests. Join us at the ACS booth in the middle of the exposition floor, where ACS staff members will present the many benefits, services, products, and merchandise offered by ACS.

Visit the revamped ACS Career Fair where you'll meet recruiters from top employers. Create an online profile and upload your résumé to our database, where recruiters can schedule in-person interviews with you. While at the Career Fair, network with potential employers and drop off your résumé, attend Career

Pathways workshops, and meet with ACS Career Consultants.

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/wdc17 to learn more about exhibiting companies and to download product information.

Free exhibitor workshops. Free workshops will be hosted by exhibitors on the exposition floor and in private rooms inside the Walter E. Washington 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 registrations are available at www.acs.org/wdc17.

Special events. Join us for several ACS Divisions poster sessions on the expo floor. Don't forget to visit us on Sunday from 6 to 8:30 PM for the Attendee

Welcome Reception. Have an afternoon break while meeting the ACS president-elect candidates inside the exposition on Monday from 1 to 3 PM. Take another afternoon break on Tuesday from 3 to 5 PM and visit the exhibitors before the exposition closes.

Internet & technology. Use free internet access and leave messages for one another at the Meeting Mail terminals located throughout the meeting and inside the exposition. Also, enjoy free Wi-Fi service at the Walter E. Washington Convention Center.

Admission requirements & expo-only registration. Exposition admission is complimentary for all national meeting registrants; however, you are required to wear your badge. Individuals who want to visit the exhibits without registering for the technical component of the national meeting can obtain an expo-only badge for \$60. Students with school identification can obtain an expo-only badge for \$30. Registration can be handled online, by mail, or in person at ACS attendee registration at the Walter E. Washington Convention Center.

Exhibitor workshops

► Sunday, Aug. 20

Discoveries Using Flow: Drug Development & Beyond. *Sponsor:* ThalesNano Nanotechnology, 3:30 to 6 PM, Walter E. Washington Convention Center, Room 103A. Come and learn from our industrial and academic invited speakers on how they utilized flow chemistry during their discovery processes.

► Monday, Aug. 21

Illuminating Your Insights with Wiley Spectra Libraries. *Sponsor:* Wiley, 9:30 AM to noon, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 1. A review of new libraries from Wiley in Raman, GC/MS, NMR, and LC/MS.

Teaching Laboratory Safety in the Undergraduate Chemistry Curriculum.

Sponsor: Flinn Scientific, 9:30 AM to noon, Walter E. Washington Convention Center, Room 103A. Many faculty and lab managers at undergraduate institutions often find it difficult to incorporate laboratory safety throughout their courses. Join us as we discuss how to integrate Flinn Scientific's new, engaging online student laboratory safety course and other valuable safety resources into your curriculum, and learn how these resources can be used to build a positive safety culture in your department and school. Presented by Flinn Scientific staff scientist Mike Marvel.

30-Minute Workflow Innovations.

Sponsor: Agilent Technologies, 9:30 AM to noon, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2. Join Agilent Technologies as we explore optimizing

workflows in 30-minute increments. Sessions will vary. Stop by Agilent Booth #911 for details.

Benchtop NMR: Applications in Industry & Academia.

Sponsor: Magritek, 12:30 to 3 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2. Benchtop NMR is a revolutionary technology that provides convenient, high-throughput NMR analysis at a fraction of the cost of traditional high-field NMR systems. The small footprint of the maintenance-free instrument means it can be placed on the bench in the lab right next to where students, researchers, and lab technicians need it. Thanks to the exceptional sensitivity and advanced capabilities of these instruments, low-field NMR can now be used for routine sample identification and purity analysis, molecular structure elucidation and confirmation, and many other real-life uses. This workshop presents practical applications of benchtop

NMR within industry, research labs, and academic education.

NMR as a Quantitative Method & What Can NMR Do for the Chemist? *Sponsor:* Bruker, 12:30 to 3 PM, Walter E. Washington Convention Center, Room 103A.

Part I: NMR is a Quantitative Method!

Introduction to NMR as a quantitative method. Topics will include the following:

- ▶ A bit of theory: Why is NMR quantitative?
- ▶ Practical aspects of quantitative NMR: What do you need to worry about?
- ▶ Internal versus external referencing: pros and cons of each.
- ▶ Advantages and pitfalls: When and where can it go wrong?

Part II: What Can NMR Do for the Chemist? Introduction to experiments beyond 1-D proton and carbon spectra. Topics will include the following:

- ▶ Two-dimensional experiments commonly used for structure verification and elucidation, such as COSY, TOCSY, HSQC, and HMBC.
- ▶ Examination of NMR active nuclei that might be of interest to the inorganic chemist and important things to consider when running these experiments.
- ▶ Brief introduction to magic-angle spinning (HR-MAS and MAS) methods.
- ▶ Quick look into the possibilities of triple resonance biomolecular NMR.

▶ Tuesday, Aug. 22

Mass Spectrometry for Chemists: Direct Analysis of TLC Plates (Solids & Gases). *Sponsor:* Advion, 9:30 AM to noon, Walter E. Washington Convention Center, Exhibit Hall A, Workshop Room 4. TLC/MS, the atmospheric liquids and solids probe (ASAP), and the volatile APCI source provide direct analysis without sample preparation, even for air-sensitive compounds. With the daily need to analyze a variety of samples, these techniques are indispensable in a busy lab. Learn how a single instrument can be adapted to each of these sample requirements and rapidly changed to accommodate back-to-back assays. Listen to users in the field speak about the innovative sample inlets that have cut down on sample prep and streamlined their everyday workflow.

Chromatographers, Join the Mass Movement Toward Mass Spectrometry! *Sponsor:* Thermo Fisher Scientific, 12:45 to 1:45 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2. Hear about our latest addition to the Thermo Fisher Scientific mass spectrometry family: the Thermo Scientific ISQ EC single quadrupole mass spectrometer, which is making mass spectrometry available to all chromatographers. Learn about its advanced dual-role design that provides exceptional low-molecular-weight performance with LC-MS and IC-MS.

Selecting the Correct Column for Better Chromatography. *Sponsor:* Thermo Fisher Scientific, 1:45 to 2:45 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2. Having the right column for your application is critical to obtaining the analytical results and throughput that you need. Discover how to simplify your choice of the correct phase, particle size, and column dimensions, as well as how these choices impact your analytical and workflow needs.

Research in Germany Science Lunch.

Sponsor: Research in Germany, 12:30 to 3 PM, Walter E. Washington Convention Center, Exhibit Hall A, Workshop Room 4. Funding opportunities for students and researchers planning to study or research in Germany. How to plan your study or research stay in Germany and how to set up collaborations with Germany.

Rapid Materials Identification & Reverse Engineering Using Raman Spectroscopy. *Sponsor:* Bruker, 12:30 to 3 PM, Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 1. The latest advances in Raman instrumentation and applications will be reviewed in this seminar with a thorough discussion of the following topics:

- ▶ Materials identification.
- ▶ Additives and contaminations.
- ▶ Defects analysis using Raman microscopy.
- ▶ Chemical imaging and depth profiling.

Examples of applications will include the classification of polymers, identi-

cation of layers in multilayer polymer films, and tablet imaging. The seminar will include live demonstration of the new Bruker Bravo handheld Raman spectrometer and a hands-on session. Attendees may bring their samples for the analysis.

Accelerating Organic Synthesis without Microwaves. *Sponsor:* Anton Parr, 12:30 to 3 PM, Walter E. Washington Convention Center, Room 103A. Organic chemistry and performing chemical reactions are key components of the educational process for future synthetic chemists. However, many reactions when run on a hot plate or Bunsen burner at ambient pressures require overnight or even longer reactions times, preventing them from being incorporated into a lab curriculum. More recently, synthesis reactors, operating at elevated temperatures and pressures, have been established as a reliable method for notably accelerating chemical reactions. The reaction time can often be reduced from overnight when using a hot plate to only minutes when using a synthesis reactor. This substantial reduction in the reaction time enables a wide range of reactions to be completed during a normal educational laboratory session. This in-depth presentation by professor Oliver Kappe explores the development of both microwave- and nonmicrowave-based synthetic reactors and discusses their implementation and use in both educational and R&D settings.

▶ Wednesday, Aug. 23

Structure-Based Drug Design & Ligand Modification. *Sponsor:* Chemical Computing Group, 3:30 to 6 PM, Walter E. Washington Convention Center, Room 103A. The course covers MOE applications for interactive, structure-based design. Examples include active site visualization, protein-ligand contact analysis, and ligand modification and optimization in the receptor pocket. Conformational searching and analysis of the ligand to assess ligand flexibility will be discussed. A protocol for aligning and superposing protein complexes in the context of protein selectivity will be studied.

EXHIBITORS

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ACS Committee on Chemical Health & Safety, P.O. Box 152329, San Diego, CA, United States 92195, 619-990-4908, Internet: www.acs.org/safety. The ACS Committee on Chemical Safety and the Division of Chemical Health and Safety provide this opportunity for you to learn more

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ACS Division of Small Chemical Businesses (SCHB), 4344 Moorpark Ave., Ste # 1, San Jose, CA, United States 95129, 408-834-8597, fax: 408-351-7900, e-mail: expo-booth@acs-schb.org, Internet: www.acs-schb.org. **526**

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ACS Meetings & Expositions, 1155 Sixteenth Street NW, Washington, DC, United States 20036, 800-227-5558, fax: 202-872-6128, e-mail: m_stevenson@acs.org, Internet: www.acs.org/meetings. Register for a regional meeting or get information on submitting an abstract to a meeting in your region. The programming is diverse and exciting! Meet the volunteers who are planning these meetings at the booth. Visit the regional meetings website at www.acs.org/regionalmeetings for a tour of this year's conferences. **ACS Booth**


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ACS Publications, 1155 16th Street, N.W., Washington, DC, United States 20036, 202-872-6862, fax: 202-872-6005, e-mails: jackson@acs.org, Internet: pubs.acs.org. ACS Publications: The leading publisher in chemistry and related sciences.

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ChemBridge Corp., 11199 Sorrento Valley Rd., Suite 206, San Diego, CA, United States 92121, 858-451-7400, fax: 858-451-7401, e-mail: sales@chembridge.com chembridge.com, Internet: www.chembridge.com ChemBridge Corporation is a global provider of enabling chemistry products and contract research services for small molecule drug discovery. ChemBridge's extensive portfolio includes over 1,000,000 diverse and target-focused screening compounds, 14,000 chemical building blocks, our Hit2Lead.com on-line chemical store, and high-end, research-intensive custom library and chemistry services. **1626**

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Vigor Tech USA, LLC, 5100 Westheimer Road, Suite 200, Houston, TX, United States 77056, 716 200 1200, e-mail: info@vigor-glovebox.com, Internet: www.vigor-glovebox.com **1724**

W.W. Norton, 500 Fifth Ave., New York, NY, United States 10110, 212-790-4357, fax: 212-790-4261, Internet: www.wwnorton.com The oldest and largest publishing house owned wholly by its employees, W. W. Norton, Inc. publishes about 400 trade, college, and professional titles each year. **1601**

Waters Corp., 34 Maple Street, Milford, MA, United States 01757, 508-482-2000, fax: 508-482-2674, e-mail: info@waters.com, Internet: www.waters.com Waters Corporation, the premium brand in the analytical instruments industry, creates business advantages for laboratory-dependent organizations by delivering practical and sustainable scientific innovation to enable significant advancements in chemical analysis, healthcare delivery, environmental management, food safety, and water quality worldwide. **1801**

Wavefunction, Inc., 18401 Von Karman, Suite 370, Irvine, CA, United States 92612, 949-955-2120, fax: 949-955-2118, e-mail: sales@wavefun.com, Internet: www.wavefun.com Wavefunction, Inc.: Molecular Modeling Software provider for chemistry research and education. **1009**

Welch by Gardner Denver, 1601 Feehanville Drive, Suite 550, Mount Prospect, IL, United States 60056, 847-676-8800, fax: 847-677-8606, Internet: www.welchvacuum.com Welch is a global leader in vacuum technology, offering a broad portfolio of environmentally responsible vacuum products and services. We bring value into the laboratory, OEM and light industrial markets with renowned vacuum expertise and robust new product development. With manufacturing on three continents, global distribution, and an extensive service network, Welch provides advanced vacuum solutions for every application need. We combine expert field support with advanced engineering to benefit Welch Customers - high quality, excellent service, and the right pump for the right job. The Welch product line includes the revolutionary CHEMSTAR DRY oil-free deep vacuum system (patent pending). **1501**

Wiley, 111 River St. 4-02, Hoboken, NJ, United States 07030, 201-748-6000, Internet: www.wiley.com Wiley's product diversity is unique, spanning books, journals, databases, web-portals and workflow tools. Visit Booth #1100 to learn what's new at Wiley and browse our books on display - ACS attendees receive 30% off orders and FREE worldwide shipping! **1100**

WilmaLabGlass, 1172 N.W. Boulevard, Vineland, NJ, United States 08360, 856-691-3200, fax: 856-691-6206, e-mail: cs@wilmaLabglass.com, Internet: www.wilmaLabglass.com **1721**

Workrite Uniform Company, 1701 North Lombard St., Oxnard, CA, United States 93030, 800-521-1888, fax: 805-483-0678, e-mail: info@workrite.com, Internet: www.workritecorp.com Workrite Uniform Company's new Workrite FR/CP Lab Coat is made from flame-resistant (FR) Nomex IIIA with a proprietary, chemical splash protection (CP) technology - Westex ShieldCXP. This innovation is designed to shed small amounts of liquid chemicals when they are dropped or splashed on the fabric. **902**

WuXi AppTec (Shanghai) Co. Ltd., 288 Fute Zhong Road, Waigaoqiao Free Trade Zone, Shanghai, China 200131, e-mail: hr@wuxiapptec.com, Internet: www.LabNetwork.com LabNetwork, a WuXi AppTec company, is a global eCommerce platform connecting suppliers and buyers of research products. Backed by WuXi AppTec's expertise in R&D, sourcing, quality control, warehousing and logistics, LabNetwork brings high-quality compounds from WuXi's network of qualified providers to the global chemistry/R&D community. **600**

Wyatt Technology Corp., 6300 Hollister Avenue, Santa Barbara, CA, United States 93117,

805-681-9009, fax: 805-681-0123, e-mail:info@wyatt.com, Internet: <http://www.wyatt.com> Wyatt Technology is the recognized leader in instrumentation for determining the absolute molar mass, size, charge and interactions of macromolecules and nanoparticles in solution. These tools include: in-line multi-angle static light scattering, high-throughput dynamic light scattering, differential refractometry, electrophoretic mobility, differential viscosity, field flow fractionation and automated composition gradient. **1705**

X-Ability Co., Ltd., Ishiwata Building, 3rd Floor, 4-1-5 Hongo, Bunkyo-Ku, Tokyo, Japan 113-0033, +81-3-5800-7731, e-mail:rkoga@x-ability.jp, Internet: x-ability.com **622**

Xenocs SA, 19 rue Francois Blumet, Sassenage, France 38360, +33 (0)4 76 26 98 59, Internet: www.xenocs.com **1435**

Yamazen Science, Inc., 1455 Rollins Road, Burlingame, CA, United States 94010, 650-347-7750,

fax: 650-347-6496, e-mail:info@yamazenusa.com, Internet: www.yamazenscience.com Yamazen manufactures Japan's Leading Automated Flash Purification Systems & High Resolution Columns with 45 years of Chromatography experience. US Patented software (SMART FLASH) gearing toward GREEN CHEMISTRY: Fast (4CV) & Predictable, Streamlined & Advanced Chromatography & Low Solvent Usage. W-Prep: Parallel system can run two columns simultaneously. ELSD, RI, MS & TLC Reader as add-ons. **401**

2017 NEW PRODUCT LISTINGS

Ace Glass, Inc.**Booth # 1901**

Scale-Up Reactor
Dual Stand
Filtration Apparatus

Advion**Booth # 1401**

expression CMS
TriVersa NanoMate
Plate Express
Atmospheric Solids Analysis Probe (ASAP)
Inert Atmospheric Solids Analysis Probe (iASAP)

Anton Paar USA**Booth # 1217**

Microwave Digestion System: Multiwave GO
Raman Spectrometers – RamSpec
Particle Analysis: Litesizer 500
Refractometer: Abbemat 350
Rheometer MCR 72

Ark Pharm, Inc.**Booth # 1026**

2-Amino-6-bromonicotinic acid, 1196157-51-3
4-Iodo-1H-pyrrole-2-carbaldehyde, 33515-62-7
6-Bromo-5-fluoro-1H-indazole, 1286734-85-7
6-Bromo-2-chloroquinazoline, 882672-05-1
2-Amino-4-bromobenzaldehyde, 59278-65-8

Athena Enzyme Systems**Booth # 527**

Contichrom Cube HPLC
Contichrom Cube LC

Bio-Logic USA, LLC**Booth # 1821**

JTS-10
Chemglass

Chemglass Life Sciences**Booth # 1800**

Digital Temperature Recorders/Data Loggers
Air Condensers with Finned Aluminum Jackets
Dual and Triple Benchtop Reactors

ChemLogic**Booth # 315**

KEMBLOX

Chemrus Inc.**Booth # 520**

disposable filter funnel
multi-flask reaction kit

Chengdu Aslee Biopharmaceuticals, Inc.**Booth # 726**

Organic Building Block
Organoboron
Organotin
Organic Intermediates
Organic Chiral Ligands

Chrom Sword**Booth # 804**

ChromSword Developer
ChromSword DataSystem
ChromSword AutoRobust
ChromSword ReportViewer
ChromSword Offline

CombiPhos Catalysts, Inc.**Booth # 1320**

Deuterium reagents
Boronic acids
Boronic acid pinacol esters
Cross-coupling catalysts
Pyridine-2-boronic acids

FRITSCH Milling and Sizing**Booth # 1608**

Pulverisette 14 Premium Line
Analysette 28 Image Sizer
Pulverisette 6 Premium Line
Analysette 22 Laser Particle Size Analyzer
Pulverisette 7 Premium Line

Gaussian**Booth # 1225**

Gaussian
Gaussview
AMPAC

Glas-Col**Booth # 2120**

Ductless Fume Hoods

Harvard Apparatus**Booth # 1627**

Pump 33 DDS Dual Drive System

Horizon Technology Inc.**Booth # 321**

SPE-DEX 5000 Disk Extraction System
SmartPrep Automated Cartridge Extractor II
SPE-Z Prep Manifold for Disk Extraction
XcelVap Automated Evaporation/Concentration System
DryVap Automated In-Line Drying and Concentration

Industrial Test Systems**Booth # 2026**

eXact iDip Smart Photometer System
Arsenic Quick Kits

InfoChem GmbH**Booth # 1221**

ICSynth
ICFRP
ICAnnotator
ICFSE Markush
SPRESI data

Kishida Chemical Co., Ltd.**Booth # 820**

Tris(2,2,2-trifluoroethyl) Phosphate
Luknova Inc.

Luknova Inc.**Booth # 325**

EasyFil Filters
SuperSep Flash Columns
SelectFlash Silica
SuperBond Materials
SelectBond Materials

Lumex Instruments Canada**Booth # 1927**

Capillary Electrophoresis
Mercury Analyzers
Microchip-based qPCR
FT-IR/FT-NIR
AAS

Magritek Inc.**Booth # 801**

Benchtop NMR
Spinsolve
NMR Spectrometer
Benchtop NMR Spectrometer

Molecular Vista**Booth # 322**

Vista Scope

Nanalysis Corp.**Booth # 301**

NMRReady 60e
NMRReady 60Pro
NMRReady Flow
NMRReady Connect

New Era Enterprises**Booth # 1704**

Micro Pipet for 1.7mm Capillaryes
Sample Reaction System-5mm
Compression Gel Device
Dummy Sample Tube-non-glass

Ocean Optics, Inc.**Booth # 1525**

Ocean FX

OLIS, Inc.**Booth # 1611**

iC280 spectrometer
iC430 spectrometer
OlisWorks for 8453

Omicron Biochemicals, Inc.**Booth # 218**

D-glucose-13C
Sucrose-13C
N-glycan
O-glycan
nucleosides

OriginLab Corp.**Booth # 1417**

Origin Software
OriginPro Software

Oxford Lasers**Booth # 2204**

VisiSize Portable
VisiSize N60
FireFly 300W
FireBird 1000W

Park Systems, Inc.**Booth # 500**

Park NX10
Park NX10 SICM
Park NX-Bio
Park NX20
Park XE7

Parr Instrument Co.**Booth # 2001**

Parr 4878 Automated Liquid Sampler

Regis Technologies**Booth # 1904**

Whelk-O 1
RegisPack
RegisCell
IAM HPLC Columns
RegisSEP Purification Services

Research In Germany**Booth # 2210**

Funding for international research collaboration

Science China Press**Booth # 522**

Science China Chemistry
Science Bulletin
Science China Materials
Journal of Energy Chemistry

Scitegrity**Booth # 219**

Controlled Substances Squared
CS2

Semichem**Booth # 1223**

AMPAC
Codessa
Gaussview

Showa Denko America Inc.**Booth # 1708**

HK-404L (rapid analysis GPC column)

Sorbent Technologies**Booth # 917**

SorbaRes
SorbaDex

TA Instruments**Booth # 1805**

Discovery SDT
Affinity ITC
Discovery TGA

ThalesNano Nanotechnology Inc.**Booth # 926**

H-Cube Mini Plus
H-Cube Pro
Phoenix Flow Reactor
Flash Reactor Plus
IceCube

Waters Corp.**Booth # 1801**

XEVO TQ-XS
ACQUITY Arc
ACQUITY QDa

Wavefunction, Inc.**Booth # 1009**

Spartan'16 Parallel Suite
Spartan Student Edition version 7
Odyssey Instructor Edition version 5
Odyssey Student Edition version 5
iSpartan and Odyssey Apps

Welch by Gardner Denver**Booth # 1501**

CRVpro - Robust Rotary Vane Pumps
WelchNet - Modular Lab Vacuum Network
ChemStar Dry - Oil Free Deep Vacuum
PTFE Diaphragm Pumps and Systems
DUOSEAL - Belt Drive Pumps

Wyatt Technology Corp.**Booth # 1705**

miniDAWN TREOS II
ViscoStar II Viscometer

Yamazen Science, Inc.**Booth # 401**

AKROS
TLC Reader
ELSD
WPrep-2XY
Smart Flash-MS

COMPANIES LISTED BY BROAD CATEGORIES

A more detailed product listing can be found by visiting the National Exposition at www.acs.org/wdc17. In addition to Meeting Mail stations in the convention center, product categories, along with companies supplying the products, can be searched using this free service.

Academic & Educational Services

101	320
Ace Glass, Inc.	1901
ACS Committee on Chemical Health & Safety	1038
ACS Education	ACS Booth
ACS Publications	ACS Booth
ACS Senior Chemists	1042
Anasazi Instruments Inc.	403
Bio-Rad Laboratories, Informatics Division	2126
CAS	ACS Booth
Chemily, LLC	525
Chemistry At Your Fingertips	414
ChemLogic	315
Elsevier	1209
Flinn Scientific Inc.	2119
Gale, a Cengage Company	412
Gamry Instruments	1118
Gaussian	1225
Heidolph North America	1000
Hitgen Ltd.	727
InfoChem GmbH	1221
IOP Publishing	313
LabX Media Group	1607
Mestrelab Research SL	821
MicroLAB, Inc.	927
Molecular Vista	322
Nanalysis Corp.	301
Nat'l Academies Of Sciences Engineering and Medicine	502
Ocean Optics, Inc.	1525
Oxford University Press	1316
PASCO scientific	1441
Pine Research Instrumentation	933
Quantachrome Corp.	2027
Research In Germany	2210
Science China Press	522
Semichem	1223
Showa Denko America Inc.	1708
Software for Chemistry & Materials	1110
Taylor & Francis Group	1120
ThalesNano Nanotechnology Inc.	926
US EPA Green Chemistry Program	1036
US EPA Toxics Release Inventory Program	1040
Vernier Software & Technology	1424
W.W. Norton	1601
Wavefunction, Inc.	1009
Wiley	1100

Accessible Products

AdValue Technology	1027
Cambridge Crystallographic Data Ctr.	524
Chengdu Aslee Biopharmaceuticals, Inc.	726
Hitgen Ltd.	727
LABCONCO, Corp.	2208

Analytical Research

ACS Senior Chemists	1042
Agilent Technologies	911
Anasazi Instruments Inc.	403
Bio-Logic USA, LLC	1821
Bio-Rad Laboratories, Informatics Division	2126
Bruker	2100,2101
CAS	ACS Booth
Chemily, LLC	525
Chengdu Aslee Biopharmaceuticals, Inc.	726
Chrom Sword	804

FRITSCH Milling and Sizing	1608
Gamry Instruments	1118
Gaussian	1225
Harvard Apparatus	1627
Heidolph North America	1000
Hidden Analytical Inc.	1618
HORIBA Scientific	1725
JRF Global	2109
Lumex Instruments Canada	1927
Magritek Inc.	801
Malvern Instruments, Inc.	1900
Mestrelab Research SL	821
MilliporeSigma	1124
Molecular Vista	322
Nanalysis Corp.	301
Nat'l Academies Of Sciences Engineering and Medicine	502
New Era Enterprises	1704
Omicron Biochemicals, Inc.	218
OriginLab Corp.	1417
Oxford Lasers	2204
Park Systems, Inc.	500
Parr Instrument Co.	2001
Particle Sizing Systems	2301
PharmAgra Labs, Inc.	518
Pine Research Instrumentation	933
Postnova Analytics	1905
Quantachrome Corp.	2027
Regis Technologies	1904
Semichem	1223
Showa Denko America Inc.	1708
Teledyne Isco - Chromatography	1325
Thermo Fisher Scientific	1532,1533
U.S. Naval Research Lab	1820
US EPA Toxics Release Inventory Program	1040
Wavefunction, Inc.	1009
Wiley	1100
Wyatt Technology Corp.	1705

Business Management & Services

ACS Senior Chemists	1042
ChemSpace US Inc	901
Elsevier	1209

Career Development & Training

ACS Senior Chemists	1042
Chemistry At Your Fingertips	414
Gale, a Cengage Company	412
Pace Analytical	1503
Research In Germany	2210
Temple University School of Pharmacy	319
Wiley	1100

Chemical Health & Safety

ACS Committee on Chemical Health & Safety	1038
CAS	ACS Booth
Heidolph North America	1000
Industrial Test Systems	2026
JRF Global	2109
LABCONCO, Corp.	2208
Mestrelab Research SL	821
MilliporeSigma	1124
Nanalysis Corp.	301
Pace Analytical	1503
Quantachrome Corp.	2027
Scitegrity	219
ThalesNano Nanotechnology Inc.	926
US EPA Green Chemistry Program	1036
Workrite Uniform Company	902

Chemicals/Reagents/Raw Materials

AdValue Technology	1027
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Advanced ChemBlocks Inc.	1006
Advanced Polymer Materials Inc.	419
Aldlab Chemicals, LLC	326
Anasazi Instruments Inc.	403
Ark Pharm, Inc.	1026
Astatche, Inc.	621
Athena Enzyme Systems	527
Bellen Chemistry Co., Ltd.	1437
Berry & Associates	1619
Biopeptek Pharmaceuticals LLC	903
Boron Molecular	1517
Cedarlane	1406
ChemBridge Corp.	1626
Chemily, LLC	525
ChemMaster International Inc.	318
ChemSpace US Inc	901
CombiPhos Catalysts, Inc.	1320
Flinn Scientific Inc.	2119
Gaussian	1225
Hitgen Ltd.	727
Hypha Discovery LTD	418
Johnson Matthey	2021
JRF Global	2109
Kishida Chemical Co., Ltd.	820
Linkchem	932
Mestrelab Research SL	821
MilliporeSigma	1124
MPD Chemicals	2004
Oakwood Products Inc.	800
Omicron Biochemicals, Inc.	218
Oxchem Corporation	1413
PharmAgra Labs, Inc.	518
Regis Technologies	1904
Rieke Metals, LLC	523
Sorbent Technologies	917
Spectrum Chemical Mfg Corp.	1632
Strem Chemicals	2200
TCI America	1308
U.S. Naval Research Lab	1820
US EPA Green Chemistry Program	1036
WuXi AppTec (Shanghai) Co. Ltd.	600

Laboratory Equipment & Services

Ace Glass, Inc.	1901
Advion	1401
AGI USA Inc.	1826
Agilent Technologies	911
Anasazi Instruments Inc.	403
Anton Paar USA	1217
Asynt Ltd.	1726
Athena Enzyme Systems	527
Bellen Chemistry Co., Ltd.	1437
Bio-Logic USA, LLC	1821
Brookhaven Instruments Corp.	1706
Bruker	2100,2101
Chemglass Life Sciences	1800
ChemLogic	315
Chemrus Inc.	520
DLAB Scientific Co.Ltd.	1702
Ecodyst, Inc.	1722
Edinburgh Instruments	1827
Flinn Scientific Inc.	2119
FRITSCH Milling and Sizing	1608
Gamry Instruments	1118
GERSTEL Inc.	1007
Glas-Col	2120
Harvard Apparatus	1627
Heidolph North America	1000
Hellma USA, Inc.	2218
Hidden Analytical Inc.	1618
HORIBA Scientific	1725
Horizon Technology Inc.	321
IKA Works, Inc.	1301,1405,1408
JASCO	2209
Keysight Technologies (formerly Agilent)	704
LABCONCO, Corp.	2208
Luknova Inc.	325
Lumex Instruments Canada	1927
Magritek Inc.	801
Malvern Instruments, Inc.	1900
Maruzen Co., Ltd.	1319
MicroLAB, Inc.	927
Molecular Vista	322
Nanalysis Corp.	301
New Era Enterprises	1704

EXPOSITION

NIST (Center for Nanoscale Science & Technology)	2216
Ocean Optics, Inc.	1525
OLIS, Inc.	1611
Oxford Instruments	702
Oxford Lasers	2204
Pace Analytical	1503
Park Systems, Inc.	500
Parr Instrument Co.	2001
Particle Sizing Systems	2301
PIKE Technologies	900
Pine Research Instrumentation	933
Postnova Analytics	1905
PROTO Manufacturing	1921
Quantum Analytics	1832
Sciex	705
Shimadzu Scientific Instruments Inc.	1600
Showa Denko America Inc.	1708
Sorbent Technologies	917
StellarNet Inc.	1727
Teledyne Isco - Chromatography	1325
ThalesNano Nanotechnology Inc.	926
Thermo Fisher Scientific	1532,1533
Thinky USA Inc.	1516
Vacuubrand	833
Vacuum Technology Inc.	701
Vernier Software & Technology	1424
Waters Corp.	1801
Welch by Gardner Denver	1501
Workrite Uniform Company	902
WuXi AppTec (Shanghai) Co. Ltd.	600
Wyatt Technology Corp.	1705
Yamazen Science, Inc.	401

Other

AAAS/Science & Technology Policy Fellowship	624
ACS Member Insurance Program	1037E
ACS Web Strategy & Operations	1037F
AIP Publishing - The Journal of Chemical Physics	1001
Bio-Rad Laboratories, Informatics Division	2126
Cell Press	1205
Chemistry At Your Fingertips	414
Hitgen Ltd.	727
Horizon Technology Inc.	321
IOP Publishing	313
Lumex Instruments Canada	1927
NASA	2133
Paraza Pharma Inc.	1513
Pfeiffer Vacuum Inc.	700
Research In Germany	2210
SCIENCE/AAAS	626
Sciex	705
Springer Nature	400,405
Taylor & Francis Group	1120
US EPA Toxics Release Inventory Program	1040
Wavefunction, Inc.	1009

R&D and Manufacturing Services

Ace Glass, Inc.	1901
Advanced ChemBlocks Inc.	1006
Advanced Polymer Materials Inc.	419
Anasazi Instruments Inc.	403

Astatech, Inc.	621
Athena Enzyme Systems	527
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Gaussian	1225
Hidden Analytical Inc.	1618
Hitgen Ltd.	727
Hypha Discovery LTD	418
IKA Works, Inc.	1301,1405,1408
Industrial Test Systems	2026
Johnson Matthey	2021
JRF Global	2109
Keysight Technologies (formerly Agilent)	704
Linkchem	932
Mestrelab Research SL	821
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MPD Chemicals	2004
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Semichem	1223
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Sorbent Technologies	917
Spirochem AG	721
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Vacuum Technology Inc.	701
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Scientific Computer & Data Management

Agilent Technologies	911
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Chemical Computing Group	1833
ChemSpace US Inc	901
Chrom Sword	804
Elsevier	1209
Gaussian	1225
InfoChem GmbH	1221
Lead Molecular Design, SL	1616
MicroLAB, Inc.	927
MilliporeSigma	1124
Molecular Knowledge Systems	521
OriginLab Corp.	1417
Pace Analytical	1503
PASCO scientific	1441
Schrodinger, Inc.	2201
Scitegrity	219
Semichem	1223
Software for Chemistry & Materials	1110
Thermo Fisher Scientific	1532,1533
U.S. Naval Research Lab	1820

Waters Corp.	1801
Wavefunction, Inc.	1009

Technical Literature/Websites/Databases

ACS Publications	ACS Booth
Bio-Rad Laboratories, Informatics Division	2126
ChemSpace US Inc	901
Elsevier	1209
InfoChem GmbH	1221
Molecular Knowledge Systems	521
Scitegrity	219
US EPA Green Chemistry Program	1036
Wiley	1100

Testing & Measurement Instrumentation

Agilent Technologies	911
Anasazi Instruments Inc.	403
Anton Paar USA	1217
B&W Tek	826
Bio-Logic USA, LLC	1821
Bruker	2100,2101
FRITSCH Milling and Sizing	1608
Gale, a Cengage Company	412
Gamry Instruments	1118
Harvard Apparatus	1627
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Malvern Instruments, Inc.	1900
Mestrelab Research SL	821
Molecular Vista	322
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Parr Instrument Co.	2001
Particle Sizing Systems	2301
Pfeiffer Vacuum Inc.	700
Postnova Analytics	1905
PROTO Manufacturing	1921
Quantum Analytics	1832
Shimadzu Scientific Instruments Inc.	1600
Showa Denko America Inc.	1708
StellarNet Inc.	1727
TA Instruments	1805
U.S. Naval Research Lab	1820
Vacuum Atmospheres Co.	1701
Vernier Software & Technology	1424
Waters Corp.	1801
Welch by Gardner Denver	1501
Wyatt Technology Corp.	1705

AUGUST 20 - 22, 2017

SUNDAY, 6PM - 8:30 PM

MONDAY & TUESDAY, 9AM - 5PM

WALTER E. WASHINGTON CONVENTION CTR, HALLS A & B

