

FINAL PROGRAM



245TH ACS NATIONAL MEETING

NEW ORLEANS, April 7–11

LOCATED NEAR the French Quarter, the New Orleans Ernest N. Morial Convention Center will host the 245th American Chemical Society National Meeting.

Symposia supporting the meeting's theme, "Chemistry of Energy & Food," are organized by thematic program chair James N. Seiber, a professor emeritus at the University of California, Davis, and editor of the *Journal of Agricultural & Food Chemistry*.

ACS President Marinda Li Wu will host 29 technical divisions and seven committees in original programming over 985 half-day oral sessions and 101 poster sessions that include Sci-Mix. Nearly 12,000 papers will be presented and more than 4,500 poster presentations will take place at the meeting.

In addition to supporting the meeting theme, Wu has also set a presidential agenda, "Partners for Progress & Prosperity."

MEETING INFO ON THE WEB
www.acs.org/neworleans2013

On Monday and Tuesday she will sponsor a symposium series, "Vision 2025: Helping ACS Members Thrive in the Global Chemistry Enterprise." Chemists with experience in academia, business, government, international chemical societies, and global start-ups will participate in the three-part event.

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

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

The 2013 ACS national award winners will be recognized with a banquet at the New

Orleans Marriott on Tuesday at 6 PM, and Peter J. Stang, Distinguished Professor at the University of Utah, will deliver the Priestley Medal Address. Although the banquet is a ticketed event, all registered meeting attendees are welcome to come to the Priestley Medal Address at 9:30 PM, free of charge. The Arthur C. Cope Award winners will be recognized at the ACS fall national meeting in Indianapolis.

If you have time to spare between these organized events, the sights and sounds of New Orleans are just steps away from the Morial Convention Center. The Riverwalk Marketplace has many authentic Louisiana eats, jazz hot spots are scattered throughout the French Quarter, and historical streetcars

can take you to attractions that are farther away.—EMILY BONES

REGISTRATION CATEGORY	FEE—STANDARD AFTER FEB. 22
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.

REGISTRATION

Early Registration. Early registration for the national meeting closed on Feb. 22; registrations or payments received after Feb. 22 will be processed at standard registration rates. Attendees who registered by Feb. 22 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 (Morial Convention Center, Great Hall).

Standard & On-Site Registration. Standard registration rates are in effect until April 5. Register online at www.acs.org/neworleans2013. 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 Feb. 22 must pick up their badge credentials at ACS Attendee Registration in the Morial Convention Center, Great Hall, during the meeting. Please bring your e-mail confirmation for faster processing.

In New Orleans, 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 Morial Convention Center, Great Hall, on Saturday, 3 to 6 PM; Sunday, 7:30 AM to 7:30 PM; Monday, 7:30

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.

AM to 9:30 PM; Tuesday and Wednesday, 7:30 AM to 5:30 PM; and Thursday, 7:30 AM to 1 PM.

EVENTS & ACTIVITIES

A VARIETY of organizers will host special events during the meeting. Event participation is open to all interested registrants. Some events require purchase of a ticket to participate. The following events are coded to indicate what is required to participate: **R**—registration (and payment, when applicable) required; **T**—ticket required; **COD**—payment due based on individual consumption at event; **all nonticketed events require a visible registration badge for entry.** View an updated listing of events and activities at www.acs.org/neworleans2013.

Tickets are sold on a first-come, first-served basis. Ticket sales for specific events 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 March 22.

FRIDAY, APRIL 5

CHAS Workshop: Laboratory Safety Workshop (R)

8:30 AM to 4 PM, Morial Convention Center, Room 236

CHAS Workshop: Laboratory Waste Management Workshop (R)

8:30 AM to 4 PM, Morial Convention Center, Room 237

SATURDAY, APRIL 6

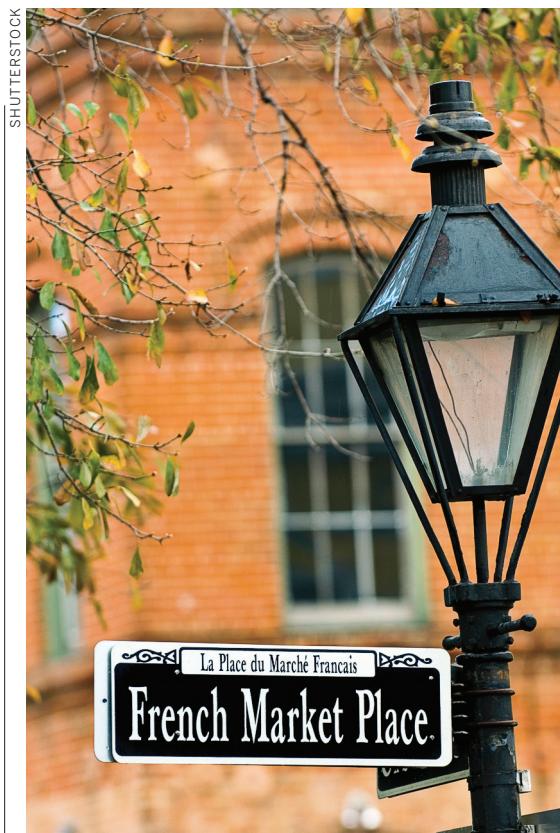
CHAS Workshop: Going Global—Hazard Communication Meets Global Harmonization (R)

8:30 AM to 12:30 PM, Morial Convention Center, Room 237

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

8:30 AM to 4 PM, Morial Convention Center, Room 235

CHAS Workshop: How To Be a More Effective Chemical Hygiene Office (R)



8:30 AM to 4 PM, Morial Convention Center, Room 236

COACH Workshop: The Chemistry of Leadership (R)

8:30 AM to 5 PM, Astor Crowne Plaza—New Orleans, St. Charles B

COACHing Strong Women in the Art of Strategic Persuasion—Junior Faculty (R)

8:30 AM to 5 PM, Astor Crowne Plaza—New Orleans, Grand Ballroom A

COACHing Strong Women in the Art of Strategic Persuasion—Senior Faculty (R)

8:30 AM to 5 PM, Astor Crowne Plaza—New Orleans, Grand Ballroom B

ACS International Lounge

2 to 6 PM, Morial Convention Center, LaNouvelle Ballroom Lobby

COACH Reception

5 to 7 PM, Astor Crowne Plaza—New Orleans, St. Charles A

**FOR ACCOMMODATIONS &
TRAVEL DISCOUNTS VISIT**
www.acs.org/neworleans2013

FINAL PROGRAM

SUNDAY, APRIL 7

ACS Career Fair Workshop: Career Pathways I

7 AM to 5:30 PM, Morial Convention Center, Room 211

ACS Career Fair Workshop: Career Pathways II

7 AM to 5:30 PM, Morial Convention Center, Room 212

ACS Career Fair Workshop: Career Pathways III

7 AM to 5:30 PM, Morial Convention Center, Room 213

ACS Career Fair Workshop: Career Workshop

7:30 AM to 5:30 PM, Morial Convention Center, Room 204

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

8 to 9 AM, Morial Convention Center, Hall A, Sec. C

14th

One hundred and forty-two
PhDs

Leadership Development Workshop: Engaging Colleagues in Dialogue (R)

8 AM to noon, Hilton Garden Inn New Orleans Convention Center, St. Charles Room

Leadership Development Workshop: Strategic Planning (R)

8 AM to noon, New Orleans Downtown Marriott at the Convention Center, Gardenia Room

Undergraduate Hospitality Center

8 AM to 5 PM, Morial Convention Center, Hall A, Secs. B & C

ACS International Lounge

8 AM to 6 PM, Morial Convention Center, LaNouvelle Ballroom Lobby

Undergraduate Workshop: Graduate School Reality Check, Step I: Getting In

9 to 10 AM, Morial Convention Center, Room 209/210

BMGT/YCC Workshop

9 AM to 1:30 PM, InterContinental New Orleans, Pelican II

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

10 to 11 AM, Morial Convention Center, Room 209/210

Presidential Outreach Event: Exploring Our World through Chemistry

10 AM to 2 PM, Audubon Zoo, 6500 Magazine St.

Undergraduate Workshop: Networking Social with Graduate School Recruiters

10 AM to 3 PM, Morial Convention Center, Hall A, Sec. B

Undergraduate Workshop: Chem Demo Exchange

11 AM to 12:30 PM, Morial Convention Center, Halls E2 & E3

ACS Board Luncheon & Open Meeting

Noon to 1 PM, Morial Convention Center, Room 206/207

CHED High School-College Interface Luncheon/**SE-01/\$40 (T)** (Included with high school teacher registration.)

Noon to 1 PM, Morial Convention Center, Room R04

Leadership Development Workshop: Fostering Innovation (R)

1 to 5 PM, Hilton Garden Inn New Orleans Convention Center, St. Charles Room

ANYL Poster Session

1 to 5:30 PM, Morial Convention Center, Hall D

Charles Lathrop Parsons Award: 2013 Award Address by Geraldine L. (Geri) Richmond

1:30 to 2:30 PM, Hilton Riverside, Magnolia Room

Undergraduate Workshop Part I: Essential Skills for Success—Oral Presentation of Scientific Results

2:45 to 4 PM, Morial Convention Center, Room 206/207

Undergraduate Workshop Part II: Essential Skills for Success—Write Like a Chemist

4 to 5:15 PM, Morial Convention Center, Room 206/207

Undergraduate Workshop: Making Demos Matter

4 to 5:30 PM, Morial Convention Center, Rivergate Ballroom

Author Reviewer Reception

5 to 7 PM, Hilton Riverside, Napoleon Ballroom

University of Arizona Chemistry & Biochemistry Reception for Alumni & Friends

5 to 7 PM, Astor Crowne Plaza—New Orleans, Grand Ballroom B

University of Wisconsin, Madison, Chemistry Department Reception

5 to 7 PM, New Orleans Downtown Marriott at the Convention Center, Blaine Kern D

Event codes indicate what is required to participate: **R**—registration (and payment, when applicable) required; **T**—ticket required; **COD**—payment due based on individual consumption at event; all nonticketed events require a visible registration badge for entry. View an updated listing of events and activities at www.acs.org/neworleans2013.

Chemistry at Illinois Alumni & Friends Reception

5 to 8 PM, InterContinental New Orleans, Poydras Room

CHED Social Reception

5:30 to 7 PM, Morial Convention Center, Halls E2 & E3

ACS Diversity Reception

5:30 to 7:30 PM, Hilton Riverside, Compass Room

BIOL Poster Session

5:30 to 7:30 PM, Morial Convention Center, Hall E

IAC International Welcoming Reception

5:30 to 7:30 PM, Hilton Riverside, Versailles Ballroom

Research Corporation for Science Advancement/ACS-PRF Joint Reception

5:30 to 7:30 PM, New Orleans Downtown Marriott at the Convention Center, Atrium

District II Councilor Caucus

6 to 7 PM, Hilton Riverside, Jasperwood Room

District IV Councilor Caucus

6 to 7 PM, Hilton Riverside, Elmwood Room

District V Councilor Caucus

6 to 7 PM, Hilton Riverside, Fountain Room

District VI Councilor Caucus

6 to 7 PM, Hilton Riverside, Magnolia Room

Mid-Atlantic Councilor Caucus

6 to 7 PM, Hilton Riverside, Ascot & Newberry Rooms

CELL & INOR Poster Sessions

6 to 8 PM, Morial Convention Center, Hall D

Expo Attendee Welcome Reception

6 to 8:30 PM, Morial Convention Center, Halls B2 & C

National Chemical Technician Award**Banquet/SE-02/\$60 (T)**

6 to 9 PM, Hilton Riverside, Windsor Room

CINF Welcome Reception & Poster Session

6:30 to 8:30 PM, Morial Convention Center, Room 343

DIGITAL MEETING PROGRAM AVAILABLE AT
www.acs.org/neworleans2013

Student Chapter Awards Ceremony

7 to 8:30 PM, Morial Convention Center, Hall A, Sec. D

CHED Poster Session

7 to 9 PM, Morial Convention Center, Halls E2 & E3

MEDI General Poster Session

7 to 10 PM, Morial Convention Center, Hall D

ORGN Poster Session

8 to 10 PM, Morial Convention Center, Hall D

Undergraduate Social

8:30 to 11 PM, Morial Convention Center, Hall A, Sec. A

MONDAY, APRIL 8**ACS Career Fair Workshop: Career Pathways I**

7 AM to 5:30 PM, Morial Convention Center, Room 211

ACS Career Fair Workshop: Career Pathways II

7 AM to 5:30 PM, Morial Convention Center, Room 212

ACS Career Fair Workshop: Career Pathways III

7 AM to 5:30 PM, Morial Convention Center, Room 213

ACS Career Fair Workshop: Virtual Webcast

7 AM to 5:30 PM, Morial Convention Center, Hall D1

**WCC Women in the Chemical Enterprise Breakfast/SE-03/\$37 (regular)/
SE-04/\$20 (student) (T)**

7:30 to 9 AM, Hilton Riverside, Versailles Ballroom

**Leadership Development Workshop:
Leading Change (R)**

8 AM to noon, Hilton Garden Inn
New Orleans Convention Center,
St. Charles Room

Undergraduate Hospitality Center

8:00 AM to noon, Morial Convention Center, Hall A, Sec. C

ACS International Lounge

8 AM to 6 PM, Morial Convention Center, LaNouvelle Ballroom Lobby

Outreach Workshop: Chemists Celebrate Earth Day Outreach Ideas

9:45 to 11:15 AM, Morial Convention Center, Hall A, Sec. B

Workshop: Employment in Chemistry—Academics, Industry, Small Business & Government

9:45 to 11:15 AM, Morial Convention Center, Room Ro5

Women Chemists of Color Forum & Social

10 AM to noon, Hilton Riverside, Melrose Room

CMA Reception & Luncheon/SE-05/\$50 (T)

11:30 AM to 2 PM, Hilton Riverside, Versailles Ballroom

9

Nine JDs

FINAL PROGRAM

CHAL Networking Luncheon/**SE-06**/\$40

(T)

Noon to 1:30 PM, Morial Convention Center, Hall A, Sec. D

Purdue Department of Chemistry Alumni

Lunch/**SE-07**/\$15 (T)

Noon to 1:30 PM, Morial Convention Center, Room 204

Undergraduate Research Poster Session

Noon to 2:30 PM, Morial Convention Center, Hall D

"CRC Handbook" Discussion Forum

Noon to 3 PM, Morial Convention Center, Room 255

Workshop: Risk Management & Insurance—What Current & Future Entrepreneurs Should Consider/**SE-08**/no charge (T)

3 to 4 PM, Hilton Garden Inn New Orleans Convention Center, Gardenia Room

Undergraduate Speed Networking Session with Industrial Chemists

Visit the International Lounge in the Morial Convention Center, LaNouvelle Ballroom Lobby

4 to 5:30 PM, Morial Convention Center, Hall A, Sec. A

WCC Open Meeting Just Cocktails Reception

4 to 5:30 PM, Hilton Riverside, Melrose Room

AkzoNobel Cocktail Reception

5 to 7 PM, Hilton Riverside, Grand Salon D24

DNA Story: A Dramatic Reading of a Science Play by LSU

5 to 7 PM, Morial Convention Center, Room R09

CHAL Happy Hour

5 to 8 PM, Embassy Suites, Atrium

COLL Poster Session & Social Hour

6 to 8 PM, Morial Convention Center, Hall A, Sec. D

CARB Award Banquet/**SE-09**/\$50 (T)

6 to 9, The Chicory, 610 S. Peters St.

CATL Social Hour

6:30 to 7:45 PM, Morial Convention Center, Room 282

ACS Graduate & Postdoctoral Scholars Reception

7 to 8:30 PM, Morial Convention Center, Hall A, Secs. B & C

NUCL Social Hour

7 to 9 PM, Hampton Inn & Suites Convention Center, Prefunction Room

Chinese American Chemical Society Dinner Banquet/**SE-10**/\$30 (T)

7:30 to 9:30 PM, Five Happiness Chinese Restaurant, 3605 S. Carrollton Ave.

Sci-Mix Interdivisional Poster Session & Mixer/Drink Ticket at Registration

8 to 10 PM, Morial Convention Center, Hall D

7 AM to 5:30 PM, Morial Convention Center, Room 211

ACS Career Fair Workshop: Career Pathways II

7 AM to 5:30 PM, Morial Convention Center, Room 212

ACS Career Fair Workshop: Career Pathways III

7 AM to 5:30 PM, Morial Convention Center, Room 213

ACS Career Fair Workshop: Virtual Webcast

7 AM to 5:30 PM, Morial Convention Center, Hall D1

Senior Chemists Breakfast/**SE-11**/\$15 (T)

7:30 to 9:30 AM, Hilton Riverside, Belle Chasse Room

University of Minnesota Alumni & Friends Breakfast/**SE-12**/\$5 (T)

7:30 to 9:30 AM, Morial Convention Center, Room 352

Leadership Development Workshop: Leading without Authority (R)

8 AM to noon, Hilton Garden Inn New Orleans Convention Center, St. Charles Room

ACS International Lounge

8 AM to 6 PM, Morial Convention Center, LaNouvelle Ballroom Lobby

AGFD Communicating Chemistry: Cajun Cooking/**SE-13**/\$10 (T)

10:30 AM to 1 PM, Tableau at Le Petit Theatre, 616 S. Peters St.

WCC/Eli Lilly & Co. Award Poster Session & Reception

11 AM to noon, Hilton Riverside, Grand Ballroom D

Alpha Chi Sigma Fraternity Luncheon (COD)

11:30 AM to 1:30 PM, Mulate's, the Original Cajun Restaurant, 201 Julia St.

CINF Luncheon/**SE-14**/\$15 (T)

Noon to 1:30 PM, Morial Convention Center, Room R08

WCC Luncheon/**SE-15**/\$47 (regular)/**SE-16**/\$25 (student) (T)

Noon to 1:30 PM, Hilton Riverside, Grand Ballroom D

20

Twenty faculty members

TUESDAY, APRIL 9

ACS Career Fair Workshop: Career Pathways I

COLL Luncheon/SE-17/\$40 (T) Noon to 1:45 PM, New Orleans Marriott, Mardi Gras Ballrooms G & H	BIOT Poster Session 6 to 8 PM, Morial Convention Center, Hall E	ACS Career Fair Workshop: Career Pathways III 7 AM to 5:30 PM, Morial Convention Center, Room 213
MEDI: Lunch-n-Learn Case Study: "Life after Big Pharma—Tales from the Other Side"/SE-18/\$15 (T) Noon to 2 PM, Morial Convention Center, Hall A, Sec. B	CATL & INOR Poster Sessions 6 to 8 PM, Morial Convention Center, Hall D	BMGT/YCC Workshop 9 AM to 1:30 PM, Morial Convention Center, Room 201/202
AGFD & ENFL Poster Sessions 2 to 4 PM, Morial Convention Center, Hall D	COMP Poster Session 6 to 8 PM, Morial Convention Center, Hall A, Sec. D	BIOT & ENVR Poster Sessions 6 to 8 PM, Morial Convention Center, Hall D
Virtual Screening & Lead Optimization in Drug Discovery 3:30 to 6 PM, Morial Convention Center, Room Ro8	Case Western Reserve University Alumni Association Reception 6 to 9 PM, Hilton Riverside, Belle Chasse Room	PHYS Poster Session 6 to 9 PM, Morial Convention Center, Hall D
Henry Hill Award Reception 5 to 7 PM, Morial Convention Center, Room 237	Ohio State University Alumni Reception 6 to 9 PM, Crescent City Brewhouse, 527 Decatur St.	MEDI/ORGN Joint Poster Session 7 to 10 PM, Morial Convention Center, Hall A
Iota Sigma Pi—National Honor Society for Women in Chemistry Networking Hour 5 to 7 PM, Morial Convention Center, Room 282	ACS National Awards Banquet Ceremony & General Meeting of the Society/SE-20/\$130 (T) 6 to 10 PM, New Orleans Marriott, Acadia & Bissonet Ballrooms, dinner begins at 7:30 PM; general meeting begins at 8:30 PM	THURSDAY, APRIL 11
Tulane University Chemistry Department Reception 5 to 7 PM, Hampton Inn & Suites Convention Center, Riverside I	CELL Anselme Payen Award Banquet/SE-21/\$60 (T) 6 to 10 PM, The Pavilion of Two Sisters at the Botanical Garden, City Park, 1 Palm Dr.	I&EC Poster Session 9 to 10:30 AM, Morial Convention Center, Hall D
University of Chicago Reception 5 to 7 PM, Morial Convention Center, Room 352	ENFL Dinner/SE-22/\$65 (T) 6 to 10 PM, Mulate's, the Original Cajun Restaurant, 201 Julia St.	
ENVR Social & Reception/SE-19/\$10 (T) 5:30 to 6:30 PM, Dickie Brennan's Bourbon House Restaurant, 144 Bourbon St.	ACS National Awards Reception (T) 6:30 to 7:30 PM, New Orleans Marriott, Carondelet Ballroom	
Louisiana State University College of Science Reception 5:30 to 6:30 PM, Hilton Riverside, Jefferson Room	CARB Poster Session 6:30 to 9 PM, Morial Convention Center, Hall D	
District I Councilor Caucus 5:30 to 7 PM, Hilton Riverside, Jasperwood Room	ORGN Poster Session 8 to 10 PM, Morial Convention Center, Hall D	
BIOL Poster Session 5:30 to 7:30 PM, Morial Convention Center, Hall D		WEDNESDAY, APRIL 10
POLY/PMSE Poster Session & Reception 5:30 to 7:30 PM, Morial Convention Center, Hall A, Secs. B & C	ACS Career Fair Workshop: Career Pathways I 7 AM to 5:30 PM, Morial Convention Center, Room 211	ACS Career Fair Workshop: Career Pathways II 7 AM to 5:30 PM, Morial Convention Center, Room 212
Presidential Gay & Transgender Chemists & Allies Reception 5:30 to 7:30 PM, Hilton Riverside, Melrose		Six MD PhDs

EXPOSITION

EXPOSITION

SEE WHAT'S NEW INSIDE THE EXPOSITION. Visit the ACS National Exposition at the Morial Convention Center, Halls B2 & C, from Sunday, April 7, through Tuesday, April 9. The show hours will be Sunday, 6 to 8:30 PM, and Monday and Tuesday, from 9 AM to 5 PM.

Companies will showcase services, instruments, books, computer hardware, scientific software, and an array of chromatographic, lab, and safety equipment. Technical personnel will be available to give demonstrations, answer questions, and discuss your specific needs and interests. You can also visit the ACS Career Fair Recruiters Row inside the exposition, where employers will showcase their products and services. Also, join us at the ACS Booth in the middle of the exposition floor where ACS staff 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/neworleans2013 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 Morial Convention Center. These workshops will introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications that may improve your productivity. Preregister at www.acs.org/neworleans2013 to reserve your seat.

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 on Monday and Tuesday from 1 to 3 PM for afternoon treats, exciting perks, prizes, and networking opportunities.

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 Morial 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 Great Hall.

EXHIBITOR WORKSHOPS

EXHIBITING COMPANIES will host free education sessions for attendees that will introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications for existing instrumentation. Exhibitor workshops are intensive, up to two-and-a-half-hour sessions held at the Morial Convention Center in Halls B2 & C and in private rooms. Register by March 29 for exhibitor workshops at www.acs.org/neworleans2013. After March 29, visit exhibitors at their booths at the exposition, Morial Convention Center, Halls B2 & C.

MONDAY, APRIL 8

Imaging & Analysis Techniques for Chemistry & Catalysis. *Sponsor:* FEI Co., Booth 1107, Workshop Room 1, 8:30 to 11 AM. Scientists are making efforts to resolve global challenges by understanding chemical reactions and catalysts. They use electron microscopy for high-resolution imaging and chemical analysis at the

nanoscale. However, electron microscopy can provide more than two-dimensional characterization. We will present applications from FEI's imaging and analysis solutions: ChemiSTEM Technology for 2-D and 3-D chemical composition determination, including light elements, for study of catalysts, particles, and surface structure; Environmental Transmission Electron Microscope for atomic-scale structure-function relationships of heterogeneous catalysts and investigation of gas-solid interactions; and Environmental Scanning Electron Microscope for study of particles and materials and dynamic studies including self-assembly processes.

Advanced Polymer Characterization

Workshop. *Sponsor:* Tosoh Bioscience, Booth 226, 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 formulations. Let the experts show you how to obtain the data needed to control and understand

polymeric properties such as elongation, tensile strength, adhesion, and compositional drift.

Maximize Your Chemistry Research

with Reaxys. *Sponsor:* Elsevier B.V., Booth 324, Workshop Room 1, noon to 2:30 PM. Learn about the latest developments from Reaxys. In this in-depth session, discover how Reaxys can assist throughout your chemistry research workflow—from initial ideation, through experimentation, to final reporting and write-up.

Mass-Directed Flash Purification: An Integrated Solution for the Chemist.

Sponsor: Biotage, Booth 411, Workshop Room 1, 3:30 to 6 PM. The Biotage Isolera Dalton is the first flash chromatography system with a fully integrated mass detector. As a system optimized for the organic chemistry workflow, it has been designed to reduce operational complexity with a design target "as easy to use as a UV detector." As a fully integrated solution, Isolera Dalton is easy to maintain, because the fluidics system is built using plug-and-play components. If preferred,

EXPOSITION

results from the direct-injection mode can be used to determine optimal flash conditions within the same software, further enhancing productivity.

A Novel, Practical Approach to SEC/GPC Analysis. Sponsor: Waters, Booth 800, Workshop Room 2, 3:30 to 6 PM. Traditionally, size-exclusion or gel permeation chromatography (SEC/GPC) is used in the reliable characterization of polymers. To resolve polymer species, long column lengths and banked column configurations are commonly used, which result in lengthy analytical run times and high solvent consumption. Taking advantage of technological 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 significantly shorter run times. Advances in instrument and column design provide better control of separation parameters, enabling precise data generation for polymer characterization.

TUESDAY, APRIL 9

Adapting to Today's Student—New Technologies & Innovative Methodologies. Sponsor: McGraw-Hill Higher Education, Booth 325, Workshop Room 1, 8:30 to 11 AM. McGraw-Hill is paving the way in adaptive learning. Their new adaptive technology suite has been featured in publications such as the *Wall Street Journal* and *USA Today* and at events including the Consumer Electronics Show and the Educause Conference. Become acquainted with the future of student learning. Two workshops will be hosted by passionate educators who will provide peer-to-peer demonstrations of the most sophisticated platforms available within adaptive-learning technologies and assessment. From 8:30 to 9:30 AM, the presenters will discuss their experience using adaptive-learning technologies to effectively teach chemistry and increase student success rates. From 10 to 11 AM, the discussion will shift to innovative tools (including ChemDraw Web), mechanism and retrosynthesis problems, and knowledge assessment. Application of systems to novel teaching solutions will also be discussed.

Author Workshop—How To Successfully Publish Scientific Articles. Sponsor: Elsevier B.V., Booth 324, Workshop Room 2,

9 to 11 AM. This workshop is for early-career chemists in search of assistance to identify, prepare, and submit research articles to academic journals. The workshop will provide advice that includes best practices, tips, ethics, and the review process. Many questions frequently asked by new publishers will be addressed. Although registration is not compulsory, space is limited, so arrive early. The first 45 participants will receive a Scientific Publishing Starter Pack.

Addressing Toxicity in Drug Design: Introducing Derek Nexus for StarDrop.

Sponsor: Optibrium, Booth 708, Workshop Room 1, noon to 2:30 PM. Learn more about Optibrium's StarDrop software and try a hands-on example to see how it intuitively guides decisions on the design and selection of high-quality compounds in drug discovery. This workshop will focus on the new Derek Nexus module for StarDrop, which integrates Lhasa's world-leading technology to predict key toxicities. Everyone is welcome, whether you are a current user or want to find out about StarDrop and how it may help your projects.

Making Difficult Chemistry a Reality: ThalesNano's Educational Flow Chemistry Symposium.

Sponsor: ThalesNano Nanotechnology, Booth 821, Workshop Room 2, noon to 2:30 PM. The goal of this workshop is to show how flow chemistry can solve many chemistry problems. It will start with a general overview on the fundamentals of flow chemistry, so chemists who are not experts in this field can understand its advantages. This will be followed by real-world examples and a practical session. Flow chemistry is one of the hottest topics in organic chemistry today. The top 20 pharmaceutical firms are investing in flow technology; come learn about the emerging field.

Analysis of Polymers by FTIR Spectroscopy. Sponsor: Bruker, Booths 426 & 427, Morial Convention Center, Room 337, 3:30 to 6 PM. The latest advances in Fourier transform infrared instrumentation and its applications will be reviewed in this seminar with a thorough discussion of the following topics: polymers identification and classification; additives and contamination; thermal properties by TG-FTIR technique; defects analysis using FTIR microscopy; orientation of polymer segments; and

dynamic properties and 2-D correlation spectroscopy. Examples of applications include the classification of black rubbers, softener identification, the screening of flame retardants, polycarbonate contamination, fast reorientation of polymers in an electric field, and the behavior of polymers under periodic mechanical stress. The workshop will include a demonstration of the new Bruker FTIR microscope and hands-on sessions. Attendees can also bring samples for analysis.

Part I: Advances in Trace-Element Analysis. Part II: The Powerhouse of Chromatography Data Systems. Sponsor: Thermo Fisher Scientific, Booths 718 & 719, Morial Convention Center, Room Ro8, 3:30 to 6 PM. **Part I:** This presentation will highlight the advances that Thermo Fisher Scientific has made in the field of trace-element analysis and will include discussions on ion chromatography (IC), inductively coupled plasma (ICP), and speciation where IC and ICP-MS are coupled. A primary focus will be on environmental and food and beverage applications. **Part II:** With the recent introduction of Chromeleon 7.2, the power of the Chromeleon platform has expanded. This presentation will give an overview of these new capabilities and will highlight the various enhancements that this easy-to-use yet powerful software brings to the field of chromatography and mass spectrometry.

WEDNESDAY, APRIL 10

Managing Your Research & Authoring Activities: EndNote, Web of Science & ResearcherID. Sponsor: Thomson Ruetgers, Booth 1000, Morial Convention Center, Room 207, 8:30 to 11 AM. We know that managing references and bodies of work can be difficult and time-consuming. Whether you're looking at your own research process or the broader research ecosystem that builds upon previous work to create new discoveries, the ability to easily identify, create, and share research is critical to the innovation life cycle. Join us and learn how to advance research with solutions from Thomson Reuters. Collect, collaborate, create, and share research with EndNote, while integrating with Web of Science, ScholarOne manuscript submission systems, and ResearcherID profiling tools to make connections all across your workflow.

EXPOSITION

EXHIBITORS

The following list of exhibitors 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/neworleans2013 to download the updated exhibitor list and access product information.

AAPS (Amer Assoc. of Pharm Sci.), 2107 Wilson Blvd., Suite 700, Arlington, VA 22201, 703-243-2800, Internet: www.aaps.org AAPS is composed of almost 12,000 individuals representing industry, academia, government, and private institutions. Members are engaged in research, teaching, product development, quality control, clinical testing, regulatory affairs, administration, management, and any other activity having a common denominator of pharmaceuticals and medicinal agents. We offer timely scientific programs, ongoing education, opportunities for networking, and professional development. Join AAPS "Your formula for Success", and gain access to Customized Journal Searches, Your favorite Section, Industry News and Discounts. **321**

Accela ChemBio Co. Ltd., 9883 Pacific Heights Blvd., Suite H, San Diego, CA, United States 92121, 858-699-3322, fax: 858-769-6322 or 858-876-1948, e-mail:info@accelachem.com, Internet: www.accelachem.com Founded in 2007, Accela ChemBio is a Quality R&D Chemical Supplier for use in scientific research, industrial development and analysis. Our established business sites are located in San Diego, US and Shanghai, China, respectively. Accela specializes in providing advanced pharmaceutical intermediates, building blocks, synthetic reagents and other specialty chemicals to R&D laboratories in the pharmaceutical, material, chemical and petrochemical industries, as well as academic institutions. In addition to its extensive catalog products, Accela also offers process research, custom manufacturing, and consulting services. With rigorous quality control, unique product lines, and dependability, Accela attracted 1400 global customers. **927**

Ace Glass, Inc., 1430 N. West Blvd., P.O. Box 688, Vineland, NJ 08360, 800-223-4524, fax: 800-543-6752, e-mail:sales@aceglass.com, Internet: www.aceglass.com Ace Glass Incorporated, founded 1936 in Vineland, NJ., is a leader and innovator of scientific glassware, lab equipment and glass apparatus. **1201**

ACS Career Fair Recruiters Row 135–234

ACS Committee on Health Safety/Div. of Chemical Health & Safety, P.O. Box 152329, CA, United States 92195, 619-990-4908, The ACS Committee on Chemical Safety (CCS) and the Division of Chemical Health and Safety (CHAS) provide leadership and technical guidance to all ACS members and the community regarding the safe and proper handling of chemicals. Chemical safety practices are supported across the entire chemical enterprise from K-12 through college and graduate school into the industrial and academic workplace. **1035**

ACS Division of Small Chemical Businesses (SCHB), 138-10 Franklin Avenue #9L, Flushing, NY, United States 11355, 917-684-1659, e-mail: expo-booth@acs-schb.org, Internet: www.acs-schb.org, Sales Contact: David Deutsch, Acting

Booth Coordinator 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. **1143**

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, Sales Contact: Peter Iskoff, Meeting Associate 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. **435**

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, Sales Contact: Joyce Kilgore, Senior Marketing Manager The ACS Green Chemistry Institute® inspires green chemistry and green engineering technology. Our grants and awards influence research agendas around the globe; our 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. **432**

ACS Meetings & Expositions, 1155 16th Street NW, Washington, DC 20036, United States, 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. **435**

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 and learn how you can sign up for the insurance plans offered to ACS Members: Life, Health, Auto, Home, Renters, Disability Income, Long-Term Care, Medicare Supplement, Medical Discount Cards, Pet, Group Special Event Cancellation and Liability, Key Person, and Professional Liability. **435**

ACS Membership Division, 1155 16th St., NW, Suite OTH420, Washington, DC 20036, 202-872-6062, Internet: www.acs.org/Member

Handbook Come celebrate with us! Only in New Orleans can we throw a party this exciting . . . food, Mardi Gras beads, prizes, costumes, music, the ACS mole, and much more! Stop by each day for a new experience. ACS MEMBERS can come explore all of their exclusive "members-only" benefits, enter to win one of the grand prizes, and network with your fellow ACS members amid a unique Carnival-like atmosphere. NOT AN ACS MEMBER YET? Stop by and find out how you can get \$25,000 worth of FREE life insurance simply by joining ACS. In addition, join ACS in New Orleans and experience an entire program full of special perks and events exclusively curated for this meeting to welcome our newest members! **435**

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! **435,440**

ACS On Campus, 1155 16th Street, NW, Washington, DC 20036, 202-872-6031, e-mail:e_hite@acs.org, Internet: www.acs.org/acsoncampus, Sales Contact: Jennifer Taylor Howell, Program Manager ACS on Campus is a Society-wide outreach program dedicated to helping students, post-docs 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. **435**

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 #435 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 tool customized for researchers in the chemical and related sciences. Join C&EN in honoring the 2013 Priestley Award medalist Peter J. Stang, pick up the latest issue of C&EN, and find out how to get your picture on the cover of C&EN. Learn more about the newest ACS journal, ACS Sustainable Chemistry and Engineering, and take the ACS Publications iPad Challenge! **435**

ACS Store, 1155 16th Street, N.W., 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 stuffed moles, t-shirts and beaker mugs. **435**

ACS Web Strategy & Operations, 1155 16th Street, NW, Washington, DC 20036, 202-872-4548, e-mail:m.parker@acs.org, Internet: www.acs.org, Sales Contact: Meka Parker Subscribe to one or more ACS e-newsletters! Did you know that ACS publishes 13 e-newsletters? That's enough chemistry news and content to keep you informed every day of the week, delivered to your inbox! Log on to www.emailpref.acs.org to browse the full menu of e-newsletter offerings on a variety of topics. Stop by the ACS Web kiosk to learn more about how you can stay better informed and connected to ACS via email! Create an ACS Id and/or sign up for one or several newsletters and get a great gift. **435**

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. Our products range from crucibles, furnace tubes, plates and discs, thermocouple insulators, sample pan for thermal analysis, to custom components. Large selection of in-stock items available for fast delivery. Custom production can be arranged according to drawings. **1101**

Advanced Clustering Technologies, 1100 W. Cambridge Circle Drive, Suite 300, Kansas City, KS 66103, United States, 913-643-0307, Internet: www.advancedclustering.com, Sales Contact: Jim Paugh, Senior Account Executive We design and build high performance computing (HPC) clusters that are used by computational scientists, including chemists, at universities and research facilities across North America. We also provide Linus-based servers and workstations, as well as GPGPU and visualization machines. Services include consulting, installation and training, and remote administration. **1204**

Advion, 10 Brown Rd., Ithaca, NY 14850, 607-379-4565, fax: 607-257-5761, Internet: www.advion.com, Sales Contact: Amy Lummus, Marketing Manager 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. www.expressioncms.com. **911**

Agilent Technologies EMG, 4330 W. Chandler Blvd., Chandler, AZ 85226, 480-756-5900, fax: 480-756-5950, Internet: www.agilent.com/find/nano Agilent Technologies, the world's premier instrument company is a one stop shop for all of your instrumentation needs for nano-materials characterization. We offer microscopy solutions specifically for nanoscience; the 5600LS AFM with exclusive SMM for calibrated capacitance measurement, the 5500AFM with the industry leading environmental imaging & the compact 8500 FE-SEM. And, the compact 8500 FE-SEM, optimized for low-voltage, high-contrast, high resolution imaging. **835**

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 Technologies is a leading provider of GC, LC, MS and Spectroscopy instruments, technologies, related consumables, support, services, and workflow solutions that enable labs to analyze, confirm and quantify substances of interest with confidence while maintaining the most stringent laboratory practices, from sample preparation to final report. Learn more www.agilent.com. **934**

Agiltron, Inc., 15 Presidential Way, Woburn, MA, United States 01801, 781-277-7445, Internet: www.ramansystems.com Since 1997, Agiltron's has pioneered the development of portable and compact bench top Raman Spectrometers. Our vertically integrated manufacturing allows us to design our own lasers, sampling accessories and software to create fully integrated Raman systems tailored to the customer's application requirements. Applications include: Semiconductors, Pharmaceuticals, Bio-science, Polymers, Agriculture, Forensics, and Microscopy. By leveraging our patented technology platforms, Agiltron enables our customers to achieve higher system performance at a lower cost. **809**

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 publishes innovative results in 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. Stop by booth 713 to pick up the 2012 JCP Editors' Choice and for your chance to win an iPad. **713**

AK Scientific, Inc., 30023 Ahern Avenue, Union City, CA 94587, 510-429-8835, Internet: www.aksci.com AK Scientific's expanding catalog of in-stock chemical products, ready for same-day shipping from the San Francisco Bay Area, serves researchers and scientists globally in diverse fields. The company maintains a leading library of high-quality bioactive compounds and a comprehensive building blocks and intermediates collection. AKSci provides top-notch service with up-to-date information on www.aksci.com, same-day shipping and other conveniences, and custom synthesis solutions. **1344**

AkzoNobel/Kromasil, 281 Fields Lane, Brewster, NY 10509, 845-276-8223, fax: 845-277-1406, e-mail:pat.preuss@akzonobel.com, Internet: www.kromasil.com Kromasil® is a spherical silica media for HPLC, SFC, and SMB applications. Kromasil Eternity™ is a pH stable phase (pH 1-12) designed for long lifetime in RP applications; available as C18 and PhenylHexyl phases. Kromasil chiral phases include Kromasil CelluCoat™ and AmyCoat™. Other products include Kromasil 100Å as Silica, C4, C8, C18, Phenyl and Amino; Kromasil 60Å as Silica, Diol, HILIC and Cyano; Kromasil 300Å as Silica, C4, C8, and C18. For more information about Kromasil products please visit www.kromasil.com. **814**

Aladdin Industrial, 16050 Kaplan Ave., City of Industry, CA 91744, United States, 626-616-0223, Internet: <http://www.aladdin-e.com>, Sales Contact: Julian Xu, Marketing Manager Aladdin is a leading manufacturer and supplier of products for research, Which line consists of a comprehensive range of Chemistry, Analytical Chemistry, Life Science and Materials Science; Today we offer over 20,000 products in stock, in sizes from gram-scale catalog items to semi-bulk and bulk production quantities. Quality is the most critical component of all products and services. Our established quality process ensures a high level of service and a promise of continually striving for perfection. **942**

Aldrich/Sigma-Aldrich, 3050 Spruce St., St. Louis, MO 63103, 314-771-5765, fax: 314-286-7817, Internet: www.Aldrich.com Aldrich® is the market leader in organic & inorganic chemicals, providing an innovative and comprehensive range of building blocks, reagents, advanced materials and stable isotopes for chemical synthesis, medicinal chemistry and materials science. Look to us for high-quality stockroom solvents and your basic research product needs. We offer Aldrich Market Select and other chemistry services designed to expedite your research from conception to experiment execution. **726**

ALEKS Corporation, 15460 Laguna Canyon Road, Irvine, CA 92618, 714-245-7191, fax: 714-245-7190, e-mail:info@aleks.com, Internet: www.aleks.com Backed by two decades of research, ALEKS is a Web-based program that interacts with students much like a human tutor, with the ability to precisely assess a student's knowledge in chemistry and provide individualized instruction to the student. Through an artificial intelligence engine and adaptive questioning, ALEKS accurately assesses a student's knowledge and then delivers highly-targeted instruction on the exact topics the student is most ready to learn. As a result, ALEKS targets gaps in student skills and enables immediate success in learning new material. **1100**

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 With 8,000 new items added, our new 2013-15 catalog now features over 40,000 products, ranging from organic building blocks and intermediates to high purity inorganics, pure elements, precious metal catalysts, analytical products and more. Alfa Aesar is the single source for your research chemical and material needs, from small pack sizes to semi-bulk and bulk quantities. The new Bio catalog features a growing range of biological reagents and other life science research products. Stop by booth #900 for your free copy of the NEW 2013-15 Alfa Aesar Catalog. **900**

Alpha M.O.S. America, 7502 Connelley Drive, Suite 110, Hanover, MD 21076, United States, 410-553-9736, fax: 410-553-9871, Internet: www.alpha-mos.com Alpha M.O.S. America develops and markets solutions for smell, taste, and chemical profiling of a vast array of commercial products. Our product portfolio consists of; electronic nose and tongue analyzers. Laboratory services in chemical and sensory analysis to outsource your project requirements. These solutions address the needs of R&D, product development/formulation, marketing, regulatory affairs, quality assurance and quality control departments in various industries such as; food & beverage, plastics and packaging, pharmaceutical, personal care, tobacco, environmental and specialty chemicals. It is our goal to deliver world class customer service in tandem with our premier product portfolio of organoleptic sensors. **710**

American Peptide Co. Inc., 777 East Evelyn Avenue, Sunnyvale, CA 94086, 800-926-8272; 408-733-7604, fax: 408-733-7604, e-mail: sales@americanpeptide.com, Internet: www.americanpeptide.com American Peptide Company, Inc. (APC) offers comprehensive selections of pre-manufactured catalog peptides, custom synthesis, and GMP peptide Active Pharmaceutical Ingredients. Our California based manufacturing facilities offer synthesis services under Non GMP (Sunnyvale, California) and cGMP (Vista, California) conditions. Our cGMP manufacturing is performed under strict adherence to FDA Regulations 21 CFR parts 210, 211 and ICH Guidance Q7A. Our Total Peptide Management services support clients in the drug development process from pre-clinical through commercial stage. Our value added services include process development, scale up production, analytical/ process validation, stability studies, CMC, DMF, and regulatory support. **916**

AnalytiCon Discovery LLC, 9700 Great Seneca Highway, Rockville, MD 20850, United States, 240-654-7575, Internet: www.ac-discovery.com, Sales Contact: Dietmar Wolf, Executive Vice President. **943**

Anasazi Instruments Inc., 4101 Cashard Ave., Suite 103, Indianapolis, IN 46203, 317-783-4126, fax: 317-783-7083, e-mail:sales@aiinmr.com, Internet: www.aiinmr.com, Sales Contact: William H. Bearden, Sales Representative Anasazi Instruments, Inc. makes cryogen-free 60 and 90MHz NMR instruments. These permanent magnet NMR instruments are robust and have applications in R&D, quality control, and teaching. These instruments are available in three configurations, 1H, 1H/13C, and 1H/multinuclear. The Eft spectrometer can measure simple 1D spectra as well as 2D COSY and 2D HETCOR spectra. Anasazi Instruments provides strong support and a strong warranty. **1037**

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, refractom-

EXPOSITION

eters, 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. **625**

Ark Pharm, Inc., 1840 Industrial Drive, Suite 280, Libertyville, IL, United States 60048, 847-367-3680, fax: 847-367-3681, e-mail:sales@arkpharminc.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. Our services also include the synthesis and development of medicinal novel building blocks, novel templates, reference standard compounds, impurities, by-products and other organic intermediates. **912**

Association of American Medical Colleges, 2450 N Street, N.W., Washington, DC 20037, 202-741-6436, Internet: www.mededportal.org/icollaborative/pre-health The Association of American Medical Colleges (AAMC) is a not-for-profit association representing all 141 accredited U.S. and 17 accredited Canadian medical schools; nearly 400 major teaching hospitals and health systems; and 90 academic and scientific societies. Its Pre-health Collection within MedEdPORTAL's iCollaborative provides free teaching resources that support undergraduate faculty who work with students preparing for a career in the health professions. **1346**

Astatech, Inc., Keystone Business Park, 2525 Pearl Buck Road, Bristol, PA 19007, 215-785-3197, fax: 215-785-2656, e-mail:sales@astatechinc.com, Internet: www.astatechinc.com Headquartered in Bristol, Pennsylvania, USA, Astatech is one of the oldest established U.S. contract research organizations (CRO). As a global CRO/CMO company, we own R&D labs and manufacturing facilities in both North America and China, with total 250 employees. Since founded in 1996, we have dedicated to providing high quality services to the global pharmaceutical and bio-technology industry. By combining our chemistry expertise in US and our manufacturing capabilities in China, we can optimize the efficiency and cost-effectiveness. With over 20000 products listed and 1500 of them produced 5-500kg in batches, Astatech delivers an extensive portfolio of catalog products. **1303**

Asylum Research, 6310 Hollister Avenue, Santa Barbara, CA 93117, 805-696-6466, fax: 805-696-6444, e-mail:sales@asylumresearch.com, Internet: www.asylumResearch.com, Sales Contact: John Green Schedule an appointment with this exhibitor See live Atomic Force Microscopy scanning in Booth 317 and the results that set us apart. The AFM/SPM technology leader will feature the Cypher™ and the MFP-3D™ families of Atomic Force Microscopes. Our AFMs have raised the bar for technical innovation for highest resolution, fast scanning and environmental control, for a wide range of samples. Asylum AFMs go beyond just scanning and offer unmatched performance with numerous advanced characterization modes/tools for research applications at the nanoscale. These applications include polymers, electrochemistry, colloidal research, batteries and energy, nanomechanics, cells and bioscience, force measurements, multifrequency techniques and more. **317**

B&W Tek, Inc., 19 Shea Way, Suite 301, Newark, DE 19713, 302-368-7824, fax: 302-368-7830, e-mail: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. **1401**

Barbakam Science Notebooks, P.O. Box 3493, Suwanee, GA 30024, 248-679-3589, fax: 248-679-1506, e-mail:customerservice@barbakam.com, Internet: www.barkam.com Barbakam publishes carbonless lab notebooks for students taking science classes. We offer ten different types of notebooks, a choice of spiral or permanent binding, 50, 75 or 100 pages. Self-duplicating pages inside the notebooks are white just like the original pages. We also offer a choice of perforation on the original page or the copy page. **1144**

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
- To know more about our publications please visit www.benthamscience.com. **724**

BINDER, Inc., 545-3 Johnson Avenue, Bohemia, NY, United States 11716, 631-224-4340, e-mail: www.binder-world.us, Internet: www.binder-world.us BINDER is a family business dedicated to simulation chambers. We are the largest specialist in simulation chambers for the scientific and industrial laboratory. Proven cutting-edge technologies, pioneering innovations and absolute precision characterize the BINDER brand image. Our focus lies in the perfect simulation of biological, chemical, and physical environmental conditions for a number of industries. **918**

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. KSV 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. **1305**

BioLogic USA, 9050 Executive Park Dr., Suite 105C, Knoxville, TN 37923, United States, Internet: www.bio-logic.us Bio-Logic USA is showing the EC-LAB electrochemical instruments product line used for electroanalytical 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 $\pm 48V$, 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. **1238**

Biotage, 10430 Harris Oaks Blvd, Suite C, Charlotte, NC 28269, 704 654 4900, fax: 704-654-

4917, Internet: www.biotage.com Biotage's instruments and consumables for organic chemistry are used in producing new pharmaceuticals - both those based on small molecules (for example, traditional medicines in tablet form), and those based on peptides. Customers include all of the major multinational pharmaceutical companies, as well as leading biotech- and biopharmaceutical companies, contract-research organizations and academic institutions around the world. **411**

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® bottle-top dispensers; Titrette® bottletop burette; VACUUBRAND® Vario™ vacuum systems for automated control of chemistry applications; Transferette® 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. **1222**

Brookhaven Instruments Corp., 750 Blue Point Road, Holtsville, NY 11742-1832, 631-758-3200, fax: 631-758-3255, e-mail: info@brookhaveninstruments.com, Internet: www.BrookhavenInstruments.com, Sales Contact: Hank Oviatt Ph.D., West Coast Sales Engineer 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. **1014**

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. **426,427**

C/D/N Isotopes, 88 Leacock St., Pointe-Claire, QC, Canada H9R 1H1, 800-565-4696, fax: 514-697-6148, e-mail: info@cdnisotopes.com, Internet: www.cdnisotopes.com Since the last 20 years C/D/N Isotopes Inc. has provided its customers with superior quality and exceptional service. We are the world's most extensive supplier of deuterated compounds. We currently have more than 3000 products in stock and are able to ship most products within 24 to 48 hours after receipt of order. 99% of our orders are filled from stock. The majority of our products are manufactured exclusively by us. Over the years we have developed and expanded our expertise in the preparation of deuterated compounds. We offer the largest product listing, competitive prices, highest quality and helpful customer service. **1002**

CAChe Research LLC, 13690 SW Otter Lane, Beaverton, OR 97008, 503-830-2772, e-mail: info@cacheresearch.com, Internet: www.CACheResearch.com Quantum chemistry, statistical thermodynamics tools for prediction of physical, chemical properties: COSMOtherm predicts boiling points, vapor pressures, solubilities, ADME properties, viscosities, partition coefficients, phase equilibria, phase diagrams, azeotropes, reaction thermodynamics, activity coefficients, etc. of pure compounds, ionic liquids, and mixtures. COSMOmic models Micelles,

biomembranes. CADDLE next generation modeling, ParaSurf calculates electronic properties on molecular surfaces for 3D-QSAR, ligand docking, reactivity prediction, 450 drug metabolism, etc. TURBOMOLE DFT is designed for speed, robustness, for large molecules and condensed phase simulation. MOPAC2009, most widely used semiempirical quantum chemistry package, includes all elements PM6 method and Mozyme giant molecule capability. **1047**

Cambridge Crystallographic Data Ctr., 12 Union Road, Cambridge, United Kingdom CB2 1EZ, 44-1223-336408, fax: 44-1223-336033, e-mail:admin@ccdc.cam.ac.uk, Internet: www.ccdc.cam.ac.uk The Cambridge Crystallographic Data Centre provides scientific software solutions for chemistry research and education, crystallography, rational drug design and pharmaceutical materials development, including: The Cambridge Structural Database System - Access the world's repository of validated crystal structure data for small organic and metal-organic compounds, search and visualise structures, analyse molecular dimensions, conformational preferences, pharmacophoric patterns and intermolecular interactions; life science applications including: Relibase+ (search, retrieval and analysis of protein-ligand complexes) and GOLD (protein-ligand docking). **1337**

CAS, 2540 Olentangy River Road, Columbus, OH 43210, 614-447-3600, fax: 614-447-3713, e-mail:help@cas.org, Internet: www.cas.org CAS is the world's authority for chemical information. Visit CAS at the ACS booth and see how SciFinder®, the choice for chemistry research, and STN®, the choice for patent experts, can meet your research needs in the health, medicinal and energy sciences. Be the first to experience the latest SciFinder enhancements, including a sneak peek at an exciting new interface designed to make SciFinder even easier to use. Then, learn how CAS chemical content embraces many allied disciplines, like the biosciences. Theater presentations will occur throughout the event, as well as in-booth promotions with a chance to win great prizes! **435**

CDS Analytical, Inc., 465 Limestone Road, Oxford, PA 19363-0277, United States, 770-883-6544, fax: 610-932-4158. **944**

CE Elantech, 170 Oberlin Ave., North, Suite 5, Lakewood, NJ 08701, 732-370-5559, fax: 732-370-3888, Internet: www.ceelantech.com, Sales Contact: Richard Hancock, President Featured instruments: Thermo Flash 2000 Combustion Elemental Analyzer is also available in a wide range of configurations: N/Protein through CHNS/O for both solid and liquid samples. In Process Instruments Quadrupole Mass Spectrometers in the sector of online gas analysis. IP customer-specific online process gas analysis systems are used successfully around the world in industry and research. **219**

CEM Corp., PO Box 200, Matthews, NC 28106, 704-821-7015, fax: 704-821-7894, Internet: www.cem.com, Sales Contact: Michael Howe, Sales Manager 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. We also offer lab books and teaching kits. **727**

Cengage Learning, Inc., 20 Davis Drive, Belmont, CA 94002, 650-595-2350, Internet: www.cengage.com, Sales Contact: Janet Del Mundo, Sr. Market Development Manager Cengage Learning, Brooks/Cole is a leading provider of

innovative teaching, learning, and research solutions for the academic, professional, and library markets worldwide. The company's products and services are designed to foster academic excellence and professional development, increase student engagement, and improve learning outcomes. **408**

CETAC Technologies, 14306 Industrial Road, Omaha, NE 68144, 402-733-2829, fax: 402-733-5292, Internet: cetac.com. **215**

Chem21Labs LLC, 2503 Oakland Drive, Cleveland, TN 37312, Chem21Labs replaces the static, paper-based submission of lab data and results with an interactive, online process complete with immediate feedback on lab calculations that improves learning. Are you ready to bid farewell to hand-grading student calculations, awarding partial credit for using the wrong answer correctly in a later calculation, grading error analyses based on incorrect calculations, inconsistent grading, lost lab reports (students and TAs), providing feedback that is not valued because the student needed it two weeks earlier, etc.? Stop by Booth 1120 to discover how Chem21Labs can become a valued member of your 21st Century Chemistry laboratory improvement program. **1120**

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, Sales Contact: Olga Guy, Senior Manager ChemBridge Corporation is a global provider of enabling chemistry products and contract research services for small molecule drug discovery. ChemBridge's extensive portfolio includes over 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. ChemBridge'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. **940**

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 chromatography and cell culture keeping us on the forefront of scientific innovation. 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, Filter Reactors, 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. **701**

Chemistry Central, Floor 6, 236 Gray's Inn Road, London, United Kingdom WC1X 8HB, 44-20-3192-2000, fax: 44-20-3192-2010, e-mail: info@chemistrycentral.com, Internet: www.chemistrycentral.com Chemistry Central is an open access chemistry publisher, committed to the free and widespread dissemination of chemical research. All original research articles published by, or in co-operation with, Chemistry Central are made freely and permanently accessible online immediately upon publication. Chemistry Central currently publishes 6 journals, including Chemistry Central Journal which is split into eight editorial sections covering the whole of chemistry. Visit the Chemistry Central stand for more information and product demonstrations. **419**

Chemrus Inc., P.O. Box 920524, Needham, MA 02492, Chemrus provides a unique filtering fun-

nel 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 adapters 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 stems so the glass vacuum adapter is not contaminated during the filtration process. We provide the best disposable filtering funnel products to our customers. **1045**

ChiroSolve, Inc., 2065 Martin Avenue, #107, Santa Clara, CA 95050, 408-834-8597, fax: 408-694-3844, e-mail:info@chirosolve.com, Internet: www.chirosolve.com, Sales Contact: Neelam Vaidya, CEO. **1146**

Collaborative Drug Discovery, 5892 Diplomat Place, Memphis, TN 38134, United States, 901-297-3980, Internet: collaborativedrug.com. **205**

CONFLEX Corp., P.O. Box 131027, Carlsbad, CA 92013, 760-930-9277, fax: 509-692-4541, e-mail:info@conflex.us, Internet: www.confex.us CONFLEX 7 Released! CONFLEX 7 performs fast, exhaustive conformation searching and analysis critical to drug discovery and chemical engineering. Determine conformations of large molecules with Parallel CONFLEX and utilize the new CONFLEX visualization and analysis platform to drill down into CONFLEX output. Also performs crystal analysis and homology modeling. Available only from Conflex Corporation are the latest, advanced versions of CONFLEX and Parallel CONFLEX. **1208**

Corning Inc., 836 North St., Building 300, Suite 3401, Tewksbury, MA 01876, e-mail:clsweb@mail@corning.com, Internet: www.corning.com/lifesciences, Sales Contact: Sue Britton, Product Line Manager, Glass & Equipment. **1326**

Cresset BioMolecular Discovery Ltd., BioPark Hertfordshire, Broadwater Road, Welwyn Garden City, Herts, United Kingdom AL7 3AX, +44 (0) 1707 356120, fax: +44 (0) 1707 356118, Internet: www.cresset-group.com Cresset provides software and consulting services, particularly in the area of drug discovery. Our patented and proven field technology uses biological activity rather than chemical similarity as the key descriptor of molecules, so our customers can create novel bioisosteres and compare compounds across chemical series. With this knowledge they are empowered to design new molecules that go beyond the obvious iterations to be the best possible step forward for the project. For the business that has made the investment in Cresset software or services, the result is motivated, highly productive scientists that deliver compounds with an excellent chance of success. **706**

CrystalMaker Software Ltd., Centre for Innovation & Enterprise, Oxford University Begbroke Science Park, Begbroke, Oxfordshire, United Kingdom OX5 1PF, 44-1865-854804, fax: 44-1865-854805, e-mail:info@crystalmaker.com, Internet: http://www.crystalmaker.com Award-winning software for visualization of crystal and molecular structures, and their diffraction patterns. Build, display, manipulate crystal structures - fast. Elegant user interface delivers workflows impossible with other applications: multi-structure browsing, synchronization and animation - and one-click movie generation. Simulate x-ray or neutron powder diffraction patterns with real-time parameter control. Explore single-crystal diffraction, including high-resolution x-ray and TEM diffraction - with live rotation and measurement. Take advantage of multi-platform site licensing and enjoy unprecedented flexibility for your colleagues and students wherever you need to work: in the office, lab, at home... **1245**

EXPOSITION

CSCS Inc., 59 Greenhill Street, West Warwick, RI 02893, United States, 401-825-7920, fax: 401-825-7923, Internet: www.cscscorp.org. **945**

De Gruyter, 121 High St, Fl 3, Boston, MA, United States 02110, 857-284-7073, fax: 857-284-7358, e-mail:krista.zimmer@degruyter.com, Internet: www.degruyter.com. **223**

DeltaNu, Intevac Photonics, 3560 Bassett Street, Santa Clara, CA 95054, 408-496-2275, e-mail:sales@deltanu.com, Internet: www.intevac.com/intevacphotronics/deltanu DeltaNu® manufactures handheld and laboratory Raman spectrometers for rapid and non-destructive material identification. Rapid-ID, ReporteR and Pharma-ID handheld systems allow manufacturers to improve product quality through increased testing and reduction in laboratory costs, ensuring a fast and ongoing return on investment. Designed for the pharmaceutical industry, the Pharma-ID is equipped with Pass/Fail capabilities, and enables users to be 21 CFR Part 11 compliant. Ideal for teaching and research, Advantage bench top systems come in a variety of wavelengths, are easy to operate, and provide superior performance. **920**

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. **1004**

eDAQ, Inc., 1485 Tuskegee Place, Suite E, Colorado Springs, CO 80915, United States, 719-576-7000, 888-965-6086, fax: 719-576-3971, Internet: www.edaq.com, Sales Contact: Michael Hagen, General Manager 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). Potentiostat serve multiple duty as galvanostat, ZR 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 computer USB amplifiers will stream data into NI cards or even direct into excel spreadsheets. eDAQ has electrodes and transducers for all these applications. **1019**

Edwards Vacuum, 6416 Inducon Drive West, Sanborn, NY 14132, United States, 1-800-848-9800, fax: 1-866-484-5218, e-mail:info@edwardsvacuum.com, Internet: www.edwardsvacuum.com, Sales Contact: Bob Campbell, Process Market Sector Manager Edwards offers a comprehensive innovative vacuum product portfolio, global first class service, applications expertise and vacuum system solutions. Our products include the innovative CXS Dry vacuum pump, Oil Sealed Rotary Piston and Rotary Vane Pumps, Mechanical Boosters, Magnetically Levitated Turbos, Exhaust Abatement and a full range of Vacuum Hardware and instrumentation. **1434**

Elsevier B.V., Radarweg 29, Amsterdam 1043 NX, Netherlands, 31 (0)20 485 3003, fax: 31 (0)20 485 3228, e-mail:a.olfers@elsevier.com, Internet: www.elsevier.com, Sales Contact: Todd Conly, Marketing Manager For more than 60 years, Elsevier has been a leading publisher in the field of Chemistry, publishing highly respected chemistry journals and prestigious society titles. By delivering first class information and innovative tools, such as Reaxys and Scopus, we continue to refine our portfolio to serve the research need of educators, researchers and students worldwide. We are proud to play an integral part within the chemistry community and to participate in the advancement of this field. All our journals are available online via SciVerse ScienceDirect, www.sciencedirect.com the essential information resource for over 14 million scientists worldwide. **324**

EMD Millipore, 290 Concord Road, Billerica, MA 01821, United States, 978-715-1273, fax: 978-715-1393, e-mail:diane.naquin@merckgroup.com, Internet: www.emd-millipore.com EMD Millipore, Inc., a division of Merck KGaA, Darmstadt, Germany, is a leading manufacturer of products for Life Science and Chemical Research. EMD Millipore, Inc.'s laboratory solutions offers chromatography products, including TLC plates, Chromolith® ZIC-HILIC® HPLC columns, absorbents, as well as OmniSolv® and DriSol® high purity solvents. With over 29,000 products in the company's global product portfolio, our brands are used in almost every lab and a global network ensures swift service and close collaboration. **1005**

eMolecules, 2108 Balboa Avenue, Del Mar, CA 92014, 760-505-3985. **225**

Experience New Orleans, Local companies within the hospitality industry, i.e., restaurants, attractions, shopping, etc., will be present to showcase their offerings. **1525**

Entech Instruments, 2207 Agate Court, Simi Valley, CA 93065, 805-527-5939, fax: 805-527-7913, Internet: www.entechinst.com. **1018**

Extral CMS, 575 Epsilon Drive, Pittsburgh, PA 15238, Internet: www.extral.com Extral 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. Extral's global customers receive the most comprehensive application, technical and onsite support in the industry. **825**

FEI Co., 5350 NE Dawson Creek Drive, Hillsboro, OR 97124, 503-726-7500, fax: 503-726-7509, e-mail:fei_info@fei.com, Internet: www.fei.com FEI's imaging and analysis solutions include: ChemiSTEM™ Technology for 2D and 3D chemical composition determination, including light elements, for study of catalysts, particles and surface structure; Environmental Transmission Electron Microscope (ETEM) for atomic scale structure-function relationship of heterogeneous catalysts and investigation of gas-solid interactions; Environmental Scanning Electron Microscope (ESEM) for study of particles and materials, and dynamic studies including self-assembly processes. **1107**

Frontier Scientific, Inc., P.O. Box 31, Logan, UT 84323, 801-588-0455, e-mail:sales@frontiersci.com, Internet: www.frontiersci.com Frontier Scientific Inc. (FSI) is a chemical developer and manufacturer providing custom research services to the industrial, pharmaceutical, biotechnology, government, and academic sectors. FSI specializes in the development of chemical compounds and processes related to Boronic Acids, Trifluoroborates, Coupling Catalysts, Porphyrins, Corroles, Phthalocyanines, and many more. Focused on building blocks for small molecule drug discovery, SAR studies, and lead optimization, FSI provides standard catalog products (www.frontiersci.com) with quantities on-hand from the milligram to kilogram scale. **1135**

Galbraith Laboratories Inc., 2323 Sycamore Dr, Knoxville, TN 37921, 877-449-8797 toll free, fax: 865-546-7209, e-mail:labinfo@galbraith.com, Internet: www.galbraith.com Galbraith Laboratories is an independent analytical testing laboratory, specializing in physical and chemical analysis to trace levels. With 62 years of experience, Galbraith's services are provided from a base of technical, regulatory and industry-specific expertise. We provide services to all industries and test most sample types for the elements on the Periodic Table. Galbraith is a GLP/cGMP compliant laboratory, FDA registered, ISO 17025:2005 certified (see www.galbraith.com)

iso17025.pdf for scope of services) and a Consumer Products Safety Commission Accredited Testing Laboratory. Galbraith handles high sample volumes, rush turnaround time, and exceptional customer service. **1021**

Gamry Instruments, 734 Louis Drive, Warminster, PA 18974, 877-367-4267, fax: 215-682-9331, e-mail:info@gamry.com, Internet: www.gamry.com. **1227**

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. **843**

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 organosilicon compounds, metal-organic 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, specialty polymeric materials and cosmetics: "Gelest - Enabling Your Technology." **1017**

Global Pharma Analytics, 225 Chimney Corner Lane, Jupiter, FL 33458, United States, 561-935-9955, fax: 561-921-8785, e-mail:info@gpa-cro.com. **1435**

Grace Davison Discovery Sciences, 2051 Waukegan Road, Deerfield, IL 60015, 847-948-8600, fax: 847-948-1078, e-mail:discoverysciences@grace.com, Internet: www.discoverysciences.com. **817**

Gulf of Mexico Research Initiative, 1201 New York Avenue, N.W., 4th Floor, Washington, DC, United States 20005, 202-448-1225, fax: 202-332-8887, e-mail:zimmerman@oceaneladership.org, Internet: <http://gulfresearchinitiative.org/> The Gulf of Mexico Research Initiative (GoMRI) investigates the impacts of oil, dispersed oil, and dispersant on the ecosystems of the Gulf of Mexico and affected coastal States in broad context of improving fundamental understanding of the dynamics of such events and their environmental stresses and public health implications. The ultimate goal of the GoMRI is to improve society's ability to understand, respond to and mitigate the impacts of petroleum pollution and related stressors of the marine and coastal ecosystems, with an emphasis on conditions found in the Gulf of Mexico. **1044**

Harrick Scientific, 141 Tompkins Ave., 2nd Floor, P.O. Box 277, Pleasantville, NY 10570, 800-248-3847, fax: 914-747-7209, e-mail:info@harrickscl.com, Internet: www.harrickscl.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 ConcentratorL 2 for Concentrated Multiple Reflection ATR. **925**

Harvard Apparatus, 84 October Hill Road, Holiston, MA 01746, 508-893-8999, fax: 508-429-5732, e-mail:bioscience@harvardapparatus.com,

Internet: www.harvardapparatus.com, Sales Contact: Mara Potter, Director of Marketing Communications Harvard Apparatus introduces the NEW Harvard Peristaltic Pump, featuring accurate flow with reduced setup time using the touch screen controls and an internal library of tubing sizes. The NEW ULTRA CP syringe pump delivers fluids at constant pressure as accurately as the PHD ULTRA series. The PHD ULTRA pumps can deliver Nano to Macro fluidic applications including reactor injections and electro-spinning. High force (up to 1,000 pounds) and remote models are available to meet your specific research needs. The PHD ULTRA advanced flow functions include flow ramping, %composition changing, bolus injections, concentration mode and more. Full line accessories are available.

313

Hayden McNeil Publishing, 14903 Pilot Dr., Plymouth, MI 48170, 734-455-7900, fax: 734-455-3901, e-mail:orders@hmpublishing.com, Internet: www.hmpublishing.com Hayden-McNeil Publishing is the premier publisher of customized print and digital college lab manuals and other course materials. We create dynamic partnerships with educators through our unique ability to add exceptional value to their course content. Our commitment is inherent in our incomparable design and prepress services, robust image database, custom illustrations, and spotless on-time delivery record. Your Words. Your Way™. In addition, with up-to-date reference materials, the highest white duplicate paper, and several binding and size options to suit any class, our student carbonless laboratory notebooks are essential for both students and instructors. Custom lab notebooks are also available.

907

Heidolph North America, 1241 Jarvis Street, Elk Grove Village, IL, United States 60007, 224-265-9600.

1126

HEL Inc., 4 Princess Road, Suite 208, Lawrenceville, NJ 08648, 609-912-1551, fax: 609-912-1552, e-mail:sales@hel-inc.com, Internet: www.helgroup.com, Sales Contact: Graham Hibbert, Account Manager Established in 1987, HEL, a multinational company, specializes in research and pre-pilot scale chemical reactors and related data logging/automation tools. We have the experience providing both automated and manual solutions for process R&D to help you do better chemistry—faster. Our product line includes: • HYDROGENATION & CATALYSIS TOOLS • FLOW CHEMISTRY • CRYSTALLIZATION AND PARTICLE CHARACTERIZATION • PARALLEL PROCESS DEVELOPMENT • SAFETY & CALORIMETRY • BENCH & KILO SCALE REACTOR SYSTEMS • BIO-REACTORS & FERMENTERS.

1215

Hellma USA, Inc., 80 Skyline Drive, Plainview, NY 11803, 516-939-0888, fax: 516-939-0555, e-mail:info@hellmausa.com, Internet: www.hellmusa.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 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.

715

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 distributions with high temporal resolution.

418

Hirschmann, Inc., 2700 Holloway Road, Bluegrass Industrial Park, Suite 104, Louisville, KY 40299, 502-240-0287, fax: 502-240-0394, e-mail: michele@hirschmann-inc.com, Internet: www.hirschmann-inc.com, Sales Contact: Michele Fuqua, Sales Manager.

1119

HORIBA Scientific, 3880 Park Avenue, Edison, NJ 08820-3012, 732-494-8660, fax: 732-549-5125, e-mail:info.sci@horiba.com, Internet: www.horiba.com/scientific HORIBA Scientific is the global leader in Fluorescence, Raman and Particle Characterization instruments. Macro and microscope solutions feature the most sensitive steady state and lifetime spectrofluorometers, highest performance, most flexible Raman systems and Particle Characterization Products for particle size/shape, zeta potential, and surface area analysis. Also SPR imaging systems.

923

Hypercube Inc., 1115 NW 4th Street, Gainesville, FL 32601, 352-371-7744, fax: 352-371-3662, Internet: www.hyper.com, Sales Contact: Lynda Frost, Office Manager Hypercube, Inc is the developer and manufacturer of HyperChem Software.

947

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

1042

ICE Publishing, Institution of Civil Engineers, 1 Great George Street, Westminster, London SW1P 3AA, United Kingdom, Internet: www.icevirtuallibrary.com/science, Sales Contact: Victoria Rae, Journals Commissioning Editor ICE Science is a unique material science journal series from ICE Publishing. This flagship series aims to deliver a truly holistic overview of the areas of materials science, biomaterials, nanotechnology, energy, green chemistry and surface engineering. Two new journals, 'Green Materials' and 'Surface Innovations' will launch in March 2013. Please visit our stand for more details. ICE Publishing is the publishing division of the Institution of Civil Engineers and has over 175 years of experience of connecting research and practice in the field of engineering science.

1435B

IIE/Council for International Exchange Of Scholars, 1400 K Street, NW, Washington, DC 20005, 202-686-4017.

1202

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 IKA® celebrates over 100 years as a global market leader in laboratory and analytical equipment as well as providing turnkey industrial processing solutions. IKA technology offers a vast spectrum of innovative devices for mixing, tempering, distilling and crushing applications. Magnetic stirrers, overhead stirrers, dispersers, shakers, mills, rotary evaporators, calorimeters, thermostats, pipettes, laboratory reactors and incubation shakers make up the laboratory and analytical equipment portfolio. The company is headquartered in Staufen, Germany. Today, IKA employs over 800 people worldwide at six different locations on four continents.

346

Indofine Chemical Co., 121 Stryker Lane, Hillsborough, NJ 08844, 908-359-6778, fax: 908-359-1179, e-mail:chemical@indofinechemical.com, Internet: www.indofinechemical.com INDOFINE, established in 1981, is committed to providing high quality rare organic molecules, biochemicals and natural products for the advancement of science. We provide custom syn-

thesis, contract research and process development and toll manufacturing in the areas of Flavonoids, coumarins, acetophenones, benzophenones, chromones, fluoroorganics, heterocyclics and natural products for the pharmaceutical, agricultural and life science industries. We have also internally developed a portfolio of propriety molecules including functionalized drugs and amino acids. We also provide FTE services. Please visit our new websites: tollmanufacturing.com, contractresearch.com, benzophenones.com, acetophenones.com and coumarins.com for more information. In addition, we are pleased to inform you of our sister company, Bezwada Biomedical, that has developed new technology platforms that include Controlled drug delivery from polymeric functionalized drugs, Nitric oxide and drug releasing Oligomers and Polymers and Amino Acid Polymers for Therapeutic and Biomedical Applications. To learn more about our technology please visit our website www.bezwadabio-medical.com.

1029

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 InfoChem's novel synthesis prediction tool. Through SPRESIweb users can access one of the largest structural and reaction databases worldwide containing over 5.8 million compounds and 4.2 million reactions.

417

Innovative Technology, One Industrial Way, Amesbury, MA 01913, 978-462-4415, fax: 978-462-3338, e-mail:info@gloveboxes.com, Internet: www.gloveboxes.com Innovative Technology, Inc offers both standardized and custom built Inert Atmosphere Gloveboxes, Gas Purification Systems and Solvent Purification Systems of the highest quality.

1121

Int'l Centre for Diffraction Data, 12 Campus Blvd., Newtown Square, PA 19073, 610-325-9814, fax: 610-325-9823, e-mail:info@icdd.com, Internet: www.icdd.com.

423

Intavis, Inc., 945 West George Street, Suite 201, Chicago, IL, United States 60657, 773-572-5799, fax: 773-305-1845, Internet: <http://www.intavis.com/en/> Intavis is a leading manufacturer of automated peptide synthesizers. The MultiPep RSI and ResPep SL are fully automated tabletop peptide synthesizers that use exchangeable modules for a wide range of synthesis scales. Modules are available for SPOT synthesis arrays, small scale synthesis of hundreds of peptides in parallel, the affordable production of specialty peptides in microcolumns, up to large scale synthesis of individual peptides. The newly released MultiPep CF utilizes an advanced large scale module that allows for efficient synthesis of long and difficult sequences.

334

Integrated Chemistry Design, Inc., 3930 Stanford Drive, Oceanside, CA 92056, 858-361-3795, e-mail:mcjohnson@inchemdesign.com, Internet: www.chirys.com Chirys Draw is the best-in-class chemistry drawing application for iPad®. You can quickly and accurately draw complex molecular structures and reactions using Chirys Draw's patent-pending touch gestures. Take notes at departmental meetings or conference seminars... Present your ideas at project or group meetings with a flick of your hand... Draw structures and reaction schemes for your next paper. Feel the difference of enlightened software design, and enjoy seeing your structures come alive with a touch! See videos and learn more at chirys.com.

1147

Interchim Inc., 1536 West 25th St., Suite 452, San Pedro, CA 90732, 800-560-8262, fax: 310-

EXPOSITION

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 that 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. **424**

Ionicon Analytik GMBH, Eduard-Bodem-Gasse 3, Innsbruck, Austria 6020, Internet: www.ionicon.com We provide ultra-sensitive, real-time VOC trace gas analyzers, based on world's leading IONICON PTR-technology and trace gas calibration solutions. Application areas include VOC monitoring and quantification in environmental research, atmospheric chemistry, emissions, food, flavor & fragrance, illicit substances detection, medical breath gas analysis, process monitoring for e.g. biotechnology, semiconductor manufacturers or the petrochemical industry. Products include quadrupole and time of flight based systems, capable of reaching a market-leading detection limit < 1 pptv and mass resolution up to 8000 m/dm. Moreover, we provide calibration devices using liquid or gas standards from pptv to % range. **1118**

IonSense, Inc., 999 Broadway, Suite 404, Saugus, MA, United States 01906, 781-484-1043, e-mail: info@ionsense.com, Internet: www.ionsense.com IonSense develops ambient ionization DART® (Direct Analysis in Real Time) technology for mass spectrometry. The company completes product development, manufacturing, as well as sales and marketing activities associated with the interface of DART® SVP, OpenSpot Card enabled ID-CUBE sources and ASAP (Atmospheric Solids Analysis Probes). DART ionization enables analysis of samples in gas, liquid, or solid form. Its sources are available for Agilent, Thermo, ABSCIELX, Bruker, JEOL, Waters, Shimadzu LC/MS systems and now offers an API-interface that enables DART with some models of Agilent 5973 and 5975 GC/MS systems. **1200**

IOP Publishing, 150 S. Independence Mall W., Philadelphia, PA, United States 19106, 215-627-0880, Internet: ioppublishing.org IOP Publishing is an international, not-for-profit, learned society publisher. We are a world leader in scientific publishing and the electronic dissemination of peer-reviewed scientific research. Stop by our booth for a sample copy of one of our distinguished journals, such as Science and Technology of Advanced Materials (<http://iopscience.iop.org/stam>) and Nanotechnology (<http://iopscience.iop.org/nano>). **213**

ISS Incorporated, 1602 Newton Drive, Champaign, IL 61822, 217-359-8681, fax: 217-359-7879, e-mail: iss@iss.com, Internet: www.iss.com, Sales Contact: Samantha Redes, Sales & Marketing Coordinator. **203**

Ivium Technologies, 961687 Gateway Blvd., Suite 201-D, Fernandina Beach, FL, United States 32034, 904-310-9060, e-mail: info@ivium.us, Internet: www.ivium.us Ivium Technologies designs and manufactures a broad range of electrochemical instrumentation for research applications. We are introducing the pocketSTAT™ Potentiostat – a handheld potentiostat capable of all electrochemical techniques! The pocketSTAT is the size of a smartphone, so taking the instrument to the sample is easier than ever. The Vertex™, an entry-level Potentiostat, will be demonstrated. We will also be showing the CompactStat™, a research-grade Potentiostat powered from the USB port of your Notebook Computer. In addition, the IviumStat™, a powerful all-purpose Potentiostat, will be on display. **1001**

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 0.1 degrees. 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 workstations for weighing, synthesis, reformatting and custom applications for \$30,000. Accessories include filter stations, capping. **801**

JASCO, 28600 Mary's Court, Easton, MD 21601, 800-333-5272, fax: 410-822-7526, e-mail: sales@jascoinc.com, Internet: www.jascoinc.com JASCO specializes in analytical instrumentation for Spectroscopy and Chromatography and is experienced within the academic, pharmaceutical, biotechnology, and industrial markets including materials analysis and nanotechnology, worldwide. We offer a full line of reliable and robust instrumentation: including the NRS-5000/7000 research-grade Raman instruments and the RMP-300 series of portable Raman instruments, Near-Field (NSOM) systems, FT-IR, FT-IR Microscopy, FT-Raman, Thin-Film Thickness measurements, UV-Vis/NIR, Fluorescence, Circular Dichroism, Polarimetry, Dissolution, SFC/SFE, HPLC, and X-LC (UHPLC). JASCO is the only company offering a single, cross platform software for our many different spectroscopic instruments. **812**

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. **1308**

Jiangxi RV Pharmaceutical Co., Ltd (P.R. China), Guixi Industrial Park, Yingtan, Jiangxi, China , 8618670101000, fax: 867012099333, e-mail: bubxu@163.com, Internet: www.rvpharm.com We are a high-tech company focus on process research, custom synthesis and commercial manufacturing of pharmaceutical intermediates. Our site takes about 25,000 sq m, with fully equipped analytic and process labs, more than 20 glasslined reactors with steam and chiller, 1 high pressure reactor. We provide products from grams to tons. **910**

John Wiley & Sons, Inc., 111 River St. 4-02, Hoboken, NJ 07030, 201-748-6000, Internet: www.wiley.com New from Wiley! ACS attendees receive 30% off on-site and online orders! To save, stop by the Wiley booth for our exclusive discount code. Offer expires May 9, 2013. *Major Reference Works are excluded. Please read our Discount Terms and Conditions for more information. **601**

JULABO, 884 Marcon Blvd., Allentown, PA 18109, 800-458-5226, fax: 610-231-0260, e-mail: info@julabo.com, Internet: www.julabo.com JULABO is a manufacturer of liquid temperature control systems for research, science, laboratories, pilot plants, and industrial processes. JULABO offers an extensive variety of solutions covering a temperature range of -95 to +400 °C with up to 36 kW of heating power and 31 kW of cooling power. JULABO's product line includes temperature-control instruments for a wide range of applications. Heated and refrigerated circulators are ideal for virtually any application within the range of -95 to +400 °C and are available with an extensive selection of features and capabilities. JULABO: The Temperature Control Company. **506**

Kalexsyn, Inc., 4502 Campus Dr., Kalamazoo, MI 49008, 269-488-8488, fax: 269-488-8490, e-mail: info@kalexsyn.com, Internet: www.kalexsyn.com. **211**

KD Scientific, 84 October Hill Road, Holliston, MA 01746, 508-429-6809, fax: 508-893-0160, e-mail: info@kdscientific.com, Internet: www.kdscientific.com, Sales Contact: Peter Nadeau, Global Sales Representative KD Scientific provides liquid handling pumps for automated and affordable delivery of fluids and gas in the laboratory environment along with a new small volume evaporator featuring SBT (self-blow down) technology. KD Scientific has the broadest line of economical infusion pumps, syringe pumps, OEM syringe pumps, peristaltic pumps, emulsifiers and evaporators. Applications include Organic Synthesis, Inorganic Synthesis, catalyst injections, mass spec calibration, electrospray, long term perfusions and microfluidics. Free application consultations and demonstrations. We will be featuring the new Legato series syringe pumps, Allegro Series Peristaltic pumps and our Centrifan PE Small Volume Evaporator. **1328**

Kimble Chase LLC, 234 Cardiff Valley Road, Rockwood, TN, United States 37854, e-mail: info@kimble-chase.com, Internet: www.kimble-chase.com Kimble Chase is the worlds largest leader in laboratory glassware. Specializing in a broad range of reusable, disposable, and specialty 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. **1234**

Knauer, Hegauer Weg 38, Berlin, Germany D-14163, 49-30-8097-2718, Internet: www.knauer.net HPLC (High Performance Liquid Chromatography), SMB, Osmometry, Biochromatography, Columns, Phases, Applications. **229**

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. **1028**

Korea Institute of Science and Technology, Hwarangno 14-gil 5, Seongbuk-gu, Seoul, Korea, South 136-791, +82-2-958-6313, fax: +82-2-958-6159, e-mail: kiwihyang@kist.re.kr, Internet: <http://www.kist.re.kr/en/index.jsp> KIST is recruiting scientists in diverse science and engineering fields. KIST is focusing on frontier and global-agenda research by concentrating on large-scale, long-term, and interdisciplinary R&D projects, thereby strengthening its role as a public research institute and differentiating itself from academia and industry. As a national research institute, KIST is working on diverse fields including energy, environment, health, brain, biomedical, and materials. **1041**

KOREA KIYON, Rm 902,911, Daerung Techno-town III, Seoul, Korea, South, 82 2 2107 3814, Internet: www.glovebox.co.kr KOREA KIYON has an over 20 years of proven record in design and manufacturing one of most advanced gloveboxes for research and mass production customers worldwide. To do this, KOREA KIYON is making its constant and relentless efforts to develop the best quality glovebox system components like purification system, solvent trap, sensors, and vacuum chambers. **1011**

Krüss America, LLC, 1020 Crews Road, Suite K, Matthews, NC 28105, 704-847-8933, fax: 704-847-9416, e-mail: jrc@krussusa.com, Internet: www.kruss.info. **1006**

LabLogic Systems Limited, Paradigm House, 3 Melbourne Avenue, England, United Kingdom S10 2QJ, 44 114 266 7267, Internet: www.lablogic.com LabLogic is a market leader in the supply of LIMS and chromatography data systems to the pharmaceutical, agrochemical and nuclear/PET industries. Key systems include Debra for ADME metabolism studies and PETra for PET radiopharmaceutical production. Our

products help our customers accelerate their research, providing quality data using industry standard solutions. **1329**

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. **716**

Life Chemicals, Inc., 2477 Glenwood School Dr., Suite 203, Burlington, ON L7R 3R9, Canada, 905-634-5212, fax: 905-634-4719, Internet: www.lifechemicals.com, Sales Contact: George Bondar, Director, Sales USA Life Chemicals products and services: * Over 360,000 drug-like and lead-like compounds designed for HTS, screening and lead discovery projects; * Pre-plate diversity screening sets offered at very competitive prices * More than 40 carefully designed Targeted and Specialty libraries (including Kinase, NHR, Protease, Ion Channel, GPCR, PPI and many others) * Fragment Libraries including Diversity, Fsp3-enriched and Fluorinated fragment sets * Custom libraries (including targeted custom libraries) and custom synthesis projects; * Computational Chemistry Services: virtual docking, 2D and 3D similarity searches, etc. * Proprietary core building blocks and synthetic intermediates. **1428**

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 For more than 30 years MBRAUN has been a leader in providing inert gas technology, gloveboxes, thin film deposition and solvent purification systems. The products developed and produced at MBRAUN are applied in chemical research, in OLED development and mass production as well as in the development of lithium-ion batteries. MBRAUN has production and distribution facilities in Germany, U.S. and China which ensures a major customer focus and excellent service support. Please stop by booth 700 to learn more about MBRAUN going in 2013!. **700**

Magritek Limited, 32 Salamanca Road, Kelburn, Wellington, New Zealand 6012, 64-4-920-7671. **1027**

Malvern Instruments, Inc., 117 Flanders Road, Westborough, MA 01581, 508-768-6400, fax: 508-768-6403, e-mail:sales@malvern.com, Internet: www.malvern.com Malvern's materials and biophysical characterization technology and expertise enables scientists and engineers to investigate, understand and control the properties of dispersed systems. From proteins and polymers in solution, particle and nanoparticle suspensions and emulsions, to sprays and aerosols, industrial bulk powders and high concentration slurries. Used at all stages of R&D and manufacturing, Malvern's instruments provide critical information that helps accelerate research and product development, enhance and maintain product quality and optimize process efficiency. They are used by industry and academia, in sectors ranging from pharmaceuticals and biopharmaceuticals to bulk chemicals, cement, plastics and polymers, energy and the environment. **1311**

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 Secau-

cus, 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, pharmacology etc. **404**

Materia, Inc., 60 N. San Gabriel Blvd., Pasadena, CA 91107, 626-584-8400, fax: 626-584-1984, Internet: www.materia-inc.com Materia was founded in 1998 to commercialize olefin metathesis catalyst technology. This Nobel Prize-winning technology enables chemical compounds to be synthesized with greater efficiency, under less stringent reaction conditions, and with reduced byproducts and hazardous waste. Metathesis has been accepted as an emerging "green technology" platform and has been broadly adopted by the pharmaceutical, chemical, and polymer industries. Materia has developed an extensive intellectual property portfolio, which includes over 350 issued and pending patents covering not only catalyst composition and manufacture, but also methods of using the technology to perform a wide variety of transformations and compositions of certain products. **811**

Matrix Scientific, P.O. Box 25067, Columbia, SC 29224, 803-788-9494, fax: 803-788-9419, e-mail: sales@matrixscientific.com, Internet: www.matrixscientific.com New research chemical intermediates and building blocks CD-ROM catalog available for 2013 featuring over 75,000 items; many novel to Matrix. The 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 20,000 building blocks! Products find application in pharmaceutical, agrochemical, polymer, coatings and pure and applied research. Principals have over 46 years of experience in the manufacture and supply of quality products for research and development. **709**

McCrone Group ^The, 850 Pasquinielli Drive, Westmont, IL, United States 60559, 630-887-7100, fax: 630-887-7764, Internet: www.mccrone microscopes.com The McCrone Group is internationally recognized as a world leader in microscopy and microanalysis and includes McCrone Associates, McCrone Microscopes & Accessories and Hooke College of Applied Sciences. McCrone Associates specializes in using microanalysis for materials identification and characterization. McCrone Microscopes & Accessories is a national dealer for the JEOL "Neo-Scope II" benchtop SEM, Olympus microscopes, Hirox digital microscopes, Linkam thermal stages, and a wide variety of laboratory supplies. Hooke College of Applied Sciences provides customized, hands-on microanalysis training to scientists worldwide. **1312**

McGraw-Hill Higher Education, Two Penn Plaza, 20th Floor, New York, NY 10121-2298, 212-904-2892, fax: 212-904-2280, e-mail:mary_donnelly@mccraw-hill.com, Internet: www.mhhe.com Do you have a course question or need? We have your solution! Visit the McGraw-Hill booth (325) to see our innovative course solutions. The future of learning is here! McGraw-Hill's Connect is the most sophisticated platform available, and offers a wealth of digital options, including: LearnSmart—the premiere adaptive learning system; the new LearnSmart Prep—the same adaptive learning technology of LearnSmart utilized to prepare students entering a general chemistry course; ChemDraw; Connect-Plus—a dynamic eBook, containing robust media assets; and Tegrity, a cloud-based lecture capture system! All of these options partnered with the best content in the world! **325**

MeasureNet Technology, 4240 Airport Road, Cincinnati, OH 45226, 866-396-6765, fax: 866-209-8111, e-mail:info@measurenet-tech.com, Internet: www.measurenet-tech.com, Sales Con-

tact: Robert Voorhees, President MeasureNet brings electronic data collection and Laboratory Information Management System (LIMS) functionality to teaching and research laboratories. MeasureNet's network design provides high-resolution data acquisition without the cost and maintenance of bench-cluttering, stand-alone PCs. MeasureNet's patented network technology enables live data monitoring via the internet and remote storage for collaborative exercises between multiple labs and multiple institutions. Each network supports up to 15 work stations for experiments that include temperature, pressure, pH, voltage, and colorimetry and potentiometric measurements. A shared UV-vis spectrometer delivers 1-nm resolution spectroscopy to student workstations. MeasureNet users can integrate GCs, HPLCs, and calorimeters for advanced laboratory applications. **917**

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, Sales Contact: Customer Support Metrohm USA celebrates Young Chemists of the Future! Enter our "Young Chemist \$10K Call for Abstracts," and become our 2014 winner (see website for details). As your go-to source for the most reliable analytical chemistry equipment, find Swiss-made titrators and automation, ion chromatography systems, pH/ion meters, colorimeters, electrodes, voltammetric analyzers, oxidative stability instrumentation and more. Enjoy 3-yr instrument warranties and an unprecedented 10-yr warranty on our IC MSM suppressors. All are backed by expert applications support & service; but don't just take our word for it, stop by and see us—we love talking chemistry! **929**

MicroLab, Inc., PO Box 7358, Bozeman, MT 59771, 406-586-3274, fax: 406-586-3582, Internet: www.microlabinfo.com MicroLab's patented FS-522 high-resolution laboratory interface provides, in an affordable package and with a small footprint, almost every measurement needed for general chemistry: pH, temperature, pressure, REDOX, conductance, voltage, and more. MicroLab's integrated 360-880 nm FASTspec scanning spectrophotometer simultaneously measures absorbance, fluorescence, scatter, transmission and turbidity. FASTspec is unique in its ability to perform spectrophotometric titrations. MicroLab's software is available for free download to students. **820**

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 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, pore volume, pore size and pore size distribution, 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. **1012**

Microtrac Inc., 148 Keystone Drive, Montgomeryville, PA, United States 18936, 727-507-9770, fax: 727-507-9774, Internet: www.microtrac.com Microtrac, a global pioneer of particle characterization technologies, strives to provide the world with innovative, reliable, and repeatable instruments that deliver insight and solutions to company's complex product and process problems. Microtrac's instruments can provide particle sizing, zeta potential, 3-D dynamic image analysis, molecular weight, surface analysis, and particle

EXPOSITION

counting measurements. Microtrac also offers contract laboratory services, as well as, custom service plans designed to meet and exceed customer expectations.

1218

Millifluidica LLC, 6980 Jefferson Hwy, Baton Rouge, LA 70806, 225-578-9320, Internet: www.millifluidica.com We provide simplified Lab-on-a-chip solutions for chemistry, catalysis and nanotechnologies. Our goal is to advance a new class of lab-on-a-chip products for research & development that are uniquely designed to simplify and accelerate your discovery.

1145

Molymod Models - Spiring Ltd, Spiring Enterprises Ltd., Unit 8E, Gillmans Industrial Estate, West Sussex, United Kingdom RH14 9EZ, 44-1403-782-387, fax: 44-1403-785-215, e-mail: email@molymod.com, Internet: www.molymod.com Spiring Enterprises Limited, the inventor and sole manufacturer of the molymod® molecular model dual scale system of molecular & atomic models, the advanced miniDNATM abstract system for modelling DNA (Replication), RNA (Transcription/translation) / protein synthesis. The Molymod® Range comprises sets, kits and spare parts suitable for Chemistry, Biology & General Science courses at School, college or university levels.

310

Nacalai USA, Inc., 6640 Lusk Blvd., Suite A200, San Diego, CA 92121, 858-404-0403, fax: 858-404-0408, e-mail: info@nacalaiusa.com, Internet: www.nacalaiusa.com COSMOSIL chromatography product line includes analytical and preparative reversed-phase columns, HILIC columns, as well as unique stationary phases such as the Cholester (cholesteryl group bonded) and piNAP (naphtylethyl group bonded). SunShell HPLC columns are manufactured using innovative core shell particle technology that provides improved pH stability and higher loading capacity compared to other core shell materials.

1300

Nanalysis Corp., Bay 4, 4500, 5 Street NE, Calgary, AB, Canada T2E 7C3, 403-769-9499, fax: 403-775-6683, Internet: nanalysis.com The NMReady™ 60P is a revolutionary benchtop NMR spectrometer. It offers spectroscopic resolution at a fraction of the size, cost and maintenance of current NMR instrumentation. The innovative design brings analytical performance and point-of-need utility to the benchtop, fume hood or glovebox. The NMReady is an ideal training tool, allowing students to get hands-on experience with NMR.

1003

Nano Magnetics Instruments, 2024 Duck Cove Drive, Knoxville, TN 37922, United States, Sales Contact: Steve Short, Technical Sales Engineer-Nanomagnetics Instruments Ltd. is a pioneer in high resolution magnetic imaging. Products include: ezAFM, Excellent performance and affordability. Ambient and Low Temperature Atomic Force Microscope (RT-AFM/MFM) (LT-AFM/MFM) with many standard and custom modes available. Ambient and Low temperature Scanning Hall Probe Microscope (RT-SHPM)(LT-SHPM), 3D scan mode available. Nanopostioners for ambient and low temperature applications.

1211

Nanoscience Instruments/Zeta Instruments, 9831 South 51st Street, Suite C119, Phoenix, AZ 85044, 888-777-5573, fax: 480-940-3941, e-mail: info@nanoscience.com, Internet: www.nanoscience.com, Sales Contact: Sebastian Kossek Nanoscience Instruments provides desktop Scanning Electron, 3D Optical and Atomic Force microscopes. Stop by to see the world's most powerful desktop SEM, the Phenom ProX SEM with EDS for elemental analysis and elemental mapping. Zeta Instruments will be joining us and showing off their advanced Zeta-20 3D microscope profiler for fast non-contact 3D metrology measurements in true color. We also offer compact and robust AFMs as well as tools for micro and nano-manipulation and force sensing.

1429

NanoSight, 6660 N High Street, Suite 2A, Worthington, OH 43085, United States, Internet: www.nanosight.com, Sales Contact: Jim Munnell, Eastern Regional Manager.

1327

NASA, 300 East St., SW, Washington, DC 20546, 301-614-5560, fax: 301-614-6530, Internet: www.nasa.gov NASA Earth System Science conducts and sponsors research, collects new observations from space, develops technologies and extends science and technology education to learners of all ages. We work closely with our global partners in government, industry, and the public to enhance economic security, and environmental stewardship, benefiting society in many tangible ways. We conduct and sponsor research to answer fundamental science questions about the changes we see in climate, weather, and natural hazards, and deliver sound science that helps decision-makers make informed decisions.

1113

Nat'l Res. Council/ Nat'l Academies, Fellowship Programs, 500 5th St., NW, Washington, DC 20001, 202-334-2760, fax: 202-334-2759, e-mail: jdelammo@nas.edu, Internet: www.national-academies.org/rap The National Research Council of the National Academies offers awards four times annually to graduate, postdoctoral and senior researchers for independent research to be conducted in residence at participating US federal laboratories and affiliated institutions. Awards include a competitive stipend, relocation, professional travel, and health insurance. Annual application deadlines are February 1, May 1, August 1, and November 1. Instructions and online applications are at <http://www.nationalacademies.org/rap>. For further information and discussion, see the NRC representative at booth #425 in the exhibit hall.

425

National User Facility Organization, c/o Argonne National Laboratory, 9700 S. Cass Avenue, Building 401/B1154, Argonne, IL 60439, United States.

1220

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.

1400

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/Office%20of%20Reference%20Materials NIST Standard Reference Materials supports accurate and compatible measurements by certifying and providing over 1300 Standard Reference Materials with well-characterized 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.

1235

Norton, 500 Fifth Ave., New York, NY 10110, 212-548-4751, fax: 212-790-4261, Internet: www.norton.com.

201

NT-MDT Co., Russia, Moscow, Zelenograd, Building 100, Moscow, Russia, 7-495-913-5737, fax: 7-495-913-5793, Internet: <http://www.ntmdt.com/>.

1221

Oakwood Products Inc., 1741 Old Dunbar Road, West Columbia, SC 29172, 803-739-8800, fax: 803-739-6957, e-mail: sales@oakwoodchemical.com

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 75,000 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.

1302

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.

526

OLIS, Inc., 130 Conway Drive, Suites ABC, Bogart, GA 30622-1724, 706-353-6547 or 800-852-3504, fax: 706-353-1972, e-mail: sales@olisweb.com, Internet: www.olisweb.com.

1205

Olympus, 48 Woerd Ave., Waltham, MA, United States 02453, 781-419-4637, fax: 781-419-9580, Internet: www.olympus-ims.com Portable products from OLYMPUS NDT include X-Ray Fluorescence (XRF) and X-ray Diffraction (XRD) analyzers. Our handheld XRFs (HHXRFs) analyze 25+ elements in a single test in seconds. The beauty of our HHXRF lies in its power and flexibility, analyzing dust, soil, sediment, metal, ceramic, plants, formulations, structures and countless other materials. With a variety of calibration models, ease in adding elements, and the ability to study multiple spectra, HHXRF can easily adapt to researchers needs advancing them to new levels of discovery in the field.

1103

OPOTEK Inc., 417 18th St., Huntington Beach, CA 92648, 714-969-4173, fax: 714-969-3714, Internet: www.opotek.com, Sales Contact: Mark Little, Sales Manager OPOTEK offers the widest range of efficient and broadly tunable laser systems based on Optical Parametric Oscillator (OPO) technology. Systems are portable, compact and durable with tuning ranges from the UV to MIR. Our feature system, the Phocus, is an integrated, turn-key tunable laser system for Photoacoustic Imaging. The system utilizes patented technology, which generates high energy, short pulse beams in the NIR. All products are computer controlled via USB and designed for a variety of applications including photochemistry, photobiology, hyperspectral imaging, mass spectrometry, pharmaceutical processing and environmental monitoring.

335

Optibrium Ltd., 7221 Cambridge Research Park, Beach Drive, Cambridge, United Kingdom CB25 9TL, +44 1223 815900, fax: +44 1223 815907, e-mail: info@optibrium.com, Internet: www.optibrium.com StarDrop™ is a software suite that guides drug discovery decisions, helping to identify high-quality compounds, fast. It evaluates complex data, bringing confidence and intuitive simplicity to targeting compounds with an optimal balance of properties using unique approaches including the Glowing Molecule™ and Probabilistic Scoring. Recently updated in version 5.3, it now comes with new tools within StarDrop's Nova™ plug-in module to quickly prioritise new chemistry based enumeration of virtual libraries or automatic generation of novel, relevant compound ideas. Other modules include predictive ADME models, P450 metabolism prediction, automatic model building and the FieldAlign™ technology from Cresset™ enables 3D SAR analysis.

708

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, monochro-

matic light sources and detectors for light measurement & characterization in sophisticated dedicated instrumentation. **207**

OriginLab Corp., One Roundhouse Plaza, Suite 303, Northampton, MA 01060, 800-969-7720, fax: 413-585-0126, e-mail:sales@originlab.com, Internet: www.originlab.com *Origin* is an easy-to-use software application that provides powerful data analysis and publication-quality graphing capabilities tailored to the needs of scientists and engineers. *Origin* provides over 70 customizable graph types, tools for peak analysis, curve fitting, statistics, signal processing, analysis templates, and batch-processing, all within an integrated workbook environment. **1500**

Oxford University Press, 198 Madison Avenue, New York, NY 10016, United States, Internet: www.oup.com/us, Sales Contact: Robin Hesselink, Exhibits Manager Oxford University Press is proud to partner with ACS to publish some of the most prestigious titles in the field. Visit our booth for a 30% discount on ACS publications and a 20% discount on all other titles! **1036**

Paraza Pharma Inc., 7171 Frederick-Banting Street, Montreal H45 129 Canada, 617-216-9459, Internet: www.parazapharma.com, Sales Contact: Arshad Siddiqui, President & CEO A highly cost effective, premium medicinal chemistry and DMPK services provider with a complete operation in N-America. All staff is meticulously trained in major pharmaceutical companies (Merck, Pfizer, Astrazeneca, Boehringer-Ingelheim) in the art and science of drug discovery research with proven record of accomplishments as evidenced by over 150 patents & > 150 research articles in high impact peer reviewed journals. Our staff is highly collaborative, dedicated and fully proficient in English and staff works seamlessly with client partners with extreme sense of urgency. We are highly creative and solution driven partner to ensure that your projects succeeds in timely manner. **217**

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. **416**

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 conducting chemical reactions and tests under heat and pressure. Parr 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. **901**

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 PSS manufacturers particle size analyzers (0.003–5000?) for both wet and dry applications. Online sampling, Batch auto-sampling, Submicron DLS/Zeta Module and Stability analyzers are also available. **1105**

Pearson, One Lake Street, Upper Saddle River, NJ 07458, 415-402-2583, Internet: www.pearsonhighered.com. **301**

PerkinElmer, 710 Bridgeport Avenue, Shelton, CT 06484, 1-800-762-4000, fax: 203-944-4950, Internet: www.perkinelmer.com. **1022,1025**

Pharmablock USA, Inc., 725 San Aleso Avenue, Suite 8, Sunnyvale, CA 94085, United States, 408-921-9969, Internet: www.pharmablock.com. **1501**

PIKE Technologies, 6125 Cottonwood Drive, Madison, WI 53719, 608-274-2721, fax: 608-274-0103, Internet: www.piketech.com PIKE Technologies is a 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 control and productivity. In addition PIKE Technologies 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. www.piketech.com. **1034**

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 high quality, affordable, durable, and reliable electrochemical products. Known for our modulated speed rotator, researchers appreciate its use in academic and industrial settings. We offer rotating disk, rotating ring disk electrodes and screen patterned electrodes. Screen patterned electrodes are a convenient way to set up a three electrode cell. Our potentiostat line features the USB WaveNow potentiostat/galvanostat and the WaveDriver Bipotentiostat/Galvanostat benchtop system. These have a USB interface to a PC and feature all traditional electrochemical techniques. All Pine potentiostats operate with our powerful AfterMath Data Organizer software. We also offer electrochemical glass and quartz cells. **807**

PLOS, 1160 Battery Street, Suite 100, San Francisco, CA 94110, 415-568-3172, fax: 415-546-4090, Internet: plos.org. **1046**

Polymer Char, S.A., Gustave Eiffel 8, Paterna, Valencia Technology Park, Spain E-46980, Internet: www.polymerchar.com Polymer Char, the world's leading Polyolefin Characterization Company, offers the broadest and most modern range of instruments and services for structural characterization of polyolefins, such as Molar Mass Distribution (GPC-IR®, GPC One®), Chemical Composition Distribution (CRYSTAF, TREF, CEF), Bivariate Distribution (CFC), Xylene Solubles (CRYSTEX® CRYSTEX QC), High Temperature HPLC (TGIC, SGIC 2D), Preparative Fractionation (PREP mc2) or Infrared Detection (IR4, IR5 MCT). With two decades of expertise, equipments installed in over 20 countries and a 25-30% annual investment of manpower resources in Research and Development, Polymer Char has become today the global leader in research, engineering, software and customer service. **1016**

PSS USA, Inc., 160 Old Farm Road, Suite A, Amherst, MA 01002, United States, Internet: www.pssgpcshop.com, Sales Contact: John McConville, President PSS is dedicated to the advancement of macromolecular characterization by providing expertise and tools to perform GPC/SEC analysis. WinGPC software suite is an industry leader and the only platform that provides a validated environment that meets CFR 21 part 11 requirements. We provide a comprehensive array of GPC/SEC columns and standards for organic and aqueous environments for the analysis of synthetic and biopolymers. We provide method development and sample analysis services. GPC/SEC instrumentation for ba-

sic, multi-detector, multi-dimensional and hyphenated techniques including FT-IR, NMR and MS. **1242**

Quark Glass, P.O. Box 2396, Vineland, NJ 08362-2396, 800-955-0376, fax: 856-455-3373, e-mail:sales@quarkglass.com, Internet: www.quarkglass.com, Sales Contact: Susan Burt, VP Quark Glass is a discount manufacturer of laboratory glassware. Our company combines excellent quality, lower prices, and the BEST service in the marketplace. If you need a product quickly, call Quark! We are exhibiting apparatus used in various bench-top applications, such as: manifold lines, filtration apparatus, custom distillation, and general laboratory ware. Quark offers extensive discounts and our glassware is MADE in the USA. **935**

Rapp Polymere GMBH, Ernst Simon Strasse 9, Tuebingen, Germany D-72072, 49-7071763157, fax: 49-7071763158, e-mail:rapp-polymere@t-online.de, Internet: www.rapp-polymere.com Rapp Polymere is the first address for high quality polymer supports. We offer a broad range of novel resins based on TentaGel or polystyrene for solid phase and liquid phase chemistry, combinatorial chemistry, polymer supported reagents, library generation, peptide and oligonucleotide synthesis, as well as for diagnostic applications. Our new and innovative product line are reagents for PEGylation. Our portfolio comprises a broad range of derivatives from Methoxy PEG's, homofunctional PEG's to hetero-bifunctional PEG's. We also offer custom synthesized PEG derivatives. **1116**

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 manufacturing, product sourcing and project management solutions that typically result in customers saving time and containing costs. Services for life science, specialty chemical and emerging technology markets include custom synthesis and manufacturing for research and development, scale-up and full-scale production of materials. Chemical sourcing staff can locate difficult-to-find raw materials. RCI is well known in the industry for providing clients with flexible and cost effective solutions using its unique portfolio of technical capabilities, outstanding reputation and extensive manufacturing network, both domestic and international, to provide the right technology and expertise, on a project-by-project basis. **1010**

Rieke Metals, Inc., 1001 Kingbird Road, Lincoln, NE 68521, United States, 402-434-2775, fax: 402-434-2777, e-mail:sales@riekemetals.com, Internet: www.RiekeMetals.com, Sales Contact: Elizabeth Hefley, Marketing and Sales Rieke Metals Inc. 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 manufactures over 10,000 research compounds and more than 350 thousand molecules under research contract. We offer a unique line of fine organic chemicals for drug discovery, including a large number of heterocyclic compounds. Rieke Metals supplies research to commercial quantities, ensuring high purity and service every step of the way. **1244**

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® multi-purpose diffractometers with SAXS and in-plane capabilities, DMAZ Rapid II micro-diffraction systems, SMAX3000 small angle scattering systems, and the ZSX Primus series of high-power

EXPOSITION

ered WDXRF spectrometers with mapping capabilities, in either tube-above or tube-below configurations.

312

Roberts and Company Publishers, 4950 S. Yosemite Street, F2 #197, Greenwood Village, CO 80111, 303-221-3325, fax: 303-221-3326, e-mail:info@roberts-publishers.com, Internet: www.roberts-publishers.com, Sales Contact: Ben Roberts, Publisher Roberts and Company publishes college textbooks and monographs. Our titles include Loudon's *Organic Chemistry*, McMurry and Begley's *The Organic Chemistry of Biological Pathways*, and Christopher Walsh's *Posttranslational Modification in Proteins*. In the coming year we'll introduce three new titles: Waldron's *Chemistry and Society*, Birk and Yezierski's *General Chemistry*, and a revision of Loudon's *Organic Chemistry*. Please stop by the booth to learn more about class testing these titles in either electronic or paper formats. 915

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 RSC is the largest organisation in Europe for advancing the chemical sciences. Supported by a network of over 48,000 members worldwide, our activities span education and training, conferences and science policy, and the promotion of chemistry to the public. Our internationally acclaimed publishing business offers an exceptional range of peer-reviewed journals, magazines, books, databases and publishing services to the international science community. Drop by booth #401 to find out more and meet the team. 401

Sapling Learning, 2815 Exposition Blvd., Austin, TX 78703, 512-323-6565, e-mail:info@saplinglearning.com, Internet: www.saplinglearning.com Sapling Learning provides the most effective interactive homework and instruction that improves student learning outcomes for the problem-solving disciplines. We offer an enjoyable teaching and effective learning experience that is distinctive: easy-to-use; targeted, instructional content, unsurpassed service and support by PhD- and Masters-level colleagues, and textbook independent. 1026

Sartorius, 5 Orville Drive, Bohemia, NY, United States 11716, 800-368-7178, fax: 631-253-5467, Internet: www.sartorius.com. 306

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 Schrödinger will debut its Materials Suite at this ACS, featuring a diverse set of tools for computing the structure, reactivity, and properties of chemical systems. Schrödinger will also exhibit its full suite of drug discovery software, including the industry leading Glide for flexible ligand docking, induced-fit (IFD) algorithm to account for protein flexibility, Phase for ligand-based pharmacophore and shape-based modeling, as well as the Discovery Informatics Suite featuring Canvas, a full-featured chemoinformatics package and Seurat, an advanced data visualization and analysis tool that's ideal for data-sharing within any drug discovery project team. All software tools will be available for hands-on demonstration. 400

SCIENCE/AAAS, 1200 New York Avenue, NW, Washington, DC 20005, (202) 326-6700, fax: (202) 842-1065, e-mail:membership@aaas.org, Internet: www.aaas.org Since 1848, AAAS and its members have worked together to advance science and serve society. As part of these efforts, AAAS publishes *Science*, a multidisciplinary peer-reviewed journal, and offers programs focused on science policy, international cooperation, science education, diversity, and career development for scientists. 1134

Scientific Computing & Modelling NV, SCM/TC/FEW, Vrije Universiteit Amsterdam, De Boelelaan 1083, Amsterdam, Netherlands 1081 HV, 31-20-5987626, fax: 31-20-5987629, e-mail:

sales@scm.com, Internet: www.scm.com SCM offers a comprehensive computational chemistry suite. User-friendliness is ensured by expert support, a fully integrated GUI, out-of-the-box parallel binaries, and free trials. DFT codes ADF (molecules) and BAND (periodic systems) incorporate latest academic developments and are powerful quantum chemistry codes to study spectroscopy (NMR, EPR, UV/VIS, XAS, EFG, IR), transition metals, heavy elements, solvent/environment effects, organic electronics (OLEDs, OFETs), and chemical bonding analysis. To model large systems, semi-empirical codes DFTB and MOPAC2012 afford quick insight, while 100,000s of atoms can be studied with reactive MD (ReaxFF). Thermodynamic properties of mixtures and solutions are quickly predicted with COSMO-RS. 305

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 AMPACT™ 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. AMPACT™ 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 CODESSA™, an advanced, fully featured quantitative structure/activity relationship (QSAR) program that ties information from AMPACT™ 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. 847

Shimadzu Scientific Instruments Inc., 7102 Riverwood Drive, Columbia, MD 21046, 800-477-1227, fax: 410-381-1222, Internet: www.shimadzu.com, Sales Contact: Chris Gaylor, Vice President Sales Shimadzu Scientific Instruments is the American subsidiary of Shimadzu Corporation, headquartered in Kyoto, Japan. We are a leading manufacturer of scientific instrumentation, including gas and liquid chromatographs, mass spectrometers (GCMS, LCMS, MALDI), UV-Vis, FTIR, AA and ICP spectrophotometers, environmental/TOC analyzers, balances, and physical measurement equipment. 617

Showa Denko America Inc., 420 Lexington Ave., Suite 2850, New York, NY 10170, 212-370-0033, ext. 109, fax: 716-774-8708, Internet: www.shodex.net Shodex is our HPLC product brand name and they are manufactured by Showa Denko K.K. in Japan since 1973. Shodex carries over 1000 different HPLC columns with a wide range of separation modes. We are best known for high quality size exclusion and saccharide analysis columns, as well as unique polymer-based reversed and HILIC phase columns. With additional selections of normal phase, ion exchange, ion chromatography, high temperature and multi-mode columns, we are confident we can provide the most suitable column for customers' needs. Showa Denko America, Inc. based in NY provides technical and sales support. 421

Simulations Plus, Inc., 4250 10th Street West, Lancaster, CA 93534, 661-723-7723, fax: 661-723-5524, e-mail:info@simulations-plus.com, Internet: www.simulations-plus.com, Sales Contact: John DiBella, Director, Sales & Marketing Simulations Plus is the industry leader in simulation and modeling software and consulting services for pharmaceutical research. The ADMET Design Suite™, consisting of ADMET Predictor™, MedChem Studio™, and MedChem Designer™, provides chemists with an unprecedented capability to data mine compound libraries, quickly design new molecules, and see how changes in structures affect not just one or a handful of properties, but over 130 ADME-Tox properties from the industry's #1-ranked QSAR property prediction software. GastroPlus™ sets the standard for PBPK/PD modeling for oral, intravenous, ocular, pulmonary, and inhalation

delivery in human and animals, with powerful virtual population simulations and DDI capabilities. 224

Small Molecules, Inc., 38 Jackson Street, Hoboken, NJ, United States 07030, 877-889-2860, e-mail:Sales@small-molecules.com, Internet: http://www.small-molecules.com. 1009

Sorbert Technologies, 5955 Peachtree Corners East, Suite A, Norcross, GA 30071, 866-767-2832, ext. 0281, e-mail:dschurer@sorbttech.com, Internet: www.sorbttech.com. 1217

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 bio-reagents 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. 407

Sphinx Scientific Laboratory Corporation, 1250 1/2 E. State Street, Sycamore, IL 60178, United States, 815-901-8011, fax: 815-895-6762, Internet: www.sphinxscientificlab.com Sphinx Scientific Laboratory Corporation (SSL) provides high quality pharmaceutical intermediates, novel chemical and pharmaceutical building blocks, and other fine chemicals for research and industrial application in contemporary drug discovery and development. Also SSL provides customer synthesis, customer manufacturing and FTE service. 1316

Springer, 233 Spring Street, New York, NY 10013, 212-460-1600, fax: 201-348-4505, Internet: www.springer.com Come and browse more than 5,400 titles. Get 20% off print books and eBooks—and learn about MyCopy (a printed eBook for \$/€24.99). We are proud to be the publisher of choice for books such as Advanced Organic Chemistry A+B, Name Reactions, and cutting-edge journals such as Analytical and Bioanalytical Chemistry and Catalysis Letters. Meet our Editors Steffen Pauly, Kenneth Howell, Sonia Ojo, Elizabeth Hawkins and Alexandrine Cheronet to discuss your publishing proposal. Ensure maximum readership for your work, too! Springer, your partner in publishing. Find all offers online: springer.com/acs. 516

StellarNet Inc., 14390 Carlson Circle, Tampa, FL 33626, 813-855-8687, fax: 813-855-0394, e-mail: dperrell@stellarnet.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. StellarNet 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. 1229

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 employee-owned 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. **1110**

Supercritical Fluid Technologies, One Innovation Way, Suite 303, Newark, DE 19711, 302-738-3420, fax: 302-738-4320, e-mail:info@supercriticalfluids.com, Internet: www.supercriticalfluids.com. **712**

Sympatec, Inc., 1600 Reed Rd., Suite C, Pennington, NJ 08534, 609-303-0066, fax: 609-303-0365, e-mail:usa@sympatec.com, Internet: www.sympatec.com. **227**

Synquest Laboratories, Inc., P.O. Box 309, Alachua, FL 32616-0309, 386-462-0788 or 877-4-FLUORO (toll free), fax: 386-462-7097, e-mail: info@synquestlabs.com, Internet: www.synquestlabs.com. **322**

Synthonix, 2713 Connector Drive, Wake Forest, NC 27587, 919-875-9277, fax: 919-875-9601, Internet: www.synthonix.com Synthonix specializes in the design and synthesis of novel building blocks for drug discovery. Current efforts are focused in the area of non-aromatic ring systems containing azetidines, cyclobutanes, oxetanes, and larger rings. Such molecules are designed to provide medicinal chemists access to relatively unexplored chemical space, while providing improved solubility and stability. **937**

Syris Ltd., 29 Albion Place, Charlestown, MA 02129, 617-848-2997, fax: 617-532-1033, e-mail:info@syris.com, Internet: www.syris.com Syris creates automated products for research and development chemists and is a world leader in flow chemistry, microreactor and automation technology. Syris products are used in a wide variety of applications and laboratories including process, discovery, crystallization, process safety, scale-up and many more. Syris products include the innovative range of fully automated batch reactor products (Atlas), a manually operated jacketed reactor platform (Globe) and our Modular flow chemistry system, Asia, recipient of a prestigious 2012 R&D100 award. **818**

TA Instruments, 159 Lukens Drive, New Castle, DE 19720, 302-427-4000, fax: 302-427-4001, e-mail:info@tainstruments.com, Internet: www.ta instruments.com. **804**

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 Taylor & Francis Group-CRC Press, represented by its book and journal divisions, is a premier publisher of scientific and technical books, journals, and electronic references. Visit our booth to help us celebrate the 100 year anniversary of our flagship title, CRC Handbook of Chemistry and Physics. Browse special offers on new and best-selling titles in subjects such as food science, biofuels, and sustainability. Pick up free journal copies and sign up for our email list to receive exclusive offers. Visit our Chemistry Arena website at chemistryarena.com to access all things Chemistry—including reviews, articles, news, conferences, and interviews. **1127**

TCI America, 9211 N. Harborage 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 milligram 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. **528**

Tecan, 9401 Globe Center Dr., Suite 140, Morrisville, NC, United States 27560, 919-361-5200, fax: 919-361-5201, Internet: www.tecan.com Tecan (www.tecan.com) is a leading global provider of laboratory instruments and solutions in biopharmaceuticals, forensics, and clinical diagnostics. The company specializes in the development, production and distribution of instruments and automated workflow solutions for laboratories in the life sciences sector. Its clients include pharmaceutical and biotechnology companies, university research departments, forensic and diagnostic laboratories. Tecan brings HP Direct Digital Titration to drug discovery biologists. The HP D300 Digital Dispenser offers a simple method for streamlining your workflow, offering picoliter to microliter non-contact dispensing of small molecules in DMSO directly into your assay plate. **304**

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 and reverse phase separations, and for bio-purification of proteins, peptides and other biopolymers. The CombiFlash RF system is Isco's latest advancement in automated chromatography. The CombiFlash RF combines more fraction capacity, intelligence, ease of use, and security/safety features with the smallest footprint of any automated Flash system. **1334**

ThalesNano Nanotechnology Inc., 7. Zahony u, Budapest H-1031, Hungary, 00 36 1 8808 500, fax: 00 36 1 8808 501, Internet: www.thalesnano.com, Sales Contact: Heather Graehl, Director of Sales USA ThalesNano is specialized in developing and providing microscale flow instruments for chemistry, by exploiting benefits of combining microfluidics, mesofluidics and nanotechnology with flow chemistry. The company was founded in 2002 and is located in Budapest, Hungary. The company is widely recognized for its expertise in transforming chemical processes to microscale continuous-flow operations and developing manual or robotic continuous micro-reactors for the chemical industry. ThalesNano is a technology-intensive company whose results are strictly founded on its own R&D activities, which directly realize the company's goals along with newer and newer innovative endeavors. **821**

The New York Times, On the Avenue Marketing Group, 613 South Avenue, Weston, MA 02493, 781-890-2661, fax: 781-890-2799, Internet: www.ontheavenuemarketing.com. **1108**

Thermo Fisher Scientific, 5225 Verona Road, Madison, WI 53711, United States, 800-532-4752, Internet: www.thermoscientific.com. **718,719**

Thieme Chemistry, Ruedigerstr. 14, Stuttgart, Germany 70469, 49-711-8931-771, fax: 49-711-8931-777, e-mail:marketing@thieme-chemistry.com, Internet: www.thieme-chemistry.com Thieme Chemistry publishes highly evaluated information about synthetic and general chemistry for professional chemists and advanced students since 1909. Our portfolio of products includes the well known journals SYNFACTS, SYNLLETT and SYNTHESIS, the renowned synthetic methodology reference work Science of Synthesis, RÖMPP, the largest and most renowned chemical encyclopedia published in German, as well as a selected range of monographs. Our content is available as electronic products, used by chemists worldwide in industry and academia, and in printed format. **309**

Thomson Reuters, 1500 Spring Garden Street, 4th Floor, Philadelphia, PA 19130, 215-823-3921, fax: 215-243-2235, Internet: www.endnote.com Advance your research with solutions from Thomson Reuters. EndNote enables you to

move seamlessly through your research process with flexible tools for searching, organizing and sharing your research, creating your bibliography and writing your paper. You'll save hours with unique features to maximize your time like automatically finding full text and updating records. **1000**

Tosoh Bioscience LLC, 3604 Horizon Drive, Suite 100, King of Prussia, PA 19406, 484-805-1219, fax: 610-272-3028, Internet: www.tosohbioscience.com. **226**

TSI, Inc., 500 Cardigan Road, Shoreview, MN 55126, 651-490-2738, fax: 651-490-3824, Internet: www.tsicorp.com, Sales Contact: Paul Leslie, R&A Sales Manager For over 50 years, TSI has been an industry leader in the design and production of precision measurement instruments. Our latest technology includes a new 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. **318**

University Science Books, 20 Edgehill Rd., Mill Valley, CA 94941, 415-332-5390, fax: 415-383-3167, e-mail:univscibks@igc.org, Internet: www.uscibooks.com Featuring a fine selection of books and textbooks including the superb new atoms-first GENERAL CHEMISTRY text (4e) by McQuarrie, Rock & Gallogly; CHEMISTRY OF THE ENVIRONMENT (3e) by Spiro et al; MODERN MOLECULAR PHOTOCHEMISTRY OF ORGANIC MOLECULES by Turro et al; MODERN PHYSICAL ORGANIC CHEMISTRY by Anslyn & Dougherty; ORGANOTRANSITION METAL CHEMISTRY by Hartwig; ORGANIC CHEMISTRY (2e) by Sorrell, and many more. Stop by to say hello and find out about forthcoming titles including MODERN ADVANCED ORGANIC CHEMISTRY by Dave Evans, and the forthcoming new edition of Raymond Chang's PHYSICAL CHEMISTRY FOR THE CHEMICAL AND BIOLOGICAL SCIENCES. **302**

US EPA Green Chemistry Program, 1200 Pennsylvania Avenue, Mail Code 7406M, Washington, DC 20460, Internet: www.epa.gov/greenchemistry **436**

Vacuubrand, Inc., 11 Bokum Rd., Essex, CT 06426, 860-767-2562, fax: 860-767-2563, e-mail:kpoliut@brandtech.com, Internet: www.vacuubrand.com VACUUBRAND offers exceptionally quiet, corrosion-resistant, oil-free vacuum pumps with ultra-long service intervals. Products include both simple dry pumps and automated vacuum systems for rotary evaporators, reactors, distillation, concentrators, vacuum ovens, gel dryers, filtration and more. Our compact, low-vibration 24VDC pumps are ideal for OEM use. The line also includes the unique rotary vane/diaphragm HYBRID pumps, which greatly extend oil life 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. **1335**

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. Please stop by our booth to discuss two new products: Glovebox Integrated Thin Film Deposition systems and see our new In Box Solvent Dryer. **1102**

EXPOSITION

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 **808**

Vici Valco Instruments Co Inc., PO Box 55603, Houston, TX 77255, 713-688-9345, fax: 713-688-3948, Internet: www.vici.com **1301**

Vigor Gas Purification Technologies, 5100 Westheimer Road, Suite 200, Houston, TX 77056, 716-568-0737, e-mail:gzhong@vigor-glovebox.com, Internet: www.vigor-glovebox.com, Sales Contact: George Zhong, VP. **1206**

Visit Indy, 200 South Capitol Avenue, Suite 300, Indianapolis, IN 46225-1063, United States, 317-262-8244, e-mail:bdesautels@visitindy.com, Internet: visitlndy.com Get the latest information on dining, attractions, tours and much, much more of what Indianapolis has to offer . . . **1340**

W.H. Freeman, 41 Madison Avenue, New York, NY, United States 10010, 212-576-9400, fax: 212-689-2383, e-mail:abradly@whfreeman.com, Internet: www.whfreeman.com/chemistry. **906**

Wasatch Photonics, Inc., 4020 Stirrup Creek Drive, Suite 115, Durham, NC 27703, United States, Internet: www.wasatchphotronics.com, Sales Contact: Cindy Gong, Director of Business Development Wasatch Photonics: Manufactures high quality, high efficient volume phase gratings. At our Systems Division in Durham, North Carolina, we use these unique gratings to design and manufacture high resolution spectroscopy systems and devices. We produce state of the Raman systems, Optical Coherence Tomography spectrometers and systems and hyperspectral imaging devices. Stock, custom and OEM. **1406**

Waterfall Security Solutions, 21 Hamelacha St., Afek Industrial Park, Idan Building #2, Rosh Ha'ayin 48091 Israel, Phone: +(972) 3-9003700,

Fax: +(972) 3-9003707, Email: info@waterfall-security.com, Internet: www.waterfall-security.com **319**

Waters Corp., 34 Maple Street, Milford, MA 01757, 508-482-2000, fax: 508-482-2674, e-mail: info@waters.com, Internet: www.waters.com. **800**

WebAssign, 1791 Varsity Drive, Suite 200, Raleigh, NC 27606, 919-829-8181, fax: 919-829-1516, e-mail:msanteet@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. **1209**

Welch-Ilmvac, 5621 West Howard St., Niles, IL 60714, 847-676-8800, fax: 847-677-8606, e-mail:gdwelchvacuum.com, Internet: www.welchvacuum.com. **1124**

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 glassware for over 70 years. Wilmad is a leading manufacturer of high precision engineered glass components. Wilmad is also the market leader in Nuclear Magnetic Resonance Sample Tubes (NMR) and Electron-Paramagnetic-Resonance (EPR). LabGlass manufactures and distributes a wide variety of specialty laboratory glassware products and equipment. **627**

World Scientific Publishing Co. Pte. Ltd, 5 Toh Tuck Link, Singapore 596224, Internet: http://www.worldscientific.com/. **316**

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 30+ years 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. **420**

Yamazen Science, Inc., 903 Sneath Lane, Suite 125, San Bruno, CA 94066, 650-877-7750, fax: 650-873-6496, e-mail:info@yamazensei.com, Internet: www.yamazensei.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). W-Prep: Intelligent, Fast, Parallel—can run two columns simultaneously. Compact & user-friendly 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. **300**