FINAL PROGRAM



Leadership Development System, are available for registration with a fee. As usual, a range of professional development courses, known as ACS Short Courses, are available with a separate registration and fee.

The ever-popular exposition will feature more than 250 companies showcasing services, instruments, books, lab equipment, and much more in over 350 booths. In addition, exhibiting companies offer free workshops to introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications for existing instrumentation. Topics of these workshops range from Advanced Polymer Characterization to Topics in Structure-Based Drug Discovery.

As they say in San Diego, "Come for the convention. Stay for the vacation."— ARLENE GOLDBERG-GIST

REGISTRATION	FEE-STANDARD
CATEGORY	AFTER FEB. 6
MEMBERS	
ACS member or	\$435
society affiliate	
Postdoctoral member	435
Emeritus or retired member	220
50-year member	No Fee
Unemployed member (Dues waiver required)	No Fee
Precollege teacher	90
Graduate, less than postdoctoral	180
Undergraduate	90
One-day registrant	220
NONMEMBERS	
Chemical scientist	\$770
Postdoctoral scientist	770
Visitor: Nonchemical scientist or	435
chemical technician	
Precollege teacher	90
Graduate, less than postdoctoral	360
Undergraduate	180
One-day registrant	435
Guest of registrant ^a	50
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.

243RD ACS NATIONAL MEETING

SAN DIEGO, March 25-29

SAN DIEGO, known worldwide as one of the best tourist destinations, will host attendees of the American Chemical Society spring national meeting. Symposia supporting the meeting's theme, "Chemistry of Life," are organized by theme program chair Peter D. Senter, vice president of chemistry at Seattle Genetics.

The Kavli Foundation Innovations in Chemistry Lecture features Carolyn R. Bertozzi, T. Z. & Irmgard Chu Distinguished Professor of Chemistry and professor of molecular and cell biology at the University of California, Berkeley, and a Howard Hughes Medical Institute investigator. Her research focuses on applications of chemistry and nanoscience in the study of cellular processes.

ACS President Bassam Z. Shakhashiri has set an agenda on the theme "Advancing Chemistry and Communicating Chemistry." He will support 30 technical divisions and six committees in original programming in 958 half-day oral sessions and 150 poster sessions that include Sci-Mix. More than 11,700 papers have been accepted. The majority of the 2012 ACS national awards will be presented during this spring meeting, with Robert S. Langer delivering his Priestley Medal Address at the awards dinner on Tuesday evening at the Hilton San Diego Bayfront hotel. The Arthur C. Cope Award and Cope Scholar Awards are among others that will be presented during the 244th national meeting in Philadelphia.

Education-focused programs for high school teachers, undergraduate and graduate students, postdocs, and chemical professionals who want to expand their options and manage their careers will be offered as well. UC San Diego professor Kimberly Prather will discuss her career path and novel research on the impacts of aerosols on climate and the environment as part of the undergraduate program.

For job seekers and employers alike, the ACS Career Fair once again will provide opportunities for actual interviews along with one-on-one career assistance. A wide variety of professional development workshops, including four offered by the ACS

REGISTRATION

Early Registration. Early registration for the national meeting closed on Feb. 6; registrations or payments received after Feb. 6 will be processed at standard registration rates. Attendees who registered by Feb. 6 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 in the San Diego Convention Center (SDCC), Lobby D.

Standard & On-Site Registration. Stan-

dard registration rates are in effect until March 29. Register online at www.acs.org/ sandiego2012. A valid membership number must be entered to register as a member and receive your ACS member discount on registration fees. Attendees who register after Feb. 6 must pick up their badge credentials at ACS Attendee Registration in SDCC, Lobby D, during the meeting. Please bring your e-mail confirmation for faster processing.

In San Diego, attendees can pick up their badge credentials or complete a new registration using credit card, cash, check, or money order at ACS Attendee Registration, SDCC, Lobby D, on Saturday, 3 to 6 PM; Sunday, 7:30 AM to 7:30 PM; Monday, 7:30 AM to 9:30 PM; Tuesday and Wednesday, 7:30 AM to 5:30 PM; and Thursday, 7:30 AM to 1 PM.

SOCIAL EVENTS

A VARIETY of organizers will hold 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: **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 social and special events at www. acs.org/sandiego2012.

Tickets 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 9. No refunds will be issued after that date.

SATURDAY, MARCH 24

San Diego Festival of Science & Engineering Expo Day

10 AM–5 PM, PETCO Park, 100 Park Blvd.

75th Anniversary of Undergraduates in ACS Reception

5–6:30 PM, San Diego Marriott Marquis & Marina, San Diego Ballroom Salon C

COACH Reception

5–7 PM, Hilton San Diego Bayfront, Cobalt 500

SUNDAY, MARCH 25

USNC IUPAC Breakfast Meeting 7–11 AM, Manchester Grand Hyatt, Edward A-B

Undergraduate Student Hospitality Center

8 AM–5 PM, San Diego Convention Center, Ballroom 20D

ACS Career Fair 9 AM–5:30 PM, San Diego Convention Center, Hall C

Chem Demo Exchange 9:30 AM–1 PM, San Diego Convention Center, Hall E

ACS Board Executive/Open Meeting Noon–1 PM, San Diego Convention Center, Room 6F (upper level)

CHED High School-College Interface

Luncheon/SE-01/\$45 (T) (Included at no charge with high school teacher registration.) 12:15–1:15 PM, Westin San Diego, Topaz Room

POLY Undergraduate Poster Session 2–4 PM, Manchester Grand Hyatt, Gallery

UCLA Research Showcase 5–7 PM, San Diego Convention Center, Hall C

CELL Poster Session 5–7 PM, San Diego Convention Center, Hall C

Duquesne University Alumni Social 5–7 PM, Omni San Diego Hotel, Gaslamp 1

BIOL Poster Session

5:30–7:30 PM, San Diego Convention Center, Hall E

University of Illinois Alumni & Friends Reception

5–8 PM, Manchester Grand Hyatt, Emma B&C

CHED Social Reception

5:30–7 PM, Westin San Diego, Emerald Ballroom

ACS Diversity Reception

5:30–7:30 PM, San Diego Marriott Marquis & Marina, San Diego Ballroom Salon C

IAC Reception for International Attendees

5:30–7:30 PM, San Diego Convention Center, Center Terrace

District II Councilor Caucus 6–7 PM, San Diego Marriott Marquis & Marina, Mission Hills

District IV Councilor Caucus 6–7 PM, San Diego Marriott Marquis & Marina, La Costa

District V Councilor Caucus 6–7 PM, San Diego Marriott Marquis & Marina, Rancho Santa Fe 2

District VI Councilor Caucus 6–7 PM, San Diego Marriott Marquis & Marina, Cardiff

Mid-Atlantic Councilor Caucus 6–7 PM, San Diego Marriott Marquis & Marina, Catalina

PMSE Fire & Polymers Poster Session/ Reception

6–8 PM, Manchester Grand Hyatt, Randle Foyer

ACS Attendee Welcome Reception 6–8:30 PM, San Diego Convention Center, Exposition Halls A&B

CINF Welcoming Reception 6:30–8:30 PM, Omni San Diego Hotel, Grand Ballroom Salon C

Committee on Technician Affairs National Technician Awards Dinner/SE-02/\$60 (T) 6–9:30 PM, San Diego Marriott Marquis & Marina, Torrey Pines 3

Undergraduate Programs ACS Student Chapter Awards Ceremony

7–8:30 PM, San Diego Convention Center, Sails Pavilion

ANYL Poster Session

7–9 PM, San Diego Convention Center, Hall D

MEDI Poster Session

7–9 PM, San Diego Convention Center, Hall D

FLUO Poster Session 7–9 PM, San Diego Convention Center, Hall C

INOR Poster Session

6–8 PM, San Diego Convention Center, Hall D

ORGN Poster Session

8–10 PM, San Diego Convention Center, Hall D

Undergraduate Social

8:30–11 PM, San Diego Convention Center, Room 20 B–D

MONDAY, MARCH 26

Women in the Chemical Enterprise Breakfast/SE-03/\$30 (regular)/SE-04/\$15 (student) (T) 7:30–9 AM, San Diego Marriott Marquis & Marina, Marriott Hall

Undergraduate Student Hospitality Center 8 AM–5 PM, San Diego Convention Center, Ballroom 20D

ACS Career Fair

8 AM–5:30 PM, San Diego Convention Center, Hall C

ACS National Exposition

9 AM–5 PM, San Diego Convention Center, Halls A&B

Virtual Event Featuring the Career Fair & Exposition

9 AM-7 PM CDT, Online

Women Chemists of Color Networking Social

10 AM–noon, San Diego Marriott Marquis & Marina, Presidio

I&EC Awards Luncheon/SE-05/\$35 (T)

11 AM–1:30 PM, Manchester Grand Hyatt, Edward A&B

Committee on Minority Affairs Reception & Luncheon/SE-06/\$35 (T)

11:30 AM–2 PM, San Diego Marriott Marquis & Marina, Marriott Hall

CHAL Drug & Power Luncheon/SE-07/ \$40

Noon–1:30 PM, San Diego Convention Center, Room 26A

Corporation Associates Luncheon/ SE-08/\$55 (T)

Noon–1:30 PM, Westin Gaslamp Quarter, Balboa

Purdue Chemistry Alumni Luncheon/ SE-09/\$15 (T)

Noon–1:30 PM, San Diego Marriott Marquis & Marina, Torrey Pines 1&2

Undergraduate Research Poster Session

Noon–2:30 PM, San Diego Convention Center, Hall D

NSF Fed Funders Town Hall Meeting & Speed Coaching Session

1–5 PM, San Diego Convention Center, Room 6D

Committee on Chemistry & Public Affairs Communicating Chemistry to the Public

1–5 PM, San Diego Convention Center, Room 24

PETR Poster Session 3–5 PM, San Diego Convention Center, Hall C

Women Chemists Program WCC "Just Cocktails" Reception

4–5:30 PM, San Diego Marriott Marquis & Marina, Marriott Hall Salon 2

University of Pennsylvania Chemistry Alumni Social

5–7 PM, Café Sevilla, 353 Fifth Avenue, RSVP to alumni@chem.upenn.edu

SCHB, BMGT & CHAS Networking/ Social Reception

5-7 PM, Café Sevilla, 353 Fifth Avenue

CHAL Happy Hour 5–8 PM, Manchester Grand Hyatt, Top of the Hyatt COLL Poster Session, Social Hour & Business Meeting

6–8 PM, San Diego Convention Center, Hall C

CARB Wolfrom-Isbell-Gin Awards Dinner/SE-10/\$50 (T)

6:30–9:30 PM, McCormick & Schmick's, 675 L St.

Graduate & Postdoctoral Scholars Reception

7–8:30 PM, San Diego Convention Center, Room 20 B&C

NUCL Social Hour

7–8:30 PM, San Diego Convention Center, Emerald Ballroom

University of Arizona Department of Chemistry & Biochemistry Alumni & Friends Reception

7–9 PM, Manchester Grand Hyatt, Gregory A&B

Chinese-American Chemical Society Social Hour & Dinner/SE-11/\$35(T) 7:30–9:30 PM, Jasmine Seafood, 4609 Convoy St.

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

8–10 PM, San Diego Convention Center, Hall D

TUESDAY, MARCH 27

Senior Chemists Breakfast/SE-12/ \$15 (T)

7:30–9:30 AM, San Diego Marriott Marquis & Marina, Torrey Pines 1–3

Undergraduate Student Hospitality Center

8 AM–5 PM, San Diego Convention Center, Ballroom 20D

ACS Career Fair

8 AM–5:30 PM, San Diego Convention Center, Hall C

Town Hall—Quantum to the Continuum: Opportunities for Mesoscale 9–11 AM, San Diego Convention Center,

9–11 AM, San Diego Convention Center, Room 6B

ACS National Exposition

9 AM–5 PM, San Diego Convention Center, Halls A&B

FINAL PROGRAM

Virtual Event Featuring the Career Fair & Exposition

9 AM-7 PM CDT, Online

WCC/Eli Lilly Poster Session & Reception

11 AM–noon, San Diego Marriott Marquis & Marina, San Diego Ballroom Foyer

Alpha Chi Sigma/ACS Luncheon (COD)

11:30 AM–1 PM, Buster's Beach House at Seaport Village, 807 West Harbor. Please sign up at the Alpha Chi Sigma table or contact the GPA at gpa@alphachisigma.org. Alpha Chi Sigma contact at ACS Conference: OA Gary Anderson, Alpha Eta '62 at (304) 634-1921 (mobile) or e-mail Anderson@ marshall.edu

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

Noon–1:30 PM, San Diego Convention Center, Sails Pavilion

COLL Division Luncheon/SE-15/\$40 (T) Noon–1:30 PM, Westin Gaslamp Quarter, Harbor

Women Chemists Committee Luncheon/ SE-16/\$45 (regular)/SE-17/\$20 (student) (T)

Noon–1:30 PM, San Diego Marriott Marquis & Marina, San Diego Ballroom C

CEI Documentary Event, Chemistry & the Environment Film Series "Climate Refugees: The Human Face of Climate Change" Noon–2 PM, San Diego Convention Center, Room 20D

MEDI Lunch-n-Learn Case Study: "Desktop Modeling for Medicinal Chemists— Has It Come of Age?"/SE-22/\$15 (T) Noon-2 PM, San Diego Convention Cen-

ter, Room 20 B&C

FUEL Poster Session 2–4 PM, San Diego Convention Center, Hall D

AGFD Poster Session 2–4 PM, San Diego Convention Center, Hall D

Division Councilors & Officers Caucus 4–6 PM, San Diego Marriott Marquis & Marina, Torrey Pines 1&2

INOR Poster Session

4–6 PM, San Diego Convention Center, Hall D



DIZZYING Spiral staircase in the Old Point Loma Lighthouse, Cabrillo National Monument.

Iota Sigma Pi National Honor Society for Women: Networking Hour

5–7 PM, Omni San Diego Hotel, Balboa 3

University of Chicago Alumni Reception 5–7 PM, Manchester Grand Hyatt, Annie A

PROF Henry Hill Award Reception 5–7 PM, San Diego Marriott Marquis & Marina, San Diego Ballroom, Salon C

BIOL Poster Session 5–7:30 PM, San Diego Convention Center, Hall E

University of California, San Diego, Pharmaceutical & Chemical Sciences in La Jolla: Reception & Multimedia Session

5–8 PM, San Diego Marriott Marquis & Marina, San Diego Ballroom, Salon B

ENVR Division Reception/SE-18/\$10 (T) 5:30–6:30 PM, Hilton San Diego Bayfront, 202A&B

District I Councilor Caucus 5:30–7 PM, San Diego Marriott Marquis & Marina, Mission Halls

I&EC Poster Session 6–7:30 PM, San Diego Convention Center, Hall D

AGFD Chairs Reception

6–8 PM, Embassy Suites Hotel San Diego, Sante Fe

COMP Poster Session

6–8 PM, San Diego Convention Center, Hall C

FUEL/PETR Joint Division Dinner/ SE-20/\$60 (T)

7–9 PM, Casa Guadalajara, 4105 Taylor Street

CELL Anselme Payen Award Banquet/ SE-19/\$60 (T)

6–11 PM, The Prado in Balboa Park, 1549 El Prado

ACS National Awards Reception (T) 6:30–7:30 PM, Hilton San Diego Bayfront, Indigo Ballroom Foyer

CARB Poster Session 6:30-9:30 PM, San Diego Convention Center, Hall D

Joint PMSE/POLY Poster Session 7–9 PM, San Diego Convention Center, Hall D

2012 ACS Awards Banquet Ceremony & General Meeting of the Society/ SE-21/\$130 (T)

7:30–10 PM, Hilton San Diego Bayfront, Indigo Ballroom, dinner begins at 7:30 PM; the general meeting begins at 8:30 PM

INOR Poster Session

8–10 PM, San Diego Convention Center, Hall D

WEDNESDAY, MARCH 28

ACS Career Fair 8 AM–noon, San Diego Convention Center, Hall C

PHYS Poster Session

5–10 PM, San Diego Convention Center, Hall D

MEDI/ORGN Poster Session 7–11 PM, San Diego Convention Center, Room 20

ENVR Poster Session 8–10 PM, San Diego Convention Center, Hall D

EXPOSITION

SEE WHAT'S NEW INSIDE THE EXPO-

SITION. Take time to visit the ACS National Exposition at the San Diego Convention Center, Halls A–B, from Sunday, March 25, through Tuesday, March 27. The new 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 a wide array of chromatographic, lab, and safety equipment. Technical personnel will also be available to give demonstrations, answer questions, and discuss your specific needs and interests. You can also visit the ACS Career Fair Recruiters Row inside the exposition, where employers will showcase their products and services. Also, join us at the "ACS Booth" in the middle of the exposition floor, where ACS staff units will present the many benefits, services, products, and merchandise offered by ACS.

ONLINE & VIRTUAL CAREER FAIR &

EXPOSITION. You can access the Online Exposition at www.acs.org/sandiego2012 to learn more about the exhibiting companies and download product informa-

tion that meets your needs. Stayed tuned for additional information on the virtual event where you can schedule real-time discussions and review in-depth company information at www.acs.org/ve on Monday and Tuesday, 9 AM to 7 PM (CDT).

FREE EXHIBITOR WORKSHOPS. Free workshops will be hosted by exhibitors inside the exposition, Halls A–B and in private rooms inside the San Diego 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/sandiego2012 to reserve your seat. Preregistered attendees will be entered into a prize drawing; winners will be announced during the session.

PRESENTATIONS, PRIZES & SPECIAL

EVENTS. Visit the Daily Prize Raffle area from Sunday through Tuesday to enter prize raffles. Join us on Sunday from 6 to 8:30 PM for the Attendee Welcome Reception and then take part in the afternoon breaks scheduled for Monday and Tuesday from 2 to 4 PM. Look inside your meeting registration credentials for further information.

EXHIBITOR PASSPORT CHECK-IN. You will find the flyer that lists the exhibitors participating in the Exhibitor Passport inside your registration credentials. Or you can pick up your copy at Exhibitor Registration located in Lobby A. Have each participating exhibitor stamp their block, then bring your completed card to the Exhibitor Passport check-in area to be entered for a chance to win an amazing prize.

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 in the San Diego Convention Center lobby areas.

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 expoonly badge for \$25. Registration can be handled online, by mail, or in person at ACS Registration.

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 in Exposition Halls A-B and in private rooms at the San Diego Convention Center. Please take a moment to register to attend the exhibitor workshops at www.acs.org/ sandiego2012 by March 16. After March 16, visit the exhibitor at their booth inside the ACS National Exposition, San Diego Convention Center, Halls A-B.

MONDAY, MARCH 26

Advanced Polymer Characterization Workshop. *Sponsor*: Tosoh Bioscience LLC, Booth 516, Exhibit Halls A–B, Room 1, 8:30–11 AM. GPC, 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, compositional drift, and more.

Dynamic Microscopy Techniques for Chemistry & Catalysts. Sponsor: FEI Co., Booth 333, Exhibit Halls A–B, Room 2, noon-2:30 PM. Today's scientists are making efforts to resolve global challenges through increased understanding of chemical reactions and catalysts as part of the development of novel materials. They are using electron microscopy to collect images and compositional data at the nanoscale; however, electron microscopy can provide more than just static observations and high-resolution material characterization. We will present applications from FEI's unique class of Dynamic Microscopy solutions, our Environmental Transmission Electron Microscope (ETEM), and the Environmental Scanning Electron Microscope (ESEM). These solutions enable sample experiments to be conducted in situ, with results observed in real time and recorded as movie files.

Reaxys: Maximizing Your Chemistry Research Workflow. Sponsor: Elsevier Inc., Booth 1019, Exhibit Halls A–B, Room 1, noon–2:30 PM. Learn how researchers are using Reaxys to reduce the time they spend looking for chemical reaction and compound data. Reaxys gives researchers immediate access to relevant results, reducing the need to spend unnecessary time in the lab. Discover more about the latest enhancements from Reaxys, including how the most recent development, Reaxys Xcelerate, will help researchers spend less time searching and more time discovering.

Protect Your Assets—Risk Management Issues Affecting Consultants & Small-Business Owners. *Sponsor*: ACS Member Insurance Program, Booth 731, Exhibit Halls A–B, Room 1, 3:30–6 PM.

Sponsored by the Board of Trustees, Group Insurance Plans for ACS Members; cosponsored by the Division of Business Development & Management (BMGT) and the Division of Small Chemical Businesses (SCHB). Whether you consult occasionally or full-time or are just beginning to think about a future consulting career, this free workshop offers practical information from which all consultants can benefit. A panel of experts will discuss how to maintain a successful business while minimizing your professional liability risks by reviewing high-risk areas of chemical consulting, provide claim scenarios, provide tips on what to do if you have a claim, guide attendees through the general program process (focusing on the importance of a contract for business and claims), and offer insights into negotiating with clients. For attending this workshop the underwriter is offering a one-time 10% discount (up to \$200) on new or renewal policies.

TUESDAY, MARCH 27

Compound ID & Reaction Monitoring at the Reactor. Sponsor: Advion, Booth 619, Exhibit Halls A–B, Room 1, 8:30–11 AM. Advion introduces the only mass spectrometer to fit in the hood, delivering fast answers to chemists. Leading synthetic, medicinal, and scale-up chemists will present their work using the new expression compact mass spectrometer.

Adaptive Learning Technology/Teaching General Chemistry, Paperless! Sponsor: McGraw-Hill Higher Education, Booth 1314, Exhibit Halls A-B, Room 2, 8:30-11 AM. From 8:30 to 9:30 AM: Using Adaptive Learning Technology To Help Students Learn while Supporting Instructors As They Teach, presented by Jason Overby, College of Charleston. Overby will discuss his experience using adaptive learning technologies to effectively teach his general chemistry course and increase student success rates. From 10 to 11 AM: Teaching General Chemistry, Paperless! Presented by Shadrick Paris, Ohio University. Paris will discuss the various technologies he uses to teach his chemistry students-outside of the traditional printed textbook.

Adaptive Learning Technology/Connect Chemistry with ChemDraw. Sponsor: McGraw-Hill Higher Education, Booth 1314, Exhibit Halls A–B, Room 2, noon-2:30 PM. Using Adaptive Learning Technology To Help Students Learn while Supporting Instructors As They Teach, presented by Michael Lewis, St. Louis University. From noon to 1 PM: Lewis will discuss his experience using adaptive learning technologies to effectively teach his chemistry course and increase student success rates. From 1:30 to 2:30 PM: Connect Chemistry featuring CambridgeSoft ChemDraw: The Next Generation of Course Management, Online Learning & Electronic Homework, presented by Phil Janowicz of California State University, Fullerton. Janowicz will share his experience using technology in the classroom to increase student success rates. Technologies to be discussed include CambridgeSoft ChemDraw, online learning/homework platforms, eBooks, and adaptive learning tools. Technology implementation strategies will be discussed in depth.

New Separation & Detection Solutions that Maximize Laboratory Productivity. Sponsor: Thermo Scientific, Booth 917, Exhibit Halls A-B, Room 1, noon-2:30 PM. Laboratories use different methods to separate and detect analytes, making it difficult to maximize productivity. Thermo Scientific recently introduced multiple chromatography and MS workflow solutions that make it easier to separate, detect, and report on analyses in routine and high-throughput labs. Exciting new GC technology redefines usability and eliminates maintenance downtime while enabling the user to quickly tailor instrument capability to specific applications and daily workload. Capillary IC enables continuous operation with less than 15 mL of mobile phase per day. The featured IC technology offers lower flow rates and increased sensitivity, which make this system ideal for interfacing with mass spectrometry and ICP-MS. Innovative ICP-MS technology provides maximum sensitivity and matrix tolerance while also providing unparalleled interference removal. Gain faster results by collaborating with us to access these innovative workflow solutions.

WEDNESDAY, MARCH 28

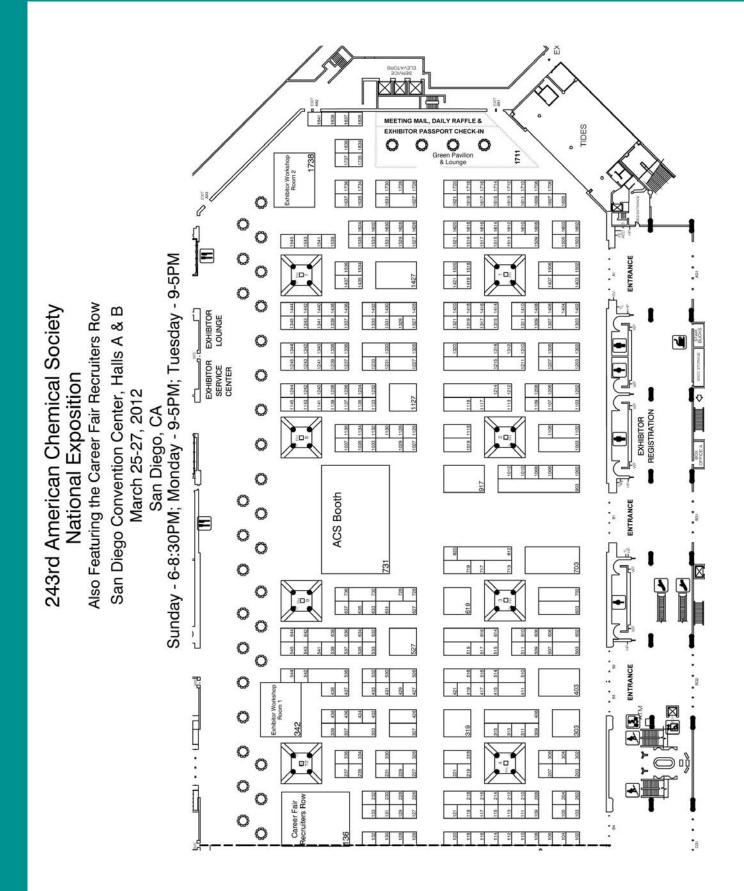
Research Workflow Tools Workshop. *Sponsor:* Thomson Reuters, Booth 126, San Diego Convention Center, Room 24 C, 8:30–11 AM. This workshop will provide an interactive forum for learning about improvements to EndNote and ResearcherID that enhance searching, writing, and collaboration in scholarly research. Attendees will be encouraged to provide feedback related to their use of these workflow solutions.

Author Workshop: How To Successfully Publish Scientific Articles. *Sponsor*: Elsevier Inc., Booth 1019, San Diego Convention Center, Room 20 D, 8:30–11 AM. This is particularly suited to young researchers who would like to learn about what they need to consider when preparing an article for publication and the process it goes through.

QbD: HPLC Method Development & Optimization for Pharmaceutical Analysis. Booth 1839, San Diego Convention Center, Room 24 C, 1–2 PM. Speaker will present case studies demonstrating use of QbD principles aimed at developing or optimizing HPLC methods for various types of pharmaceutical samples such as in-process controls for API synthesis, API chiral methods, dissolution backend, and impurity methods. Opportunities for building in specificity beyond column selection and using structure-based approaches will be discussed.

Topics in Structure-Based Drug Dis-

covery. Sponsor: Chemical Computing Group, San Diego Convention Center, Room 24 C, 3:30-6 PM. This is a free hands-on workshop that will focus on fragment-based design tools and kinase modeling. The fragment-based design portion will consist of exercises for scaffold replacement. This will include protein-ligand preparation, applying automatic 2-D and 3-D filtering constraints refined in a (flexible) pocket and scoring. Tools for generating fragment databases will also be discussed. In the second session, a kinase modeling application will be explored, focusing on identifying suitable kinase templates for homology modeling that are traditionally missed by standard BLAST style search methods. The kinase modeling applications include a prealigned kinase structure database and a front end for searching the database by sequence, structure, family, ligand similarity, etc. Note: Computers will be provided for the hands-on exercises (seats are limited). The molecular-modeling software package MOE will be used during the workshop. The workshop is suitable for both medicinal and computational chemists.



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/sandiego2012 to download the updated exhibitor list and access product information.

2mag-USA, P.O. Box 214769, Daytona Beach, FL, United States 32121-4769, Internet: www. 2magUSA.com Inductive Single- and Multi-Position Magnetic Stirring Systems without Motors. Submersible Stirring Systems from 1 ml up to 10 liter models with up to 96 stirring positions, without any moving parts. 100% maintenanceand wear-free; temperature resistant up to +95 deg.C submersed and up to +200 deg.C in ovens with stirring speeds from 100 to 2,000 rpm. Large volume Industrial Stirrers for up to 1,000 liter. Cell- and Tissue Culture Stirring Systems. Multiple Stirring Hotplates and Multiple Stirring Heating Blocks (Stirring Drybaths). Customized Stirring Systems. **1414**

AAPPTec, 6309 Shepherdsville Road, Louisville, KY 40228, 502-968-2223, fax: 502-968-3338, email:info@apptec.com, Internet: www.aapptec. com Aapptec is the one source for high quality materials and innovative equipment utilized in synthesis, purification and isolation of peptides. We provide innovative automated and semiautomated synthesizers worldwide for research and industrial scale production. We also sell top quality resins, reagents and amino acid derivatives, including pseudoproline dipeptides, isoacyl dipeptides, PEGylation reagents, glycoamino acids, PNA monomers and products for stapled peptides. Other products include filters, HPLC columns, and lyophilization equipment for purifying and isolating high quality peptides. In addition, Aapptec provides custom peptides us globally. Aapptec products increase chemists' productivity, reduce project time and increase the chances of success. 1320

AAPS (Amer Assoc. of Pharm Sci.), 2107 Wilson Blvd., Suite 700, Arlington, VA 22201, 703-243-2800, Internet: www.aapspharmaceutica.com The American Association of Pharmaceutical Scientists (AAPS) provides an international forum for the exchange of knowledge among scientists to enhance their contributions to health. We offer scientific programs, ongoing education, networking opportunities, and professional development. Join AAPS and gain access to customized journal searches, your favorite section, industry news, and discounts on meetings, conferences, and more. 231

Academic Pub/Sharedbook, 110 William St., 30th Floor, New York, NY 10038, 646-442-8833, fax: 646-442-8841, With AcademicPub, create the custom course materials YOU want, in print or eBook formats. Assemble the perfect book for your course by using our pre-cleared Library of materials from over 100 well-known and respected publishers, content gathered from the web and your desktop documents. Register for free today! 1418

Academy Savant, PO Box 3670, Fullerton, CA 92834, 714-870-7880, fax: 714-526-7400, email:info@academysavant.com, Internet: www. academysavant.com Academy Savant – the pioneering developer, publisher and distributor of educational training programs for the laboratory since 1977 – offers CD and web-based interactive eLearning courses on: Chromatography (HPLC, LC-MS, GC, GC-MS, CE); Spectroscopy (MS, AA, ICP, UV, IR, Spectral Interpretation); Safety & Compliance Training (150 titles, including Lab Safety); Practical Laboratory Skills; Protein/Peptide Analysis; Statistics and General Chemistry. Available as single-computer or network licenses, these programs feature animations, simulations & quizzes and are economical, effective, efficient and easy to use! Savant's programs are used by universities & colleges, research institutes, corporations, government labs, hospitals and consultants all over the world. **1505**

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 manufacturer and supplier of chemical reagents and materials 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 1300 global customers. **1506**

Accelrys, 10188 Telesis Court, Suite 100, San Diego, CA 92121, 858-799-5000, fax: 858-799-5100, e-mail:solutions@accelrys.com, Internet: www.accelrys.com 518

Acelot, Inc., 5385 Hollister Ave., Suite 111, Santa Barbara, CA 93111, United States, 805-617-3610, fax: 805-617-3259, e-mail:ambuj@ acelot.com, Internet: www.acelot.com Sales Contact: Ambuj Singh, President. 1236

ACS Benefits, Programs, Services, 1155 16th St., NW, Washington, DC 20036, 202-872-4600, e-mail:c_allender@acs.org, Internet: www.acs. org Did you know that there is now an online searchable directory of ACS members? Have you joined the ACS Legislative Action Network? Want to know more about the Career and Leaming Management resources? Need a schedule of upcoming courses and weekly Webinars? Have you joined the ACS Network? Staff will be on hand to answer your questions and tell you about the dozens of products, programs, and services ACS offers. 731

ACS Committee on Safety, 1155 16th St., NW, Washington, DC 20036, 202-833-2105, fax: 202-833-7732, e-mail:m_gmurczyk@acs.org, Internet: http://portal.acs.org/portal/acs/corg/content?_ ftpb=true&_pageLabel=PP_TRANSITIONMAIN& node_id=2228&u CCS and CHAS provide information, ACS policy and technical guidance related to chemical safety at all levels of use including K-12, college and university, industrial and consumer handling of chemicals. Booth personnel are present and prepared to answer your chemical safety questions. 1234

ACS Division Chemistry and the Law (CHAL), 201 Tamai Vista Blvd., Corte Madera, CA 94925, 415-927-5200, fax: 415-927-5210, e-mail:carl@ Itws.com, Internet: www.acs-chal.org/, Sales Contact: Carl Lippenberger, CHAL, Legal Evaluation Network Coordinator The lawger is in. As part of his "Enterprise 2015" project, Bill Carroll, past ACS president, challenged the Division of Chemistry and the Law to help ACS members with their legal needs. CHAL responded with a lawyer referral service and a speaker's bureau. For the referral service, CHAL members will answer legal questions from ACS members, refer them to an attorney who can help them, or if appropriate, represent them. For the speaker's bureau, CHAL will provide attorneys to speak to ACS members about topics of mutual interest. To request a referral or a speaker, e-mail Carl Lippenberger at carl@lippenbergerlaw.com. 1027

ACS Division Membership, 1155 16th St., NW, Suite OTH420, Washington, DC 20036, 202-872-6062, Internet: www.acs.org/MemberHandbook Lead. Collaborate. Advance. Learn. The ACS Member Benefits kiosk represents all of the programs, products and services that ACS offers. Attendees will discover professional development and educational offerings as well as networking opportunities with the global scientific community. To learn more about the benefits of ACS membership, visit the ACS Member Handbook at www.acs.org/MemberHandbook. 731

ACS Division of Small Chemical Businesses (SCHB), 138-10 Franklin Avenue #9L, Flushing, NY 11355, United States, 917-684-1659, email: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 businesse. The ACS Division of Small Chemical businesses (SCHB) aims "To aid in the formation, development, and growth of small chemical businesses." SCHB helps chemists working in small enterprises, including self-employed, with the legal, social, educational, legislative, regulatory, and economic aspects of their unique professional status. SCHB serves as a clearinghouse of information, a forum for discussion with informative programs at ACS national and regional meetings, provides valuable member-only content, including discounted expo booth space at national meetings, and, most of all, a strong network of members. **1237**

ACS Education, 1155 16th Street, NW, Washington, DC 20036, 202-872-6269, fax: 202-833-7732, e-mail:education@acs.org, Internet: www. acs.org/education The Education Division of the American Chemical Society has products and programs for kindergarten through professional education. Students, teachers, and ACS members can all find information that can help their efforts in increasing science literacy. We also have information on the Directory of Graduate Education (DGR) and the ACS Approval Program for undergraduate programs. Our booth is staffed with knowledgeable ACS staff who can answer questions regarding our wide variety of programs and products. **731**

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/greenchemistry The ACS Green Chemistry Institute® inspires advancements in the fields of green chemistry and green engineering. As a part of the American Chemical Society, our expertise is guided by Education, Industry Advancement, Advocacy, and Certification. Our grants and awards influence research agendas. Our business cases and white papers document the value and investment return on green chemistry. A greener chemical products and processes ANSI certification has recently been approved under our direction. We are engaged at all levels to promote policies and legislation to advance green chemistry for the betterment of the ecosystem and the general public. **728**

ACS Meetings & Expositions, 1155 Sixteenth 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/regional meetings for a tour of this year's conferences. Information on future national meetings will be on display. **731**

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. Member Insurance staff and Plan Administrators will be available to speak with you about Life and Health Insurance, Auto & Homeowners Plus, Disability Income, Long Term Care, Medical Discount Cards, Medicare Supplement Insurance, Pet Insurance, and Professional Liability. To receive more information or to sign up for one of the plans or services stop by the Member Insurance station. **731**

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! 638,731

ACS Professional Education, 1155 16th Street, NW, Washington, DC, United States 20036, The ACS Department of Professional Education offers a variety resources for professional chemists to continue their education. The Short Course series helps chemical scientists and technicians keep current in today's competitive marketplace. Through live and on-demand online courses, scientists can acquire cost-effective training without leaving the lab. Many courses can be brought on-site with an expert instructor who will work to align the course to your training needs. Our newest product, Sci-Mind", is an innovative, flexible educational platform that will guide learners on a specific training path, designed to suit their needs. Visit www.ProEd. acs.org for more information. 731

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 #731 to see what's new from the most trusted, most cited, and most read publisher in chemistry and the related sciences. Ask us about our new journals including ACS Synthetic Biology and ACS Macro Letters, and test your knowledge by taking the ACS Publications iPad Challenge. Join 2012 Priestley winner, Dr. Robert Langer of MIT, as he signs his cover issue of C&EN. Fill out a short reader's survey to win a prize. Find out about how to get your free subscription to C&EN Mobile. 731

ACS Store, 1155 16th Street, NW, Washington, DC 20036, 800-ACS-5558, fax: 202-872-6067, Internet: www.acs.org/store The ACS Store features limited edition chemistry themed merchandise, such as plush mole dolls, periodic table mousepads, t-shirts, and travel mugs. **731**

ACS Web Strategy & Operations, 1155 16th Street, NW, Washington, DC 20036, 202-872-4548, e-mail:m_parker@acs.org, Internet: www. acs.org www.ACS.org is your gateway to all things ACS, and home of the ACS Network, your professional network! From online career services, e-learning and webinars to online publications, journals and subscriptions, the web site of the American Chemical Society is your one stop to access the best products, services and programs to advance your career. The ACS Network lets you connect, collaborate and create communities of scientific interests. If you aren't taking advantage of all the ACS Network has to offer, visit ACS Web Strategy & Operations inside the ACS Booth and we can show you how! **731**

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 fused quartz, alumina, and zirconia. Products include tubes, crucibles, combustion boats, plates & disks, sample pans for thermal analysis, and custom components. Large selection of sizes in stock. Solutions for high temperature, chemical-resistant and wear-resistant applications. **1621**

Advanced Chemistry Development Inc., 110 Yonge Street, 14th Floor, Toronto, ON, Canada M5C 1T4, 416-368-3435, fax: 416-368-5596, email:info@acdlabs.com, Internet: www.acdlabs. com Advanced Chemistry Development, Inc., (ACD/Labs) is a chemistry software company that develops and commercializes enterprise and desktop solutions to support R&D efforts, and preserve and re-use legacy chemical and analytical knowledge. We also provide integration with existing informatics systems and undertake custom projects including enterprise-level automation. **1208**

Advanced Polymer Materials Inc., 2264 Chemin St. Francois, Dorval, QC, Canada H9P 1K2, 514-683-8488, fax: 514-683-2070, e-mail: gary.yu@apmpolymers.com, Internet: www. apmpolymers.com We are a Canada based manufacturing company with R&D capability. We produce innovative and unique biodegradable and biocompatible polymer materials to fill the need for scientific advancement in pharmacy and medicine, for example, PLGA, PLA, PCL, their block copolymers and their functional block copolymers. We also make PS, PMMA and their block copolymers. We provide custom synthesized polymers upon demand and according to our customers' specifications. **1338**

Advion, 19 Brown Rd., Ithaca, NY 14850, 607.257.5761, Internet: www.advion.com Advion is a leader in ultra-high performance, small footprint mass spectroscopy & synthesis solutions for life science, which deliver speed, flexibility, ease-of use, reliability and exceptional data quality. The expression CMS is a high performance mass spec, yet half the size and half the price of conventional single quadrupole systems. Its compact size allows it to be placed in a fume hood or on the bench for direct access and immediate results for chemists engaged in drug discovery requiring mass confirmation, reaction monitoring, QC and purity analysis. The expression CMS puts the power of performance where chemists need it. www. expressioncms.com 619

Agilent Technologies, 2850 Centerville Rd., Wilmington, DE 19808, 302-636-8264, fax: 302-633-8944, e-mail:karl_hornberger@agilent.com, Internet: www.agilent.com/chem Agilent manufactures and distributes a complete line of instrumentation serving the clinical, analytical, biotech, environmental, pharmaceutical, forensic science, food and flavor, academia, and all other laboratory markets that have needs for the best in quality, performance, and serviceability in the instruments they purchase. 403

AIC, 135 Newbury Street, Framingham, MA 01701, 508-270-1830, Internet: www.aicma.com AIC's Advanced Technology Division offers a variety of Reagents for use in the Biotechnology Industry. Purification products include Silica (25 kg drums and Flash cartridges), Agarose Affinity Beads and Zetadex (dextran based media in bulk and pre-packed desalting columns) along with High Purity Solvents, Buffers and custom sourcing capabilities. AIC also offers a complete line of DNA/RNA and Peptide synthesis reagents. 520 AIP Publishing–Journal of Chemical Physics, 2 Huntington Quadrangle, Suite 1 NO1, Melville, NY 11747, 516-576-2675, fax: 516-349-9704, e-mail:kschwalb@aip.org, Internet: jcp.aip.org, Sales Contact: Maryann Gross, Fulfilment & Marketing Asst. The Journal of Chemical Physics (JCP http://jcp.aip.org/) was again in 2011 the most highly cited journal in Atomic, Molecular, and Chemical Physics. JCP publishes innovative results in leading-edge, as well as traditional areas of chemical physics, and continues to expand its scope to include groundbreaking, fundamental research in areas such as biological systems, polymers, materials, surfaces/interfaces, information theory and more. The journal offers Communications—free to all—with reports of unusual importance that merit rapid publication. Visit us at booth 1631 for your chance to win an iPod Nano and iTunes gift certificates. **1631**

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 CelluCoat", Amy-Coat", TBB and DMB. Other products include Kromasil 100Å as Silica, C4, C8, C18, Phenyl and Amino; Kromasil 60Å as Silica, Diol and Cyano; Kromasil 300Å as Silica, C4, C8, and C18. For more information about Kromasil products please visit www.kromasil.com 533

Aldrich/Sigma-Aldrich, 3050 Spruce St., St. Louis, MO 63103, 314-771-5765 x3969, fax: 314-286-7817, Internet: www.Aldrich.com Aldrich@ Chemistry 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 highquality stockroom solvents and your basic research product needs. We offer chemistry services designed to expedite your research from conception to experiment execution including AldrichCPR custom weighing and chemical sourcing. **318**

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. 437

Alfa Aesar-A Johnson Matthey Co., 26 Parkridge Rd, Ward Hill, MA 01835, 800-343-0660, fax: 800-322-4757, e-mail:info@alfa.com, Internet: www.alfa.com Alfa Aesar, a Johnson Mathey Company, is a leading international manufacturer and supplier of research chemicals, metals and materials. The main catalog features over 30,000 products, ranging from boronic acids, silanes and silanols, chiral diamines, and fluorochemicals to nanomaterials, base metal fuel cell catalysts and components, pure metals, alloys, analytical standards, precious metal catalysts and more. Alfa Aesar is the single source for your research chemical and material needs, from small pack sizes to semibulk and bulk quantities. Stop by booth #1118 for your free copy of the 2011-13 Alfa Aesar Catalog, featuring over 4,000 new products. **1118**

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. **1233**

AmplaChem,Inc.,141LedgewoodWay,Carmel,IN46032,UnitedStates,e-mail:sales@amplacheminc.com1241

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 Manufacturers of 60 and 90 MHz FTNMR instruments which use permanent magnets and do not require cryogens. The low-power, low-cost NMR instruments have applications in R&D, Quality Control, and teaching and are available in 1H, 13C, and multinuclear options. A fully working instrument will be available in booth 431 for a complete demonstration. 431

Anton Paar USA, 10215 Timber Ridge Drive, Ashland, VA 23005, 800-722-7556, fax: 804-550-1057, e-mail:info.us@anton-paar.com, Internet: www.anton-paar.com Anton Paar produces high-quality measuring and analysis instruments for laboratory, research and industrial applications. In the fields of density and concentration measurement we are the established world leader. Our product portfolio also includes viscometers, rheometers, polarimeters, refractometers, instruments for X-ray structure analysis, microwave synthesis and microwave decomposition. For over eighty-five years, we have been at the forefront in developing solutions for diverse industries. With our strong emphasis on R&D and global partnerships with external research institutes, we turn ideas into instruments at the cutting edge of technology. **429**

APAC Pharmaceutical LLC, 6851 Oak Hall Lane, Suite 101, Columbia, MD 21045, 410-997-5552, fax: 410-465-7035, e-mail:sales@apacpharma. com, Internet: www.apacpharma.com APAC pharmaceutical LLC provides chemistry and manufacture solutions for specialty chemical, pharmaceutical and bio-tech companies who need technically challenging and cost effective raw materials manufacturing including advanced intermediates and active pharmaceutical ingredients (APIs). APAC has a kilo scale cGMP facility in NJ, USA, which is FDA approved and has the license to handle specialty APIs and controlled substances. APAC's manufacturing sites in Suzhou, China, is designed for pilot and commercial APIs and advanced intermediates manufacturing. **1239**

Apollo Scientific Ltd., Whitefield Road, Bredbury, Stockport, Cheshire, SK6 2QR, , United Kingdom, +44 (0)161 406 0505, fax: +44 (0)161 406 0506, Internet: http://www.apolloscientific-.co.uk Apollo Scientific is a UK-based manufacturer and worldwide supplier of a broad and diverse range of chemical intermediates, from lab-scale to commercial quantities. Currently we list over 45,000 products across our ranges, including 13,000 fluorine-containing compounds, 27,000 non-fluorinated organic intermediates, 1,000 high-purity inorganic salts and over 2,500 reagents for plant and molecular biology. Central Glass Inc. (Japan) is now our approved third-party toll converters, give us the facility to support your projects from conception to commercial realisation. 304 AppliChem GmbH, Ottoweg 4, Darmstadt, Germany D-64291, 0049 (0)6151 9357-511, fax: 0049 (0)6151 9357-24, Internet: www.applichem.com Applichem GmbH produces chemicals for chemical, biological, pharmaceutical and medical research and production. We are not only a trading company! Research, development, production and sourcing by experience, qualified personnel makes AppliChem a particularly valuable partner.We commit ourselves with all our knowledge and experience to the scientific community. AppliChem GmbH Biochemica : Chemica : Synthesis : Services 1132

Ark Pharm, Inc., 1840 Industrial Drive, Suite 280, Libertyville, IL 60048, 847-367-3680, Internet: www.arkpharminc.com Ark Pharm, Inc. is a supplier of medicinal building blocks, scaffolds and other heterocylic intermediates. Our products include various alcohols, amines, aldehydes, acids/esters, halo of heterocyles (indole, imidazole, pyrazole, pyridazine, pyridine, pyrimidine, pyrazine, piperazine, piperidine, pyrrolidine, thiazole, triazole, ...). Besides our catalog building blocks, our services include the synthesis and development of medicinal novel building blocking, novel templates, reference standard compounds, impurities, by-products and other organic advanced intermediates. **313**

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 The AFM/SPM technology leader will demonstrate the Cypher™ AFM, the world's fastest and highest resolution AFM, combining the accuracy/control of closed loop and power of atomic resolution for the most accurate images and measurements-with automated laser alignment, highspeed AC imaging with small cantilevers, integrated accustic/vibration isolation, and thermal control for unprecedented stability. Also featured is the versatile MFP-3D™, a closed loop AFM for large/small samples, with top/bottom view and many environmental accessories, in cluding electrochemistry. Ask us about Electrochemical Strain Mapping, a new technique extremely sensitive to ion transport into and out of the lattice in battery materials such as LiCoO2 **330**

BASi, 2701 Kent Ave., West Lafayette, IN 47906, 765-497-8458, fax: 764-497-1102, e-mail:basi@ bioanalytical.com, Internet: www.BASInc.com BASi is a pioneer in developing and manufacturing unique instruments for electrochemistry and liquid chromatography, serving academia and industry. The pc-controled Epsilon is available in several configurations, including a 4-chennel potentiostat for use as an EC detector for LC and a single-channel potentiostat/galvanostat ideal for cyclic voltammetry and other EC techniques. BASi also has a substantial contract research organization serving the pharmaceutical industry. 1420

Beijing Laviana Pharmatech Co., Ltd., 29 Life Park Rd., E301, Changping Dist., Beijing 102206, China, 86 10 80729275 1515

Beijing Mikrouna Mech. Tech. Co., Ltd., A-6B Haitong Building,C3 Nanlishi Rd., Xicheng District, Beijing, China 100037, +86 10 68588245/ 6/7, fax: +86 10 68587629, e-mail:sales@ mikrouna.com, Internet: www.mikrouna.com As a fast-growing high-tech enterprise that integrates research, manufacture and service, Mikrouna supplies world wide clients Super purified glove box and Gas purification system with high ratio of performance and price, by applying the state of art technology, assembling components from well-know supplier. It can remove H2O and O2 rapidly to maintain less than 1 ppm of H2O and O2. 127

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, Sales Contact: Rich Morrissy, USA Sales & Exhibitions Bentham Science Publishers is a major STM journal publisher of 116 titles and 240 plus open access journals, answers the information needs of the pharmaceutical and biomedical research community. Leading journals include Current Molecular Medicine (Impact Factor 5.212) and Current Medicinal Chemistry (Impact Factor 4.63): • 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 http:// benthamscience.com/Titlesbydiscipline.htm 1134

Berry & Associates, 2434 Bishop Circle East, Dexter, MI 48130, 734-426-3787, fax: 734-426-9077, Internet: www.berryassoc.com Berry & Associates provides researchers with a wide array of nucleosides and phosphoramidites for biochemical research. The company also provides a variety of click reagents, linkers, specialty heterocycles and fluorescent markers for the development of biological tools. We pride ourselves on our quality and our ability to design, develop and deliver. 207

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 provides analytical instrumentation for the nanoscale analysis of interactions, reactions and conformational changes occurring at surfaces, materials and interfaces. Within Biolin Scientific are the following: Q-Sense provides analytical instrumentation based on the patented QCM-D technology for rapid characterization of interfaces and studies of molecular interactions. KSV NIMA provides Langmuir Blodgett instrumentation for research on nanoscale films as well as more advanced analytical techniques including ISR and PM-IRRAS. Attension provides tensiometry instrumentation for measuring contact angles and surface tension to support interfacial science and materials development. **1113**

BioLogic USA, 9050 Executive Park Dr., Suite 105C, Knoxville, TN, United States 37923, Internet: www.bio-logic.us Bio-Logic USA is showing the EC-LAB electrochemical instruments product line used for electro-analytical research and electrochemical sensor development. A full line of electrochemical accessories, cells and electrodes is also available. The SP-300 and SP-200 introduce a powerful new generation of potentiostats with the widest range of specifications available with ±48V, 1A to 1 pA and up to 7 MHz EIS. An additional product line based on stateof-the-art stopped/guench 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. www.bio-logic.us or 1.865.769.3800 **120**

Biomatrik, Inc., 1369 Cheng Nan Rd., #1-203, Jiaxing Zhejiang 314001 China, 86 573 8262 3377, fax: 86 573 8262 3317, e-mail:info@ biomatrik.cn, Internet: www.biomatrik.com, Sales Contact: Grace Han, Sales Manager **339**

Biosensing Instrument, One West Elliot Rd, Suite 111, Tempe, AZ 85284, 480-491-2777, fax: 866-897-8741, e-mail:info2bi@biosensingusa. com, Internet: www.biosensingusa.com Precision instruments. Committed people. At Biosensing Instrument Incorporated, innovative technology and incredible people unite. We supply high-performance Surface Plasmon Resonance (SPR) instruments to the scientific community. With their cutting-edge design, our instruments can enhance your creative research and make analysis more efficient. Bl's instruments offer high sensitivity for detecting analytes of various sizes, and a wide time-response range for slow and fast kinetics of various molecular binding processes and electrochemical phenomena. Best of all, our flexible and versatile designs are tailored for your unique needs. **608**

BioSpace, 6465 S. Greenwood Plaza Blvd., #400, Centennial, CO 80111, United States, 877-277-7585, Internet: www.biospace.com, Sales Contact: Sahar Azarabadi, Director, Bio-Space Sales BioSpace is the leading online community for life science and chemistry jobs, news and career resources for those working in bioscience industries. Over 1,500 companies use BioSpace to recruit professionals specializing in all areas of the life sciences. The site offers job listings and alerts for job seekers, highly qualified applicants for employers and seven newsletters covering clinical trials, medical device news and more. BioSpace also hosts more than 20 career events each year, connecting numerous employers with thousands of qualified and experienced job seekers. Visit BioSpace.com to get ahead on your job hunt or recruitment initiative today! **1536**

Biotage, 10430 Harris Oaks Blvd, Suite C, Charlotte, NC 28269, 704 654 4900, fax: 704 654 4917, Internet: www.biotage.com Biotage is a leading global supplier of instruments and consumables for medicinal chemistry. We are also a well-established supplier of products in analytical chemistry and peptide chemistry. Biotage products range from discovery through clinical trials and large-scale productions. We offer application expertise and personal customer support, customizing solutions to meet the needs of customers. Biotage continues to provide new and innovative tools to meet today's research and development challenges. **527**

BioTools, Inc., 17546 Bee Line, Jupiter, FL 33458, 561-625-0133, 866-btools1, fax: 561-625-0717, e-mail:info@btools.com, Internet: www.btools.com, Sales Contact: Diane Errigo, Director of Marketing and Sales Schedule an appointment with this exhibitor. **1244**

Boron Molecular, PO Box 12592, Research Triangle Park, NC 27709, 919-981-4441, fax: 919-981-4442, e-mail:sales@boronmolecular-usa. com, Internet: www.boronmolecular.com Established in 2001, Boron Molecular is a leading specialist chemical manufacturer. The company was formed around a suite of boronic acid patents (both process and composition of matter), originally developed by the CSIRO. Boron Molecular's combined experience and expertise exceeds thirty years in chemical manufacturing, ten years in coupling chemistry and five years in ISO and API/cGMP compliance. Add to this diverse skills in chemical synthesis and process chemistry and you are assured of cost-effective solutions, to meet your development and commercial timeframes. 204

BrandTech Scientific, 11 Bokum Road, Essex, CT 06426, 860-767-2562, fax: 860-767-2563, Internet: www.brandtech.com BrandTech Scientific supplies a complete line of laboratory tools and equipment for Chemistry and Environmental laboratories including: BRAND® liquid handling instruments; VACUUBRAND® oil free, chemistry-resistant vacuum pumps; VITLAB® volumetric and plastic labware; and BOCHEM stainless steel laboratory support jacks. Featured products include Dispensette® bottletop dispensers; Titrette® bottletop burette: VACU-UBRAND® Vario™ vacuum systems for automated control of chemistry applications; Transferpette® S pipettes; HandyStep® Repeating pipettes; accu-jet® pro motorized pipette controllers; disposable Cuvettes; VITLAB® PFA plastics for trace analysis and Class A Volumetric plastic labware. 1311

Brookhaven Instruments Corp., 750 Blue Point Road, Holtsville, NY 11742-1832, 631-758-3200, fax: 631-758-3255, e-mail:info@brookhaven instruments.com, Internet: www.Brookhaven Instruments.com, Sales Contact: Hank Oviatt, Ph.D., West Coast Sales Engineer Brookhaven pioneered modern techniques in characterizing nanoparticles, proteins, and polymers using light scattering techniques such as dynamic, static, electrophoretic, and phase analysis for particle sizing, zeta potential, and absolute molecular weight analysis. New SEC/GPC software, ParSEC, works with almost any detector on the market. New particle characterization software, Particle Solutions, is a unique, database approach with unsurpassed search features that combines all the techniques under one umbrella to ensure maximum productivity. For dispersion stability problems, we offer zeta potential instruments using electrophoretic as well as phase analysis light scattering, the latter technique first introduced by Brookhaven. 632

Brooks/Cole Cengage Learning, 20 Davis Drive, Belmont, CA 94002, 650-595-2350, Internet: www.cengage.com 603

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. In particular, the Bruker series of compact, powerful, robust, yet easy-to-use analytical instruments are ideal for use by both students and experts in academic settings and also enable laboratories to incorporate new experiments in chemical education visit us at www.bruker.com/academics to learn more about our technologies and solutions. 1215,1214

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

BWTek, 19 Shea Way, Newark, DE, United States 19713, (302) 368-7824, fax: 302-368-7830, e-mail:sales@bwtek.com, Internet: www. bwtek.com We are an advanced instrumentation company producing optical spectroscopy, laser instrumentation and portable/lab grade Raman systems. B&W Tek provides spectroscopy & laser 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. In addition, B&W Tek has recently introduced the NanoRam, the most sensitive and repeatable handheld Raman spectrometer ever designed for identifying harmful, non-conforming materials before they reach production. **1330**

C.I. Agent Storm-Water Solutions, 11760 Commonwealth Drive, Louisville, KY 40299, 866-242-4368, fax: 502-267-0181, e-mail:lindab@ciagent. com, Internet: www.ciagent.com C.I.Agent Storm•Water Solutions develops tools to help the environmental professional obtain novel, cost effective water quality information. The C.L.A.M. (Continuous-Low-Level-Aquatic-Monitoring) is a small submersible SPE extractive sampler. The C.L.A.M. extracts water at low quantitative flow rates through SPE media-disks. The extractive sampling event, continuous for up to 36 hours, can represent up to 100 liters of water, lowering the laboratory detection orders of magnitude. A small disk is all that is sent to the laboratory for analysis. The C.L.A.M. takes the lab to the field, and leaves the water behind. **1605** C/D/N Isotopes, 88 Leacock St., Pointe-Claire, QC H9R 1H1, Canada, 800-565-4696, fax: 514-697-6148, e-mail:info@cdnisotopes.com, Internet: www.cdnisotopes.com, Sales Contact: Vahishta Canteenwalla, Customer Service Since 1993, C/D/N Isotopes Inc. has provided its customers with superior quality and exceptional service. Researchers in all branches of science and medicine, from around the world depend on C/D/N Isotopes as the company for deuterium labelled compounds. We currently have more than 3000 products in stock and are able to ship most products within 24 to 48 hours. 98% of our orders are filled from products are manufactured exclusively by us. We have developed and expanded our expertise in the preparation of deuterated compounds. As a result, we are continuously adding new products. 1010

CAChe Research LLC, 13690 SW Otter Lane, Beaverton, OR 97008, 503-830-2772, e-mail: info@cacheresearch.com, Internet: www. CACheResearch.com Quantum chemistry and 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. ParaSurf calculates electronic properties on molecular surfaces for 3D-OSAR, ligand docking, reactivity prediction, CytochromeP450 drug metabolism, etc. TUR-BOMOLE 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. Contact: info@ CACheResearch.com, 1344

Cambridge Crystallographic Data Ctr., 12 Union Road, Cambridge, United Kingdom CB2 1EZ, 44-1223-336408, fax: 44-1223-336033, email:admin@ccdc.cam.ac.uk, Internet: www. ccdc.cam.ac.uk The Cambridge Crystallographic Data Centre (CCDC) provides invaluable structural knowledge to the scientific community, both for academic research, teaching and the pharmaceutical and chemical industries. A registered charity and not-for-profit organisation, CCDC curates the ever growing database of small molecule experimental crystal structures, the Cambridge Structural Database (CSD). With over 45 years of scientific experience, the CCDC's expertise, software and database tools benefit a broad spectrum of users in research, development, cheminformatics, bioinformatics and teaching. 1520

Carbosynth LLC, 16935 West Bernardo Dr., Suite 226, San Diego, CA 92127, United States, Internet: www.carbosynth.com, Sales Contact: Bruce Rogers, Sales Manager Carbosynth offers over 4500 carbohydrates and nucleosides. This range includes monosaccharides, enzyme substrates, D- and L- sugars, oligosaccharides, detergents and nucleosides. Our catalogue offers quantities for R&D, but many are produced in bulk. For example 2-deoxy-D-glucose, IPTG, methyl-a-D-glucopyranoside, n-octyl-b-D-glucopyranoside, 3,4,6-Tri-O-acetyl-D-galactal, gulonic acid-gamma-lactone, diacetone-D-mannose and 2-nitrophenyl-b-D-galactopyranoside are produced in 10's-1000's of kilos. At Carbosynth we also offer a range of allied fine chemicals. Many of which are versatile building blocks or have specialist applications ranging from biochemical reagents to natural antioxidants. Included in this product range are coupling agents, such as EDAC, or activators in peptide and oligonucleotide synthesis. **1529**

CAS, 2540 Olentangy River Road, Columbus, OH 43210, 614-447-3600, fax: 614-447-3713, e-mail:help@cas.org, Internet: www.cas.org, Sales Contact: Brooke Hummel, Exhibit Specialist Stop by the ACS booth to see the latest content and search enhancements from CAS, the world's authority for chemical information. Experience SciFinder and see how recent updates like experimental procedures; substance, reaction, and citation relevancy ranking; and bioactivity and target indicators make it an indispensable part of your research. Learn about an opportunity for students at your university to have a chance to be one of 15 Ph.D. students to take part in the 2012 SciFinder Academic Exchange Program, and play the "Chemistry of Life" game for a chance to win an iPad2! Look forward to seing you there! 731

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 simple pop-on caps, individual temperature and pressure control and automated venting. Compact and modular, Discover Systems offer unmatched versatility with options for automation, peptide synthesis, proteomic applications, low-temperature chemistries, gas-addition, flow chemistry, and more. We also offer lab books and teaching kits. **1127**

ChemAxon Ltd., Záhony utca 7, Budapest, Hungary 1031, 361-453-2660, Internet: http://www. chemaxon.com/ ChemAxon is a leader in providing chemical software development platforms and desktop applications for the biotechnology and pharmaceutical industries. By focusing upon active interaction with users and core portability, ChemAxon creates leading edge cross platform solutions to power moderm cheminformatics and chemical communication. 1130

ChemBridge Corp., 11199 Sorrento Valley Rd., Suite 206, San Diego, CA 92121, 858-451-7400, fax: 858-451-7401, e-mail:sales@chembridge. com, Internet: www.chembridge.com Chem-Bridge Corporation offers an extensive portfolio of discovery chemistry products and contract research services. These include over 900,000 compounds that are diverse or target focused, as well as 13,000 chemical building blocks, custom compound libraries, and synthetic and medicinal chemistry support services. 1117

ChemFuture Inc., 420 Sackett Point Road, Suite 22, North Haven, CT 06473, 203-800-5383, fax: 888-480-7594, e-mail:sales-usa@chemfuture.com ChemFuture Inc. is a chemistry outsourcing company, which can provide catalog products, CRO and CMO service, R&D and production of GMP&Non-GMP Peptide. We have a highly qualified team of scientists who are specialized in designing and synthesizing novel and druglike scaffolds, libraries and building blocks, capable of performing many challenging organic synthesis and peptide projects with high quality and low cost. **1408**

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. Also on display: Huber Unistat Circulators, Chromatography vials and closures, NMR Tubes, OptiTherm Blocks, Pie-Blocks-Reaction blocks, Pressure Vessels, Volumetric Flasks, Schlenk Glassware/Manifolds, Rotary and Fritted Glassware. 1003

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 the open access chemistry publisher, part of Springer Science+Business Media, committed to the free widespread dissemination of chemical research. Articles published by Chemistry Central are peer-reviewed and freely available online. Journals include Chemistry Central Journal, Journal of Cheminformatics, Geochemical Transactions and Journal of Systems Chemistry. For more information please visit Chemistry Central at booth #419. **419**

Chemrus Inc., P.O. Box 920524, Needham, MA 02492, This unique disposable filter funnel system consists of a disposable polypropylene filter funnel with a 10 micron fritted disc and/or packed with Celite for filtering fine particles, a glass vacuum adapter and a flask or vial. The filter funnels have a long stem so that the glass vacuum adapters are not contaminated during the filtration process. **1336**

CONFLEX Corp., 5631 Palmer Way, Suite C, Carlsbad, CA 92010, 760-930-9277, fax: 509-692-4541, e-mail:info@conflex.us, Internet: www. conflex.us CONFLEX 6.8 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 BARISTA 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 CON-FLEX 514

Corning Inc., 900 Chelmsford Street, Tower 2, 4th Floor, Lowell, MA 01851, 978-442-2200, fax: 978-442-2476, e-mail:clswebmail@corning.com, Internet: www.corning.com/lifesciences, Sales Contact: Sue Britton, Product Line Manager, Glass & Equipment Corning Life Sciences, the makers of PYREX® laboratory glass, Corning® hot plates, stirrers, and LSETM products, is a major manufacturer of glass and plastic laboratory products for chemistry, cell culture, drug discovery, liquid handling, and filtration applications. We are pleased to announce the introduction of a new line of reusable plastic liquid handling and volumetric products for the Spring 2012 ACS Show. **202**

CP Lab Safety, 14 Commercial Blvd., Suite 113, Novato, CA 94949, 415-883-2600, fax: 415-532-1662, e-mail:carel@cplabsafety.com, Internet: www.cplabsafety.com Manufacturer of ECO Funnels", Chromatography Funnels, Secondary Containers and Solid Waste Containers. ECO Funnels reduce harmful emissions and help prevent fire while solving the open waste container problem. Made of HDPE with a gasket in the lid, sturdy hinge and latch. Unique design will prevent container over-filling. Available with variety of screw cap sizes to fit common waste containers. Customize with HPLC adapters. We guarantee our ECO Funnel products! Other safety products include: cabinets, cans, eyewear, gloves, coated glass bottles, glassware, plastic bottles, carboys and drums, pumps, HPLC port caps. See us for your lab safety needs! **1107**

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 is a leading provider of Molecular Design tools for use in life science research. Our comprehensive software and services portfolio provides support for computational chemists and senior medicinal chemists to enable them to make better decisions and better molecules. Our molecular Field technology provides a unique insight into the biological activity, properties and interactions of molecules. Comparing molecules using Fields enables biologically meaningful comparisons that are not limited by 2D structure. **1837**

CSCS Inc., 59 Greenhill Street, West Warwick, RI 02893, United States, 401-825-7920, fax: 401-825-7923, Internet: www.cscscorp.org, Sales Contact: Elana Lambirth, Executive Admin. 1243

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 For more than 260 years, the name De Gruyter has been synonymous with high-quality, landmark publications in the humanities and sciences. Annually, De Gruyter publishes approximately 850 books and e-books and 167 journals, along with numerous databases and electronic resources. The publishing house has locations in Boston, Berlin, and Beijing. 1317

DeltaNu, Intevac Photonics, 3560 Bassett Street, Santa Clara, CA 95054, 408.496.2275, e-mail:sales@deltanu.com, Internet: www.intewac.com/intevacphotonics/deltanu DeltaNu@ manufactures handheld and laboratory Raman spectrometers for rapid and non-destructive material identification. RapideID, 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. DeltaNu is a business unit of Intevac Photonics, Inc. and is ISO 9001:2008 certified. **1333**

DOE Isotope Program, PO Box 2008, MS 6158, Oak Ridge, TN 37831-6158, United States, 865-574-6602 The National Isotope Development Center (NIDC) interfaces with the User Community and manages the coordination of isotope production across DOE facilities and business operations involved in the production, sale, and distribution of isotopes. A virtual center, the NIDC is funded by the Isotope Development and Production for Research and Applications (IDPRA) subprogram of the Office of Nuclear Physics in the U.S. Department of Energy Office of Science. Website for more information: www.isotopes.gov 109

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 Whether you are looking for the latest in enterprise query tools, a smarter way to manage your scientific documents, an intuitive chemical registration system, better chemical structure searching or an efficient way to capture all your scientific data, Dotmatics has a solution. Dotmatics is a dynamic scientific software provider dedicated to enabling researchers in the Biotechnology and Pharmaceutical arenas. The Dotmatics suite increases research efficiency during drug discovery by providing integrated software from registration to reporting, data querying, data visualization and assay management. The web-based deployment of the suite significantly reduces IT overhead whilst providing unrivalled flexibility of the user-interface. 13009

Doty Scientific, 700 Clemson Road, Columbia, SC, United States 29229, (803) 788-6497, Internet: www.dotynmr.com Doty Scientific supplies quality Nuclear Magnetic Resonance (NMR) probes and MRI coils. Our versatile Low-E MAS probes can be configured for quad-resonance, double-broad band, H-F, Lock, and XVT. Our new B-Max probes provide maximum sensitivity and RF field strength. Our PFG probes have unrivaled gradient strength for measurement of

the smallest diffusion coefficients. Our CryoMAS probes offer the ultimate in S/N. ****** Doty Windfuels will use energy generated by off-peak wind to power processes that recycle waste CO2 into carbon-neutral transportation fuels such as gasoline or jet fuels. Not magic. Just good chemistry, physics, and engineering. **1604**

eDAQ, Inc., 1485 Tuskegee Place, Suite E, Colorado Springs, CO, United States 80915, 719-576-7000, 888-965-6086, fax: 719-576-3971, Internet: www.edaq.com eDAQ manufactures data recording solutions for electrochemistry, impedance spectroscopy, chromatography, capillary electrophoresis, flow analysis and general laboratory recording (pH, temperature, conductivity, dissolved O2, Nitric Oxide, and biosensor applications). Potentiostats servemultiple duty as galvanostats, ZR amps, or Hi 2 amps. Electrochemistry systems offer over 33 electrochemical techniques; easy use, high resolution, no programming required. Contactless conductivity detection is 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 National Instruments cards or even direct to excel spreadsheets. And finally eDAQ manufactures electrodes for all these applications. **1206**

Elsevier Inc., 360 Park Avenue South, New York, NY 10010, 212-633-3756, fax: 212-633-3112, email:k.brown@elsevier.com, Internet: www. elsevier.com Elsevier is a leading publisher and provider of search and discovery tools in Chemistry, Chemical Engineering, and related areas. We publish over 125 journal titles in these fields, include titles under the Academic Press imprint. With innovative web-based products such as SciVerse ScienceDirect, SciVerse Scopus, Reaxys, Hazmat Navigator and Scival, we continue to refine our portfolio to serve the needs of academics, researchers, and practitioners worldwide. Visit our booth to see our new and best selling titles, learn about Article of the Future and the latest Impact Factors of our high quality journals, and discover how our online products can improve your research productivity. **1019**

Emeryville Analytical Services, 5980 Horton St., Suite 575, Emeryville, CA, United States 94608, (510)899-8862, fax: (510)280-8379, Internet: www.emeryanalyticals.com Emeryville Analytical Services offers NMR (1D, 2D, heteronuclear), LCMS, and microbiology (MIC, MBC, antibiotic resistance profiling, biofilm models, cytotoxicity testing and microscopy) contract services. Please visit our website at http://www.emeryanalyticals.com for a full description of our offered services as well as examples of our work. 1135

EMSL, 3335 Q Avenue, K8-80, Richland, WA 99354, United States EMSL is a U.S. Department of Energy national scientific user facility located at Pacific Northwest National Laboratory in Richland, Washington. EMSL's distinctive focus on integrating computational and experimental capabilities as well as collaborating among disciplines yields a strong, synergistic scientific environment. Bringing together experts and an unparalleled collection of state-ofthe-art instruments under one roof, EMSL has helped thousands of researchers use a multidisciplinary, collaborative approach to solve some of the most important and complex national scientific challenges in energy and environmental sciences. To learn more about EMSL, the science conducted at EMSL, as well as the instruments and expertise available to users, visit www.emsl.pnnl.gov. 1136

EQX Scientific, 1909 West Oakridge Dr., Albany, GA 31707, United States, 229-420-3886, e-mail:eqxscientific@eqxchem.com, Internet: www.eqxscientific.com, Sales Contact: Brian Testa, Sales Manager AT THE CENTER OF YOUR RESEARCH, LABORATORY, AND SAFETY NEEDS. EQX Scientific is a supply and distribution company focused on providing value and industry leading customer service. We provide Lab Chemicals, High Purity Solvents, Filter Paper, Syringe Filters and Membranes, Consumables, Glassware, Equipment, and Safety products from the world's most respected companies. With EQX Scientific shipping is always free. **1342**

Extrel CMS, 575 Epsilon Drive, Pittsburgh, PA 15238, Internet: www.extrel.com Sales Contact: Brian Regel, Research Sales, North American Extrel is the world's leading manufacturer of Research and Process Mass Spectrometers, Residual Gas Analyzers (RGA's), Quadrupole Mass Spectrometry Systems and Components. We have been providing quadrupole mass spectrometry solutions to our Research and Industrial customers for over 45 years. Our instruments are known for their high performance, reliability and flexibility. We offer equipment for Basic Research, QA/QC Laboratories, Process Development and Process Control. Extrel's global customers receive the most comprehensive application, technical and onsite support in the industry. **1427**

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 customers are working to address global challenges through increased understanding of chemical reactions, catalysts and nanomaterials. They use our SEM, TEM and DualBeam™ FIB/SEM instruments to study material interfaces, observe reactions of materials under different environmental influences, and quantify chemical or elemental composition and distribution, at resolution ranges from sub-micron to sub-Ångström. One unique solution for chemical industry researchers is FEI's Environmental TEM (ETEM). Our ETEM is the ultimate in situ high resolution electron microscope for studying dynamic behavior of chemical reactions, at the atomic level and under the influence of variable temperatures and gas pressures. **333**

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, manufacturer, and custom research services provider to the pharmaceutical, biotechnology, industrial chemical, government, and academic sectors. Along with custom synthesis, FSI now offers procurement, analytical, reformatting, and compound management services. FSI specializes in the development of chemical compounds and processes related to boronic acids, porphyrins, phthalocyanines, ionic liquids, dendrimers, and many other chemical building blocks. FSI develops compounds for small molecule drug discovery, SAR studies, and lead optimization with production quantities from the milligram to kilogram scale. 1421

Future Science Group, Unitec House, 2 Albert Place, London, United Kingdom N3 1QB, Internet: www.future-science-group.com The Future Science Group (FSG) is a leading organization in the delivery of high-quality scientific information, with a diverse portfolio in both online and print media. FSG publications include Bioanalysis and the Bioanalysis Zone, Future Medicinal Chemistry, the Expert Review series and new launch Pharmaceutical Patent Analyst. 1312

Galbraith Laboratories Inc., 2323 Sycamore Dr, Knoxville, TN 37921, 877-449-8797 toll free, fax: 865-546-7209, e-mail:labinfo@galbraith.com, Intemet: www.galbraith.com Galbraith Laboratories provides analytical testing services worldwide. We test most samples from raw materials to finished products for elements on the Periodic Table. Using 1 mg of sample, we can provide accurate trace level results. Galbraith provides physical and chemical testing as well as Method Development and Validation services. In business since 1950, we have developed extensive industry-specific, regulatory and technical expertise. We are a GLP/cGMP compliant lab, FDA registered and ISO 17025 certified (see www. galbraith.com/iso17025.pdf for scope of certified services), and we are registered with the Consumer Product Safety Commission (CPSC) as an accredited lab. **221**

Gamry Instruments, 734 Louis Drive, Warminister, PA 18974, 877-367-4267, fax: 215-682-9331, e-mail:info@gamry.com, Internet: www. gamry.com Gamry Instruments, innovators in electrochemical instrumentation since 1989, offers a full line of high performance instruments, software and accessories. For research involving energy storage, corrosion, analytical electrochemistry, or sensors, we can help make the measurements you need. Visit the Gamry exhibit to see the latest in electrochemical instrumentation like Gamry's eQCM 10M, our Reference family potentiostats, as well as a variety of electrochemical cells. We will also be demonstrating our full line of software including DigiElch 6 Electrochemical Simulation software and EIS300 impedance spectroscopy software. Come chat with us and let us put our electrochemical expertise to work for you. **1521**

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. 732

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, PA, is recognized worldwide as an innovator, manufacturer and supplier of commercial and research quantities of over 3,000 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, and specialty polymeric materials. **417**

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 Trust your chromatography results to Grace Discovery Sciences, the premier manufacturer of media for Flash, HPLC, Process chromatography, and more. We help pharmaceutical labs in all stages of research optimize their time and improve their results with our high quality HPLC, UHPLC and Prep LC columns, our award-winning Reveleris® Flash Chromatography system with advanced detection and collection capabilities, and our full range of accessories, reference standards, and other supporting products. 1211

Hank Solutions, Unit 14 Graphite Way, Hadfield, Derbyshire, United Kingdom SK13 10H, +44 (0) 1457 892777, Internet: www.hanksolutions.co.uk We offer a complete GHS compliant safety data sheet creation and labelling solution. Our online solution offers multiple GHS formats, together with the ability to translate across multiple languages. We also supply the Colour Roll Printer at a very competitive price, as well as the label rolls themselves which are compliant to BS5609. Initially designed for one of the worlds largest distributors of research chemicals, our product is now used by a number of manufacturers and distributors across the globe. It's the most cost effective and easy to use safety data sheet and labelling software on the market. **311**

Harrick Scientific, 141 Tompkins Ave., 2nd Floor, P.O. Box 277, Pleasantville, NY 10570, 800-248-3847, fax: 914-747-7209, e-mail:info@ harricksci.com, Internet: www.harricksci.com Manufacturing a full line of spectroscopic accessories for transmission, specular reflection, diffuse reflection, and ATR for the UV/Vis, NIR, and Mid-IR. See the Video MVP, a Monolithic Diamond ATR accessory with built-in camera and our selection of temperature-controllable cells for transmission, diffuse reflection, ATR, and specular reflection. Featuring our VariGATR for monlayer determinations and our versatile family of fiber optic accessories, including the new Diamond Probe. **1517**

Harvard Apparatus, 84 October Hill Road, Holliston, MA 01746, 508-893-8979, fax: 508-429-2784, e-mail:bioscience@harvardapparatus.com, Internet: www.harvardapparatus.com The Harvard Apparatus PHD ULTRA and Pump 11 Elite syringe pumps, for Nano to Macro fluidic applications: animal infusions, reactors, and electrospinning. PHD ULTRA delivers the most accurate, precise and smooth flow available from picoliters to hundreds of millimeters/min. The PHD ULTRA has color touch screen, icon interface for easy-to- use simple to complex tasks programming; advanced preprogrammed flow functions: flow ramping, % composition changing, bolus injection, concentration mode and more. New for 2012 are the PHD Ultra XF with applied force capabilities greater than 1,000 lbs. for high pressure applications. Also, the PHD Ultra CP with the ability to deliver fluids at constant pressure. **1035**

Heidolph USA, 1241 Jarvis Avenue, Elk Grove Village, IL 60007, 224-265-9600, Internet: www. heidolphna.com Heidolph North America, a subsidiary of Heidolph GmbH, is an organization focused on providing unparalleled sales and service support of high quality laboratory products to the North American scientific community. Heidolph NA sells, supports and services products to the North American scientific community. Heidolph NA sells, supports and services products and AirClean Systems ventilation solutions. Our corporate headquarters is based in the Chicago area providing dedicated customer service, shipping, logistics, technical support and sales management to the North American laboratory equipment market. We believe in our "Research made easy" philosophy of prompt customer service of all Heidolph products and supported by our industry leading 3 year warranty. "From Life Science to Rocket Science, our products and expertise help support the top scientific minds in America." 1326

Hellma USA, Inc., 80 Skyline Drive, Plainview, NY 11803, 516-939-0888, fax: 516-939-0555, e-mail:info@hellmausa.com, Internet: www. hellmausa.com Manufacturer of Hellma Photometer Cells and Accessories, Fiber Optic Immersion Probes, Photometric Calibration Standards (Liquid and Glass), Quartz Microplates, various types of Laser Optics. Expanded line of Process probes good to 35 bar, 300C. Unmatched selection of stock and custom Cells. Supplier: Heraeus Light Sources including Deuterium, Hollow Cathode, Photoionization, Spectral Line; Zeiss MMS/MCS/PGS 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. 1321

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 OGA 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. **415**

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 (comprising Jobin Yvon, SPEX, and IBH), is the global leader in fluorescence and Raman. Macro and microscope solutions feature the most sensitive steady state and lifetime (both phase and TCSPC) spectrofluorometers, and highest performance, most flexible Raman systems for every budget. Also smallest spot microXRF system 1315

iclicker, 18 W. 18th Street, New York, NY, United States 10011, 859.360.7280, Internet: http://www.iclicker.com iclicker is one of the most widely used classroom response systems in higher education, adopted at more than 1,000 educational institutions in North America and used by 2.5 million students. Our customers praise iclicker's reliability, intuitive software, and focus on formative assessment and pedagogy. For more information, visit www.iclicker.com. 1406

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 synthesis, 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. Please visit our new websites: tollmanufacturing; com, contractresearch.com, flavorsand fragrances. com, rareorganics.com and coumarins.com for more information. **1126**

InfoChem GmbH, Landsberger Strasse 408, Munich, Germany 81241, 49-89-583002, fax: 49-89-5803839, e-mail:info@infochem.de, Intemet: 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 (IC-Cartridge) constitutes a central part of our search and management technology. The Reaction Classification Algorithm "CLASSIFY" is the most powerful tool available for structuring and linking large reaction databases. ICSynth is Info-Chem's novel synthesis prediction tool. The 'Mining for Chemistry' initiative provides automated extraction of chemical compounds from unstructured data and images. Through SPRESIweb users can access one of the largest structural and reaction databases worldwide containing 8,0 million compounds and 4,0 million reactions (SPRESI). 1033

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. is a leading worldwide manufacturer of inert atmosphere Glovebox systems and Solvent Purification Systems. We have been supplying customers with the highest quality systems for over 25 years. In addition to our standard glovebox systems we offer custom gloveboxes tailored to individual requirements and free standing gas purifiers that can be used to upgrade older systems. Our industry-leading PureSolv Solvent Purification Systems deliver dry, de-oxygenated solvent at the turn of a valve, eliminating hazardous and time-consuming thermal distillation processes. **510** Insplorion AB, Stena Center 1C, Göteborg, Sweden SE-412 92, 46 739 220 111, Internet: www.insplorion.com Insplorion develops and sells instruments for research departments working with characterization of nanomaterials (nanoparticles, nanostructures and thin films) and catalysts for various applications. The instruments are built around Insplorion's groundbreaking proprietary optical technology platform Indirect Nanoplasmonic Sensing (INPS), utilizing the optical phenomenon Localized Surface Plasmon Resonance (LSPR). 1519

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 Bioanalytical Instruments is an internationally active company offering instruments for biochemical applications. We concentrate on customer-oriented automation of complex procedures in multiple parallel peptide synthesis, proteomics and functional genomics. Our new peptide synthesis service offers custom Peptide Sets and both standard and custom CelluSpot peptide microarrays. 1602

Integrated Chemistry Design, Inc., 3930 Stanford Drive, Oceanside, CA 92056, 858-361-3795, e-mail:mcjohnson@inchemdesign.com, Internet: www.chirys.com Chirys Draw and Chirys Sketch were created by Integrated Chemistry Design, Inc. to embrace the efficiency of mobile touch devices and provide a fundamental leap in productivity for the imaginative scientist. Natural multi-touch gestures enable scientists to quickly create chemical structure drawings with their fingertips by mimicking the instinctive scientific drawing process. Chirys Draw and Chirys Sketch provide publication ready molecular drawings that are ready for transfer to other software applications. Feel the difference of enlightened software design, and enjoy seeing your structures come alive with a touch! Please visit our website at chirys.com for more information. **1345**

Interchim Inc., 1536 West 25th St., Suite 452, San Pedro, CA 90732, 800-560-8262, fax: 310-802-3877, e-mail:tkorman@interchiminc.com, Internet: www.interchiminc.com, Sales Contact: Teresa Korman, Logistics Manager Interchim is a global company which manufactures chromatography products for purification, analytical and sample preparation. The column product range is comprised of Flash, Prep, SPE, UPLC, and HPLC. Instruments for purification include the first Flash system to withstand pressures of 435 psi/30 bar. The company has introduced high efficiency Flash Cartridges which run three times faster than conventional columns. Flash columns are available in 30 different bonded phases for normal and reverse phase, ion-exchange and chiral chromatography. The company continues to introduce innovative products to support the demands of speed and efficiency for discovery and analytical chemists. **315**

International Equipment Trading Ltd., 960 Woodland Parkway, Vernon Hills, IL 60061, United States, Internet: www.ietltd.com, Sales Contact: Ceylan Bilgin, Marketing/Sales Refurbished & Certified Analytical Lab Equipment has been our specialty since 1979. IET specializes in sales and service of refurbished mass spectrometers, HPLC, electron microscopes, gas and liquid chromatographs, atomic absorption, infrared, UV-VIS, nmr spectrometers and biotechnology equipment from leading manufacturers such as Thermo, Agilent, Applied Biosystems, AB Sciex, Bruker, Dionex, Nicolet, Varian, Shimadzu, Jeol and others. We buy, sell, lease and trade used laboratory equipment. **105**

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.com Ivium Technologies designs and manufactures electrochemical instrumentation for research and routine applications. We are introducing the Vertex™ Potentiostat in San Diego. The Vertex is an affordable

instrument for research and teaching applications. We will also be demonstrating the lvium-Stat"—with a maximum current of 10 Amps and a total of 12 current ranges, the lviumStat can handle the most demanding electrochemical applications. For the convenience of portability, check out the CompactStat™, a research-grade Potentiostat powered from the USB port of your Notebook Computer. We will also be showing the nStat" Multi-Channel Potentiostat for labs that need maximum electrochemical firepower. 1416

J-KEM Scientific, 6970 Olive Blvd., St. Louis, MO 63130, 800-827-4849, fax: 314-863-6070, Internet: www.jkem.com New Multi-step Continuous Flow Reactor runs up to 100 queued reactions in scouting mode, and makes kilograms of material in continuous synthesis mode. Makes and quenches reactive intermediates in two step, continuous, automated reactions. Digital temperature controllers regulate any volume (0.1ml to 100L) or piece of equipment to 0.1 degree C. Solution phase parallel synthesis reactors (-78 to 130 C). Highly versatile syringe pump systems (1–24 positions). Digital vacuum regulators control to 0.1 torr. Robotic workstations for weighing, synthesis, reformatting and any custom application for \$30,000. Accessories include filter stations, capping stations, robotic shakers. **1203**

JEOL USA, Inc., 11 Dearborn Road, Peabody, MA 01960, 978-535-5900, fax: 978-536-2205, email:salesinfo@jeol.com, Internet: www.jeolusa. com JEOL is a global leader of NMR, GC/MS, LC/MS, and electron optical instrumentation (SEM & TEM) used for scientific research and industrial applications. JEOL provides innovative technologies and products (such as our revolutionary high-resolution exact mass AccuTOF-DART mass spectrometer which allows analysis in open air at atmospheric pressure and ground potential with no solvent or sample preparation required). In addition to our AccuTOF-DART system we will also showcase our compact automated ECS 400 MHz NMR and our 6010LA Tungsten SEM with built-in EDS. **526**

John Wiley & Sons, Inc., 111 River St. 4-02, Hoboken, NJ 07030, 201-748-6000, Internet: www.wiley.com 903

JULABO, 884 Marcon Blvd., Allentown, PA 18109, (800) 458-5226, fax: (610)231-0260, email:info@julabo.com, Internet: www.julabo.com 1329

Kalexsyn, Inc., 4502 Campus Dr., Kalamazoo, MI 49008, 269-488-8488, fax: 269-488-8490, email:info@kalexsyn.com, Internet: www.kalexsyn. com Kalexsyn offers companies a world-class medicinal and early API chemistry organization. Our scientists average 15 years experience in medicinal chemistry, custom synthesis, and scale-up services. We provide a premium CRO experience to our worldwide client base. We provide both fixed quotes and flexible FTE ar rangements tailored to your project. We believe your science does deserve the best scientists. 1212

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: Tina Conti, Global Sales Representative KD Scientific is recognized worldwide for our solutions to deliver precise and smooth flow. We have the broadest line of syringe pumps at economical prices. Featured are microliter, nanoliter and our newest picoliter flow pumps, as well as, dispensers and glass, plastic or stainless steel syringes. Customized OEM systems can be designed. NEWEST GENERATION OF PUMPS – THE LE-GATO SERIES IS ON DISPLAY. Applications include Organic Synthesis, Inorganic Synthesis, catalyst injections, mass spec calibration, electrospray, long term perfusions and microfluidics. Free application consultations and demonstrations. 121 Keck Graduate Institute, 535 Watson Drive, Claremont, CA, 91711, United States, 909-607-8586, fax: 909-607-8086, Internet: www.kgi.edu Keck Graduate Institute (KGI) is a standalone graduate institution that combines applied life sciences, bioengineering, bioethics and business management. KGI offers degree/certificate programs in: Master of Bioscience (MBS), Postdoctoral Professional Masters (PPM), PhD in Applied Life Sciences or Computational Biology, Post-baccalaureate Premedical Certificate, etc. KGI is uniquely positioned to develop leaders who will meet the challenges and opportunities presented by this life sciences industry, by incorporating valuable business training that will prepare students to become successful in their field. KGI is a member of The Claremont Colleges, located in Claremont, California. **1612**

Knauer, Hegauer Weg 38, Berlin, Germany D-14163, 49-30-8097-2718, Internet: www. knauer.net KNAUER develops and manufactures liquid chromatography (LC) systems for chemical analysis up to the UHPLC range as well as product purification systems (preparative LC, and simulated moving bed chromatography -SMB). With PLATINblue HPLC/UHPLC instruments, KNAUER offers a fast and very compact LC-MS solution. KNAUER also produces high resolution biochromatography systems with a unique benchtop cooling feature. The Berlin based company is certified DIN EN ISO 9001: 2008 and ISO 14001. **1726**

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 KNF Lab's latest wireless SC950 series vacuum pump system brings fast and precise processing, extremely quiet operation and easy regulation of all vacuums, including wireless remote control. The exclusive wireless touchscreen remote provides full operation of the pump's four operating modes and functions, allowing for flexibility and optimal use of lab space. You can adjust the system parameters from outside your tume hood without opening the sash. Also on display are KNFLab liquid dosing pumps, Laboport PTFE oil-free vacuum pumps and our line of compact, lightweight filtration pumps, featuring the lowest-maintenance and cost of ownership available. **620**

KOREA KIYON, Rm 902,911, Daerung Technotown III, Seoul, Korea, South , 82 2 2107 3814, Internet: www.glovebox.co.kr Glovebox and Enclosure are designed to provide a hermetically sealed but highly customized working space under a very tightly controlled atmospheric environment. i.e. less than 1ppm in H2O and O2, using inert gases like N2, Ar and so on. 1337

LAUDA-Brinkmann, LP, 1819 Underwood Blvd., Delran, NJ 08075, Internet: www.lauda-brinkmann. com LAUDA-Brinkmann, located in Delran, NJ, is the largest of LAUDA's seven global subsidiaries. LAUDA, founded in 1956, and headquartered in Lauda- Königshofen, Germany, is the leading manufacturer of premium temperature control equipment and analytical measuring devices including static water baths, low and high temperature thermostats, lab-scale and industrial circulation chillers, industrial heating and cooling systems and process viscosity instruments. Our products provide precise temperature control from -100 oC to 400 oC with up to 400kW of cooling capacity. Contact LAUDA-Brinkmann via email at info@lauda-brinkmann. com or call (856) 764 7300. 1133

LC Technology Solutions Inc., 2C Fanaras Drive, Salisbury, MA 01952, 978-255-1620, fax: 978-428-0222, e-mail:info@lctechinc.com, Internet: www.lctechinc.com, Sales Contact: Peter Calandra Jr., President LC Technology Solutions Incorporated is a worldwide supplier of controlled and inert atmosphere gloveboxes and gas purification systems, solvent purification systems and laboratory high pressure gas purification systems. Worldwide LC Technology has well over 250+ systems in the marketplace. Our high quality glovebox systems provide a less than 1 part per million (ppm) environment for handling all of the most sensitive applications. Our gloveboxes are used in a wide variety of applications including organometallic, inorganic, synthetic and electrochemical research. Other applications include semiconductor research, OLED manufacturing, inert gas/titanium welding, lithium battery research/manufacturing as well as pharmaceutical applications. LCT echnology Solutions Incorporated offers a complete range of optional equipment including large and small antechambers, moisture and oxygen analyzers, ovens, freezers and special feedthroughs. **436**

LECO Corporation, 3000 Lakeview Avenue, St. Joseph, MI 49085, 269-985-5496, fax: 269-882-8977, e-mail:info@leco.com, Internet: www.leco. com In 1936, the Laboratory Equipment Company introduced the first rapid carbon determinator to the American iron and steel industry. Over 75 years later, LECO is recognized globally as a leader in the development of high-quality analytical instrumentation, mass spectrometers, chromatographs, metallography and optical equipment, and consumables. **1307**

M. Braun Inc., 14 Mavin Way, Stratham, NH, United States 03885, 603-773-9333, fax: 603-773-0008, e-mail:c.bartlett@mbraunusa.com, Internet: www.mbraunusa.com 616

Maruzen Co., Ltd., 40 Seaview Dr., 2nd Floor, Secaucus, NJ 07094, 201-865-4400, fax: 201-865-4845, Internet: www.maruzen.info/hgs Maruzen International Co., Ltd (MIC) is the leading distributor of globally renowned HGS Molecular Model. The company is located in Secaucus, NJ, with the parent company Maruzen Co., Ltd. in Tokyo. Manufactured in Japan, HGS molecular model has attracted researchers, educators, and students all over the world for over 40 years. This subtle and professionally manufactured model has very wide variety of options, which will suit any type of research/ educational activities in the broad fields of chemistry, pharamacology etc. **610**

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 1978 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. **1627**

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 2012 featuring over 55,000 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. **411**

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@mcgraw-hill.com, Internet: www.mhhe. com Sales Contact: Tamara Hodge, Marketing Manager Do you have a course question? We have your solution! Visit our booth to see electronic and print solutions for your courses in Preparatory Chemistry, General Chemistry, Liberal Arts Chemistry, Organic Chemistry, Allied Health Chemistry, and Advanced Chemistry. Did you hear about LeamSmart adaptive learning? How about the CambridgeSoft ChemDraw/McGraw-Hill partnership: Stop by booth number 1314 to learn more. 1314

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 MeasureNet brings Laboratory Information Management System (LIMS) to teaching laboratories. MeasureNet's MCANTM (Multi-Functional Chemical Analysis Network) network design provides high-quality data-acquisition and classroom management without the cost and maintenance of bench-cluttering, stand-alone PCs. MeasureNet's patented technology enables live data monitoring via the internet and remote storage for collaborative exercises between multiple labs and institutions. Each network supports up to 15 workstations for experiments including temperature, pressure, pH, voltage, and mass measurements. A shared UV-vis spectrometer delivers 1-nm resolution spectroscopy to student workstations. Additional acquisition tools include: dual-beam-colorimeter, ion-selective-electrodes, and electrochemistry probes. MeasureNet integrates GCs, HPLCs, and calorimeters for advanced laboratories. 326

Mestrelab Research SL, Feliciano Barrera, 9B-Baixo, Santiago de Compostela, Spain 15706, 34-881-976-775, fax: 34-981-941-079, e-mail: info@mestrec.com, Internet: www.mestrelab.com 509

Metrohm USA, Inc., 6555 Pelican Creek Circle, Riverview, FL 33578, 800-Metrohm, fax: 813-316-4900, e-mail:info@metrohmusa.com, Internet: www.metrohmusa.com, Sales Contact: Customer Support See why Metrohm USA is the market leader and go-to source for your analytical chemistry lab equipment. Featuring a complete line of swiss-made titrators and titration automation, ion chromatography systems, pH/ ion meters, colorimeters, electrodes, voltammetric analyzers, oxidative stability instrumentation and more. All carry 3 year warranties, and our IC MSM suppressor features an unprecedented 10-yr warranty! But we don't stop there: we back our systems with expert application support and services—we're there when you need us. Don't just take our word for it, stop by and talk with us! **426**

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

1426

MicroLAB, Inc., 1600 Ellis Street, Suite 1B, Bozeman, MT 59718, 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. 1227 Micromeritics Instrument Corp., 4356 Communications Drive, Norcross, GA 30093, 770-662-3633, fax: 770-662-3696, e-mail:ussales@ micromeritics.com, Internet: http://www. micromeritics.com, Sales Contact: Patrick Lennox, Marketing Communications Manager Micromeritics is a leading supplier of materials characterization analytical laboratory instrumentation and services. The company manufactures a broad line of automated laboratory instruments that measure physical characteristics of powders and solids for fundamental research, product development, quality assurance and control, production, and process control applications. Measurements obtained include particle size, particle shape, surface area, 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 operates Micromeritics Analytical Services and Micromeritics Pharmaceutical Services, both providing contract sample analyses and consulting services. 421

Microtrac Inc., 148 Keystone Drive, Montgomeryville, PA, United States 18936, 727-507-9770, fax: 727-507-9774, Internet: www.microtrac.com The S3500 line of particle size analyzers, providing the broadest size range with compact design from .02 to 3000 microns. Bluewave Laser Diffraction true blue laser light scatter. Features rapid wet to dry conversion, advanced Flex software, small footprint, Turbotrac dry feeder. The Nanotrac Wave Dynamic Light Scatter units for nanometer sizing and zeta potential. Particle imaging, surface area, spray anlaysis and SEM systems. 1432

Mimotopes, P.O. Box 131355, Roseville, MN 55113, United States, 651-603-0909, e-mail: mikerouthe@comcast.net, Internet: www.mimo topes.com, Sales Contact: Michael Routhe, Business Development and Tech Support Mimotopes has 20 years experience as a leading supplier of solid phase synthesis solutions in DOS, O-chem, and Combichem products and tools. Our primary technology platform "Syn-Phase Lanterns" has a wide diversity of linker functionality used in many chemical conditions. The chemist may choose many handling strategies including, parallel array, color coded, and RF frequency tagging techniques. **302**

 Molegro
 C.
 F.
 Moellers
 Alle
 8,
 Bldg.
 1110,
 Aarhus
 C
 DK-8000,
 Denmark,
 +45
 8715
 5571,
 fax: +45
 8715
 4102,
 Internet:
 www.molegro.
 1139

 com.
 1139
 1139
 1139
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130
 1130

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), PYE (pyrenylethyl group bonded) and pi-NAP (naphtylethyl group bonded). In addition, COSMOSIL C18-MS-II and Cholester and pi-NAP are available in 2.5 micron particles for UHPLC. COSMO-SIL Buckyprep (pyrenylpropyl group bonded) and PBB (pentabromobenzyl group bonded) and PBB (pentabromobenzyl group bonded) fullerene separation. We also provide unique biochemical products including high quality sialic acid-related products and plant extractrelated products. **544**

Nanalysis Corp., Bay 4, 4500, 5 Street NE, Calgary, AB T2E 7C3, Canada, 403-769-9499, fax: 403-775-6683, Internet: nanalysis.com, Sales Contact: Sean Krakiwsky, President & CEO We are launching our first product at ACS; the NMReady, the benchtop NMR spectrometer for bench chemists, training institutions and mobile testing labs. Markets for our product include oil & gas, biotech, pharmaceutical, specialty chemical, polymer, food & cosmetic, academic, and government organizations. Capable of One Touch-NMR, the NMReady is great for chemists working in the pod, fume hood, glove box or mobile lab. 1339

NanoAndMore USA, Inc., 9 James F. Byrnes St., Lady's Island, SC 29907, 843-521-1108, fax: 843-521-1148, Internet: www.nanoandmore.com NanoWorld, NANOSENSORS, BudgetSensors, nanotools and other specialty AFM probes resulting in the largest, most diverse inventory in the Americas. Digital Holographic Microscopes from Lyncee tec and Resolution Optics. Nano AndMore Digital Optical Microscopes 614

Nanolmaging Services, Inc., 11099 N Torrey Pines Road, Ste. 250, La Jolla, CA 92037, United States, 888-675-8261, Internet: www.nanoimag ingservices.com Nanolmaging Services is a service provider that specializes in using transmission electron microscopy (TEM) for imaging and analysis of biologics and biological materials. The company's core capabilities include cryo-TEM used to examine protein complexes and liposomal formulations in their natural state, high resolution negative stain TEM used for structural analysis of smaller proteins, and thin section TEM to visualize tissues and cellular material. **208**

Nanoscience 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 Nanoscience Instruments provides easy-touse, robust & affordable microscopy products including AFMs, SEMs, & a 3D optical microscope. Stop by our booth to see the new Phenom desktop SEM, offering the fastest load-toimage time of any SEM. The Zeta 3D optical microscope provides fast metrology measurements in true color. Our modular & portable easyScan AFM and the Flex Research AFM provide nanoscale measurements quickly and easily, while the newly-released LensAFM mounts to virtually any optical microscope. We also provide a large array of AFM probes, force sensors, microgrippers/tweezers, micro/nano manipulators, thiol/dithiol chemicals, and a carbon nanotube synthesizer. **1119**

NanoSight, 6660 N High Street, Suite 2A, Worthington, OH, United States 43085, Internet: www.nanosight.com 1012

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;jdellammo@nas.edu, Internet: www. national-academies.org/rap Graduate, Postdoctoral and Senior Research Opportunities. The National Research Council of the National Academies offers awards to graduate, postdoctoral and senior researchers for independent research to be conducted in residence at participating U.S. federal laboratories and affiliated institutions. Awards include competitive stipends, relocation, professional travel, and health insurance. Duration of awards is one year renewable for up to three years maximum. Annual application deadlines are February 1, May 1, August 1 and November 1. Additional information and instructions for filing online applications can be found at http://www.national-academies.org/ rap, and at the National Research Council exhibit booth #1404. **1404**

Nature Publishing Group, 75 Varick Street, 9th Floor, New York, NY 10013, 212-726-9200, fax: 212-696-9006, Internet: www.nature.com 1002

Netzsch Instruments North America, LLC, 129 Middlesex Turnpike, Burlington, MA 01803, 781-272-5353, fax: 781-272-5225, e-mail:nibsales@netzsch.com, Internet: www.netzsch-thermal-analysis.com Thermal analysis, calorimetry, thermal properties, & contract testing services; DSC, DTA, TGA, STA (Simultaneous DSC/DTA-TGA) from cryogenic to +2400C, evolved gas analysis by coupled FTIR, MS, and a new GC-MS system, adiabatic reaction calorimeters (ARC & APTAC) to measure thermal & pressure properties of exothermic chemical reactions, new MMC

274 tabletop reaction calorimeter, dilatometers, thermal conductivity, thermal diffusivity by laser flash & xenon flash to + 2800C, DMA, TMA, and DEA - dielectric analysis for in-situ thermoset cure monitoring. **1037**

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/Measurement Services Division 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 metion ty and productivity. 203

NOF AMERICA CORPORATION, One North Broadway, Suite 1012, White Plains, NY 10601, 914-681-9709, Internet: www.nofamerica.com We provides synthetic phosphorylcholine derivatives, such as phosphoryl choline conjugated monomer (MPC), its polymers having various co-monnomers including reactive groups and reactive group conjugated phosphorylcholines. They can be used for mainly medical and pharmaceutical purpose to provide biocompatibility. We also do the custom synthesis of phosphorylcholine materials as requested. 432

Norton, 500 Fifth Ave., New York, NY 10110, 212-548-4751, fax: 212-790-4261, Internet: wwnorton.com The oldest and largest publishing house owned wholly by its employees, W. W. Norton, Inc. publishes about 400 trade, college, and professional titles each year. **1109**

NT-MDT Co., Russia, Moscow, Zelenograd, Building 100, Moscow, Russia, 7-495-913-5737, fax: 7-495-913-5793, Internet: http://www. ntmdt.com/, Sales Contact: Maria Lesnyak, Exhibition administrator NT-MDT has been creating the equipment for nanotechnology for more than 20 years, steadily holding the advanced positions regarding the quality standards/hitech developments. The range of products is represented with different equipment lines: Scanning Probe Microscopes (SPM) for education (NANOEDUCATOR), specialized AFM/STM instruments for scientific and industrial research centers, the Probe NanoLaboratories (NTEGRA) integrating AFM with other research techniques, and the modular nano-factories (NANOFAB), the accessories for the SPM. NT-MDT offers expert service and support through more than 40 representative offices and distributors worldwide. The installed base is over 2000 instruments for research programs. **319**

Oak Ridge National Laboratory, P.O. Box 2008, Oakridge, TN 37831, 865-579-7522, fax: 865-574-4441, ORNL is the Department of Energy's largest science and energy laboratory with over 4,600 staff from more than 80 countries, 3,000 guest researchers, 12 user facilities and a budget of approximately \$1.65 billion. The Lab supports the Department of Energy's mission through six major scientific competencies in energy, neutron sciences, high-performance computing, complex biological systems, materials research and national security. Energy and Environmental Sciences, Computing and Computational Sciences, National Security, Physical Sciences, Neutron Sciences, and Nuclear Sciences. We have opportunities for internships, post grads, post masters, post docs, business professionals, detiniguished fellowships, and joint faculty appointments. **1533** Oakwood Products Inc., 1741 Old Dunbar Road, West Columbia, SC 29172, 803-739-8800, fax: 803-739-6957, e-mail:sales@oakwoodchemical. com, Internet: www.oakwoodchemical.com Oakwood Products, a manufacturer and distributor, supplies research chemicals to the pharmaceutical, agrochemical and materials research communities. Oakwood's product listing contains over 40,000 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. **1102**

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 1103

 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

 306

Opotek, 2233 Faraday Avenue, Suite E, Carlsbad, CA 92008, 760-929-0770, fax: 760-929-8782, Internet: www.opotek.com, Sales Contact: Mark Little, Marketing & Research 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. 635

Optibrium Ltd., 7226 IQ. Cambridge, Beach Drive, Cambridge, United Kingdom CB25 9TL, Internet: www.optibrium.com Optibrium's Star-Drop™ software intuitively guides compound design and selection decisions in drug discovery to rapidly focus on chemistry with a good balance of properties. At the ACS Spring Meeting we are launching StarDrop 5.2, including a new plug-in module integrating Cresset's FieldAlign, which helps to understand the three-dimensional structure-activity-relationships of your chemistry to design novel, active compounds. In StarDrop you can achieve true multi-parameter optimization, predict properties to interactively explore new compounds, guided by StarDrop's Glowing Molecule™, and explore your project's chemical space to quickly identify high quality chemistry. Finally, pick up StarVue™, our free application for browsing compound data. **1419**

Oxford University Press, 198 Madison Avenue, New York, NY, United States 10016, Internet: www.oup.com/us Oxford University Press is proud to partner with the American Chemical Society to publish some of the world's premier chemistry publications and texts. Visit our booth for discounts on new and classic titles and free journal samples. www.oup.com/us 719

Park Systems, Inc., 3040 Olcott St., Santa Clara, CA 95054, 408-986-1110, fax: 408-986-1199, email:sung@parkafm.com, Internet: http://www. parkafm.com/ Park Systems is a world leading manufacturer of Atomic Force Microscopy (AFM) with complete range of products for biological science, materials research, semiconductor and storage industries. Park's AFM provides highest data accuracy, superior productivity, and lowest operating cost. See our new NX10, the world's most accurate AFM at www.parkafm.com. 1310

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 Combuston Bomb 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. **536**

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, Sales Contact: Donna Hasapidis, Documentation & Stds. Manager **210**

Peak Scientific Instruments, Ltd., Fountain Crescent, Inchinnan Business Park, Scotland, United Kingdom PA4 9RE, +44 (0) 141 812 8100, fax: +44 (0) 141 812 8200, Internet: www. peakscientific.com Peak Scientific Instruments Ltd are a manufacturer of laboratory Gas Generators including nitrogen, hydrogen and zero air suitable to operate most laboratory analytical applications such as LCMS (liquid chromatography mass spectroscopy) and GC (Gas chromatography). With varying flow rates, purities & pressures of gas generators, available with or without internal air compressors, Peak are confident to offer the complete solution to your total Gas requirements. Our Gas Generators provide a safe & economical alternative to combustible bottled Gas cylinders offering a constant purity resulting in accurate analysis. Our Service & Support is world class. Without fail our expert engineers fix problems at the first visit and you can find them all around the world—not that you will need them very often. Even though our Laboratory Gas Generators take the strain in the lab, they deliver all your gas requirements smoothly and reliably. **1410**

Pearson, One Lake Street, Upper Saddle River, NJ 07458, 415-402-2583, Internet: www. pearsonhighered.com, Sales Contact: Jonathan Cottrell, Marketing Manager Pearson, the global leader in education and education technology, is committed to providing quality content, assessment tools, and educational services, for millions of students and their instructors. Pearson continues to transform education and change the way students learn by offering innovative online resources and learning applications, such as Mastering Chemistry®. **1403**

PerkinElmer, 710 Bridgeport Avenue, Shelton, CT 06484, 1-800-762-4000, fax: 203-944-4950, Internet: www.perkinelmer.com PerkinElmer is a global company focused on improving the health and safety of people and their environment. From earlier medical insights and more effective therapies to cleaner water and safer homes, PerkinElmer touches the lives of millions of people every day. Our Environmental Health business develops analytical instrumentation, illumination and detection technologies and support services to protect the quality and sustainability of our environment and the security of people within their surroundings. **218**

picoSpin, LLC, 5445 Conestoga Ct., Suite 202, Boulder, CO 80301, 877-390-0465, e-mail: camiller@picospin.com, Internet: www.picospin. com, Sales Contact: Chuck Miller, Director of Business Operations We develop and manufacture miniature NMR spectrometers and related technology. Our products have applications anyplace where chemical engineers, QC engineers, safety scientists or other professionals need to analyze the chemical content of fluids. picoSpin spectrometers also have a big role to play in chemical education. Now every chemistry student can experience NMR firsthand, and learn why it is such a powerful analytical method. 1319 PIKE Technologies, 6125 Cottonwood Drive, Madison, WI 53719, 608-274-2721, fax: 608-274-0103, Internet: www.piketech.com PIKE Technologies, Inc. is a primary source for spectroscopy accessories and applications worldwide. Products include attenuated total reflectance (ATR), diffuse reflectance, specular reflectance, integrating spheres, polarization, IR microscope, beam condensers, remote sensing, and a complete line of transmission sampling accessories. Many of these products are available with optional heating and automation for increased sampling speed and productivity. PIKE Technologies, Inc. also offers design and consulting services for development of specialized and custom products for a wide range of spectroscopy applications. PIKE products are compatible with all major brands of spectrometers. **511**

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 1407

PolyPeptide Laboratories, 9395 Cabot Drive, San Diego, CA, United States 92126, (858)408-0808, Internet: www.polypeptide.com Poly-Peptide Group is a leading provider of custom/generic peptides for research and pharmaceutical applications with 6 facilities worldwide. Our focus is on proprietary and generic GMP-grade peptides for the pharmaceutical and biotechnological market. With more than 50 years of experience, the group is committed to the highest quality of peptide manufacturing, irrespective of whether this is for approved drug substances, GMP peptides in clinical trials or small scale non-GMP custom synthesis. **1137**

Protein Technologies Inc., 4675 S. Coach Dr., Tucson, AZ, United States 85714, 520-629-9626, fax: 520-629-9806, e-mail:info@ptipep.com, Intemet: www.ptipep.com Protein Technologies, Inc. (PTI) has been the world's leading manufacturer of automated peptide synthesizers for research, custom, and large-scale peptide production for over 25 years. Our peptide synthesizers are the most innovative and reliable instruments in the industry, and can also be used for organic synthesis as well as DNA or PNA synthesis. PTI instruments include the Overture Robotic Peptide Library Synthesizer, the Symphony, Prelude, Tribute with UV Monitoring, PS3 and Sonata XT. PTI also supplies quality solvents and reagents for peptide synthesis including resins, activators, amino acids, specialty amino acids, pseudoproline dipeptides, TFA and solvents. 633

Qorpak, Corporate One West, 1195 Washington Pike, Bridgeville, PA 15017, 412-257-3100, fax: 412-257-3001, Internet: www.qorpak.com, Sales Contact: Karen Brooks, VP Qorpak®, division of Berlin Packaging features a full line of glass & plastic bottles and borosilicate sample & chromatography vials. Our quality labware includes PYREX® tubes & flasks, scales & balances, mixers & shakers, Whatman® filtration products, pH buffers, reagents and media. Qorpak® is dedicated to find creative ways to contribute to your organization's success and growth and offers a host of value added services, including specialized kit assembly, precleaning, capping, specialized case pack configurations, safety coating, labeling, and much more. Contact Qorpak 1-800-922-7558 or shop at our on-line store at www.qorpak.com. Qorpak® is ISO 9001:2008 certified. **517**

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 heads, and general laboratory ware. For scale-up, Quark offers up to 100L jacketed reactor set-ups. We offer extensive educational discounts and our products are MADE in the USA. 1207

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 offers a broad range of novel resins for solid phase and liquid phase chemistry, combinatorial chemistry, polymer supported reagents, library generation, peptide and oligonucleotide synthesis, as well as for diagnostic applications. Reagents for PEGylation like methoxy PEG's, homofunctional and hetero-bifunctional PEG derivatives are our new and innovative product line. Products and services: TentaGel, HypoGel, polystyrene resins, PEGylation reagents, custom synthesis, peptide synthesis, functionalized polymers, chemistry development, miniaturization. **1232**

Reichert Technologies, 3362 Walden Ave., Depew, NY 14043, 716-686-4513, fax: 716-686-4554, Internet: www.reichertspr.com, Sales Contact: Philip Page, Technical Sales. 214

Remspec Corporation, 512 Leadmine Road, Sturbridge, MA, United States 01566, 508-248-1462, fax: 508-248-1463, Internet: www.remspec. com Remspec's Reaction/View@ range for mid-IR reaction monitoring with VizIR™ software offers 3D spectra and realtime trending. Reaction-Sleuth™ post-processing software for PCA/Target transformation, peak deconvolution, etc., completes our reaction-monitoring line. Spot-View@—now available in a new, slim format—is ideal for in-situ cleaning validation and surface analysis enables realtime, sub-microgram detection of organics on metal, glass, and many plastics, including both flat surfaces and the interior of valves etc. **216**

Renishaw, Inc., 5277 Trillium Blvd., Hoffman Estates, IL 60192 United States, Internet: www. renishaw.com 1607

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 expert project anagement for all chemical and pharmaceutical outsourcing requirements, focusing on valueadded custom synthesis and processing solutions. Knowledgeable chemical sourcing staff can locate difficult-to-find chemical compounds at any scale. Richman Chemical's customers benefit from the experience, outstanding reputation, and extensive manufacturing network RCI has to offer. This foundation allows the customer to receive the highest quality outcome for the final, outsourced process and/or material, typically saving time and money. Visit our website at www.richmanchemical.com to learn more about us. Meet our Project Managers at Booth 515 in San Diego. **515**

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, including benchtop XRD and XRF systems, X-ray optics and detectors, single crystal diffractometers for chemical crystallography, multi-purpose diffractometers with SAXS and in-plane capabilities, and high-powered WDXRF spectrometers. Founded in 1951 in Tokyo (Japan), Rigaku Corporation is a global leader in X-ray and thermal analysis, automation solutions, and non-destructive testing. Rigaku employs more than 1,100 people in the development, manufacturing, marketing and support. 427

Rigaku Raman Technologies, 1101 McKay Dr., San Jose, CA, United States 95131, 408:512-5928, fax: 408-512-5959, Internet: www. rigakuraman.com *Rigaku Raman Technologies*, a division of Rigaku Corporation, is located in Cambridge, Massachusetts. We are global leaders in the development, manufacturing and sales of handheld portable Raman spectrometers. Our FirstGuardTM is a new breed of Raman handheld instrumentation. Designed to be taken into the factory warehouse or out in the field for real-time, fast sample measurements. FirstGuard models are 21 CFR Part 11 compliant and available in three different excitation wavelengths 532 nm, 785 nm, and 1064 nm depending on your application needs. **1436**

Rod Griffin Australian Opals, P.O. Box 718, Silverado Canyon, CA 92676, United States, 714-393-1259, e-mail:rodgriffinopals@bigpond. com, Sales Contact: Rod Griffin, Owner Rod Griffin has been mining opals in Australia for more than 50 years. He is selling Australian boulder opal products such as ready-to-wear pendants and specimens from his mines in south-west Queensland. Rod also has a range of other natural history products from elsewhere such as fossils, meteorites, stones, etc. at affordable prices which will make lovely gifts and souvenirs for you and your family. Please come and visit us at booth no. 1245. **1245**

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 worldwide network of members and an international publishing business, our activities span education, conferences, science policy and the promotion of chemistry to the public. Drop by our stand (booth number: 1111) to meet a member of the RSC team. **703**

RT Instruments, Inc., 10 N. East St.,, Suite 106, Woodland, CA, United States 95776, Internet: www.rtinstruments.com RT Instruments sells New & Used Analytical Instruments, Lab Products, and Instrument Servicing. Products include Thermal Analyzers (Seiko), Rheometers & Viscometers (Thermo-Haake), Dynamic Mechanical Analyzers (Gabo), Balances (Adam), Dielectric Cure Monitors (Lambient), Circulators (Julabo), Process Software (Symbion), TGA's & Hardness Testers (Navas), Mass Spectrometers (Pfeiffer), Raman (Enwave), FTIR (Nicolet), Digital Microscopes (Dinolite), UV-VIS, Torque Rheometers, Lab Extruders, Ovens, GC/MS, Particle Size Analyzers, Tensile Testers, Lab Furniture, centrifuges & others. 102

Sapling Learning, 2815 Exposition Blvd., Austin, TX 78703, (512) 323-6565, e-mail: info@saplinglearning.com, Internet: www. saplinglearning.com Sapling Learning is a leading provider of interactive homework and assessment software for the Higher Education sciences. Since 2004, Sapling Learning has focused on providing students with rich, discipline specific interactions, such as molecule drawing and graphing, to promote engagement and comprehension in challenging problem-solving disciplines of chemistry, physics, biology, and engineering. Sapling Learning provides instructors unprecedented flexibility to create and customize instructional content in an easy-to use, flexible, code-free environment. No other solution in the market provides the level of seamless integration of rich learning elements for both creating and learning scientific material. **717**

Sartorius Mechatronics Corporation, 5 Orville Drive, Bohemia, NY, United States 11716, (800) 368-7178, fax: (631) 253-5467, Internet: www. sartorius.com Sartorius is a leading provider of equipment and services for development, quality control, and production processes. Our products cover a wide segment of markets including laboratory, process, industrial, and academic markets. Our integrated solutions cover weighing, electrochemistry, moisture analysis, high purity water systems, and QC calibration and verification services. **103** 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 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 ligandbased pharmacophore and shape-based modeling, and Canvas, a full-featured chemoinformatics package. We will also demo Seurat, an advanced data visualization and analysis tool that's ideal for data-sharing within any drug discovery project team. Also exhibited are Jaguar, a high-performance quantum mechanical package, and MacroModel, a comprehensive molecular modeling program with particular strengths in conformational analyses. The complete line of small molecular modeling and drug discovery tools will be available for hands-on demonstration. **503**

SCIENCE/AAAS, 1200 New York Avenue, Washington, DC 20005, 202-326-6417, 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. **1503**

Scientific Computing & Modelling NV, SCM/ TC/FEW, Vrije Universiteit Amsterdam, De Boelelaan 1083, Amsterdam, Netherlands 1081 HV, 31-20-5987626, fax: 31-20-5987629, email:sales@scm.com, Internet: www.scm.com SCM introduces the ADF2012 release of its computational chemistry software suite for challenging modeling problems in chemistry and materials science, including spectroscopic and heavy-element applications. ADF2012 contains molecular (ADF) and periodic (BAND) DFT and fast approximate DFT (DFTB) implementations, semi-empirical (MOPAC), as well as reactive (ReaxFF) and norreactive force field methods, as well as combinations of those. Our COSMO-RS program computes thermodynamic properties of pure and mixed liquids. The user-friendly graphical interface supports all modules on all popular compute platforms. The ADF2012 release offers many new features, as well as usual technical improvements in parallel scaling and robustness. **606**

Scientific Lab Supply

1518

Scilligence Corporation, 15 New England Executive Park, Burlington, MA, United States 01803, 781-330-0089, Internet: www.scilligence.com Scilligence is dedicated to help Pharma, BioTech and Chemical industries to migrate their informatics infrastructure to the cloud by adopting the most innovated technologies. Based on our patented technologies, Scilligence offers following products: 1. Scilligence ELN - the completely web-based Electronic Lab Notebook; 2. Chem4SharePoint™ - a chemistry extension for Microsoft SharePoint; 3. JSDraw™JSDF -Javascript chemical structure editor, viewer and Chemistry Spreadsheet; 4. Registration - Compound Registration & Assay Database for Chemistry and Biology; 4. Chrawler™ - One-Stop Chemical Structure Search Solution for Enterprises; 5. MolEngine - .NET cheminformatics toolkit; 6. MolSqI - a chemistry cartridge for MS SqI Server; 7. CDS - Hosted compound database service **1231**

Semichem, 12456 W. 62nd Terrace, Suite D, Shawnee, KS 66216, 913-268-3271, fax: 913-268-3445, e-mail:jana@semichem.com, Internet: www.semichem.com AMPAC™ 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. Semichem also offers CODESSA™, an advanced, fully featured quantitative structure/ activity relationship (QSAR) program that ties information from AMPAC™ 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. **736**

Shanghai Medicilon Inc., 585 Chuanda Road, Shanghai, China 201299, 86-21-5859-1500, fax: 86-21-5859-6369, e-mail:info@medicilon.com. cn, Internet: www.medicilon.com Shanghai Medicilon Inc. was founded in 2004 with the purpose of providing fully integrated pharmaceutical services to the global pharmaceutical community. Our company is recognized as a leading drug discovery contract research organization (CRO) in China and is managed by a team of scientists with years of experience in US-based pharmaceutical and biotechnology companies. Medicilon's integrated services are uniquely designed to help clients develop their research and discovery programs from the initial idea stage to the IND filing phase.Through professional integrity and unparalleled dedication to each client, we will enhance the field of drug discovery to ensure a healthy world. **1608**

Shimadzu Scientific Instruments Inc., 7102 Riverwood Drive, Columbia, MD 21046, 800-477-1227, fax: 410-381-1222, Internet: www. shimadzu.com Shimadzu Scientific Instruments is a leading provider of analytical measurement and testing instrumentation for a broad range of applications in science and industry, including in such areas as academic research, pharmaceuticals, food & beverages, environmental, chemicals, and forensics. Instruments include chromatographs (HPLC/UFLC/UHPLC, GC); mass spectrometers (GC/MS, LC/MS, MALDI); spectrophotometers (FT-IR, Fluorescence, UV-VIS-NIR); atomic spectrometers (AA, ICP); X-ray spectrometers (EDX, XRD, XRF); thermal & particle size analyzers; Total Organic Carbon analyzers; data systems/software; balances; and materials testers. **408**

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 Small Molecules, Inc. is a specialty chemical supplier serving pharmaceuticals, biotech companies and academic research institutes. Our highly skilled chemists consistently carry out synthesis of complex intermediates and building blocks. There are wide ranges of chemical transformation in a broad variety of compound classes in their repertoire. Our synthesis capabilities span from small-scale to kilo quantities, covering all the requirements for drug discovery and development. Our core focus is to satisfy our customers with timely delivery while maintaining integrity of our products. **212**

Snowy Range Instruments, 628 Plaza Lane, Laramie, WY 82070, United States 1242

Sorbent Technologies, 5955 Peachtree Corners East, Suite A, Norcross, GA 30071, 866-767-2832, ext. 0281, e-mail:dschurer@sorbtech.com, Internet: www.sorbtech.com Sorbent Technologies, the leading chromatography and purification specialist to the scientific community, specializes in premium products and services for laboratory, pilot, and production facilities. Separating small and large molecules, natural products, pharmaceuticals, nutraceuticals, proteins, peptides, oligos, polymers, and morel Sorbents: Silicas, Bonded Phases, Aluminas, Polymer Resins, Florisil, Polyamide TLC Plates Flash Cartridges for Analogix, Biotage, Isco, and Interchim Systems Flash Systems HPLC Columns: Analytical & Semi-Prep, & Prep (Grace Vydac, Macherey-Nagel, Jordi) GC columns FPLC, Prep & Process Columns SPE Cartridges Solvent Evaporators UHPLC Systems Lab Supplies: Pipet Tips, PCR, Tubes, Pipettors, Gloves, Racks, Boxes, Dispensers We are your Separation Solution Sourcel

Springer, 233 Spring Street, New York, NY 10013, 212-460-1600, fax: 201-348-4505, Internet: www.springer.com Get hands-on experience with Springer's multi-format publishing

model: print – eBook – MyCopy (printed eBooks for \$24.95/€ 24,95). With more than 2,100 books currently available in the Chemistry and Materials Science eBook Collection, our mission is to support your research. Come browse our books in your preferred format: print, online, or on an eReader or iPad. Among our highlight publications are renowned review series such as Topics in Current Chemistry, and cutting-edge journals such as Topics in Catalysis and Analytical and Bioanalytical Chemistry. Ensure optimized print and electronic dissemination of your work, too! Get Read. Publish With Springer. **612**

SRI International, 333 Ravenswood Avenue, Menio Park, CA 94025, 650-859-3000, fax: 650-859-3041, Internet: www.sri.com/biosciences SRI International Biosciences provides complete drug discovery and preclinical capabilities to take small molecules and biologics from Idea to IND®. Our integrated program offers the scientific, technical, and regulatory expertise you need to expedite the process. We provide target identification, lead discovery/optimization, screening, and efficacy testing in our focus areas of cancer, infectious disease, neuroscience, and immunology. SRI also provides synthesis, toxicology, PK/ADME, formulation, analytical chemistry, cGMP manufacturing, QA, IND preparation and government grant teaming services. Whether you need a single focused study or a turn-key package, SRI is the solution for your high-value pharmaceutical discovery and development needs. 637

StellarNet Inc., 14390 Carlson Circle, Tampa, FL 33626, 813-855-8687, fax: 813-855-0394, email:dpersell@stellamet.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, thin-film metrology, reflectometry and colorimetry, solar spectral analysis, LED/Laser characterization, LIBS, and optical emission spectroscopy. **226**

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 and ligands for organic synthesis, MOCVD/ALD precursors and nanomaterials, for use in pharmaceutical, microelectronics, chemical and petrochemical industries. Custom synthesis services are also provided. cGMP manufacturing is also available. Nanomaterials manufactured include clusters, particles, powders and magnetic fluids of Ti, Au, Pt, Rh, Ni, Pt/Ru, Co, Fe/Co. **519**

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 Equipment, consultation and services for supercritical fluid extraction (SFE), reaction (SFR) and high pressure chemistry. Laboratory SFE: 5 ml to 5 liters; Pilot Scale SFE systems: single or dual 10 liters, fraction collectors, automation. HPR-Series High Pressure Chemical Reactors: 50 ml to 4 liter and larger. Customize designed reactors and extractors to your specifications, including SCWO systems. Phase MonitorTM for visual solubility determinations in supercritical fluids. CO2 and solvent pumps, parts and service. Laboratory scale material processing services; Research and feasibility studies. **30**9 SURECHEM, The Macmillan Building, 4 CrinanStreet, London, United Kingdom N19XW, 01144 20 7833 4000, fax: 011 44 20 7843 4640,Internet: www.surechem.org1006

Surface Electro Optics Co.,Ltd, #946, Kosekdong Kwonsungu Suwoncity, Kyuggido, Korea, South 441-813, +82 (31)298 9561, Internet: www.s-eo.com SEO was established in 1998 and is taking the lead in analysis technology in Korea with many years of accumulated research and experience while concern and research about Nano-Technology Industry have been increasing SEO opened a new stage of Contact Angle Analysis Technology as a result of a lot of effort for the localization of Surface Chemistry Analysis instruments. In addition, ever since the SEO Phoenix and DST Series came into the market, we have been enjoying a very good reputation for quality and service Products Contact Angle Analyzer Surface Tension meter **1435**

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 1620

Synthonix, 2713 Connector Drive, Wake Forest, NC 27587, 919-875-9277, fax: 919-875-9601, Internet: www.synthonix.com Synthonix provides medicinal chemistry-driven building blocks. Our novel building blocks are designed to allow chemists to readily access unexplored chemical space, improve metabolic stability, attenuate basicity, and increase metabolic stability. 1303

Syrris, 29 Albion Place, Charlestown, MA 02129, 617-848-2997, fax: 617-532-1033, e-mail:info-usa @syrris.com, Internet: www.syrris.com Syrris creates automated products for research and development chemists and is a world leader in flow chemistry, microreactor and automation technology. Syrris products are used in a wide variety of applications and laboratories including process, discovery, crystallization, process safety, scale-up and many more. Syrris products include the innovative range of fully automated batch reactor products (Atlas), a manually operated jacketed reactor platform (Globe) and flow chemistry systems (Asia and Africa). Syrris also offers the Medstere software for suggesting novel bioisosteres to lead compounds. **1626**

TA Instruments, 159 Lukens Drive, New Castle, DE 19720, 302-427-4189, fax: 302-427-4186, email:info@tainstruments.com, Internet: www. tainstruments.com Visit TA Instruments for thermal analysis, thermophysical properties, rheology and microcalorimetry solutions. We offer innovative technology and services for a wide range of materials characterization applications. Our Discovery Series DSC and TGA deliver unmatched performance and our ARES-G2 and new DHR-Series Rheometers set the standard for rheological measurements. Our NanoITC and NanoDSC calorimeters are benchmarks for life science applications. Through our recent acquisition of Anter Corporation, we now offer a complete line of thermophysical properties instrumentation including Flash Diffusivity, Thermal Conductivity and Dilatometry. 1306

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 browse special offers on new and bestselling titles, including our flagship title, CRC Handbook of Chemistry and Physics. We also offer titles in biochemistry, sustainability, and life sciences. Pick up free journal copies or sign up for our email list to receive exclusive offers. Please visit our Chemistry Arena website at chemistryarena. com to access all things Chemistry-including journal reviews, articles, the latest news, conference listings, and interviews. **702** TCI America, 9211 N. Harborgate Street, Portland, OR 97203, 800-423-8616, fax: 888-520-1075, e-mail:sales@tciamerica.com, Internet: www.tciamerica.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 developes new technology that produces rare and novel compounds. Our current catalog lists over 21,000 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.tciamerica. **713**

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, Sales Contact: Mike Cammarata, Sales Manager Instruments and accessories for purification of organic compounds in normal and reversed-phase separations; and for bio-purification of proteins, peptides, and biopolymers. 303

ThalesNano Nanotechnology Inc., 7. Zahony u, Budapest, Hungary H-1031, 00 36 1 8808 500, fax: 00 36 1 8808 501, Internet: www.thalesnano. com ThalesNano is specialized in developing and providing continuous flow instruments for chemistry from milligram scale to Tonnes/annum, by exploiting benefits of combining microfluidics, mesofluidics and nanotechnology with flow chemistry. The company was founded in 2002 and is located in Budapest, Hungary but also has offices in the United Kingdom and United States. By the beginning of 2010 Thales Nano has built up a distributor sales channel located on 6 continents and in 53 countries. 1327

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, Sales Contact: Jessie Morris, Marketing Manager The New York Times is the largest metropolitan newspaper in the U.S. It is frequently relied upon as the official and authoritative reference for modern events. Visit The New York Times booth for 50% off Home Delivery and receive a free gift with subscription. 631

Thermo Scientific, 355 River Oaks Parkway, San Jose, CA 95134, 800-532-4752, Internet: www. thermoscientific.com Thermo Scientific represents a broad range of high-end analytical instruments, chemistry and consumable supplies, laboratory equipment, software and services that enable integrated laboratory workflow solutions. Thermo Scientific is a brand name that researchers, clinicians and scientists count on to solve their analytical challenges. Dionex chromatographic and Thermo Scientific mass spectrometry solutions combine to deliver more confident results, yield higher throughput, and reduce sample preparation. The brand is strengthened by the addition of equipment, consumables and reagents acquired from Fisher Scientific. See our solutions for FTIR, Fluorescence, UV-Vis, Raman, GC/MS and Orbitrap LC/MS. **917**

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, SYNLETT 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. Most of our content is also available as electronic products, used by chemists worldwide in industry and academia. **1029**

Thomson Reuters, 3501 Market Street, Philadelphia, PA 19104, 215-823-3921, fax: 215-243-2235, Internet: www.endnote.com Thomson Reuters provides research solutions to over 5,600 academic institutions worldwide. Web of Knowledge, Web of Science, and in-depth evaluation tools deliver relevant data and unique ways to search, evaluate, and share this information, including cited reference searching, analysis tools, and EndNote for integrated searching, writing, and instant bibliography creation for research papers. 126

Titian Software, 1500 West Park Dr., Westborough, MA, Internet: www.titian.co.uk Titian Software (www.titian.co.uk) is the industry leader in sample management software and professional services, with offices in the UK, US and mainland Europe. Trusted by pharma, biotech and academic institutions throughout the world, Titian improves the efficiency, throughput and data integrity of sample management in life science research. From enterprise-wide solutions to a single lab, Titian's modular Mosaic software optimizes the tracking, ordering and preparation of small molecule compounds, biological samples and reagents. Mosaic is the leading sample management software in life sciences, chosen by 13 of the Top 20 Bio-Pharma companies in the world. **219**

Tosoh Bioscience LLC, 3604 Horizon Drive, Suite 100, King of Prussia, PA 19406, 484-805-1219, fax: 610-272-3028, Internet: www.tosoh bioscience.com Tosoh Bioscience is a global leader in the manufacturing and sales of high quality, innovative pre-packed HPLC columns and bulk resins with the TSK gel, TOYOPEARL, and ToyoScreen brand names. Continuing with a tradition of excellence that began with the introduction of one of the first SEC columns in 1976, we expanded our product portfolio in 2008 to include a dedicated system for GPC analysis, the EcoSEC GPC system. This instrument delivers unsurpassed efficiency, reliability, and reproducibility and is on display at our booth. **516**

Tridiagonal Solutions Inc., 11550 IH 10 West, Suite 180, San Antonio, TX, United States 78230, 210-372-0816, e-mail:dr.vedapuri@tridiagonal.us, Internet: www.tridiagonal.us Tridiagonal Solutions is a company formed by R&D Scientists, Process Consultants and Software Professionals. Tridiagonal provides solutions for mixing, reactor engineering and modeling of complex flow using advanced simulation tools. Tridiagonal team, with its wide experience and extensive expertise in multiphase flows, reactor engineering and software technologies, provides 'end to end' solutions to enhance performance of industrial processes in chemical, petrochemical, biotechnology, specialty chemicals, pharmaceuticals and related industries. Core services include Process Simulations, CFD Analysis, Experimental Testing, Software development, Design & Delive ery of Lab Equipment. **1106**

University of Florida, Pharmaceutical Chemistry, P.O. Box 100484, Gainesville, FL 32610, 813-818-9100, Internet: pharmchem.cop.ufl.edu University of Florida Online Masters of Science in Pharmaceutical Chemistry. The University of Florida, College of Pharmacy offers a distance education program in Pharmaceutical Chemistry to meet the needs of today's professionals. This master degree offers a strong foundation in Medicinal Chemistry, Metabolism, Drug Chemistry, Synthetic Medicinal Chemistry, Herbal and Dietary Supplements, and much more. **1834**

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 University Science Books will be displaying best-selling titles in chemistry, including the newly published CHEMISTRY OF THE ENVIRONMENT, 3rd Edition, by Spiro et al, our GENERAL CHEMISTRY; 4th Edition, by McQuar

rie, Rock and Gallogly; and MODERN MOLEC-ULAR PHOTOCHEMISTRY by Turro et al. Come by and browse through our beautifully produced textbooks—by great authors at affordable prices. 1008

US EPA Green Chemistry Program, 1200 Pennsylvania Avenue, Mail Code 7406M, Washington, DC 20460, Internet: www.epa.gov/greenchemistry, Sales Contact: Joseph Smith, Contractor The U.S. EPA Green Chemistry Program is a voluntary, partnership program whose mission is to promote innovative chemical technologies that reduce or eliminate the use or generation of hazardous substances in the design, manufacture, and use of chemical products and processes. The Program accomplishes these goals through multiple activities including: The Presidential Green Chemistry Challenge Awards; designing tools, databases, and educational materials; and supporting research through grants and fellowships. **726**

Vacuubrand, Inc., 11 Bokum Rd., Essex, CT 06426, 860-767-2562, fax: 860-767-2563, email:kpouliot@brandtech.com, Internet: www. vacuubrand.com VACUUBRAND will present corrosion-resistant oil-free vacuum pumps that feature exceptionally quiet operation and long service intervals. Pumps and vacuum systems are ideal for rotary evaporators, reactors, distillation, concentrators, vacuum ovens, gel dryers, filtration and more. VACUUBRAND VARIO" vacuum systems self-optimize, eliminating test runs and programming, minimizing bumping, and completing evaporations up to 30 percent faster. We also offer 24VDC compact OEM vacuum pumps, rotary vane pumps, and new corrosion-resistant digital vacuum gauges and controllers. **433**

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 provide 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 Glovebox Integrated Solvent Purification systems. **327**

Vernier Software & Technology, 13979 SW Millikan Way, Beaverton, OR 97005, 888-837-6437, fax: 503-277-2440, e-mail:info@vernier. com, Internet: www.vernier.com Stop by the Vernier Software & Technology booth to see our exciting products for college chemistry such as our new Organic Chemistry with Vernier lab book. Our new Polarimeter graphs light intensity versus angle so students don't have to determine optical maximum with their eye. The new Constant Current System integrates a power source with a current sensor for easy electroplating and electrolysis. You can also try the Vernier Mini GC, the Melt Station Melting Temperature Sensor, and the SpectroVis Plus spectrophotometer with fluorescence capabilities. Use any of these devices on a computer or our stand-alone LabQuest lab interface. **1202**

Vici Valco Instruments Co Inc., PO Box 55603, Houston, TX 77255, 713-688-9345, fax: 713-688-3948, Internet: www.vici.com, Sales Contact: Dennis Carroll The VICI Companies (including VICI AG) design and manufacture parts/ accessories for precision analytical and biocompatible instrumentation. VICI Cheminert features injectors and fittings for HPLC and UHPLC. The VICI Valco line includes valves, fittings, pneumatic and electric actuators, sample loops, and temperature controllers, gas purifiers, and GC detectors. VICI Metronics manufacture gas permeation devices for gas standards, peek tubing, containment traps. VICI Precision Sampling produces syringes, Mininert valves, and tubing. VICI Gig Harbor manufactures capillary columns and reduced-breakdown liners. **434**

Vigor Gas Purification Technologies, 66 Brandywine Dr., Grand Island, NY 14072, 716-568-0737, e-mail:gzhong@vigor-glovebox.com, Intemet: www.vigor-glovebox.com, Sales Contact: George Zhong 227

W.H. Freeman, 41 Madison Avenue, New York, NY, United States 10010, 212-576-9400, fax: 212-689-2383, e-mail:abrady@whfreeman.com, Internet: www.whfreeman.com/chemistry Starting in 1946, with the publication of Linus Pauling's General Chemistry, WH Freeman & Company has been a proud publisher of chemistry textbooks and media solutions of the highest quality. With new editions of Investigating Chemistry by Matt Johll and Environmental Chemistry by Colin Baird coming soon and other titles spanning the chemistry curriculum, we invite you to visit us at Booth 1502 or visit www.whfreeman.com for more information. **1502**

Waters Corp., 34 Maple Street, Milford, MA 01757, 508-482-2000, fax: 508-482-2674, email:info@waters.com, Internet: www.waters. com, Sales Contact: Suzanne Decatur, Event Coordinator Waters Corporation, the premium brand in the analytical instruments industry, creates business advantages for laboratory-dependent organizations by delivering practical and sustainable scientific innovation to enable significant advancements in healthcare delivery, environmental management, food safety, and water quality worldwide. Bringing keen understanding and deep experience to those responsible for laboratory infrastructure and performance, Waters helps customers make profound discoveries, optimize laboratory operations, deliver product performance, and ensure regulatory compliance. Pioneering a connected portfolio of separations and analytical science, laboratory informatics, mass spectrometry, as well as thermal analysis, Waters' technology breakthroughs and laboratory solutions provide an enduring platform for customer success. **1302**

Wavefunction, Inc., 18401 Von Karman, Suite 370, Irvine, CA 92612, 949-955-2120, fax: 949-955-2118, e-mail:sales@wavefun.com, Internet: www.wavefun.com Wavefunction puts chemistry at your fingertips. Spartan accesses a full range of modern quantum chemical methods from a powerful and intuitive graphical interface, and serves as a primary research tool. Spartan Student offers a subset or Spartan's capabilities for use in the classroom. Odyssey is a discoverybased learning tool using molecular dynamics. Wavefunction has developed a new iPad/iPhone app providing significant capabilities from Spartan accessed from these popular devices. Visit our booth to explore chemistry with advanced molecular modeling software. 627 WebAssign, 1730 Varsity Drive, Suite 200, Raleigh, NC 27606, 919-829-8181, fax: 919-829-1516, e-mail:msantee@webassign.net, Internet: http://www.webassign.net WebAssign, the leading independent online homework and assessment system since 1998 continues to innovate. New tools include chemPad, an intuitive palette for entering chemical notation, with over 150 lines of intelligent feedback. Assess studentdrawn structures with our complete integration of the popular Marvinsketch application. And with pre-coded questions from over 150 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. **507**

Welch-Ilmvac, 5621 West Howard St., Niles, IL 60714, 847-676-8800, fax: 847-677-8606, email:gdwelchvacuum.com, Internet: www. welchvacuum.com Welch-Ilmvac is a leading global manufacturer of vacuum pump products for chemical and biological laboratories, highvacuum manufacturing, and air- conditioning/ refrigeration. The Welch-Ilmvac product line includes oil lubricated rotary-vane vacuum pumps, dry piston and diaphragm vacuum pumps, and specialized vacuum systems, components, gauges and accessories. **1720**

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 1509

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 DAWN multi-angle light scattering (MALS) instruments for absolute macromolecular characterization determine absolute molecular weights and sizes of proteins, polymers, nanoparticles. 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 measures on-line intrinsic viscosity of polymers and biopolymers eluting from a GPC/SEC. 602

Yamazen Science, Inc., 903 Sneath Lane, Suite 125, San Bruno, CA 94066, 650-877-7750, fax: 650-873-6496, e-mail:info@yamazenusa.com, Internet: www.yamazenscience.com Yamazen manufactures Japan's Leading Automated Flash Purification Systems & High Resolution Columns with 38 years of Chromatography experience. US Patented software (GREEN FLASH) gearing toward GREEN CHEMISTRY: Automated, Fast (4CV) & predictable Run Time & Low Solvent Usage (Green Pavilion during ACS Expos, 3 times in a row). W-Prep: Intelligent, Fast, Dual & Parallel Prep LC – can run two columns simultaneously. 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 **1402**