FINAL PROGRAM





of professional development courses will be available; ACS Professional Education Short Courses have a separate registration and fee. For job seekers and employers, the career fair will provide opportunities for interviews (both on-site and online), one-on-one career assistance, and careerrelated workshops.

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

And if you're coming to Indianapolis because of the city's reputation for racing, ACS has organized special events at the Indianapolis Motor Speedway. On Sunday, for a fee and with registration, at-

tendees can ride with a professional driver in an Indy 500 pace car or in a Formula 1 sports car.—EMILY BONES

REGISTRATION CATEGORY	FEE STANDARD AFTER JULY 26
MEMBERS	
ACS member or society affiliate	\$445
Postdoctoral member	445
Emeritus or retired member	225
50-year member	No fee
Unemployed member (Dues waiver required)	No fee
Precollege teacher	95
Graduate, less than postdoctoral	185
Undergraduate	95
One-day registrant	225
NONMEMBERS	
Chemical scientist	\$780
Postdoctoral scientist	780
Visitor: Nonchemical scientist or chemical technician	445
Precollege teacher	95
Graduate, less than postdoctoral	370
Undergraduate	185
One-day registrant	445
Guest of registrant ^a	40
EXPOSITION-ONLY VISITORS	
Adult, exposition only	\$50
Student, exposition only	25

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

246TH ACS NATIONAL MEETING

INDIANAPOLIS, Sept. 8-12

THIS SEPTEMBER, chemists will gather in the town typically known for race car driving—Indianapolis. Appropriately, the fall ACS national meeting theme is "Chemistry in Motion." Symposia supporting the theme are organized by thematic program chair Robert A. Weiss, the Hezzleton E. Simmons Professor of Polymer Engineering at the University of Akron.

ACS President Marinda Li Wu will host 29 technical divisions and six committees in original programming over 696 half-day oral sessions and 112 poster sessions that include Sci-Mix. More than 7,000 papers will be presented, and nearly 2,200 poster presentations will take place at the meeting.

In addition to supporting the meeting theme, Wu will continue to support her presidential agenda, "Partners for Progress & Prosperity." On Monday and Tuesday she will sponsor symposia that include chem-

MEETING INFO ON THE WEB www.acs.org/indy2013 ists who have followed nontraditional career paths and who are entrepreneurs.

Actor and science advocate Alan Alda will speak at the ACS Board Open Session at noon on Sunday, Sept. 8. His talk will focus on communicating science, which he supports through the Flame Challenge and his involvement with Stony Brook University's Alan Alda Center for Communicating Science.

C&EN will celebrate its 90th anniversary at the meeting with two special events on Tuesday, Sept. 10. A webinar, which attendees can watch live at the ACS Booth in the exposition hall, will address the authenticity of foods and food labels. That evening, attendees can come to a reception with author and Food Network star Alton Brown.

Also on Tuesday, the Arthur C. Cope awardee and scholars will be recognized at a reception at the Hyatt Regency Indianapolis at 5:30 PM.

Many education-focused programs for high school teachers, undergraduate and graduate students, postdocs, and chemical professionals will be offered. A range

REGISTRATION

Early Registration. Early registration for the national meeting closed on July 26; registrations or payments received after July 26 will be processed at standard registration rates. Attendees who registered by July 26 should receive their badge credentials in the mail before the meeting. International registrants and early registrants who do not receive their badge credentials before the meeting must pick them up at ACS Attendee Registration (Indiana Convention Center, Wabash East Lobby).

Standard & On-Site Registration. Stan-

dard registration rates are in effect until Sept. 12. Register online at www.acs.org/ indy2013. A valid ACS membership number must be entered during registration to register as a member and receive your member discount on registration fees. Attendees who register after July 26 must pick up their badge credentials at ACS Attendee Registration in the Indiana Convention Center, Wabash East Lobby. Please bring your e-mail confirmation for faster processing.

In Indianapolis, attendees can pick up their badge credentials or complete a new registration using credit card, cash, check, or money order at ACS Attendee Registration in the Indiana Convention Center, Wabash East Lobby, 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.

TRAVEL

TRANSPORTATION DISCOUNTS. ACS

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

AIRLINES:

American Airlines

aa.com; (800) 433-1790 Promotion code: 7793BC

Delta

delta.com; (800) 221-1212 Meeting event code: NMEZF (U.S.) NMF26 (international) **United Airlines**

United Airlines

united.com; (800) 426-1122 Offer code: ZNVA937265

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: 02UZ0012

TRAIN:

Amtrak amtrak.com; (800) 872-7245 Reference code: X45P-973 (for phone reservations only)

EVENTS & ACTIVITIES

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

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

Tickets are sold on a first-come, firstserved basis. Ticket sales will close at 6 PM the evening prior to the event. Some event organizers may offer a limited number of tickets for sale at the door of the events. Cancellations or refund requests must be made by Aug. 16.

Locations and times are subject to change. To learn more about these events and to buy tickets or register, visit www.acs.org/indy2013.

FRIDAY, SEPT. 6

CHAS Workshop: Laboratory Safety (R) 8:30 AM to 4 PM, Indiana Convention Center, Room 105

CHAS Workshop: Laboratory Waste Management (R)

8:30 AM to 4 PM, Indiana Convention Center, Room 104

SATURDAY, SEPT. 7

CHAS Workshop: Going Global— Hazard Communication Meets Global Harmonization (R) 8:30 AM to 12:30 PM, Indiana Convention Center, Room 106

CHAS Workshop: Chemical Reactivity Hazards: Laboratory-Scale Recognition & Control (R)

8:30 AM to 4 PM, Indiana Convention Center, Room 104

CHAS Workshop: How To Be a More Effective Chemical Hygiene Officer (R) 8:30 AM to 4 PM, Indiana Convention Center, Room 107

COAChing Powerful Women Postdocs: Landing that First Academic Job (R) 8:30 AM to 5 PM, The Westin Indianapolis, State

TOXI Workshop: Mass Spectrometry: Theory, Instrumentation & Applications in Pharmaceuticals & Toxicology/ SE-16/\$40

1 to 4 PM, Indiana Convention Center, Room 114

TOXI Workshop: Nonacademic/Alternative Careers in Science/SE-15/\$40 1 to 4 PM, Indiana Convention Center, Room 115

International Lounge

2 to 6 PM, Indiana Convention Center, Wabash East Lobby

COACh Reception

5 to 7 PM, The Westin Indianapolis, Congress Room

ACS BADGE REPRINT POLICY

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

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

CHED Welcome Reception

6 to 8 PM, IUPDI Center for Teaching & Learning, 755 West Michigan St., Room UL1125

YCC Guerilla Bar Event

9 PM, Check "Younger Chemists Committee" on Facebook and @ycc_acs on Twitter for the location

SUNDAY, SEPT. 8– THURSDAY, SEPT. 12

Indianapolis Motor Hall of Fame Museum/SE-01/\$5

9 AM to 5 PM, Indianapolis Motor Speedway, 4790 West 16th St.

SUNDAY, SEPT. 8

IMS 500 Track Lap Experience

(This event provides the ticket holder to a track lap in an Indy 500 pace car on the Indy 500 track with a professional race car driver and a picture with an Indy 500 race car. Each car will hold three guests and one driver.)

SE-02/\$30 (student)/SE-03/\$50 (member)/SE-04/\$60 (nonmember) 9 to 11 AM

SE-05/\$30 (student)/SE-06/\$50 (member)/SE-07/\$60 (nonmember) 11 AM to 1 PM

SE-08/\$30 (student)/SE-09/\$50 (member)/SE-10/\$60 (nonmember) 1 to 3 PM

Persons participating in this event must be at least 18 years old, possess valid government-issued photo ID, and execute all required consent and liability releases.

IMS Miles Ahead Road Course Experience

(This event provides the ticket holder to a hot lap on the north section of the Formula 1 Road Course in a high-performance sports car driven by a professional race car driver and a picture with a 2013 John Cooper Works MINI Cooper Hardtop. Each car will hold one guest and one driver.)

SE-11/\$25 (member)/SE-12/\$30 (nonmember) 10 AM to noon

DIGITAL MEETING PROGRAM AVAILABLE AT www.acs.org/indy2013

SE-13/\$25 (member)/SE-14/\$30 (nonmember)

1 to 3 PM

Persons participating in this event must be at least 18 years old, possess valid government-issued photo ID, and execute all required consent and liability releases.

ENVR NRCC Certification Exams (R)

8 AM to noon, Crowne Plaza, Southern

ACS Career Fair Workshop: Career Pathways I

8 AM to 5:30 PM, Indiana Convention Center, Room 201

ACS Career Fair Workshop: Career Pathways II

8 AM to 5:30 PM, Indiana Convention Center, Room 202

ACS Career Fair Workshop: Career Pathways III

8 AM to 5:30 PM, Indiana Convention Center, Room 203

ACS Career Fair Workshop: Career Workshop

8 AM to 5:30 PM, Indiana Convention Center, Room 145

International Lounge

8 AM to 6 PM, Indiana Convention Center, Wabash East Lobby

Undergraduate Student Hospitality Center

9 AM to 5 PM, Indianapolis Marriott Downtown, Marriott Ballrooms 1–5

ACS Career Fair

9 AM to 5:30 PM, Indiana Convention Center, Hall A

Undergraduate Workshop: Graduate School Reality Check, Part I: Getting In 9:45 to 10:45 AM, Indianapolis Marriott Downtown, Marriott Ballroom 9/10

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

10:45 to 11:45 AM, Indianapolis Marriott Downtown, Marriott Ballroom 9/10

Undergraduate Workshop: Getting Ready for the New "Student Chapter" Report Tool

11:45 AM to 12:45 PM, Indianapolis Marriott Downtown, Marriott Ballrooms 1–5

ACS Board Open Session & Luncheon

(Open to staff and attendees) Noon to 1 PM, Indiana Convention Center, Sagamore Ballrooms 5–7

CHED High School-College Interface Luncheon/SE-17/\$35

(Included at no charge with high school teacher registration.) Noon to 1 PM, Indianapolis Marriott Downtown, Indianapolis Ballrooms F & G

Presidential Event Honoring the 90th Birthday of Carl Djerassi & Reception

1 to 4:30 PM, Indiana Convention Center, 500 Ballroom

Leadership Development Workshop: Coaching & Feedback (R)

1 to 5 PM, JW Marriott Indianapolis, Room 313

ANYL Poster Session

3 to 5 PM, Indiana Convention Center, Halls F & G

Undergraduate Workshop: Networking Social with Graduate School Recruiters

3 to 6 PM, Indianapolis Marriott Downtown, Marriott Ballroom 6

Undergraduate Workshop: Careers in

Chemistry Pharmaceutical R&D 3:30 to 5 PM, Indianapolis Marriott Downtown, Marriott Ballroom 9/10

"Chemistry in Motion" Plenary Session 4 to 6 PM, Indiana Convention Center, Sagamore Ballrooms 5–7

Directors At-Large Town Hall Meeting 4:45 to 5:45 PM, JW Marriott Indianapolis, White River Ballroom F

ACS Petroleum Research Fund & Research Corporation Reception 4:45 to 8 PM, JW Marriott Indianapolis, Grand Ballroom 10

Author Reviewer Reception

5 to 7 PM, JW Marriott Indianapolis, Grand Ballroom 6

University of Wisconsin, Madison, Department of Chemistry Alumni & Friends Reception

5 to 7 PM, Indianapolis Marriott Downtown, Indiana Ballroom E

Chemistry at Illinois Alumni & Friends Reception

5 to 8 PM, The Westin Indianapolis, Capitol III

ACS Diversity Reception 5:30 to 7:30 PM, JW Marriott Indianapolis, Grand Ballroom 4

IAC International Welcoming Reception 5:30 to 7:30 PM, JW Marriott Indianapolis, White River Ballroom E

BIOL Poster Session 5:30 to 8 PM, Indiana Convention Center, Hall H

District II Councilor Caucus 6 to 7 PM, JW Marriott Indianapolis, White River Ballroom C

District IV Councilor Caucus 6 to 7 PM, JW Marriott Indianapolis, White River Ballroom G

District V Councilor Caucus 6 to 7 PM, JW Marriott Indianapolis, White River Ballroom H

District VI Councilor Caucus 6 to 7 PM, JW Marriott Indianapolis, White River Ballroom I

Mid-Atlantic Councilor Caucus 6 to 7 PM, JW Marriott Indianapolis, White River Ballroom D

CELL & INOR Poster Sessions 6 to 8 PM, Indiana Convention Center, Halls F & G

ACS Exposition 6 to 8:30 PM, Indiana Convention Center, Halls B–E

ACS Welcome Reception 6 to 8:30 PM, Indiana Convention Center, Halls B–E

CINF Welcome Reception & Scholarship for Scientific Excellence Poster Session 6:30 to 8:30 PM, Indiana Convention Center, Wabash Ballroom 1

MEDI General Poster Session 7 to 9 PM, Indiana Convention Center, Hall I

CARB Poster Session 7 to 9:30 PM, Indiana Convention Center, Halls F & G Event codes indicate what is required to participate: **(R)** registration, and payment when applicable, required; **SE-##** ticket required; all nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/indy2013.

CHED Poster Session

7:30 to 9 PM, Indiana Convention Center, Hall H

Chemistry & the Environment Film Series

7:30 to 9 PM, Indianapolis Marriott Downtown, Marriott Ballroom 9/10

ORGN Poster Session 8 to 10 PM, Indiana Convention Center, Halls F & G

MONDAY, SEPT. 9

YCC & Member Insurance Fun Run/ SE-18/\$30 (regular)/SE-36/\$20 (student)

7 to 10 AM, Indiana Convention Center, Wabash East Lobby

WCC Women in the Chemical Enterprise Breakfast/SE-19/\$40 (regular)/ SE-20/\$25 (student)

(A limited number of student tickets are available. Students may purchase regular tickets if student tickets are sold out.)

7:30 to 9:30 AM, JW Marriott Indianapolis, White River Ballroom E

Leadership Development Workshop: Engaging & Motivating Volunteers (R) 8 AM to noon, JW Marriott Indianapolis, Room 313

ACS Career Fair 8 AM to 5 PM, Indiana Convention Center, Hall A

ACS Career Fair Workshop: Career Pathways I

8 AM to 5:30 PM, Indiana Convention Center, Room 201

ACS Career Fair Workshop: Career Pathways II

8 AM to 5:30 PM, Indiana Convention Center, Room 202

CELEBRATING 90 YEARS OF C&EN

2013 marks C&EN's 90th anniversary as the premier news source of the chemistry enterprise, highly regarded throughout academia, government, and industry. Join us in the celebration by participating in all our festivities!

C&EN ANNIVERSARY ISSUE— SEPTEMBER 9

Don't miss this keepsake issue with nine editorial features profiling significant developments in the chemistry enterprise and much more! Copies of the issue will be available at the C&EN booth at the ACS Fall Meeting - stop by the booth and pick one up if attending the September meeting in Indy.

C&EN COMMEMORATIVE POSTER

The removable poster included in the September 9 issue leads you through the chemistry timeline with interesting dates, colorful graphics, and archived photographs. The poster is sure to be a keepsake item for C&EN readers. cen.acs.org/ninety.html

THE WATCH GLASS

Each week this pictorial blog showcases several articles from the C&EN Archives. Check out the wealth of stories and discover information in archived issues. **cen.watchglass.org**

C&EN WEBINAR-SEPTEMBER 10, 11:00 AM

Register for C&EN's free webinar -Food Fraud; How Scientists Detect It & What You Should Know, sponsored by Shimadzu.

Attending the ACS national meeting? Plan to come to the ACS booth on the expo floor Tuesday the 10th at 11:00 a.m. to participate in the webinar's live Q&A. **cen.acs.org/webinar**

Official sponsor of C&EN's 90th anniversary





cen.acs.org/ninety.html

FINAL PROGRAM

ACS Career Fair Workshop: Career Pathways III

8 AM to 5:30 PM, Indiana Convention Center, Room 203

ACS Career Fair Workshop: Career Workshop

8 AM to 5:30 PM, Indiana Convention Center, Room 145

International Lounge 8 AM to 6 PM, Indiana Convention Center, Wabash East Lobby

ACS Exposition 9 AM to 5 PM, Indiana Convention Center, Halls B–E

Undergraduate Student Hospitality Center 9 AM to noon, Indianapolis Marriott Downtown, Marriott Ballrooms 1–5

State Government Affairs Committees: Meet, Greet & Update

10 to 11 AM, JW Marriott Indianapolis, Room 206

Women Chemists of Color Networking Social 10 AM to noon, JW Marriott Indianapolis, Room 204

CMA Reception & Luncheon/SE-21/\$50

11:30 AM to 2 PM, JW Marriott Indianapolis, White River Ballroom E

CHAL Drug & Power Luncheon/ SE-23/\$40

Noon to 1:30 PM, Indiana Convention Center, Wabash Ballroom 1

Undergraduate Program Eminent Scientist Lecture & Lunch/SE-22/\$38

(Included at no charge with undergraduate registration.) Noon to 1:30 PM, Indianapolis Marriott Downtown, Marriott Ballrooms 1–5

Federal Funders Town Hall & Speed Coaching Meeting

Event codes indicate what is required to participate: **(R)** registration, and payment when applicable, required; **SE-##** ticket required; all nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/indy2013. 1 to 5 PM, Indiana Convention Center, Hall H

Leadership Development Workshop: Developing Communication Strategies (R) 1 to 5 PM, JW Marriott Indianapolis, Room 313

AGRO Education Award Poster Session 1:30 to 5:30 PM, Indiana Convention Center, Halls F & G

ACS Fellows Ceremony

2 to 4 PM, JW Marriott Indianapolis, Grand Ballroom 5

NASA Astronaut Don Pettit Discusses Proctor & Gamble's Orbit Colloids Experiment 2 to 4 PM, JW Marriott Indianapolis, Room 204

Undergraduate Research Poster Session 2 to 4 PM, Indiana Convention Center, Halls F & G

The Kavli Foundation Emerging Leader in Chemistry Lecture 4 to 5 PM, Indiana Convention Center, Sagamore Ballrooms 5–7

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

4 to 5:30 PM, Indiana Convention Center, Hall I

CHAL Happy Hour 5 to 8 PM, Hyatt Regency Indianapolis, Eagle's Nest

The Kavli Foundation Innovations in Chemistry Lecture

5:30 to 6:30 PM, Indiana Convention Center, Sagamore Ballrooms 5–7

COLL Poster Session, Social Hour & Open Business Meeting

5:30 to 8 PM, Indiana Convention Center, Hall H

Chinese-American Chemical Society Social Hour & Dinner/SE-24/\$30

6:30 to 9:30 PM, Luck Low Seafood Restaurant, 3623 Commercial Dr.

Purdue Alumni Reception/SE-25/No charge

7 to 8 PM, Indiana State Museum, 650 South Washington St. Visit the International Lounge in the Indiana Convention Center, Wabash East Lobby

ACS Graduate & Postdoctoral Scholars Reception

7 to 8:30 PM, Indiana Convention Center, 500 Ballroom

Scripps Research Institute Alumni Dinner

7:30 to 9:30 PM, The Capital Grille, 40 West Washington St.

Sci-Mix Interdivisional Poster Session & Mixer—Drink Ticket with Registration 8 to 10 PM, Indiana Convention Center, Halls F & G

State Government Affairs Committees: Become an Advocate for Science— Information Table

8 to 10 PM, Indiana Convention Center, Halls F & G

YCC Guerilla Bar Event

9 PM, Check "Younger Chemists Committee" on Facebook and @ycc_acs on Twitter for the location

TUESDAY, SEPT. 10

Senior Chemists Breakfast/SE-26/\$15 7:30 to 9:30 AM, JW Marriott Indianapolis, White River Ballroom E

University of Minnesota Alumni & Friends Breakfast/SE-27/\$5 7:30 to 9:30 AM, Indiana Convention Center, Wabash Ballroom 2

Leadership Development Workshop: Collaborating Across Boundaries (R) 8 AM to noon, JW Marriott Indianapolis, Room 313

ACS Career Fair 8 AM to 5:30 PM, Indiana Convention Center, Hall A

ACS Career Fair Workshop: Career Pathways I 8 AM to 5:30 PM, Indiana Convention

8 AM to 5:30 PM, Indiana Conventior Center, Room 201

ACS Career Fair Workshop: Career Pathways II

8 AM to 5:30 PM, Indiana Convention Center, Room 202

ACS Career Fair Workshop: Career Pathways III 8 AM to 5:30 PM, Indiana Convention Center, Room 203

ACS Career Fair Workshop: Career Workshop

8 AM to 5:30 PM, Indiana Convention Center, Room 145

International Lounge 8 AM to 6 PM, Indiana Convention Center, Wabash East Lobby

ACS Exposition

9 AM to 5 PM, Indiana Convention Center, Halls B–E

WCC/Eli Lilly & Co. Award Poster Session 11 AM to noon, JW Marriott Indianapolis, Grand Ballrooms 3 & 4

CINF Luncheon/SE-28/\$15 Noon to 1:30 PM, Indiana Convention Center, Wabash Ballroom 2

COLL Luncheon/SE-29/\$40

Noon to 1:30 PM, Indiana Convention Center, Wabash Ballroom 1

I&EC Graduate Award Symposia Luncheon/SE-30/\$47

Noon to 1:30 PM, Indianapolis Marriott Downtown, Marriott Ballroom 9

WCC Luncheon/SE-31/\$50 (regular)/ SE-32/\$30 (student)

(A limited number of student tickets are available. Students may purchase regular tickets if student tickets are sold out.) Noon to 1:30 PM, JW Marriott Indianapolis, Grand Ballrooms 3 & 4

AGRO Poster Session 1 to 5 PM, Indiana Convention Center, Halls F & G

AGFD & ENFL Poster Sessions 2 to 4 PM, Indiana Convention Center, Halls F & G

WCC Open Meeting "Just Cocktails" Reception

4 to 5:30 PM, JW Marriott Indianapolis, Grand Ballroom 7

Division Councilors & Officers Caucus

4 to 6 PM, JW Marriott Indianapolis, Grand Ballroom 1

PROF Henry Hill & Lou Sacco Awards Reception

5 to 6:30 PM, Indianapolis Marriott Downtown, Marriott Ballrooms 3 & 4

ANYL Reception/SE-38/\$10 5 to 7 PM, JW Marriott Indianapolis, Grand Ballroom 3

C&EN 90th Anniversary Reception/SE-33 (regular)/SE-37 (staff)/No charge

(Celebrate C&EN's 90th anniversary with author and Food Network star Alton Brown.) 5 to 7 PM, Indiana Convention Center, Sagamore Ballrooms 5–7

Dow Chemical LGBT Reception 5 to 7 PM, Chef Joseph's at the Connoisseur Room, 115 East Ohio St.

lota Sigma Pi—National Honor Society for Women Chemistry Networking Hour 5 to 7 PM, Indiana Convention Center, Room 207

JPC/PHYS Reception 5 to 7 PM, JW Marriott Indianapolis, White River Ballrooms E & F

Brannon, Sowers & Cracraft PC Reception

5 to 8 PM, Skyline Club, 1 American Sq., 36th floor

Arthur C. Cope Award & Arthur C. Cope Scholar Awards Reception 5:30 to 7 PM, Hyatt Regency Indianapolis, Cosmopolitan Ballroom C

District I Councilor Caucus 5:30 to 7 PM, JW Marriott Indianapolis, White River Ballroom A

MEDI Hall of Fame Ceremony 5:30 to 7:30 PM, Indiana Convention Center, Wabash Ballrooms 1 & 2

POLY/PMSE Poster Session & Reception 5:30 to 7:30 PM, Indiana Convention Center, Hall I

FOR UP-TO-DATE EVENT LISTINGS, VISIT www.acs.org/indy2013 **Thermo Fisher Scientific Reception** 5:30 to 7:30 PM, The Westin Indianapolis, Capital Ballroom I

BIOL Poster Session 5:30 to 8:30 PM, Indiana Convention Center, Hall H

CATL & INOR Poster Sessions 6 to 8 PM, Indiana Convention Center, Halls F & G

COMP Poster Session 6 to 8:30 PM, Indiana Convention Center, Hall H

ORGN Poster Session 8 to 10 PM, Indiana Convention Center, Halls F & G

TOXI Business Meeting, Poster Session & Awards Banquet 6 to 10 PM, Indianapolis Convention Center, 500 Ballroom

CINF Herman Skolnik Award Reception 6:30 to 8:30 PM, JW Marriott Indianapolis, Grand Ballroom 4

Indiana University Chemistry Alumni Event 6:30 to 8:30 PM, Indiana State Museum, 650 West Washington St.

ENFL Dinner/SE-34/\$65 6:30 to 9:30 PM, Harry & Izzy's, 123 South Illinois St.

ENVR Dinner & Social/SE-35/\$60 6:30 to 9:30 PM, Shula's Steak House, 50 South Capitol Ave.

Heroes of Chemistry Reception 7:30 to 9:30 PM, The Westin Indianapolis, Vienna Ballroom

15th Annual ChemLuminary Awards, Poster Session & Social Hour 8 to 8:45 PM, The Westin Indianapolis, Capital Ballroom

15th Annual ChemLuminary Awards Presentation 9 to 10:15 PM, The Westin Indianapolis, Grand Ballroom

15th Annual ChemLuminary Awards Celebration & Dancing 10 to midnight, The Westin Indianapolis, Grand Ballroom



SEARCHING FOR A FACULTY CANDIDATE?





Academic Employment Initiative Poster Session

A great opportunity to meet and screen a broad group of faculty candidates

Sci-Mix at the fall ACS National Meeting

Indiana Convention Center Monday, September 9, 2013 8:00 PM to 10:00 PM

View candidate biographical sketches: www.acs.org/AEI

WEDNESDAY, SEPT. 11

ACS Career Fair Workshop: Career Pathways I 8 AM to 5:30 PM, Indiana Convention Center, Room 201

ACS Career Fair Workshop: Career Pathways II 8 AM to 5:30 PM, Indiana Convention Center, Room 202

ACS Career Fair Workshop: Career Pathways III 8 AM to 5:30 PM, Indiana Convention Center, Room 203

ACS Career Fair Workshop: Career Workshop 8 AM to 5:30 PM, Indiana Convention Center, Room 145

International Lounge 8 AM to 6 PM, Indiana Convention Center, Wabash East Lobby

Leadership Development Workshop: Advancing the Extraordinary Leader Certification (R) Noon to 5 PM, JW Marriott Indianapolis, Room 313

AGRO Brainstorming for Boston & Beyond 5 to 7 PM, Crowne Plaza, Grand Central A–C

POLY/PMSE Awards Reception 5:30 to 8:30 PM, Hyatt Regency Indianapolis, Cosmopolitan Ballroom B

ENVR & INOR Posters Sessions 6 to 8 PM, Indiana Convention Center, Halls F & G

PHYS Poster Session 6 to 9 PM, Indiana Convention Center, Halls F & G

MEDI/ORGN Joint Poster Session 7 to 10 PM, Indiana Convention Center, Sagamore Ballrooms 5–7

Event codes indicate what is required to participate: **(R)** registration, and payment when applicable, required; **SE-##** ticket required; all nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/indy2013. Join us for the 246th American Chemical Society National Meeting & Exposition

Moving America forward with innovation. SEPTEMBER 8 - 12, 2013 • INDIANAPOLIS, IN

75 Years of Analytical Chemistry

emistry in Motion

The Chemistry of Racing

60+ Years of Advances in Carbohydrate Chemistry and Biochemistry: Symposium in Honor of Professor Derek Horton

Powering the planet with solar fuel

WCC: Women Chemists Committee Present: 24th Anniversary of The WCC/Eli Lilly Travel Award

> Solar Steam: Discovery, mechanism, and applications in energy

...and more, explore all the topics and register at www.acs.org/indy2013

Join ACS today and save up to \$335 on your Indy National Meeting Registration! An ACS National Meeting & Exposition offers you unparalleled opportunities to network with your peers and advance your career with a rich variety of presentations, technical programming, workshops, recruitment activities and social events. Visit our website today to learn more.



EXPOSITION

SEE WHAT'S NEW INSIDE THE

EXPOSITION. Visit the ACS National Exposition at the Indiana Convention Center, Halls B–E, from Sunday, Sept. 8, through Tuesday, Sept. 10. 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 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 members will present the many benefits, services, products, and merchandise offered by ACS.

Online Exposition. The Online Exposition is a component within the Exhibitor Directory that enables attendees to view videos, press releases, brochures,

and flyers of participating exhibitors. Access the Online Exposition at www.acs. org/indy2013 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 Indiana Convention Center. These workshops will introduce products and services, build skills with specific tools and techniques, and highlight innovative applications that may improve your productivity. Preregister at www. acs.org/indy2013 to reserve a spot.

Presentations, Prizes & Special Events. Visit the Daily Prize Raffle area from Sunday through Tuesday for a chance to win a prize. Also, don't forget to join us on Sunday from 6 to 8:30 PM for the Attendee Welcome Reception and visit the exposition to see exciting perks and prizes and for networking opportunities. Meet the ACS President-Elect candidates inside the exposition on Monday from 1 to 3 PM.

Start your day inside the exposition for a morning break from 9 to 10:30 AM on Monday and Tuesday. If your morning is hectic, join us for an afternoon break from 1 to 3 PM on Monday and Tuesday.

Redeem your tickets inside your registration packet. Available while supplies last.

Visit Experience Indy, booth 222, where local companies within the hospitality industry, restaurants, and shopping showcase their services and products. Also, don't miss the opportunity to experience riding in a race car simulator.

Internet & Technology. Utilize free Internet access and leave messages for one another at the Meeting Mail terminals located throughout the meeting. Also, enjoy free Wi-Fi service at designated areas in the Indiana 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 or in person at ACS Attendee Registration in the Indiana Convention Center, Wabash East Lobby.

EXHIBITOR WORKSHOPS

EXHIBITING COMPANIES will host free education sessions for attendees that will introduce products and services, build skills with specific tools and techniques, and highlight innovative applications for existing instrumentation. Exhibitor workshops are intensive sessions held at the Indiana Convention Center. Register by Sept. 6 for these workshops at www.acs. org/indy2013. After Sept. 6, visit exhibitors at their booths at the exposition, Indiana Convention Center, Halls B–E.

MONDAY, SEPT. 9

Part I: Advanced Polymer Chromatography: A Novel Technique for Rapid, High-Resolution Separations. Part II: Ultimate Efficiency Unleashed: Introducing CORTECS Solid-Core Particle Columns for Maximizing Resolution & Throughput. Sponsor: Waters, Booth 1104. Exhibitor Workshop Room 1. 8:30 to 11 AM.

Part I: Taking advantage of technologi-

cal advances in chromatographic separations, the use of ultra-high-performance size-exclusion chromatography, along with robust column technology, allows for improved resolution of polymers with short run times. Advances in instrument and column design provide control of separation parameters, enabling precise data generation for polymer characterization.

Part II: Responding to customer needs for continued improvements in resolution and throughput, Waters proudly introduces CORTECS Columns featuring 1.6-μm solid-core particle technology.

Why NMR Spectroscopy? Sponsor: Thermo Scientific, Booths 612 & 613. Exhibitor Workshop Room 1. Noon to 2:30 PM. Nuclear magnetic resonance is the most powerful analytical method in organic chemistry. It yields quantitative concentration, reveals structure, and identifies chemical groups. Our experts will demonstrate the capabilities of the picoSpin 45 and allow hands-on time with the instrument.

Advanced Polymer Characterization Workshop. *Sponsor:* Tosoh Bioscience, Booth 606. Exhibitor Workshop Room 2. Noon to 2:30 PM. Gel permeation chromatography, light scattering, viscometry, and beyond. Don't miss your chance to explore state-of-the-art solutions to the challenges of characterizing today's sophisticated polymer formulation.

TUESDAY, SEPT. 10

Exploring Chemistry Education: Partnering for Teaching & Learning. Sponsor: John Wiley, Booth 800. Exhibitor Workshop Room 2. 8:30 to 11 AM. As education evolves, Wiley relies on partnering with faculty and students to inform our publishing decisions. This workshop provides a forum to discuss the changing dynamics of education and what we can do to best meet your and your students' needs.

Author Workshop–How To Successfully Publish Scientific Articles. Sponsor: Elsevier, Booth 1500. Exhibitor Workshop Room 1. 9 to 11 AM. This workshop is for early-career scientists looking for assistance in identifying, preparing, and

submitting research articles to an academic journal. The workshop will provide advice on best practices, top tips, ethics, the review process, and other important considerations.

Research in Germany Science Lunch.

Sponsor: Research in Germany, Booth 511. Exhibitor Workshop Room 1. Noon to 2:30 PM. Get a "taste" of German research in chemistry. Talk with internationally renowned scientists working in Germany and representatives from German research funding organizations. Take the opportunity to network and mingle while having lunch with them.

New Advances in Chromatography & Mass Spectrometry. *Sponsor*: Thermo

Scientific, Booths 612 & 613. Exhibitor Workshop Room 2. Noon to 2:30 PM. Each part is a 30-minute session.

Part I: Applications for Hydraulic Fracturing Waters. This presentation will discuss how released flowback hydraulic fracturing water and improperly treated wastewater can affect environmental water, including drinking water, through ion chromatography, ICP-OES, and LC-MS/MS.

Part II: Trace Degradation Analysis in Li-ion Battery Electrolytes. This presentation will discuss how ion chromatography has aided in optimizing trace organic and inorganic analysis in lithium-ion battery electrolytes and their effect on lithiumion battery performance and cycle life.

Part III: Automate & Enhance Static Headspace Gas Chromatography Determinations. Learn how to select static headspace systems for the specific needs of any laboratory, taking into consideration analytical parameters, official norms, and throughput requirements. High-throughput environmental, forensic, pharmaceutical, and material characterization analyses run with helium and hydrogen carrier gases by means of static headspace will be shared.

Part IV: *Expanding Your HPLC & UHPLC Capabilities.* If you use HPLC or UHPLC as a stand-alone system or as the front end to your mass spectrometer, come and find out why the UltiMate 3000 product line offers the most complete and flexible configurations for your analytical requirements. Introducing a complete solution for BioRS UHPLC separations, recent BioLC columns, buffers, and detectors like the new Corona Veo.

Part V: Advances in Mass Spectrometry. The new TSQ Quantiva triple-stage quadruple mass spectrometer uses Active Ion Management to exceed even the most stringent analytical requirements. The presentation will highlight this new technology in the areas of environmental, food, pharmaceutical, and clinical research.

Accelerating Your Work with Advances

in Raman. Sponsor: Thermo Scientific, Booths 612 & 613. Room 101, 3:30 to 6 PM. As the largest Raman instrument supplier in the world. Thermo Scientific is committed to continued innovations in Raman microscopy. The DXR family of Raman systems is known for making research performance Raman more accessible. This year, new solutions and approaches to microscopic materials understanding and problem solving will be introduced. Join us to see what is new and how we can help you accelerate your work. Whether you're in academic or government research, or in an analytical lab in industry, the DXR family can get you there faster.



Marinda Li Wu, Ph.D ACS President

PRESIDENTIAL SYMPOSIA AND EVENTS

Sponsored and Recommended by the ACS President

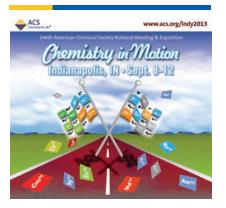
Does Your Career Need A Jump Start?

Presidential Symposium on Career Advancement Opportunities September 9, 2013 8:30 AM-4:30 PM Cosponsored by CEPA, PROF, SOCED & YCC Hyatt Regency Indianapolis

Presidential Symposium on Innovation and Entrepreneurship September 10, 2013 1:30 PM-4:30 PM cosponsored by BMGT, PROF & SCHB Hyatt Regency Indianapolis

Power Tools for Advocacy

React with Congress: Become a Chemistry Advocate -Advocacy Training Workshop September 10, 2013 10:00 AM-12:00 PM cosponsored by CCPA, YCC & SCC JW Marriott Hotel



Presidential Event Honoring the 90th Birthday of Dr. Carl Djerassi - Chemist, Author, Poet, and Provocateur September 8, 2013 1:30 PM - 3:30 PM Indiana Convention Center



Partners For Progress & Prosperity

OTHER SYMPOSIA AND EVENTS RECOMMENDED BY THE PRESIDENT

The Impact of Diversity and Inclusion sponsored by CMA and cosponsored by PRES & PROF September 8-10, 2013 Indianapolis Marriott Hotel

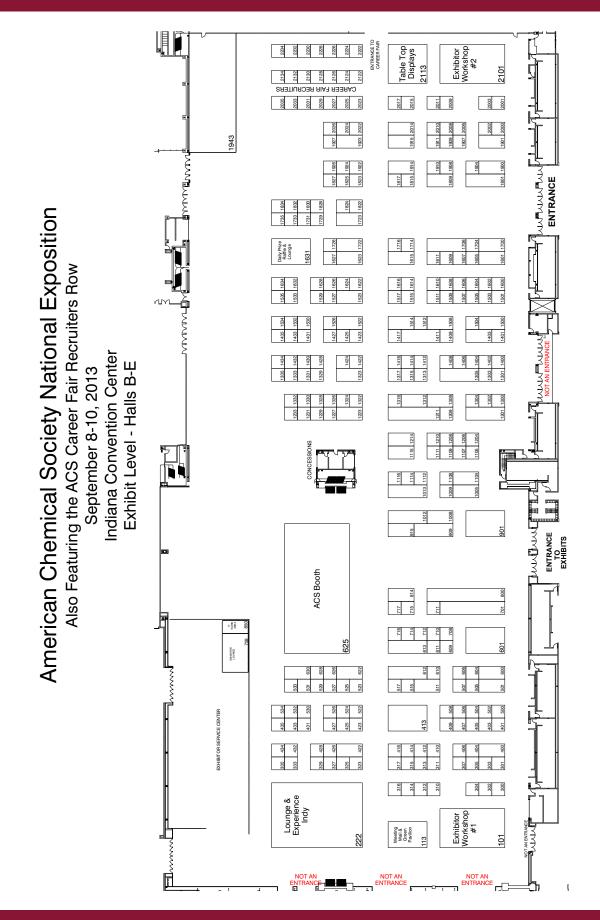
Best Practices for Success in Startup and Growing Businesses sponsored by SCH8 and cosponsored by PRES, & PROF September 9, 2013 Indiana Convention Center

Opportunities and Challenges of U.S.-China Intellectual Property Agreements sponsored by CHAL and cosponsored by BMGT, PRES, & SCHB September 9, 2013 Indiana Convention Center

Identifying and Evaluating Hazards in Research Laboratories sponsored by CHAS and cosponsored by CCS & PRES September 10, 2013 Indiana Convention Center

The Chemistry of Energy: Minimizing its Input, Maximizing its Output sponsored by CHED and cosponsored by GPSO & PRES September 10, 2013 Indianapolis Marriott Hotel

True Stories of Success from Chemical Entrepreneurs sponsored by SCHB and cosponsored by PRES September 10, 2013 Indiana Convention Center



EXHIBITORS

The following list exhibitors, as of July 8, and is the property of the American Chemical Society. Any unauthorized use of this list, or any part thereof, either directly or indirectly, is strictly prohibited.

Visit the Online ACS National Exposition at www.acs.org/indy2013 to download the updated exhibitor list and access product information.

ACS Committee on Health Safety/Div. of Chemical Health & Safety, P.O. Box 152329, San Diego, CA, United States 92195, 619-990-4908, The ACS Committee on Chemical Safety (CCS) and the Division of Chemical Health and Safety (CHAS) provide leadership and technical guidance to all ACS members and the community regarding the safe and proper handling of chemicals. Chemical safety practices are supported across the entire chemical enterprise from K-12 through college and graduate school into the industrial and academic workplace. **523**

ACS Division of Small Chemical Businesses (SCHB), 470 Friendship Rd., Suite 10, Harrisburg, PA, United States 17111, 717-623-8201, e-mail:expo-booth@acs-schb.org,Internet:www. acs-schb.org SCHB: Where all the elements come together for a successful chemical business. The objective of the ACS Division of Small Chemical Businesses (SCHB): "To aid in the formation, development, and growth of small chemical businesses. SCHB helps chemists working in small enterprises with the legal, social, educational, legislative, regulatory, and economic aspects of their unique status. SCHB serves as a clearinghouse of information, a forum for discussion, and a liaison with students. SCHB has informative programs at its meetings, provides valuable member-only content, including discounted booth space at national meetings, and offers a strong network of members for support. 431

ACS Education, 1155 16th Street, NW, Washington, DC 20036, 202-872-6269, fax: 202-833-7732, e-mail:education@acs.org, Internet: www. acs.org/education The Education Division of the American Chemical Society has products and programs for kindergarten through professional education. Students, teachers, and ACS members can all find information that can help their efforts in increasing science literacy. We also have information on the Directory of Graduate Education (DGR) and the ACS Approval Program for undergraduate programs. Our booth is staffed with knowledgeable ACS staff who can answer questions regarding our wide variety of programs and products. 625

ACS Green Chemistry Institute®, 1155 16th Street, NW, Washington, DC 20036, 202-872-6102, fax: 202-776-8009, e-mail:gci@acs.org, Internet: www.acs.org/gci The ACS Green Chemistry Institute® inspires green chemistry and green engineering technology. Our grants and awards influence research agendas around the globe; pur business cases and white papers document the value and investment return (ROI) on green chemistry technology. Our customized workshop offerings & free webinars provide green chemistry education. Our annual Green Chemistry & Engineering Conference continues to be a world-class event presenting current research technologies; and, we expand our global reach by embracing hybrid meeting technology. We promote and influence legislation to advance green chemistry for the betterment of the ecosystem and the general public at large. 622

ACS Meetings & Expositions, 1155 Sixteenth Street NW, Washington, DC, United States 20036, 800-227-5558, fax: 202-872-6128, e-mail: m_stevenson@acs.org, Internet: www.acs.org/ meetings The ACS Meetings booth displays information on current and future regional meetings also spring and fall National Meetings. Register for a regional meeting or get information on submitting an abstract to a meeting in your region. The programming is diverse and exciting! Meet the volunteers who are planning these meetings at the booth. Visit the regional meetings website at www.acs.org/regionalmeetings for a tour of this year's conferences. Information on future national meetings will be on display. 625

ACS Member Insurance Program, 1155 16th Street, N.W., Washington, DC 20036, 800-227-5558, ext. 6037, fax: 202-872-4435, e-mail: memins@acs.org, Internet: www.acs.org/ insurance 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 station to learn how you can sign up for Life & Health Insurance, Auto & Homeowners, Disability Income, Long-Term Care, Medicare Supplement, Medical Discount Cards, Pet Insurance, Group Special Event Cancellation and Liability Insurance and Professional Liability. 625

ACS Membership Division, 1155 16th St., NW, Suite OTH420, Washington, DC 20036, 202-872-6062, Internet: www.acs.org/Member Handbook ACS MEMBERS can come explore all their exclusive "members-only" benefits, ask questions, and network with your fellow ACS members. New members can enter to win one of four \$25 gift certificates for the ACS store. 625

ACS Office of Public Affairs, 1155 16th St. NW, Washington, DC 20036, 202-872-4479, Internet: www.acs.org/policy The ACS Office of Public Affairs (OPA) works with ACS members to help advance the chemical enterprise by encouraging strong member participation in advocacy with legislators as well as in communicating with community leaders and the media. Stop by the OPA booth to learn more about how to get involved with advocacy through the Act4chemistry Network, how to be more effective communicators and advocates through the Chemistry Ambassadors initiative, and how to get involved with, or create, a Local Section Government Affairs and/or Public Relations Committees, and more! **625,630**

ACS On Campus, 1155 16th Street, NW, Washington, DC 20036, 202-872-6031, e-mail:e-hite @acs.org, Internet: www.acs.org/acsoncampus ACS on Campus is a Society-wide outreach program dedicated to helping students, postdocs and faculty advance in their careers. The program accomplishes this by bringing leaders in the fields of chemistry, publishing, research, science communication and career development to university campuses to present seminars and workshops focused on how to:

- Publish in top journals
- Find a job
 Effectively use research tools like SciFinder® and ChemWorx
- Write grant proposals
- Communicate your science
- Build industry partnerships
 625

ACS Publications, 1155 16th Street, N.W., Washington, DC 20036, 202-872-6862, fax: 202-872-6005, e-mail:s_jackson@acs.org, Internet: pubs.acs.org Join ACS Publications in booth #625 to see what's new from the most trusted, most cited, and most read publisher in chemistry and the related sciences. Ask us about ACS ChemWorx® the world's first research management and storage system customized for researchers in the chemical and related sciences. Join C&EN in celebrating the 90th Anniversary & pick up the latest issue of C&EN. Learn more about the newest ACS journals, ES&T Letters and take the ACS Publications iPad Challenge! 625

ACS Store, 1155 16th Street, NW, Washington, DC 20036, 800-ACS-5558, fax: 202-872-6067, Internet: www.acs.org/store The ACS Store features limited edition chemistry themed merchandise, such as mole dolls, t-shirts and beaker mugs. 625

ACS Web Strategy & Operations, 1155 16th Street, NW, Washington, DC 20036, 202-872-4548, e-mail:m_parker@acs.org, Internet: www. acs.org Check out the latest enhancements on www.acs.org and help us imagine the ACS web site of the future. Stop by the WSO booth to see how we've responded to your feedback and how the web site responds to you! Learn how we're improving your web experience today and planning for the digital world tomorrow. Share your wishes and sketch your vision of www.acs.org and enter to win 1 of 3 grand prizes. 625

AdValue Technology, 3470 S. Dodge Blvd., Tucson, AZ 85713, 520-514-1100, fax: 520-747-4024, Internet: www.advaluetech.com A leading supplier of high temperature ceramic products made of Alumina, Fused Quartz, and Zirconia. Products range from crucibles, furnace tubes, plates and discs, thermocouple insulators, sample pan for thermal analysis, to custom components. Also carry other labware and accessories such as agate mortars, crucibles tongs and high temp gloves. **1622**

Advanced Chemistry Development Inc., 8 King Street East, Suite 107, Toronto, ON, Canada M5C 1B5, 416-368-3435, fax: 416-368-5596, e-mail:info@acdlabs.com, Internet: www. acdlabs.com Advanced Chemistry Development, Inc., (ACD/Labs) is a chemistry software company that develops and commercializes enterprise and desktop solutions to support R&D efforts, and preserve and re-use legacy chemical and analytical knowledge. ACD/Labs' areas of expertise include a unique knowledge management solution; spectroscopic data processing and interpretation for NMR, MS, LC/MS, IR, UV, other optical, and hyphenated instrumental techniques; chemical structure confirmation, verification, and elucidation; impurity, metabolism, and degradation research; ADME-Tox and physicochemical property prediction, and property-based lead optimization; chromatographic method development and optimization; and chemical nomenclature. We also provide integration with existing Informatics systems and undertake custom projects including enterpriselevel automation. A private company founded in 1994, ACD/Labs has worldwide sales and support presence, with offices in N. America, Europe, and Asia. 1112

Advion, 10 Brown Rd., Ithaca, NY 14850, 607-379-4565, fax: 607-257-5761, Internet: www. advion.com Advion is a leader in ultra-high performance, small footprint mass spectroscopy & synthesis solutions for life science, which deliver speed, flexibility, ease-of use, reliability and exceptional data quality. The expression CMS is a high performance mass spec, yet half the size and half the price of conventional single quadrupole systems. Its compact size allows it to be placed in a fume hood or on the bench for direct access and immediate results for chemists engaged in drug discovery requiring mass confirmation, reaction monitoring, QC and purity analysis. The expression CMS puts the power of performance where chemists need it. **1323**

Agilent Technologies LSCA, 2850 Centerville Road, Wilmington, DE 19808, 800-227-9770, fax: 302-633-8944, e-mail:contact_us@agilent. com, Internet: www.agilent.com/chem Agilent manufactures and distributes a complete line of instrumentation serving the clinical, analytical, biotech, environmental, pharmaceutical, forensic science, food and flavor, academia, and all other laboratory markets that have needs for the best in quality, performance, and serviceability in the instruments they purchase. **1723**

AIP Publishing – The Journal of Chemical Physics, 2 Huntington Quadrangle, Suite 1 NO1, Melville, NY 11747, 516-576-2279, fax: 516-349-9704, e-mail:mgross@aip.org, Internet: jcp.aip. org The Journal of Chemical Physics (JCP http:// jcp.aip.org/) was again in 2011 the most highly cited journal in Atomic, Molecular, and Chemical Physics. JCP publishes innovative results in leading-edge, as well as traditional areas of chemical physics, and continues to expand its scope to include groundbreaking, fundamental research in areas such as biological systems, polymers, materials, surfaces/interfaces, information theory and more. The journal offers Communications—free to all—with reports of unusual importance that merit rapid publication. Visit us at booth 708 to learn what's new with JCP. **708**

AirClean Systems, 3248 Lake Woodard Drive, Raleigh, NC 27604, 800-849-047224, fax: 919-256-6120, Internet: www.aricleansystems.com Manufactures a complete range of ductless fume hoods and laminar flow hoods designed to protect the operator, the process, or both from toxic vapors, fumes, gases, and particulate. In addition to standard hoods, AirClean® Systems manufactures numerous application-oriented products such as PowderSafeTM balance enclosures, PCR workstations, and microscope enclosures. Please visit our website to learn more at www.aircleansystems.com. **1317**

AK Scientific, Inc., 30023 Ahem Avenue, Union City, CA 94587, (510)429-8835, Internet: www. aksci.com AK Scientific's diverse catalog of instock chemical products, ready for same-day shipping from the San Francisco Bay Area, serves researchers and scientists worldwide. The company maintains a high-quality library of bioactive small molecules and an expanding collection of novel building blocks and advanced intermediates. AK Scientific provides top-notch service with same day shipping from California, an easily accessible catalog at www.aksci.com, and a stream of new products to fit customers' needs. 432

Alchemical Research, LLC, 426 Heckewelder Place, Bethlehem, PA, United States 18018, 610-833-8344, fax: 610-465-8412, Internet: www. alchemicalresearch.com Alchemical Research, LLC is your source for R&D reagents you can count on, delivered on spec and on time. We know our reagents, we understand their stability and handling requirements, and we establish the necessary QC measures to ensure their reliable and sustained delivery to market. We have the knowledge and experience to bring molecular innovation to reality through chemical synthesis. We offer custom synthesis services; we listen and learn about your projects; and we are willing to engage in the development process. Enlist our consulting services for a fresh perspective, assistance in troubleshooting reactions, and analytical and interpretation services. **1414**

Alfa Aesar-A Johnson Matthey Co., 26 Parkridge Rd, Ward Hill, MA 01835, 800-343-0660, fax: 800-322-4757, e-mail:info@alfa.com, Internet: www.alfa.com Alfa Aesar, a Johnson Matthey Company, is a leading international manufacturer and supplier of research chemicals, metals and materials. The main catalog features over 40,000 products, ranging from boronic acids, silanes and silanols, chiral diamines, and fluorochemicals to nanomaterials, base metal fuel cell catalysts and components, pure metals, alloys, analytical standards, precious metal catalysts and more. Alfa Aesar is the single source for your research chemical and material needs, from small pack sizes to semibulk and bulk quantities. Stop by booth #1115 for your free copy of the NEW 2013-15 Alfa Aesar Catalog, featuring over 8,000 new products. 1115

Anasazi Instruments Inc., 4101 Cashard Ave., Suite 103, Indianapolis, IN 46203, 317-7834126, fax: 317-783-7083, e-mail:sales@aiinmr. com, Internet: www.aiinmr.com At Anasazi Instruments we offer high resolution, cryogen free NMR. Our instruments (60MHz/1.4T and 90MHz/2.1T) are user friendly with extremely low cost of maintenance. **1227**

Anton Paar USA, 10215 Timber Ridge Drive, Ashland, VA 23005, 800-722-7556, fax: 804-550-1057, e-mail:info.us@anton-paar.com, Internet: www.anton-paar.com Anton Paar produces high-quality measuring and analysis instruments for laboratory, research and industrial applications. In the fields of density and concentration measurement we are the established world leader. Our product portfolio also includes viscometers, rheometers, polarimeters, refractometers, instruments for X-ray structure analysis, microwave synthesis and microwave decomposition. For over eighty-five years, we have been at the forefront in developing solutions for diverse industries. With our strong emphasis on R&D and global partnerships with external research institutes, we turn ideas into instruments at the cutting edge of technology. **1722**

AOCS, 2710 S. Boulder Dr., Urbana, IL, United States 61802, 217-693-4818, fax: 217-693-4862, Internet: www.aocs.org AOCS is a global scientific society open to all who are interested in fats, oils, surfactants, detergents and related materials. We provide emerging information and research results through meetings, publications, and web presence; develop and uphold methods of analysis used in global trade and research; conduct proficiency testing; provide reference materials; and coordinate with other standards developers. AOCS also collaborates with other societies to promote the advancement of science. **335**

Ark Pharm, Inc., 1840 Industrial Drive, Suite 280, Libertyville, IL, United States 60048, 847-367-3680, fax: 847-367-3681, e-mail:sales@ark pharminc.com, Internet: www.arkpharminc.com Ark Pharm, Inc. specializes in design and synthesis of medicinal building blocks, scaffolds and other advanced intermediates. We do contract research, custom synthesis and bulk intermediates. Pls visit our website at www.ark pharminc.com for more information. 1302

Asahi Glassplant Incorporated (AGI), 1978 Takahama, Arao City, Kumamoto, Japan 864-0025, +81 968 68 2121, fax: +81 968 68 2125, Internet: www.agi.co.jp We are a scientific glassware manufacturer with 62 years of history in the Japanese market contributing to customers in the Chemical and Pharma sectors. We are especially proud of our unique and advanced capabilities in fabricating glass reaction units. On top of reaction units, we also have Evaporators such as Rotary, Thin film, Short pass, Oldershaw and others in our product line. **1923**

B&W Tek, Inc., 19 Shea Way, Suite 301, Newark, DE 19713, 302-368-7824, fax: 302-368-7830, email:info@bwtek.com, Internet: www.bwtek.com B&W Tek is an advanced instrumentation company producing optical spectroscopy, laser instrumentation and laboratory, portable and handheld Raman systems. B&W Tek provides solutions for the pharmaceutical, biomedical, physical, chemical, LED lighting and research communities. Our commitment to innovating solutions has made B&W Tek a leader in Raman spectroscopy solutions worldwide. www.bwtek. com

BASF - The Chemical Company, 100 Park Avenue, Florham Park, NJ 07932, 973-245-7537, fax: 973-245-5833, e-mail:janet.johnson@basf. com, Internet: www.basf.com BASF is the world's leading chemical company: The Chemicals company. Its portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas. We combine economic success with environmental protection and social responsibility. Through science and innovation, we enable our customers in nearly every industry to meet the current and future needs of society. Our products and solutions contribute to conserving resources, ensuring nutrition and improving quality of life. We have summed up this contribution in our corporate purpose: We create chemistry for a sustainable future. **601**

BASi, 2701 Kent Ave., West Lafayette, IN 47906, 765-497-8458, fax: 764-497-1102, e-mail:basi@ bioanalytical.com, Internet: www.BASinc.com BASi is an innovative designer and producers of over 30 electrochemical, liquid chromotography, and automated sampling products. We focus our energies on delivering superior customer service to every client. 1233

Beijing Mikrouna Mech. Tech. Co., Ltd., Rm 225, Building 8 ZGC Software Park, No. 8 Dongbeiwang West Rd. Haidian Dist., Beijing, China 100193, +86 10 68588245/6/7, fax: +86 10 68587629, e-mail:sales@mikrouna.com, Internet: www.mikrouna.com As a fast-growing hightech company, Mikrouna designs and manufactures controlled inert atmosphere glove box systems and gas purifications systems to maintain less than 1ppm of O2 and H2O for handling air sensitive material, has 15 years of manufacture experience, sets up factory in Gloucester MA for glove box assembly and technical service, offers custom gloveboxes tailored to individual requirements, High cost effective price and excellent service will benefit US clients. 1515

Bentham Sciences Publishers Ltd., 833 S. Wood Street, Room 539, Chicago, IL 60612, 312-413-5867, fax: 312-996-7107, e-mail:morrissy@ bentham.org, Internet: www.bentham.org Bentham Science Publishers is a major STM journal publisher of 116 titles and 200 plus open access journals, answers the information needs of the pharmaceutical and biomedical research community. Leading journals include Current Drug Metabolism (Impact Factor 5.113) and Current Medicinal Chemistry (Impact Factor 4.859):

• FREE online journals and information: www. benthamscience.com

• Subscribe, Consortia, discounted global licenses and trials: marketing@benthamscience. org

org • To know more about our publications please visit www.benthamscience.com 1507

Berry & Associates, 2434 Bishop Circle East, Dexter, MI 48130, 734-426-3787, fax: 734-426-9077, Internet: www.berryassoc.com Berry & Associates provides researchers with a wide array of bioconjugation reagents, specialty nucleosides and their analogs for biochemical and biomedical research. The company is a supplier of nucleosides, phosphoramidites, purines, pyrimidines, C-nucleosides, biotins, fluoresceins, rhodamines, psoralens, novel heterocycles and linkers for the attachment of markers to oligonucleotides and other biomolecules. 1416

Bioengineering, Inc., 35 Medford Street, Suite 213, Somerville, MA, United States 02143, 617-996-1212, fax: 617-996-1213, e-mail: info@bioengineering-inc.com, Internet: www. bioengineering-inc.com 1430

Biolin Scientific, 514 Progress Drive, Suite G, Linthicum Heights, MD, United States 21090, 877-773-6730, fax: 866-415-8164, Internet: www.biolinscientific.com Biolin Scientific develops and provides analytical instrumentation for the nanoscale analysis of interactions and reactions occurring at surfaces, thin films, materials and interfaces. Biolin Scientific consists of the following brands: Q-Sense provides Quartz Crystal Microbalance with Dissipation monitoring (QCM-D) instrumentation for rapid characterization of interfaces, thin films, biomaterials and molecular interactions. SKV NIMA provides Langmuir Blodgett instrumentation for research on nanoscale films as well as Interfacial Shear Rheometers, Reflection IR and dip coating systems. Attension provides contact angle meters and force tensiometers for measuring contact angles and surface tension related to interfacial science and materials development. **408**

BioLogic USA, 9050 Executive Park Dr., Suite 105C, Knoxville, TN, United States 37923, Internet: www.bio-logic.us *Bio-Logic USA* is showing the *EC-LAB* electrochemical instruments product line used for electro-analytical research and electrochemical sensor development. A full line of electrochemical accessories, cells and electrodes are also available. The SP-300 and SP-200 introduce a powerful new generation of potentiostats with the widest range of specifications available with ±48V, 10A to 1 pA and up to 7 MHz EIS. An additional product line based on state-of-the-art stopped/quench flow mixing technology and spectroscopy will be displayed. These products are ideal for rapid kinetics measurements in chemistry/biology. The modularity of all *Bio-Logic* instruments allows additional capability and techniques to be easily added to our instruments. **1504**

Biotage, 10430 Harris Oaks Blvd, Suite C, Charlotte, NC 28269, 704 654 4900, fax: 704 654 4917, Internet: www.biotage.com Biotage's products for organic chemistry are used in the early phase of all types of organic synthesis. They rationalize the process of creating and optimizing substances. Customers include pharmaceutical companies, contract-research organizations and academic institutions around the world. 1223

Blue Atom Technologies, 200 E. 1st Street, Suite 104, Winston Salem, NC, United States 27101, 336-362-9723, Internet: http://www. blueatom.us.com Blue Atom Technologies (BAT) is a software company specializing in discovery informatics offering powerful tools for scientists including Chemically Aware™ Share-Point (CASP) and nFlow. CASP allows chemical structure or substructure searches from various document types, internal databases and the web. nFlow is a cheminformatics platform providing a single dashboard view into the entire R&D lifecycle of a compound. nFlow begins the data capture, storage, analysis, forecasts, heat maps, rankings and repositioning indication possibilities including built-in workflows. With expansive modeling expertise, nFlow maximizes time with powerful forecasting models. nFlow has proven to cut two years off the bench to clinic timeline. 433

BrandTech Scientific, 11 Bokum Road, Essex, CT 06426, 860-767-2562, fax: 860-767-2563, Internet: www.brandtech.com BrandTech Scientific supplies a complete line of laboratory tools and equipment for Chemistry and Environmental laboratories including: BRAND® liquid handling instruments; VACUUBRAND® oil free, chemistry-resistant vacuum pumps; VITLAB® volumetric and plastic labware; and BOCHEM stainless steel laboratory support jacks. Featured products include Dispensette® bottletop dispensers; Titrette® bottletop burette: VACUUBRAND® Vario® vacuum systems for automated control of chemistry applications; Transferpette® S pipettes; HandyStep® Repeating pipettes; accu-jet® pro motorized pipette controllers; disposable Cuvettes; VITLAB® PFA plastics for trace analysis and Class A Volumetric plastic labware. 1210

Brookhaven Instruments Corp., 750 Blue Point Road, Holtsville, NY 11742-1832, 631-758-3200, fax: 631-758-3255, e-mail:info@brookhaven instruments.com, Internet: www.Brookhaven Instruments.com Brookhaven Instruments offers particle size analyzers utilizing dynamic light scattering (DLS) or disc-centrifugation, zeta potential analyzers utilizing phase analysis (PALS) and molecular weight detectors for GPC/SEC. 1209

Bruker, 19 Fortune Drive, Billerica, MA 01821, 888-4BRUKER, e-mail:info@bruker.com, Internet: www.bruker.com Welcome to the world's most comprehensive range of scientific instrumentation available under one brand - a brand synonymous with excellence, innovation and quality. Bruker offers a wide range of applications for molecular characterization in chemistry and life sciences as well as solutions for materials research and nanotechnology. Bruker's series of compact, powerful, robust, yet easy-to-use analytical instruments are ideal for use by both students and experts in academic, laboratory and manufacturing settings.Visit us at www. bruker.com/industries/chemical to learn more about our technologies and solutions. **1012,1013**

Buchi Corp., 19 Lukens Drive, Suite 400, New Castle, DE 19720, 302-652-3000, fax: 302-652-8777, e-mail:us-sales@buchi.com, Internet: www. mybuchi.com For over 50 years, Buchi has been known as the market leader, inventor and innovator of lab instruments based on Evaporation and Vacuum technologies, and as the supplier of the Rotavapor@ rotary evaporators worldwide. In addition, BUCHI Corporation is a proven North American provider of spray dryers and encapsulators for pharmaceutical and food agglomeration and microencapsulation, Kjeldahl and solvent extraction equipment for environmental and food analysis, NIR spectroscopy instruments for pharmaceutical and food Quality Control, modular flash chromatography systems, and other related laboratory equipment. Headquartered in New Castle, Delaware, BUCHI Corporation is an affiliate of BUCHI Labortechnik AG (Flawil, Switzerland). 422

CAChe Research LLC, 13690 SW Otter Lane, Beaverton, OR 97008, 503-830-2772, e-mail: info@cacheresearch.com, Internet: www.CAChe Research.com Quantum chemistry and statistical thermodynamics tools for prediction of physical, chemical properties: COSMOtherm predicts boiling points, vapor pressures, solubilities, ADME properties, cocrystals, partition coefficients, phase equilibria, phase diagrams, azeotropes, reaction thermodynamics, activity coefficients, etc. of pure compounds, ionic liquids, and mixtures. COSMOmic models Micelles, biomembranes. ParaSurf calculates electronic properties on molecular surfaces for 3D-QSAR, ligand docking, reactivity prediction, 450 drug metabolism, etc. Caddles are web-based molecular modeling; EMPIRE is highly-parallel quantum chemistry. TURBOMOLE DFT is designed for speed, robustness, for large molecules and condensed phase simulation. MOPAC2012, most popular semiempirical quantum chemistry package, includes all elements PM7, Mozyme for macromolecules. 534

CAS, 2540 Olentangy River Road, Columbus, OH 43210, 614-447-3600, fax: 614-447-3713, email:help@cas.org, Internet: www.cas.org Stop by the ACS booth to learn more about CAS, the world's authority for chemical information. You'll see how the authoritative and in-depth databases from CAS can meet your most challenging research needs when combined with the advanced search and analysis technologies of SciFinder and STN. Ask the CAS staff for a demonstration of SciFinder. You'll get to experience the latest enhancements and see the new interface! While you are at the ACS booth, take part in promotions, attend theater presentations and talk with our staff – you'll even have chances to win great prizes while we explore Chemistry in Motion! **625**

CEM Corp., PO Box 200, Matthews, NC 28106, 704-821-7015, fax: 704-821-7894, Internet: www.cem.com CEM Corporation is a leading provider of innovative, advanced microwave laboratory systems for chemical synthesis, sample preparation, and bioscience applications. Our award-winning systems provide fast, reproducible results in rugged, flexible platforms and are available with a variety of vessels and accessories. Our Discover SP with Activent Technology features vessels with sample pop-on caps, individual temperature and pressure control, and automated venting. Compact and modular, Discover Systems offer unmatched versatility with optional automation, peptide synthesis, proteomic applications, low-temperature chemistries, gas-addition, flow chemistry, and more.

ChemBridge Corp., 11199 Sorrento Valley Rd., Suite 206, San Diego, CA 92121, 858-451-7400, fax: 858-451-7401, e-mail:sales@chembridge. com, Internet: www.chembridge.com Chem-Bridge Corporation is a global provider of enabling chemistry products and contract research services for small molecule drug discovery. ChemBridge's extensive portfolio includes over 900,000 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 synthetic/medicinal chemistry services. Chem-Bridge's research products and services are supported by an experienced, dedicated and friendly customer service and project management team at our San Diego headquarters and by ChemBridge's impeccable, 20-year track record of innovation, quality and deliverability. 1313

Chemglass Life Sciences, 3800 North Mill Road, Vineland, NJ 08360, 800-843-1794, fax: 800-922-4361, Internet: www.cglifesciences.com In addition to our wide selection of glassware and equipment for chemistry we have begun adding products for chemistry we have begun adding to CGLS fabricates standard glassware items and components as well as custom glassware. We have the capability to produce not only the most complex glass apparatus, but also intricate electronic equipment and customized machined components. Products include process reactors from 10L-100L, benchtop reactors from 100mL-5L. Also on display: Huber Unistat Circulators, Chromatography vials and closures, NMR Tubes, OptiTherm Blocks, Pie-Blocks-Reaction blocks, Pressure Vessels, Volumetric Flasks, Schlenk Glassware/Manifolds, Rotary and Fritted Glassware. 1801

Chemrus Inc., P.O. Box 920524, Needham, MA 02492, Chemrus provides a unique filtering funnel system for solid-liquid separation used in chemistry and biological laboratories. The system consists of a disposable polymer-structured filter funnel, a glass vacuum adapter, and a flask/vial. The difference between our products and market existing products is that our adapterers are specially designed so the vacuum can be controlled with a stopcock to prevent the filtrates from being sucked into the vacuum line. Also, the disposable filter funnels have long stem so the glass vacuum adapter is not contaminated during the filtration process. We provide the best disposable filtering funnel products to our customers. **530**

Collaborative Drug Discovery, 1633 Bayshore Highway, Suite 342, Burlingame, CA, United States 94010, 901-297-3980, Internet: www. collaborativedrug.com Collaborative Drug Discovery (CDD) provides a unique paradigm for cloud-based collaborative drug discovery. The CDD Vault is a web application for intelligent data management and secure collaboration. CDD offers an industrial-strength database at a price affordable to academic laboratories, research foundations, and companies of any size. Stop by booth 1107 today and see for yourself why CDD is used by thousands of scientists from leading research foundations, academia and industry. **1107**

CP Lab Safety, 14 Commercial Blvd., Suite 113, Novato, CA 94949, 415-883-2600, fax: 415-532-1662, e-mail:carel@cplabsafety.com, Internet: www.cplabsafety.com Manufacturer of ECO Funnels™, Chromatography Funnels, Secondary Containers and Solid Waste Containers. ECO Funnels reduce harmful emissions and help prevent fire while solving the open waste container problem. Made of HDPE with a gasket in the lid, sturdy hinge and latch. Unique design will prevent container over-filling. Available with variety of screw cap sizes to fit common waste containers. Customize with HPLC adapters. We guarantee our ECO Funnel products! Other safety products include: cabinets, cans, eyewear, gloves, coated glass bottles, glassware, plastic bottles, carboys and drums, pumps, HPLC port caps. See us for your lab safety needs! 1303 **CPS Analytical**, 2935 S. Fish Hatchery Rd., Madison, WI, United States 53711, 608-274-7719, Internet: www.cpsanalytical.com *CPS Analytical* will be exhibiting the SCINCO products. The S-3100 UV-Vis has been designed for applications that require rapid and accurate analysis. By utilizing advanced photodiode array technology the S-3100 offers superior performance at a competitive price. The FS-2 fluorescence spectrometer uses pre-aligned modular monochromators and magnesium fluoride coated optics to provide high resolution with superior sensitivity. With spectral bandwidth to 0.5nm and a scanning speed of 6000 nm/min the FS-2 offers the highest performance. The Nano Stick is designed for accurate and easy micro-volume measurements. The Nano Stick allows accurate measurements. The Nano Stick allows accurate measurements for sample volumes as low as 2 microliters. **714**

DeltaNu, Intevac Photonics, 3560 Bassett Street, Santa Clara, CA 95054, 408.496.2275, e-mail:sales@deltanu.com, Internet: www.sciaps. com SciAps, Inc., is a Boston-based instrumentation company specializing in portable analytical instruments. Our mission is to provide durable, field-tested, portable instruments to identify any compound, any mineral, any element — anyplace on the planet. Manufacturing, service and customer support is operated out of our fully ISO-certified facility located in Laramie, WY. 1616

Dotmatics Limited, 11300 Sorrento Valley Rd, Suite 115, San Diego, CA, United States 92121, 619-419-2808, fax: 858-852-7903, e-mail:shikha. obrien@dotmatics.com, Internet: www.dotmatics. com Dotmatics is an enterprise software and services provider for data management - delivering solutions to the modern, highly collaborative scientific industries and academic research labs. Dotmatics delivers to users a ready-to-use platform to capture, register, share, collaborate, query, visualize and analyze all the information and knowledge generated. It offers a fully integrated Electronic Lab Notebook for biologists and chemists. Dotmatics' enterprise solutions are platform independent, flexible, scalable and configurable - providing effective scientific information management across entire organizations, from discovery research to development to early manufacturing. **1611**

DragonLab, LLC, 500 Four Rod Road, Suite 122, Berlin, CT 06037, Internet: www.scilogex.com DragonLab is a leading manufacturer of liquid handling products and bench-top instruments supplied worldwide through laboratory supply distributors. We are dedicated to developing and manufacturing high performance instruments and equipment and providing medical researchers proven value. Our products are marketed in our SCILOGEX brand in North America. Liquid handling products include: Micropipettors, Motorized/manual pipette fillers, Bonch-top instruments include: Hotplates, hotplate-stirrers, Orbital Shakers, Vortex mixers and Micro-centrifuges in accordance with IS09001 standards. All products are CE marked and supplied with individual QC certificates. www. scilogex.com

Eastern Analytical Symposium, P.O. Box 185, Spring Lake, NJ, United States 07762, 732-449-2280, fax: 732-612-1123, e-mail:askeas@eas. org, Internet: www.eas.org Eastern Analytical Symposium seeks to educate and inform with short courses and workshops in various areas of Analytical Chemistry. The latest research is presented in both invited and contributed sessions of the symposium. In addition, hundreds of exhibitors display the latest instrumentation, equipment, products, and services at the exposition. An employment area offers Analytical Chemists many options for employment. This is an opportunity that should not be missed! Eastern Analytical Symposium & Exposition November 18-20, 2013 Somerset, NJ 323

eDAQ, Inc., 1485 Tuskegee Place, Suite E, Colorado Springs, CO, United States 80915, 719-

576-7000, 888-965-6086, fax: 719-576-3971, Internet: www.edaq.com eDAQ manufactures data recording solutions for electrochemistry, impedance spectroscopy, chromatography, capillary electrophoresis, flow analysis and general laboratory recording (pH, temperature, conductivity, dissolved O2, Nitric Oxide, biosensor applications). Potentiostats serve multiple duty: as galvanostats, ZeroResistance amps, or Hi impedance amps. Electrochemistry systems offer 33 electrochemical techniques including cyclic voltammetry. Easy use, high resolution, no programming. Contactless conductivity detection available for CE, Ion chromatography, etc. Microchip electrophoresis systems are available with high precision voltage sequencer. Direct to excel spreadsheets. And finally eDAQ manufactures electrodes for all these applications. **1503**

Edinburgh Instruments, 2 Bain Square, Kirkton Campus, Livingston, United Kingdom EH54 7DQ, +44 (0) 1506 425 300, fax: +44 (0) 1506 425 320, e-mail:sales@edinst.com, Internet: www.edinst.com 329

ELGA LabWater, 5 Earl Court, Woodridge, IL, United States 60517, 877-315-3542, fax: 630-910-4798, e-mail:dina.brown@veoliawater.com, Internet: www.elgalabwater.com *ELGA* specializes in delivering water purification systems for research, science, clinical and healthcare environments. Our pure and ultra-pure water (Type I, II, III) purification systems provide a few liters to several thousands of liters of water per day. With over 75 years in the industry, our solutions for laboratory products can provide you with a choice to best suit your specific application needs. Part of the world's leading water services company Veolia Water Solutions & Technologies. Manufacture of PURELAB®, CENTRA®, MEDICA®, BIOPURE. **1501**

Eli Lilly and Company, Indianapolis, IN, United States 46285, (317) 433-1812, Internet: open innovation.lilly.com The Lilly Open Innovation Drug Discovery (OIDD) program provides a platform for scientific collaborations between external collaborators and Lilly scientists to facilitate the identification of novel compounds with therapeutic potential. Through OIDD, external investigators can gain access to proprietary, disease-relevant phenotypic and targetbased screening assays in areas of strategic interest to Lilly. The OIDD web-based portal provides confidential compound submission and secure return of full data reports to investigators after biological evaluation is completed. Promising findings can serve as a basis for collaborative agreements. Please visit http://open innovation.lilly.com for more information. **1335**

Elsevier, 360 Park Avenue, New York, NY 10010, Internet: www.elsevier.com Elsevier is a leading publisher and provider of search and discovery tools in Chemistry, Chemical Engineering and related subject areas. We publish over 125 highly-respected journal titles, all with Open Access options, and a range of hard working series titles and impressive major reference works. With innovative electronic products and services such as ScienceDirect, for access to scientific papers and books, Scopus, for easy searching of abstracts and citations, and Reaxys, a unique workflow solution for chemistry research, we continue to refine our portfolio to serve the research needs of educators, researchers and students worldwide. Visit: www.elsevier. Students worldwide. Visit: www.elsevier.

EMD Millipore, 290 Concord Road, Billerica, MA, United States 01821, 978-715-1273, fax: 978-715-1393, e-mail:diane.naquin@merckgroup.com, Internet: www.emdmillpore.com EMD Millipore's provides a full range of high purity water purifications systems, to meet the needs of the laboratory. High reliability, low maintenance, predictable and economical running costs and application support are made available to our customers. 1409 Erlab, Inc., 388 Newburyport Turnpike, Rowley, MA 01969, 978-948-2216, fax: 978-948-3354, email:vwillett@erlab.com, Internet: www.erlab. com Manufacturer of ductless filtering fume hoods, laminar flow hoods, weighing stations, filtering storage cabinets, stand-alone filtration systems for fireproof cabinets, and glove boxes. As the inventor of activated carbon molecular filtration, Erlab guarantees that our Captair product line meets the highest protection level in accordance with the most stringent standards in the industry while offering energy savings, flexibility, and mobility. 1411

Experience Indy & Lounge, Local companies within the hospitality industry, i.e., restaurants, attractions, shopping, etc., will be present to showcase their offerings. 222

Extrel CMS, 575 Epsilon Drive, Pittsburgh, PA 15238, Internet: www.extrel.com Extrel is the world's leading manufacturer of Research and Process Mass Spectrometers, Residual Gas Analyzers (RGA's), Quadrupole Mass Spectrometry Systems and Components. We have been providing quadrupole mass spectrometry solutions to our Research and Industrial customers for over 45 years. Our instruments are known for their high performance, reliability and flexibility. We offer equipment for Basic Research, QA/QC Laboratories, Process Development and Process Control. Extrel's global customers receive the most comprehensive application, technical and onsite support in the industry. **413**

Frontier Scientific, Inc., P.O. Box 31, Logan, UT 84323, 801-588-0455, e-mail:sales@frontiersci. com, Internet: www.frontiersci.com Frontier Scientific (FSI) is a chemical developer and manufacturer specializing in the development of chemical compounds and processes related to boronic acids, trifluoroborates, catalysts, porphyrins, and other building blocks for small molecule drug discovery. Standard catalog products have quantities on-hand from the milligram to kilogram scale and custom synthesis is available. Frontier Scientific Services (FSSI) offers an alternative focus on Outsourced Materials Management and Sample Preparation Services supports compound management, research and discovery screening and chemistry. FSSI performs sample reformatting, full analytical capabilities, and full repository services with ondemand distribution featuring 24-48 hour delivery. **1716**

Future Science Group, Unitec House, 2 Albert Place, London, United Kingdom N3 10B, Internet: www.future-science-group.com The Future Science Group (FSG) is an expanding group of independent publishing companies active in the field of scientific information and endeavor, composed of Future Medicine and Future Science. FSG publishes journals and eBooks in key and emerging areas of healthcare, medicine, pharmaceuticals, chemistry and the environment. we save customers time and money by presenting the most important scientific breakthroughs in an accessible and evaluated format, while at the same time providing the scientific community with unique vehicles for disseminating forward-thinking research information and data. **1823**

Gamry Instruments, 734 Louis Drive, Warminister, PA 18974, 877-367-4267, fax: 215-682-9331, e-mail:info@gamry.com, Internet: www. gamry.com "Gamry Instruments designs and manufacturers a variety of electrochemical instrumentation and accessories. Anyone doing battery development, materials research, sensor development, fundamental physical electrochemical research, or corrosion science should stop by our booth for a demonstration. Our full line of single and multichannel potentiostats, EOCM, and spectroelectrochemical equipment will be on display. Come find out why Gamry is the best value in electrochemical instrumentation." 1610

Gaussian, 340 Quinnipiac Street, Building 40, Wallingford, CT 06492, 203-284-2501, fax: 203-

284-2521, e-mail:info@gaussian.com, Internet: www.gaussian.com Gaussian, Inc. is the world leader in electronic structure computational chemistry programs. The Gaussian series of programs is available on every major computing environment, from PCs to supercomputers, and it is currently used in a wide variety of industrial, governmental and academic research settings worldwide. Gaussian, Inc. will be demonstrating the latest versions of Gaussian and GaussView. 1522

Gelest, Inc., 11 East Steel Road, Morrisville, PA 19067, 215-547-1015, fax: 215-547-2484, Internet: www.gelest.com Gelest, Inc., headquartered in Morrisville, Pennsylvania, is recognized worldwide as an innovator, manufacturer and supplier of commercial and research quantities of over 3,000 organosilicon compounds, metalorganic compounds and silicones. Gelest serves advanced technology markets through a materials science driven approach. The company provides focused technical development and application support for semiconductors, optical materials, pharmaceutical synthesis, diagnostics and separation science, and specialty polymeric materials: "Gelest – "Enabling Your Technology." 507

GenTech Scientific, Inc., 23 Mill St., Arcade, NY 14009, 585-492-1068, fax: 585-492-0383, e-mail:www.GenTechScientific.com, Internet: www.GenTechScientific.com GenTech Scientific sells new GC and GC/MSD systems custom solutions for all your ASTM and EPA Methods. GenTech Scientific offers several new products including the Master GC, Master GC/ TOF, Master HPLC and GenTech MS-Quietbox II systems. Reduce your costs for refurbished MS, GC and HPLC equipment from major manufacturers. GenTech Certified products are fully refurbished, tested & carry a One Year Warranty. With the largest inventory of hard to find parts, skilled technicians and the lowest service rates, we will reduce service costs. We provide depot repair for HPLC, GC, GC/MSD and MS/MS, as well as system accessories. 1204

Glas-Col, 711 Hulman Street, Terre Haute, IN 47802, 812-235-6167, fax: 812-234-6975, Internet: www.glascol.com Glas-Col offers the largest selection of heating mantles and can fabricate custom heating jackets for most any application with operating temperatures to 600°C, plus a complete line of UL approved temperature control/monitors. Our evaporator offering includes basic blow down to vacuum manifold systems ideal for solvent recovery. A new liquid level end-point detection instrument can work in conjunction with the FlexiVap™ evaporator system to stop Ni flow. Our shakers and mixers are ideal for extraction work plus QuEChERS/EPA methods. In addition we offer a wide range of safety accessories, Glovebags, safety shields, liquid flow monitors and lead stability products. **1312**

Harrick Scientific, 141 Tompkins Ave., 2nd Floor, P.O. Box 277, Pleasantville, NY 10570, 800-248-3847, fax: 914-747-7209, e-mail:info@ harricksci.com, Internet: www.harricksci.com Manufacturing a full line of spectroscopic accessories for transmission, specular reflection, diffuse reflection, and ATR for the UV/Vis, NIR, and Mid-IR. Announcing the Video MVP, a Monolithic Diamond ATR accessory with built-in camera. See our selection of temperature-controllable cells for transmission, reflection, and ATR measurements of solids, liquids, and gases. Featuring our VariGATR for monolayer determinations on silicon and metal substrates, our fiber optic accessories, and our new ConcentratlR 2 for Concentrated Multiple Reflection ATR. **316**

Heidolph North America, 1241 Jarvis Ave., Elk Grove Village, IL, United States 60007, 224-265-9600, Internet: www.heidolphINA.com Heidolph North America Heidolph Instruments founded in 1938 as a manufacturer of precision drive motors and engineering, is a manufacturer of premium laboratory equipment with expertise in rotary evaporation, as well as shakers, overhead stirrers, peristaltic pumps, and magnetic hotplate stirrers. We believe in Research made easy and all Heidolph products come with a 3 year warranty. Heidolph North America specializes in pre-sales and post-sales support of the Heidolph, Tuttnauer, Radleys and AirClean Systems product lines out of Chicago, IL. Scientists are locally supported in the field by 11 field sales associates. Contact a local representative to learn more about us. **1514**

Hellma USA, Inc., 80 Skyline Drive, Plainview, NY 11803, 516-939-0888, fax: 516-939-0555, e-mail:info@hellmausa.com, Internet: www. hellmausa.com Manufacturer of Hellma Photometer Cells and Accessories, Fiber Optic Immersion Probes, Photometric Calibration Standards (Liquid and Glass), Quartz Microplates, various types of Laser Optics. Expanded line of Process probes good to 35 bar, 300C. Unmatched selection of stock and custom Cells. Supplier: Heraeus Light Sources including Deuterium, Hollow Cathode, Photoionization, Spectral Line; Zeiss MMS/MCS/PGS/CGS Miniature Spectrometers covering 190-2200nm in combination; Tec5 electronics for display/readout of PDAs and CCDs. NEWEST: TrayCell for analysis 0.7ul, Fiber Optic Reflection Probe, CGS Spectrometer. Custom developments for all products. 1817

Hiden Analytical Inc., 37699 Schoolcraft Road, Livonia, MI 48150, 734-542-6666, fax: 734-542-6030, e-mail:info@hideninc.com, Internet: www. HidenAnalytical.com Hiden Analytical manufactures high performance quadrupole mass spectrometers for precision gas analysis, materials characterization and surface science applications. Showcasing systems for catalysis studies, reaction kinetics, residual and process gas analysis. For quantitative atmospheric pressure gas analysis the new, compact QGA system includes automated gas calibration for spectral deconvolution, sub-ppm detection and fast inlet technology for pulsed gas studies. Also featuring CatLab, a unique, integrated microreactor and mass spectrometer system for characterization and evaluation of catalysts or thermal studies of evolved species. For atmospheric gas studies the SPACI-MS quantifies intra-catalyst channel species transients and disributions with high temporal resolution. **1909**

Hielscher USA, Inc., Ultrasound Technology, 19 Forest Rd., Ringwood, NJ 07456, 973-616-9136, fax: 973-616-9131, e-mail:usa@hielscher.com, Internet: www.hielscher.com Hielscher Ultrasonics is your top supplier worldwide for innovative ultrasonic devices from lab homogenizers to industrial processing reactors. Typical applications include, mixing and homogenizing, disintegration and sonochemistry. Ultrasonic devices made by Hielscher cover the full range from sample homogenizing in the lab to the ultrasonication of large volumes in industrial production. Whether you need to sonicate 1.5mL in a test tube or 20 tons per hour, Hielscher Offers you the perfect solution for it. Hielscher Ultrasonics specializes in equipment for the sonication of liquids. This includes homogenizing, disintegration, emulsifying, dispersing or particle size reduction (milling). Another interesting field of application is sonochemistry. Discover the potential of ultrasonics for your industry or process. **1704**

Hirschmann, Inc., 2700 Holloway Road, Bluegrass Industrial Park, Louisville, KY 40299, 502-240-0287, fax: 502-240-0394, e-mail:michele@ hirschmann-inc.com, Internet: www.hirschmanninc.com 1400

IAEA Careers, c/o Brookhaven National Laboratory, P.O. Box 5000, Upton, NY 11973, 631-344-2380, 1434

 IKA Works, Inc., 2635 North Chase Pkwy, SE,

 Wilmington, NC 28405, 910-452-7059, fax: 910-452-7693, e-mail:rbilgic@ika.net, Internet: www.

 ika.net
 315

IMA Life, 2175 Military Rd., Tanawanda, NY 14150, 716-695-6354, fax: 716-695-6367, e-mail:

josephine.gentile@imalife.com, Internet: www. ima.it A global supplier of automated processing equipment for vials, ampoules and syringes. Equipment range includes rotary and linear washers, depyrogenation tunnels, liquid and powder fillers, freeze-dryers, loading/unloading systems, cappers and labelers. We provide solutions for laboratory, pilot and commercial processing needs. 1600

Independence Science, 3000 Kent Ave., West Lafayette, IN, United States 47906, (866) 862-9665, fax: (609) 651-0030, Internet: www. independencescience.com Science Access for All. Independence Science partners with science laboratory equipment manufacturers to ensure text-to-speech accessible compatible interfaces to be used with persons with visual and other print disabilities to promote a fully inclusive workforce. Assistance with Americans with Disabilities Act, Section 508 compliance, and lab adaptation training available. 333

InfoChem GmbH, Landsberger Strasse 408, Munich, Germany 81241, 49-89-583002, fax: 49-89-5803839, e-mail:info@infochem.de, Internet: www.infochem.de InfoChem is a software company for cheminformatics, specialized in storage and retrieval of structure and reaction information. InfoChem's Chemistry Cartridge for Oracle (ICCartridge) constitutes a central part of our search and management technology. The reaction classification algorithm CLASSIFY is the most powerful tool available for structuring and linking large reaction databases. ICSynth is Info-Chem's novel synthesis prediction tool. Through SPRESIweb users can access one of the largest structural and reaction. InfoChem is also active in the field of automated extraction of chemical compounds from text and images. **712**

Interchim Inc., 1536 West 25th St., Suite 452, San Pedro, CA 90732, 800-560-8262, fax: 310-802-3877, e-mail:tkorman@interchiminc.com, Internet: www.interchiminc.com Interchim is a global company which manufactures chromatography products for purification, analytical and sample preparation. The column product range is comprised of Flash, Prep, SPE, UPLC, and HPLC. Instruments for purification include the first Flash system to withstand pressures of 435 psi / 30 bar. The company has introduced high efficiency Flash Cartridges which run three times faster than conventional columns. Flash columns are available in 30 different bonded phases for normal and reverse phase, ion-exchange and chiral chromatography. The company continues to introduce innovative products to support the demands of speed and efficiency for discovery and analytical chemists. **1714**

J-KEM Scientific, 6970 Olive Blvd., St. Louis, MO 63130, 800-827-4849, fax: 314-863-6070, Internet: www.jkem.com Digital temperature controllers regulate any volume (0.1ml to 100L) or piece of equipment to 0.1C. Programmable syringe pumps deliver multiple reagents to multiple reactors in parallel with no volume restrictions. Digital vacuum regulator controls to 0.1 torr. Infinity Controller automates any process, controls temperature, stirring, pressure, pH and reagent addition. New Multi-step Continuous Flow Reactor runs 100 queued reactions in scouting mode, or makes kilograms in continuous synthesis mode. Makes, then quenches reactive intermediates in two step, continuous reactions. Robotic for weighing, synthesis, reformatting and custom applications for \$30,000. Accessories include filter stations, capping stations, robotic shakers. **600**

JEOL USA, Inc., 11 Dearborn Road, Peabody, MA 01960, 978-535-5900, fax: 978-536-2205, e-mail:salesinfo@jeol.com, Internet: www. jeolusa.com JEOL is a global leader of NMR, GC/MS, LC/MS, and electron optical instrumentation (SEM & TEM) used for scientific research and industrial applications. JEOL provides innovative technologies and products (such as our revolutionary high-resolution exact mass AccuTOF-DART mass spectrometer which allows analysis in open air at atmospheric pressure and ground potential with no solvent or sample preparation required). In addition to our AccuTOF-DART system we will also be showcasing our compact automated ECS 400 MHz NMR and 6010LA SEM with built-in EDS. **1809**

Jiangxi RV Pharmaceutical Co., Ltd (P.R. China), Guixi Industrial Park, Yingtan, Jiangxi, China , 8618670101000, fax: 867012099333, e-mail:bubxu@163.com, Internet: www.rypharm. com 425

John Wiley & Sons, Inc., 111 River St. 4-02, Hoboken, NJ 07030, 201-748-6000, Internet: www.wiley.com 800

JoVE, 17 Sellers St., Cambridge, MA, United States 02139, Internet: www.jove.com Journal of Visualized Experiments (JoVE) is a peer reviewed, PubMed indexed journal devoted to the publication of biological, medical, chemical and physical research in a video format. 1435

JULABO, 884 Marcon Blvd., Allentown, PA 18109, (800) 458-5226, fax: (610)231-0260, e-mail:info@ julabo.com, Internet: www.julabo.com JULABO manufactures liquid temperature control instrumentation for research, science, laboratories, pilot plants and industrial processes. JULABO offers products with an extensive range of solutions from -95 °C to +400 °C with up to 31 kW of cooling power and 36 kW of heating power. Heated / refrigerated circulators, recirculating chillers and heating circulators are ideal for use in many scientific applications. An extensive range of products and features is available. JULABO: The Temperature Control Company. S22

Kalexsyn, Inc., 4502 Campus Dr., Kalamazoo, MI 49008, 269-488-8488, fax: 269-488-8490, e-mail:info@kalexsyn.com, Internet: www. kalexsyn.com Kalexsyn is a world-class medicinal chemistry CRO. Our scientists' average 15 years experience in hit validation, lead optimization and solving tough synthetic problems. We also provide stable label synthesis, custom synthesis and process route development to our worldwide customer base. We offer clients an outstanding CRO experience with fixed quote, tailored short and long term FTE arrangements. Kalexsyn is privately owned and with operations in Kalamazoo, Michigan. 1111

Kimble Chase LLC, 234 Cardiff Valley Road, Rockwood, TN, United States 37854, e-mail: info@kimble-chase.com, Internet: www.kimblechase.com Kimble Chase is the world's largest manufacturer of laboratory glassware. Specializing in a broad range of reusable, disposable, and speciality glassware for the following markets: pharmaceutical, chromatography, environmental, petrochemical, life science and education. Within the Kimble Chase portfolio, a few of our premiere brands include Kimble, KIMAX and Kontes. These products consist of beakers, flasks, cylinders, vials, media bottles, culture tubes, funnels and pipettes. **1623**

KNF Neuberger, 2 Black Forest Road, Trenton, NJ 08691-1810, 609-890-8600, fax: 608-890-8323, e-mail:knfusa@knf.com, Internet: www.knf. com/lab 1116

Lab Manager, 478 Bay Street, Midland, ON, Canada L4R 1K9, 888-781-0328, fax: 705-528-0270, e-mail:info@labmanager.com, Internet: www.lab manager.com Lab Manager analyzes the strong link between business strategy, technological innovation and implementation. It is focused on the lab professional in a leadership role who is responsible for setting the lab's direction and identifying, recommending and purchasing technology. It also offers a wide breadth of knowledge to the researchers in the field using lab equipment and seeking to learn about the latest in new technologies for their labs. Stop by our booth to sign up for your free subscription. 515 LECO Corporation, 3000 Lakeview Avenue, St. Joseph, MI 49085, 269-985-5496, fax: 269-982-8977, e-mail:info@leco.com, Internet: www.leco. com For more than 75 years, industries around the world have trusted LECO to deliver technologically advanced products and solutions for analytical science. Today's technologies for separation science resolve complex samples and pioneer high-sample throughput using GCXGC, GCXGC-TOFMS, and GC-TOFMS. New High Resolution TOFMS systems offer an unprecedented combination of speed, resolution, mass accuracy, and dynamic range. A unique combination of easy-to-use software and advanced instrumentation provide an innovative solution for today's most demanding applications, including food, flavor/fragrance, petroleum, environmental, and metabolomics **517**

M. Braun Inc., 14 Marin Way, Stratham, NH, United States 03885, 603-773-9333, fax: 603-773-0008, e-mail:c.bartlett@mbraunusa.com, Internet: www.mbraunusa.com M. Braun designs and develops glove boxes, inert gas purification systems, vacuum deposition systems, ovens, and solvent purification systems for both university and industrial applications. We provide customers a high quality system solution that exceeds customer specification. Please contact M. Braun at 603-773-9333 for a complete system solutions that meets your specification and budget. **1706**

Maruzen Co., Ltd., 40 Seaview Dr., 2nd Floor, Secaucus, NJ 07094, 201-865-4400, fax: 201-865-4845, Internet: www.maruzen.info/hgs Maruzen International Co., Ltd (MIC) is the leading distributor of globally renowned HGS Molecular Model. The company is located in Secaucus, NJ, with the parent company Maruzen Co., Ltd. in Tokyo. Manufactured in Japan, HGS molecular model has attracted researchers, educators, and students all over the world for over 40 years. This subtle and professionally manufactured model has very wide variety of options, which will suit any type of research/ educational activities in the broad fields of chemistry, pharamacology etc. 609

Matrix Scientific, P.O. Box 25067, Columbia, SC 29224, 803-788-9494, fax: 803-788-9419, e-mail: sales@matrixscientific.com, Internet: www.matrix scientific.com Over 90,000 research chemical intermediates and building blocks many novel to Matrix. CD-ROM catalog is available with a SDF file. Featured are amino acids, boronic, acids, fluorine compounds, sulfonyl chlorides, pyrimidines, indoles, (trifluoromethyl)pyridines, etc. Over 25,000 building blocks! Products find application in pharmaceutical, agrochemical, polymer, coatings and pure and applied research. Principals have over 47 years of experience in the manufacture and supply of quality products for research and development. **1005**

McGraw-Hill Higher Education, 1221 Avenue of the Americas, 45th Fl., New York, NY 10020, 212-512-2561, fax: 212-512-4072, Internet: http://www.mhprofessional.com/ McGraw-Hill Education is a leading global provider of print and electronic content and services for the medical, technical, and business communities. Its offerings include reference and certification books for all professional and educational disciplines and online solutions on medical and health, engineering, business, and scientific topics. Key brands include: AccessScience, Access-Medicine, AccessEngineering, Schaum's Outlines, DeMYSTiFieD, and Chase's Calendar of Events. 1114

Mestrelab Research SL, Feliciano Barrera, 9B-Baixo, Santiago de Compostela, Spain 15706, 34-881-976-775, fax: 34-981-941-079, e-mail: info@mestrec.com, Internet: www.mestrelab.com Mestrelab Research specializes in the development of software for the processing and analysis of Analytical Chemistry data (NMR, LC, GC, MS). Our software is multiplatform (Windows, Mac and Linux), multivendor (multiple equipment vendor formats supported), multitechnique and multilanguage and it has been designed to fulfill the needs of expert users whilst focusing on ease of use for the medicinal/organic/synthetic chemist focused on productivity and with no time to learn several software packages. The software will be available for demonstration and trial licenses will be available at our booth. **710**

Metrohm USA, Inc., 6555 Pelican Creek Circle, Riverview, FL 33578, 866-Metrohm, fax: 813-316-4900, e-mail:info@metrohmusa.com, Internet: www.metrohmusa.com Come see what's new at Metrohm USA: introducing our new NIR spectroscopy tools for rapid analysis with no sample degradation – we think you'll think they're the perfect complement our traditional line of wet chemistry analysis systems. See our tried & true titrators & automation, ion chromatographs, meters, electrodes, voltammetric analyzers and more. Young Chemists should see us to participate in our \$10,000 research award, and IC users are invited to take our IC Challenge for a free t-shirt (no purchase required) and the best chromatograph they can put on their bench! **1517**

Mettler-Toledo North America, 1900 Polaris Parkway, Columbus, OH 43240, Internet: www. mt.com METTLER TOLEDO is a leading global manufacturer of precision instruments. The Company is the world's largest manufacturer and marketer of weighing instruments for use in laboratory, industrial and food retailing applications. The Company also holds top-three market positions in several related analytical instruments markets and is a leading provider of automated chemistry systems used in drug and chemical compound discovery and development. Additional information about METTLER TOLEDO can be found at www.mt.com/lab. **2014**

MicroLAB, Inc., PO Box 7358, Bozeman, MT 59771, 406-586-3274, fax: 406-586-3582, Internet: www.microlabinfo.com MicroLab's FS-522 Lab Interface has combined FASTspecTM technology with popular sensors to create an affordable, general purpose lab instrument. Integrated sensors prevent cluttered bench tops, reduce cost, and provide low-noise, high-resolution measurements. Use in general, analytical, physical and biochemistry laboratory courses or undergraduate/graduate research. Let us help you engage your students in real science. **711**

Micromeritics Instrument Corp., 4356 Communications Drive, Norcross, GA 30093, 770-662-3636, fax: 770-662-3696, e-mail:ussales@ micromeritics.com, Internet: http://www. micromeritics.com Micromeritics is a leading supplier of materials characterization analytical laboratory instrumentation and services. The company manufactures a broad line of automated laboratory instruments that measure physical characteristics of powders and solids for fundamental research, product development, quality assurance and control, production, and process control applications. Measurements obtained include particle size, particle shape, surface area, porosity, material density, catalytic activity, and temperature-programmed reactions. Micromeritics markets an auxiliary selection of materials characterization instruments under its Particulate Systems brand. Micromeritics also operates Micromeritics Analytical Services and Micromeritics Pharmaceutical Services, both providing contract sample analyses and consulting services. **1424**

Microtrac Inc., 148 Keystone Drive, Montgomeryville, PA, United States 18936, 727-507-9770, fax: 727-507-9774, Internet: www.microtrac.com 311

Midland Scientific, Inc., 1202 S. 11th Street, Omaha, NE, United States 68108, 402-346-8352 ext 1103, fax: 402-346-7694, Internet: www. midlandsci.com Midland Scientific Inc. is a woman-owned, full-line distributor of laboratory supplies and equipment. We are a national distributor of laboratory products with a sales force and distribution network to serve the entire United States. Our main product lines include laboratory chemicals, solvents, solutions, glass-

ware, plasticware, weighing equipment and supplies, disposable and reusable centrifuge ware, sample containers, filtration products, electrochemistry supplies and instrumentation, general laboratory instrumentation, and much more. We pride ourselves on our customer service, quality products, and timely and reliable deliveries. Visit our website at www.midlandsci.com to veiw the full list of our products. 532

Nanalysis Corp., Bay 4, 4500, 5 Street NE, Calgary, AB, Canada T2E 7C3, 403-769-9499, fax: 403-775-6683, Internet: nanalysis.com 1505

nanoComposix, Inc., 4878 Ronson Ct., Suite K, San Diego, CA, United States 92111, 858-565-4227, Internet: www.nanocomposix.com nano-Composix specializes in the fabrication, characterization, and integration of nanomaterials into products and systems. Our mission is to enable our customers to maximize the potential benefits of nanotechnology through the use of precisely engineered, highly characterized nanomaterials. Our multi-disciplinary technical teams provide method and protocol development, rapid prototyping, integration solutions, and testing services for researchers in aerospace, defense, material science, and biotechnology industries. **716**

NanoSight, 6660 N High Street, Suite 2A, Worthington, OH, United States 43085, Internet: www.nanosight.com NanoSight's "Nanoparticle Tracking Analysis" (NTA) detects and visualizes nanoparticles in liquids down to 10nm, material dependant. It measures size, size distribution, concentration, zeta potential and fluorescence, on a particle-by-particle basis. This technology is being utilized in the development of drug delivery systems and viral vaccines, and in nanotoxicology. It also gives insight into the kinetics of protein aggregation and has a growing role in biodiagnostics, including the detection and speciation of exosomes and microvesicles. Nano-Sight has installed 600+ systems worldwide and its technology is validated by 800+ third party papers citing NanoSight results, consolidating NanoSight's leading position in nanoparticle characterization. **1304**

National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894, 888-346-3656, fax: 301-402-1384, e-mail:tehip@teh.nlm.nih.gov, Internet: www.nlm.nih.gov The National Library of Medicine provides FREE Internet access to its environmental health, toxicology, chemical, and hazardous substances resources. These resources include the TOXNET® (TOXicology data NETwork) databases; Tax Town®, an interactive guide to commonly encountered toxic chemicals and environmental health risks; and Household Products, a database that provides information on the health effects of chemicals contained in products used inside and around the home. For more information, visit tox.nlm.nih.gov. 628

Nature Education, 25 First Street, Suite 104, Cambridge, MA, United States 02141, (617) 475-9275, Internet: www.nature.com/principles Nature Publishing Group presents Principles of Science, a new series of high quality, affordable interactive digital textbooks in the universitylevel life and physical sciences. **1904**

Nature Publishing Group, 75 Varick Street, 9th Floor, New York, NY 10013, 212-726-9200, fax: 212-696-9006, Internet: www.nature.com The NPG portfolio combines the excellence of Nature, its associated research and review journals, and leading academic and society journals in the life, physical and clinical sciences. Open access options are offered through the academic and society journals, Nature Communications and through a new fully open access publication: Scientific Reports. **1900**

Netzsch Instruments North America, LLC, 129 Middlesex Turnpike, Burlington, MA 01803, 781-272-5353, fax: 781-272-5225, e-mail:nibsales@netzsch.com, Internet: www.netzsch-thermal-analysis.com Thermal analysis & thermal properties instruments, calorimetry, & contract testing services; DSC, DTA, TGA, STA (Simultaneous DSC/DTA-TGA from cryogenic to +2400C), evolved gas analysis by TGA-MS, TGA-FTIR, and TGA-GC-MS, the new 'Perseus'world's first fully-integrated TGA/STA-FTIR with no transfer line, Photo-DSC, TM-DSC, High Pressure DSC, High Temperature DSC, Laser Flash for thermal diffusivity & thermal conductivity, Dilatometers & TMA for thermal expansion, DMA - Dynamic Mechanical Analysis, Dielectric Analysis - DEA for in-situ thermoset cure-monitoring, ARC calorimeters for thermal hazards & process safety studies. **508**

Nevrivy Patent Law Group P.L.L.C., 1000 Potomac St., NW, Suite 200, Washington, DC, United States 20007, 202-650-6909, Internet: www.nevrivylaw.com Nevrivy Patent Law Group specializes in assisting start-ups and established chemical and pharmaceutical companies; and universities with their IP needs. Nevrivy assists clients with protecting their inventions in the U.S. and globally. We also assist clients with assessing risk when making key business decisions including developing and/or launching products; licensing technology; partnering with others; and acquiring technology. Nevrivy specializes in providing clients with outstanding service and value in their intellectual property matters. We work WITH our clients to meet their needs. 435

New Era Enterprises, P.O. Box 747, Vineland, NJ 08362-0747, 800-821-4667, fax: 856-697-8727, Internet: www.newera-spectro.com New Era Enterprises, Inc. Our comprehensive catalogs for NMR, IR-FTIR, UV-VIS-FL and AA-ICP show an extensive range of sampling supplies and accessories for each product area. Descriptive information and instrument compatibility along with various application notes make it easy to find the best product for your needs. Each catalog contains pricing for your convenience. Not sure about a product match to your application? Our knowledgeable staff can help you find the best solution. **610**

New Scientist Jobs, 225 Wyman Street, Waltham, MA, United States 02451, 781-734-8770, fax: 678-680-1960, e-mail:nssales@new scientist.com, Internet: www.newscientistjobs. com New Scientist Jobs is your online resource for the best Science and Technology jobs around. Jobs are up dated daily, registration is free and you can upload your resume, set up email job alerts, subscribe to RSS feeds and apply for jobs. Take a more scientific approach to your job seeking and find your next job at NewScientistJobs.com! 1404

NIST, 100 Bureau Drive, Stop 2300, Gaithersburg, MD 20899-2300, 301-975-3774, fax: 301-926-0416, e-mail:diane.decker@nist.gov, Internet: www.nist.gov/srm NIST Standard Reference Materials supports accurate and compatible measurements by certifying and providing over 1300 Standard Reference Materials with wellcharacterized composition or properties, or both. SRMs are used to perform instrument calibrations as part of overall quality assurance programs, verify the accuracy of specific measurements and support the development of new measurement methods. The Standard Reference Data Group has provided well-documented numeric data to scientists and engineers for use in technical problem-solving, research, and development. The Calibration Services are designed to help the makers and users of precision instruments achieve high levels of measurement quality and productivity. **1214**

Norton, 500 Fifth Ave., New York, NY 10110, 212-548-4751, fax: 212-790-4261, Internet: 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. **401** NovAliX, Bioparc 1, 850 Bld Sebastien Brant BP 30170, Illkirch, France F-67405, 33 6 72 35 29 25, 1922

Oakwood Products Inc., 1741 Old Dunbar Road, West Columbia, SC 29172, 803-739-8800, fax: 803-739-6957, e-mail:sales@oakwoodchemical. com, Internet: www.oakwoodchemical.com Oakwood Chemical, a manufacturer and distributor, supplies research chemicals to the pharmaceutical, agrochemical and materials research communities. Oakwood's product listing contains over 100,000 items, including many unique building blocks and reactive intermediates. Routine synthetic work includes sulfur tetrafluoride chemistry as well as most routine transformations. Oakwood provides custom synthesis services from kilo-lab through pilot scale at both of our sites in South Carolina. Oakwood distributes for ChemCollect, Chess, Kishida and Tetramer Technologies, LLC. 1403

Ocean Optics, Inc., 830 Douglas Avenue, Dunedin, FL 34698, 727-733-2447, fax: 727-733-3962, e-mail:info@oceanoptics.com, Internet: www.OceanOptics.com Ocean Optics is the inventor of the world's first miniature spectrometer and the industry leader in optical sensing. We provide single solutions, turnkey solutions and spectrometers for field. Ocean Optics also offers a full line of sensing accessories, light sources and optical fibers. Ask about our exclusive 3-Year warranty and Total Technical Services. 717

Ohio Bioproducts Innovation Center at The Ohio State University, 240 Howlett Hall, 2001 Fyffe Court, Columbus, OH, United States 43210, 614-292-1748, fax: 624-247-4739, Internet: http://bioproducts.osu.edu/ OBIC (Ohio Bioproducts Innovation Center) is an international leader in accelerating bioproduct commercialization. A key skill set that OBIC provides stakeholders is our "Cell to Sell"® Innovation Pipeline process. This unique approach links interdependent firms, including biomass providers, processors, specialty chemical and polymer companies, and product manufactures as well as research institutions, trade associations, and other non-governmental organizations. Cluster members share information, experience, and other resources to increase chances for success. Besides providing OBIC's branded stewardship, we ensure that each cluster has three major components that are critical for success: market pull, biobased feedstocks, and process-enabling technologies. 604

Oriel Instruments, 150 Long Beach Blvd, Stratford, CT, United States 06615, (949) 253-1468, Internet: www.newport.com Oriel® Instruments, a brand of Newport Corporation, is recognition in the optical research field as a highly reliable source for well engineered, durable Light Sources and their dedicated Power Supplies, as well as Light Detection Systems and Spectroscopy Instrumentation. Oriel also manufactures dedicated broadband light sources, monochromatic light sources and detectors for light measurement & characterization in sophisticated dedicated instrumentation. **1206**

Park Systems, Inc., 3040 Olcott St., Santa Clara, CA 95054, 408-986-1110, fax: 408-986-1199, e-mail:psi@parkafm.com, Internet: http://www. parkafm.com/ Park Systems is a world leading manufacturer of atomic force microscopy (AFM) systems with complete range of products for researchers and industry engineers in biological science, materials research, semiconductor and storage industries. Park's AFM provides highest data accuracy, superior productivity, and lowest operating cost. Please visit www.parkafm.com for more information. 1523

Parr Instrument Co., 211 53rd Street, Moline, IL 61265, 309-762-7716, fax: 309-762-9453, e-mail: parr@parrinst.com, Internet: www.parrinst.com For over 100 years, Parr Instrument Company has been engaged exclusively in the design, manufacture and sale of laboratory instruments and apparatus for testing fuels and for conduct ing chemical reactions and tests under heat and pressure. Par Instrument Company features Laboratory Reactors and Pressure Vessels, stirred and unstirred, for use at elevated temperatures and pressures in catalytic hydrogenation, organic synthesis, polymerization, and other chemical processes. Also featured are Oxygen Combustion Calorimeters for the determination of the heat of combustion in solid, liquid and refuse derived fuels, and Sample Preparation Equipment used in the acid digestion process for trace metal analysis. **1201**

Particle Sizing Systems, 8203 Kristel Circle, Port Richey, FL 34668, 727-846-0866, fax: 727-846-0865, e-mail:donna@pssnicomp.com, Internet: pssnicomp.com Achieve unprecedented resolution and accuracy with the Nicomp DLS Submicron Particle Size analyzer and the AccuSizer SPOS Single Particle Optical Size analyzer. These instruments provide particle sizing solutions covering a range 0.6 nm - 6000 microns for wet/dry applications. Depending on your size range, both can provide critical information about the particle size and counts of your sample with unprecedented resolution, accuracy, and sensitivity. Modular accessories are available with both platforms. Image analysis and zeta potential analyzers that provide information about your powder process behavior are also available. **1402**

Pearson, One Lake Street, Upper Saddle River, NJ 07458, 415-402-2583, Internet: www. pearsonhighered.com Pearson is the world's leading learning company. We partner with faculty and institutions to create innovative solutions to improve student achievement and institutional effectiveness. We aim to help students get to college and succeed there, enter the workforce and attain their professional goals. We create and connect content, technology, assessment and services to create unique learning solutions. We also deliver services that can help schools and academic institutions achieve their goals. 501

PerkinElmer, 710 Bridgeport Avenue, Shelton, CT 06484, 1-800-762-4000, fax: 203-944-4950, Internet: www.perkinelmer.com PerkinElmer is a global company focused on improving the health and safety of people and their environment. From earlier medical insights and more effective therapies to cleaner water and safer homes, PerkinElmer touches the lives of millions of people every day. Our Environmental Health business develops analytical instrumentation, illumination and detection technologies and support services to protect the quality and sustainability of our environment and the security of people within their surroundings. Our Informatics team is now the home of Spotfire in Science, ChemDraw, the industry leading E-Notebook and now ChemDraw for iPad. 1508,1511

PharmAgra Labs, Inc., 158 McLean Road, Brevard, NC, United States 28712, 828-884-8656, fax: 828-884-9469, Internet: www.pharmagra. com PharmAgra Labs, Inc. is a chemistry CRO that for fifteen years has been conducting contract Research and Development in organic and medicinal chemistry. We specialize in providing a rapid-response team of organic chemists that can bring their high level of expertise to bear in all areas of discovery, scale-up, process and analytical chemistry. In our FDA inspected kilo suite we offer CGMP preparation of drug substances for use in Clinical Trials as well as low volume API manufacturing. Our company owned, US-based fully equipped facility is located in Brevard, NC. 1412

PIKE Technologies, 6125 Cottonwood Drive, Madison, WI 53719, 608-274-2721, fax: 608-274-0103, Internet: www.piketech.com PIKE Technologies, Inc., the leading manufacturer of sampling accessories for FT-IR, NIR and UV-Vis spectrometers. Products include attenuated total reflectance (ATR), diffuse reflectance, specular reflectance, integrating spheres, polarization, IR microscope, beam condensers, remote sensing, and a complete line of transmission sampling accessories. Many of these products are available with optional heating and automation for increased sampling speed and productivity. PIKE Technologies, Inc. also offers design and consulting services for development of specialized and custom products for a wide range of spectroscopy applications. PIKE products are compatible with all major brands of spectrometers. 1322

Pine Research Instrumentation, 2741 Campus Walk Avenue, Building 100, Durham, NC 27705, (919)782-8320, fax: 919-782-8323, e-mail:jgarry @pineinst.com, Internet: www.pineinst.com/ echem Pine Research Instrumentation manufactures a full line of high quality, affordable and reliable electrochemical products. Known for our modulated speed rotator (MSR), researchers appreciate its use in both academic and industrial settings. We also offer rotating disk and rotating ring disk electrodes, counter and reference electrodes, and screen patterned electrodes. Screen patterned electroches are a convenient way to set up a three electrode cell. Our potentiostat line features the low cost and portable USB Wave-Now potentiostat/Galvanostat benchtop system. These potentiostats have a simple USB interface. 500

Pittcon 2014, 300 Penn Center Blvd., Suite 332, Pittsburgh, PA 15235, Internet: www.pittcon.org 1315

PolyScience, 6600 W. Touhy Avenue, Niles, IL 60714, 847-647-0611, fax: 847-647-1155, Internet: www.polyscience.com Our company offers a wide range of remarkably responsive temperature control solutions. Our refrigerated circulators, heated circulators, chillers, recirculating coolers, water baths and special-purpose products are designed to simplify tasks, take less space, integrate more seamlessly and make your work productive and enjoyable. Equally important, we've been responding to the needs of laboratories worldwide with unparalleled innovation, passion and user-focus for five decades. Our dedication to quality, ease of operation and reliability has helped us become a global company that spans six continents. **1423**

Practichem, 171 Industrial Drive, Burlington, WI, United States 53105, (262) 767-1600, Internet: www.practichem.com Practichem designs instrumentation and consumables for protein and small molecule purification. Talk to us if you use techniques like: flash, preparative, affinity, size exclusion, and/or gel permeation chromatography – Practichem is your solutions provider. Practichem's original designs eliminate compromises found in competing "integrated" products. Not to mention, Practichem offers a refreshingly responsive customer service team. Check us out: www.practichem.com

Research In Germany, 871 United Nations Plaza, New York, NY 10017, (212) 339-7137, fax: (212) 339-7138, e-mail:stefan.altevogt@dfg.de, Internet: www.dfg.de Representatives from German research and funding organizations will present cutting-edge German research in chemistry and funding opportunities at this year's ACS Fall Meeting at the Research in Germany information booth in the exhibit hall. Registered participants of the ACS are cordially invited to get subject specific information material and individual guidance. **511**

Retsch, Inc., 74 Walker Lane, Newtown, PA, United States 18940, 267-757-0351, fax: 267-757-0358, Internet: www.retsch-us.com Retsch is the world leader in solid material sample preparation equipment for quality control and research and development laboratories. Our expertise and devotion to providing the highest quality products for accurate and reproducible sampling methods is unsurpassed. Our selection of mills, sieve shakers, and sample dividers offer the industry standards for sample preparation. 1009 Richman Chemical Inc., 768 North Bethlehem Pike, Lower Gwynedd, PA 19002, 216-628-2946, fax: 215-628-4262, e-mail:clk@richmanchemical. com, Internet: www.richmanchemical.com Richman Chemical Inc. (RCI) provides custom synthesis, product sourcing and project management solutions that result in customers saving time and containing costs. Services for life science, specialty chemical and emerging technology markets include custom synthesis for research and development, pilot scale-up and full-scale production of materials. Chemical sourcing staff can locate difficult-to-find chemical compounds. RCI is well known in the industry for providing clients with flexible and cost effective solutions using its unique portfolio of technical capabilities, and our services are a perfect fit for start-up companies, science-focused government agencies, university technical transfer offices, and certainly larger pharmaceutical and chemical clients. 423

Rieke Metals, Inc., 1001 Kingbird Road, Lincoln, NE, United States 68521, 402-434-2775, fax: 402-434-2777, e-mail:sales@riekemetals.com, Internet: www.RiekeMetals.com Rieke Metals Inc. (RMI) began in 1991 with its foundation in over 40 years of research in active metals. Today the company sells active Rieke Zinc and Magnesium, Grignard and Organozinc reagents, fine organic chemicals and organic semi-conducting polymers/monomers including P3HT. Headquartered in Lincoln, Nebraska, the facility personally manufactures over 10,000 research compounds and more than 350 thousand molecules under research contract. Rieke Metals supplies research to commercial quantities, ensuring high purity and service. **428**

Rigaku Americas Corp., 9009 New Trails Drive, The Woodlands, TX 77381, 281-362-2300, fax: 281-364-3628, Internet: www.rigaku.com Rigaku provides the world's most complete line of X-ray diffraction and X-ray fluorescence instruments and components. Systems include the MiniFlex benchtop XRD and Supermini benchtop WDXRF systems, the Ultima IV and SmartLab® multipurpose diffractometers with SAXS and in-plane capabilities, DMAX Rapid II micro-diffraction systems, SMAX3000 small angle scattering systems, and the ZSX Primus series of high-powered WDXRF spectrometers with mapping capabilities, in either tube-above or tube-below configurations. **1614**

Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, United Kingdom CB4 OWF, 44-1223-432-378, fax: 44-1223-426-017, e-mail:sales@rsc.org, Internet: www.rsc.org The Royal Society of Chemistry is the largest organisation in Europe for advancing the chemical sciences. Supported by a worldwide network of members and an international publishing business, our activities span education, conferences, science policy and the promotion of chemistry to the public. We promote the best knowledge and share the best ideas, advancing excellence in the chemical sciences. We work to shape the future of the chemical sciences – for the benefit of science and humanity. **901**

Schrödinger, Inc., 101 SW Main Street, Suite 1300, Portland, OR 97204, 503-299-1150, fax: 503-299-4532, e-mail:info@schrodinger.com, Internet: www.schrodinger.com Founded in 1990, Schrödinger is widely recognized as a scientific and technological leader in developing state-ofthe-art chemical simulation software for use in pharmaceutical and biotechnology research. The company's products range from general molecular modeling programs to a full-featured suite of drug design software, as well as a state-of-the-art suite for materials research. Schrödinger is developing enterprise level software that can be deployed throughout an entire organization, and the company is committed to helping its customers realize its products' full potential benefits through unparalleled support and collaborations. **1700**

Scilligence Corporation, 15 New England Executive Park, Burlington, MA, United States 01803, 781-330-0089, Internet: www.scilligence.com Scilligence is a leading innovator of next-generation, cross-platform, mobile cheminformatics and bioinformatics software tools for life science organizations. We supply the pharmaceutical, chemical, and bio-tech industries with state of the art tools to improve their bottom line. By seeding universities and research institutes with our tools, we put them in the hands of leading scientists working on the cutting edge of life science research. Scilligence's proprietary technology specializes in chemical structure searching and mining across a variety of data sources and file types, allowing our customers access to information previously bound by technology silos, or unstructured data archiving methods. **1509**

Semichem, 12456 W. 62nd Terrace, Suite D, Shawnee, KS 66216, 913-268-3271, fax: 913-268-3445, e-mail:jana@semichem.com, Internet: www.semichem.com $AMPAC^{TM}$ is Semichem's flagship product and is a fully-featured semiempirical quantum mechanical program. It includes an industry leading graphical user interface (GUI) that builds molecules and offers full visualization of results. AMPACTM is designed to perform calculations suitable for stand-alone use as a structure and/or information engine or as an information source for high-throughput screening. Semichem also offers CODESSATM an advanced, fully featured quantitative structure/activity relationship (QSAR) program that ties information from AMPACTM and other QM programs with experimental data. Together these programs allow researchers to answer the questions that are important to their efforts, whether they be academic or commercial. **1526**

Shanghai Jingchun Scientific Company Limited (Aladdin), Suite 601, Shan Da Bldg., No. 196, Xin Jin Qiao Rd, Pudong District, Shanghai, China 201206, 1-626-616-0223, Internet: www. aladdin-e.com Aladdin is a leading manufacturer and supplier of research chemicals, biochemical products and materials in a wide span of applications. Its clients include academic, industrial and government research and development laboratories as well as commercial scale businesses in the pharmaceutical, biotechnological, microelectronic and chemical/petrochemical industries. Today we offer over 20,000 products in stock, in sizes from gram-scale catalog items to semi-bulk and bulk production quantities, And our inventory and variety is increasing every day. Aladdin also provides Custom Products, including DNA oligos (Primers and Probes), RNA, siRNA, Peptides and research chemicals. **1109**

Shimadzu Scientific Instruments Inc., 7102 Riverwood Drive, Columbia, MD 21046, 800-477-1227, fax: 410-381-1222, Internet: www. shimadzu.com Shimadzu Scientific Instruments is a leading provider of analytical measurement and testing instrumentation for a broad range of applications in science and industry, including in such areas as academic research, pharmaceuticals, food & beverages, environmental, chemicals, and forensics. Instruments include chromatographs (HPLC/UFLC/UHPLC, GC); mass spectrometers (GC/MS, LC/MS, MALDI); spectrophotometers (FT-IR, Fluorescence, UV-VIS-NIR); atomic spectrometers (AA, ICP); X-ray spectrometers (EDX, XRD, XRF); thermal & particle size analyzers; Total Organic Carbon analyzers; data systems/software; balances; and materials testers. 1211

Sigma-Aldrich, 3050 Spruce St., St. Louis, MO 63103, 314-771-5765, fax: 314-286-7817, Internet: www.sigmaaldrich.com Sigma-Aldrich is a leading Life Science and High Technology company whose biochemical, materials science and organic chemical products, kits and services are used in scientific research, including genomic and proteomic research, biotechnology, pharmaceutical development, the diagnosis of disease and as key components in pharmaceutical, diagnostics and high technology manufacturing. We are committed to accelerating customer success through innovation and leadership in Life Science and High Technology. **1305**

Sorbent Technologies, 5955 Peachtree Corners East, Suite A, Norcross, GA 30071, 866-767-2832, ext. 0281, e-mail:dschurer@sorbtech.com, Internet: www.sorbtech.com Sorbent Technologies specializes in premium chromatography products for natural product purification & organic synthesis used in laboratory, pilot, and production facilities. Bulk Sorbents: Silicas, Bonded Phases, Aluminas, Polymer Resins, Florisil, Polyamide; TLC Plates; Flash Cartridges & Systems (pumps, fraction collectors, detectors); HPLC Columns: Analytical & Semi-Prep, & Prep (Grace Vydac, Macherey-Nagel, Jordi-GPC & SEC); GC columns; FPLC Columns for Prep & Process; SPE Cartridges; Centrifan Solvent Evaporation Systems. Lab Supplies: Pipet Tips, PCR, Tubes, Pipettors, Gloves, Racks, Boxes, Dispensers, Microscopes. We are your Separation Solution Sourcel 1316

SP Scientific, 3538 Main Street, Stone Ridge, NY, United States 12484, 845-255-5000, Internet: www.SPScientific.com SP Scientific is the synergistic collection of well-known and highly regarded scientific equipment brands, including VirTis, FTS Systems, Hull, Genevac and National-Hotpack. The joining of these well-established brands as SP Scientific has created one of the largest and most experienced companies in freeze drying (lyophilization), centrifugal evaporation and concentration, temperature control/ thermal management, and glassware washers. 2017

Spectrum Chemicals & Laboratory Products, 769 Jersey Ave, New Brunswick, NJ 08901, (732) 801-5651, e-mail:sales@spectrumchemical.com, Internet: www.spectrumchemical.com Spectrum Chemicals & Laboratory Products manufactures and distributes over 37,000 fine chemicals and laboratory reagents, including 22,000 organic research chemicals available from stock and the largest selection of USP/NF/FCC monograph chemicals available from a single source. Spectrum Custom Synthesis provides USA-based cGMP contract research and manufacturing services for active pharmaceutical ingredients and DEA Controlled Substances. Spectrum offers a complete line of products for life science and biotechnology research with emphasis on bioreagents for protein purification and proteomics research. Spectrum also distributes over 100,000 supply and equipment items from 250 manufacturers such as PerkinElmer, Mettler-Toledo, Corning, IKA, Wheaton and Kimble. **1408**

Springer, 233 Spring Street, New York, NY 10013, 212-460-1600, fax: 201-348-4505, Internet: www.springer.com Come and browse more than 100 key titles. Get 20% off print books and eBooks – and learn about MyCopy (a printed eBook for \$/€ 24.99). Among our highlights are Ellipsometry at the Nanoscale, Polymer Synthesis: Theory and Practice and Handbook of Computational Chemistry and cutting-edge journals such as Colloid and Polymer Science and Analytical and Bioanalytical Chemistry. Meet our Editor Tobias Wassermann, Sonia Ojo and Steffen Pauly to discuss your publishing proposal. Ensure maximum readership for your work, tool Springer, your partner in publishing. Find all offers online: springer.com/acs. Follow Chemistry@Springer on LinkedIn for the latest news!

StellarNet Inc., 14390 Carlson Circle, Tampa, FL 33626, 813-855-8687, fax: 813-855-0394, e-mail: dpersell@stellarmet.us, Internet: www.StellarNet. us Since 1991, StellarNet, Inc. has been a global provider of low cost miniature spectrometer systems and spectroscopy software for product analysis, research, education, and OEM. Stellar Net instrumentation is rugged for any environment—lab, process, or field. We offer complete systems and accessories including light sources, sampling fixtures, cuvette holders, optical fibers, and probes. Applications include UV-VIS-NIR chemical absorbance (190-2300nm), fluorimetry, time series analysis and kinetic studies, optical metrology, reflectometry & colorimetry, solar spectral analysis, LED/Laser characterization, LIBS, optical emission spectroscopy, and Raman. 1417

Strem Chemicals, 7 Mulliken Way, Dexter Industrial Park, Newburyport, MA 01950-3104, 978-499-1600, fax: 978-465-3104, Internet: www. strem.com Strem Chemicals, an employeeowned company, established in 1964 manufactures and markets over 4,000 metals, inorganics and organometallics for research and development, including metal catalysts, ligands and biocatalysts for organic synthesis, MOCVD/ALD precursors, bubblers and nanomaterials, for use in pharmaceutical, microelectronics, chemical and petrochemical industries. Custom synthesis services are also provided. cGMP manufacturing is also available. 1615

Synquest Labs, PO Box 309, Alachua, FL 32616, 386-462-0788, fax: 386-462-7097, Internet: www.synquestlabs.com SynQuest specializes in fluorinated organic and inorganic chemicals, providing a creative and innovative range of building blocks, reagents and compressed and liquefied gases. We offer chemical services designed to expedite your research from conception to pilot quantities. **409**

Synthonix, 2713 Connector Drive, Wake Forest, NC 27587, 919-875-9277, fax: 919-875-9601, Internet: www.synthonix.com Synthonix specializes in the synthesis of novel biologically relevant building blocks. Current technologies are focused in the areas of small non-aromatic ring systems with unusual bond angles and substitution patterns. Such building blocks provide researches access to unexplored chemical space. 1914

Syrris Ltd., 29 Albion Place, Charlestown, MA 02129, 617-848-2997, fax: 617-532-1033, e-mail: info@syrris.com, Internet: www.syrris.com Syrris develop advanced products for research and development chemists and is a world leader in flow chemistry, microreactor and automation technology. Visit us and see demonstrations of the revolutionary Asia Flow Chemistry system, recipient of the prestigious R&D100 award for innovation. Our automated reactor system, Atlas, is also on display; Atlas enables applications from synthesis, process optimization and reaction analysis to crystallization, calorimetry and scale-up. 1815

TA Instruments, 159 Lukens Drive, New Castle, DE 19720, 302-427-4000, fax: 302-427-4001, e-mail:info@tainstruments.com, Internet: www. tainstruments.com Visit TA Instruments for premier technology for thermal analysis, rheology and microcalorimetry. We provide innovative instrumentation for materials characterization for polymers, pharmaceuticals, proteins, paints and coatings, food science, inorganics, and more. Our Discovery Series DSC and TGA deliver unmatched performance and our ARES-G2 and Discovery Hybrid Rheometers set the standard for rheometry. Our NanoITC and NanoDSC calorimeters are benchmarks for life sciences. We offer a new line of instruments for thermal diffusivity by the Flash Method, Thermal Conductivity and Dilatometry. **1108**

Taylor & Francis Group LLC/CRC Press, 6000 Broken Sound Parkway, NW, Suite 300, Boca Raton, FL 33487, 561-994-0555, fax: 561-361-6018, Internet: www.chemistryarena.com CRC Press, a premier global publisher of scientific, technical, and medical content, provides essential material for researchers, academics, professionals, and students. CRC Press products include world-class references, handbooks and textbooks as well as its award-winning CRCnet-BASE eBook collections. CRC Press is a member of Taylor & Francis Group, an informa business. For more information, or to sign up for email alerts of newly published resources in all subject areas, visit www.crcpress.com **90** TCI America, 9211 N. Harborgate Street, Portland, OR 97203, 800-423-8616, fax: 888-520-1075, e-mail:sales@tciamerica.com, Internet: www.TCIchemicals.com TCI is a leading global manufacturer and supplier of specialty chemicals to the pharmaceutical, electronic, cosmetic, chemical, environmental, and biotech industries. Drawing on over 80 years of synthetic organic chemistry experience, TCI develops new technology that produces rare and novel compounds. Our current catalog lists over 22,000 organic and biochemical products for use in research and production. Our manufacturing capabilities include multi step synthesis and continuous production from miligram to ton scale for custom and contract research services. Our modern facilities provide cGMP manufacturing with FDA validation. Please visit our website www.TCIchemicals.com today! **1105**

Teledyne Isco - Chromatography, 4700 Superior St, Lincoln, NE 68504, 402-464-0231, fax: 402-465-3064, e-mail:iscoinfo@teledyne.com, Internet: www.isco.com The Teledyne Isco Chromatography product line includes instruments and accessories for purification of organic compounds in normal-phase and reversed phase separations, and for bio-purification of proteins, peptides, and other biopolymers. **400**

ThalesNano Nanotechnology Inc., 7. Zahony u, Budapest, Hungary H-1031, 00 36 1 8808 500, fax: 00 36 1 8808 501, Internet: www.thalesnano. com ThalesNano is the world leader in creating bench-top flow reactors to solve real chemistry problems. The Cube Series, which includes the R&D award winner H-Cube®, covers a chemistry space of vacuum -400 bar and -70-+1000°C, are used in hundreds of laboratories globally, and have become the industry standard for many chemistry applications. Within three years, 20 out of the top 20 pharmaceutical companies adopted our Cube Series technology. Together with their modules, the Gas Module, the Phoenix Flow Reactor, and our automated system, the company provides the chemistry world's most versatile synthesis and screening platforms. 1422

The Chemical Society of Japan, 1-5, Kanda-Surugadai, Chiyoda-ku, Tokyo, Japan 101-8307, 81-3-3292-6165, fax: 81-3-3292-6319, Internet: www.csj.jp/index-e The Chemical Society of Japan (CSJ) is trying to renew and strengthen our journals, both Bulletin of the Chemical Society of Japan (BCSJ) and Chemistry Letters (CL) to enhance the visibility of the journal worldwide. The CSJ has worked since its founding to be an important resouce for chemists and the general public. The CSJ publishes two major high quality journals, BCSJ and CL, focusing on the current topics of chemistry-related science, and its services are used by more than 1,000 institutions around the world. 611

The New York Times, On the Avenue MarketingGroup, 613 South Avenue, Weston, MA 02493,781-890-2661, fax: 781-890-2799, Internet: www.ontheavenuemarketing.com1208

Thermo Scientific, 5225 Verona Rd, Madison, WI, United States 53711, 800-532-4752, Internet: www.thermoscientific.com Thermo Scientific Booth 613 will showcase integrated laboratory workflow solutions for academia and industry covering LC/MS, GC/MS, HPLC, HPIC, FTIR, NMR, UV-Vis and Raman. The new Thermo Scientific ISQ Series GC-MS single quadrupole offers a robust solution with operational simplicity, dependability, and unstoppable productivity. The growing family of Thermo Scientific DXR Raman systems brings innovative new solutions and approaches to microscopic materials understanding and problem solving. An edition to the picoSpin NMR product line will be showcased as well. 612,613

Titian Software, 1500 West Park Dr., Westborough, MA., Internet: www.titian.co.uk Founded in 1999, Titian Software specializes in sample management, offering software products and consultancy services for improving the efficiency, throughput and data integrity of one's sample libraries. Its industry-renowned Mosaic™ software optimizes the storage, processing, tracking, and ordering of small and large molecule sample collections. The Mosaic product suite can be a solution for single or multi-site organizations and is currently used by 13 of the Top 20 bio-pharma companies. With increasing worldwide demand, Titian Software has presence in Europe, the United States and the Far East to provide its customers with local expertise and support. **1427**

Tornado Spectral Systems, 2359 N Triphammer Rd, Ithaca, NY, United States 14850, (607) 379-6185, Internet: tornado-spectral.com Tornado Spectral develops spectrometers using the High Throughput Virtual Slit (HTVS), an innovation increasing throughput of high resolution spectrometers up to an order of magnitude above commercially available spectrometers. Tornado's products are based on performance improvement provided by HTVS; the HyperFlux platform of optical spectrometers. TSS has also developed a commercial grade nanophotonicsbased spectrometer for optical coherence tomography (OCT) and non-destructive testing (NDT). 1512

Tosoh Bioscience LLC, 3604 Horizon Drive, Suite 100, King of Prussia, PA 19406, 484-805-1219, fax: 610-272-3028, Internet: www.tosoh bioscience.com Tosoh Bioscience is a global leader in the manufacturing and sales of high quality, innovative pre-packed HPLC columns and bulk resins with the TSKgel®, Toyopearl® and ToyoScreen® brand names. While the majority of our customers are employed in biotechnology and pharmaceutical companies, our HPLC columns are essential tools for sample analysis in most industries. Stop by our booth to discuss the unsurpassed efficiency, reliability, and reproducibility delivered by the EcoSEC® GPC System, a dedicated system for GPC analysis. 606

TSI, Inc., 500 Cardigan Road, Shoreview, MN 55126, 651-490-2738, fax: 651-490-3824, Internet: www.tsi.com For over 50 years, TSI has been an industry leader in the design and production of precision measurement instruments. Our latest technology includes ChemReveal Desktop LIBS Elemental Analyzer which offers rapid elemental analysis for minute quantities of solid materials with minimal sample preparation. Based on advanced laser-induced breakdown spectroscopy (LIBS), this new instrument is designed to analyze organic elements (C, H, O, N) and heavy metals simultaneously. 1917

US EPA Green Chemistry Program, 1200 Pennsylvania Avenue, Mail Code 7406M, Washington, DC 20460, Internet: www.epa.gov/ greenchemistry 626

Vacuubrand, 11 Bokum Road, Essex, CT 06426, 860-767-2562 ext. 125, fax: 860-767-2563, Internet: www.vacuubrand.com VACUUBRAND offers exceptionally quiet, corrosion-resistant, oilfree vacuum pumps with ultra-long service intervals for labs, scale-up and OEM use. Products include both simple dry pumps and selfregulating, automated vacuum systems for critical evaporative applications. The line also includes the unique HYBRID pumps, which reduce oil-changes by 90%, even in corrosive applications. VACUUBRAND will also show corrosion-resistant digital vacuum gauges and controllers. New products include high flow-rate, chemical-resistant dry vacuum pumps for kilo lab and pilot-scale applications. **1401**

Vacuum Atmospheres Co., 4652 West Rosecrans Avenue, Hawthorne, CA 90251, 310-644-0255, fax: 310-970-0980, e-mail:info@vac-atm. com, Internet: www.vac-atm.com Vacuum Atmospheres designs and manufactures controlled inert atmosphere glovebox systems and gas purification systems to maintain less than 1 ppmv of O2 and H2O. Our Nexus II and Omni-Lab series systems provides the quality, performance and value that today's research demands. Patented Benchtop recirculationg solvent purifiers produce solvents at <1 PPM water and oxygen. Please stop by our booth to discuss two new products: Glovebox Integrated Thin Film Deposition systems and see our new In Box Solvent Dryer. 1300

Vernier Software & Technology, 13979 SW Millikan Way, Beaverton, OR 97005, 888-837-6437, fax: 503-277-2440, e-mail:info@vernier. com, Internet: www.vernier.com Stop by the Vernier Software & Technology booth to see our exciting products for college chemistry such as our Organic Chemistry with Vernier lab book. Our Polarimeter graphs light intensity versus angle so students don't have to determine optical maximum with their eye. The Constant Current System integrates a power source with a current System integrates a power source with a current System integrates a power source with a det Station Melting Temperature Sensor, and the SpectroVis Plus spectrophotometer with fluorescence capabilities. Use any of these devices on a computer or our stand-alone LabQuest 2 lab interface. 1008

Vici Valco Instruments Co Inc., PO Box 55603, Houston, TX 77255, 713-688-9345, fax: 713-688-3948, Internet: www.vici.com 1729

Visit Indy, 200 South Capitol Avenue Suite 300, Indianapolis, IN 46225-1063, United States Phone: 317-262-8244, e-mail: bdesautels@ visitindy.com, Internet: visitIndy.com Get information on dining, attractions, tours and much more of what Indianapolis has to offer. ... 327

Wasatch Photonics, Inc., 4020 Stirrup Creek Drive, Suite 115, Durham, NC, United States 27703, Internet: www.wasatchphotonics.com 1406

Waters Corp., 34 Maple Street, Milford, MA 01757, 508-482-2000, fax: 508-482-2674, e-mail: info@waters.com, Internet: www.waters.com Waters Corporation creates business advantages for laboratory-dependent organizations by delivering scientific innovation to enable customers to make significant advancements. Waters helps customers make profound discoveries, optimize laboratory operations, deliver product performance, and ensure regulatory compliance with a connected portfolio of separations and analytical science, laboratory informatics, mass spectrometry, as well as thermal analysis. 1104

Wavefunction, Inc., 18401 Von Karman, Suite 370, Irvine, CA 92612, 949-955-2120, fax: 949-955-2118, e-mail:sales@wavefun.com, Internet: www.wavefun.com Wavefunction offers cuttingedge molecular modeling software for researchers, instructors, and students. Spartan'14 is now available for all chemistry research and teaching needs. Spartan Student Edition applies computational chemistry methods and compelling graphical models to enrich the study of Organic, Physical, and Inorganic Chemistry. Odyssey provides an interactive molecular environment, rich with content and integrated lab activities for the General Chemistry curriculum. The iSpartan app provides an ideal and inexpensive tool for sketching and exploring at the molecular level. Affordable student pricing, individual faculty and campus-wide site licenses now available. 814

WebAssign, 1791 Varsity Drive, Suite 200, Raleigh, NC 27606, 919-829-8181, fax: 919-829-1516, e-mail:msantee@webassign.net, Internet: http://www.webassign.net WebAssign, the leading independent online homework and assessment system since 1998 continues to innovate. New for 2013 is a collection of 1500 general chemistry questions suitable for use with any textbook. Each question includes answer feedback, links to concept mastery tutorials and deep links to skill-building tutorials. Combined with our pre-coded questions from over 170 chemistry titles from every major publisher, as well as the ability to write your own, it's easy to

see why WebAssign is the most popular homework system in the sciences. Stop by our booth to learn what WebAssign can do for you. **2000**

Wilmad-LabGlass, 1172 N.W. Boulevard, Vineland, NJ 08360, 856-691-3200, fax: 856-691-6206, e-mail:cs@wilmad-labglass.com, Internet: www.wilmad-labglass.com Wilmad-LabGlass, an ISO 9001:2008 Certified Company, has been manufacturing and distributing laboratory and scientific consumables and equipment for over 70 years. Wilmad-LabGlass is a leading manufacturer of general chemistry glassware and specialty equipments. Wilmad-LabGlass is also the market leader in Nuclear Magnetic Resonance (NMR) and Electron-Paramagnetic-Resonance (EPR) consumables and accessories. Wilmad-LabGlass is specialized in customized engineered glass/quartz components and assemblies for various scientific and industrial equipments. **1601**

Wyatt Technology Corp., 6300 Hollister Avenue, Santa Barbara, CA 93117, 805-681-9009, fax: 805-681-0123, e-mail:info@wyatt.com, Internet: http://www.wyatt.com Celebrating 30years of DAWN multi-angle light scattering (MALS) instruments for absolute macromolecular characterization to determine absolute molecular weights and sizes of proteins, polymers, and biopolymers via GPC/SEC. DynaPro dynamic light scattering (DLS) instruments include cuvette based DynaPro NanoStar and the DynaPro Plate Reader for automated DLS measurements in standard well plates for optimizing protein solutions in crystallography, oligomerization, or sizing nanoparticles. Möbius Zeta Potential instrument for measuring mobilities of proteins and nanoparticles as small as 1 nanometer. Eclipse Field Flow Fractionation (FFF) system separates and counts submicron particles. The ViscoStar viscometer will also be highlighted. **715**

Yamazen Science, Inc., 903 Sneath Lane, Suite 125, San Bruno, CA 94066, 650-877-7750, fax: 650-873-6496, e-mail:info@yamazenusa.com, Internet: www.yamazenscience.com Yamazen manufactures Japan's Leading Automated Flash Purification Systems & High Resolution Columns with 38 years of Chromatography experience. US Patented software (GREEN FLASH) gearing toward GREEN CHEMISTRY: Automated, Fast (4CV) & predictable Run Time & Low Solvent Usage (Green Pavilion during ACS Expos, 4 times). WPrep: Intelligent, Fast, Parallel – can run two columns simultaneously. Compact & userfriendly ELSD. Automatic two optimized gradients for multiple compound purification. Intelligent Fiber Optics Level Sensors for solvents and waste. TLC Image Reader for auto set-up & e-Note. Open & Modular Design for safety and simple, easy maintenance for users. **1301**

Zin Technologies/CASIS, 6745EngleRoad,Middleburg Heights, OH, UnitedStates44130,440-625-2301, fax:440-625-22342113D

zSpace, Inc., 490 DeGuigne Dr., Suite 200, Sunnyvale, CA 94085, 408-498-4130, e-mail: ascott@zspace.com 1731