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**Edgar Fahs Smith Lecturer
Dr. A. Paul Alivasatos**

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2009 Eastern Analytical Symposium

November 16 - 19, 2009

Garden State Exhibit Center, Somerset, New Jersey

CALL FOR PAPERS

Deadline – April 15, 2009

The Eastern Analytical Symposium and Exposition is the second largest conference and exposition for laboratory science in the U.S. dedicated to the needs of analytical chemists and those in the allied sciences. We offer high quality cutting-edge technical sessions and state-of-the-art short courses, workshops and seminars. We invite you to be a part of the program by contributing a paper for oral or poster consideration. Please note that all abstracts must be submitted electronically via the EAS web site at www.EAS.org. The abstract submission deadline is April 15.

To submit a contributed paper for the 2009 EAS Technical Program, please submit abstracts through our web site at www.EAS.org, between March 1 and April 15, and follow the instructions for abstract submission.

Invited speakers must not submit abstracts to EAS until requested.

Please carefully review the following information:

- All contributed abstracts must be submitted through our web site at www.EAS.org between March 1 and April 15, 2009. No faxed, e-mailed, or mailed abstracts will be accepted.
- **Please note that no one author may submit and present more than two posters.**
- All abstracts will be acknowledged via e-mail.
- The title of the presentation and the list of authors that you submit are final, and may not be changed.
- The abstract that you submit will be considered to be your final abstract that will be printed in the abstract book for the 2009 Eastern Analytical Symposium.
- Presenting authors of contributed submissions will be notified in June 2009 of the status of the abstract and its session assignment.

TOPIC AREAS

Bioanalysis
Biomolecules/Biological Systems
Capillary Electrophoresis
Chemometrics
Chiral Analysis
Chromatography
Compendial Methods
Conservation Science
Data Analysis/LIMS
Dissolution
Environmental Analysis/Pollutants
Food Analysis
Forensic Analysis
Gas Chromatography
HPLC
Immunochemistry

Industrial Hygiene
Ion Chromatography
IR Spectroscopy
Laboratory Automation
Laboratory Management
LC-MS
Mass Spectrometry
Microchemistry
Microscopy
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NMR Spectroscopy
Organic Chemistry
Pharmaceutical Analysis
Pharmaceutical Impurities
Process Analytical Science
Quality by Design

Quality/Regulatory/Compliance
Raman Spectroscopy
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ADVANCE NOTICE

APRIL MEETING

Drexel University
Dr. Catherine T. (Katie) Hunt

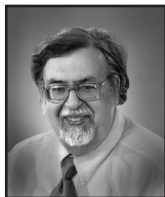
SCHOLASTIC ACHIEVEMENT AWARDS

Thursday, April 16, 2009

See the April *Catalyst* for details,
call the Section Office at 215-382-1589, or email PhilaACS@aol.com

From The Chair

Robert A. Gates



Green Chemistry? What exactly is Green Chemistry? Is it a very specialized area of tinting and dyeing Chemistry? Is it an area of Chemistry that is green with envy of another area of Chemistry? No, Green Chemistry is a new way of thinking about the use of chemicals and the products created from such in terms of their impact on the environment of the planet we live on.

In the past, all types of chemicals, regardless of their toxicity, were used somewhat haphazardly in synthesis and manufacturing with little thought to the consequences of the waste created or the eventual disposal of the final product. The general idea was make the end product and then worry about the environmental cleanup. Green Chemistry attempts to take all of these factors into account and reduce or eliminate toxic waste before it becomes a reality, and before damage is done. Rethinking most chemical processes will usually reveal an environmentally better procedure that is economically feasible and in many cases even cheaper. Paul Anastas of the EPA and John C. Warner developed 12 principles of Green Chemistry that explain its practice.

1. Prevent Waste. It is better not to make waste than to clean it up later.
2. Design safer chemicals and processes. That is, fully functional products, little or no toxicity.
3. Design less hazardous chemical synthesis. Design to generate less toxic wastes.
4. Use renewable feedstocks. Use agricultural products or even waste products from other processes rather than depletable resources such as fossil fuels.
5. Use catalysts, not stoichiometric reagents. Catalysts can be used in small amounts to cause multiple instances of reaction rather than a single reaction.

6. Avoid chemical derivatives. These use additional reagents and create more waste.

7. Maximize atom economy. Final products should contain a maximum of the starting materials.

8. Use safer solvents and reaction conditions. Avoid solvents when possible; use innocuous eco-friendly ones if it is not possible.

9. Increase energy efficiency. Use ambient temperature and pressure if possible.

10. Design chemicals and products to degrade after use. No toxic substances to accumulate in the environment.

11. Analyze in real time to prevent pollution. Keep an eye on things to ensure waste products are not being produced.

12. Minimize the potential for accidents. Design to minimize the possibilities of release of toxics into the environment through fires, explosions etc.

These rules followed carefully would, indeed, greatly reduce the amount of pollution of the Earth's environment. I urge you to take Green Chemistry seriously and apply its principles in your daily decisions as much as possible. As chemists, we are the stewards of the chemical industry and truly have the duty to try to keep our environment as clean as possible. We only have one planet and we must keep it livable for current and future generations.

DELAWARE VALLEY SCIENCE FAIRS

The Delaware Valley Science Fair
March 31- April 2 at the Greater
Philadelphia Expo Center at Oaks in
Oaks, PA.

Judges and mentors are always needed.

Check the website:

www.dvsf.org

for more information and to volunteer.

NEWS ATOMS

Bradford B. Wayland joins Temple University's College of Science and Technology as professor of chemistry.

DEATHS

Winfred Ormal Harrington, research chemist formerly with USDA, October 29, 2008 at 94. Following brief employment with Ford Motor Co. at the Golden Gate International Exposition in 1939, he served in the US Army during WW II in the Pacific Theater. He remained in the Army Reserves and rose to lieutenant colonel. He joined the USDA's Eastern Regional Research Center, retiring in 1974 after 28 years service. He studied safety and flavor aspects of apple cider including the use of UV irradiation to reduce microbial growth and to preserve flavor.

Anthony P. Fortino, retired vice president of Elf Atochem, January 4, 2009 at 80. He joined Pennwalt Chemical Corp. in 1951 as a chemical engineer and transferred to Philadelphia in 1964. In 1991 he retired from the firm, then known as Elf Atochem, as vice president of personnel.

Robert Kunin, retired scientist formerly with Rohm and Haas, January 6th at 90. Following brief employment with the Tennessee Valley Authority and then participation in the Manhattan Project at Columbia University, he joined Rohm and Haas in 1946 and after 30 years retired as development manager of the fluid process chemicals department in 1976. While there he served as author and editor of *Amber Hi-Lites*.

Kunin was a visiting lecturer at the University of Pennsylvania and the American University in Washington during the period 1960-1980. He was also a consultant to the blood-preservation laboratory at Harvard University and to the Atomic Energy Commission. In 1966 he was awarded the Franklin Institute's Howard N. Potts Medal for his work on ion exchange resins in chemical clarification of liquids. He authored 10 books and held over 100 patents.

John Stafford Neill, chemical engineer with DuPont, January 9th at 89. His entire career was with DuPont including its Atomic Energy division.

CHEMICAL CONSULTANTS NETWORK

Visit our *NEW* web page at:
www.chemconsultants.org

Date and Time: Wednesday, March 11th, at the Cynwyd Club, Bala Cynwyd, PA; Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM.

Speaker and Topic: **Karen Huller**—*Using LinkedIn to Propel Your Business and Your Career*.

Biography: **Karen Huller** is a member of the Professional Association of Résumé Writers and Career Coaches. She received her BA in Communication Studies and Theater from Ursinus College, where she minored in Creative Writing. She spent five years working in executive and information technology placement firms providing research, sourcing, recruiting, résumé formatting, compensation negotiation consulting, and interview coaching. Mrs. Huller started Charésumé, LLC to work one-on-one with those in transition, preparing materials such as résumés and cover letters and developing individualized transition marketing campaigns. She educates her clients on the employer's point-of-view as to how to be one of the top 10% of candidates who are selected to interview and how to interview to get hired. Her mission is to be a trustworthy authority who compassionately, honestly and sincerely advises people toward a more fulfilling future.

Location: The Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA 19004.

Reservation: To make or cancel a dinner reservation, e-mail CCNReservations@aol.com or call the ACS office at 215-382-1589. Fee, including food and beverages (wine, beer & sodas), is \$25 by the deadline, Thursday, March 5, \$35 afterwards. Late reservations and walk-ins subject to availability. No-shows will be invoiced.

NOMINATIONS INVITED FOR THE PHILADELPHIA SECTION, AMERICAN CHEMICAL SOCIETY, AWARD

The Philadelphia Section invites its members and regional and topical groups to consider recommending candidate(s) for the Philadelphia Section Award.

This Award recognizes an individual, "who, by conspicuous scientific achievement through research, has made important contributions to man's knowledge and thereby aided the public appreciation of the profession." Any member of the American Chemical Society, Philadelphia Section, may be nominated for this award. Recent awardees include: John J. Baldwin (Vital Pharmaceuticals 2008), Robert J. Levis (Temple University 2007), Patrick J. Walsh (University of Pennsylvania 2006).

INSTRUCTIONS FOR SUBMITTING NOMINATION

(1) The nominator should provide detailed biographical data of the nominee, showing educational and employment data, a list of publications and a record of other accomplishments pertinent to consideration for this award.

(2) One or two seconding letters (at least one of which should be from a person in an organization other than that of the nominee) should be requested in support of the nomination.

(3) Nominators and seconders should be identified with addresses and telephone numbers so that they can be contacted, if necessary, for additional information.

(4) Unsuccessful nominees from previous years may be renominated. In fairness to the nominee, however, renominations must be accompanied by an updating of the nominee's biographical data and list of accomplishments in order to make the nomination competitive. Unsuccessful nominees who have been considered three years in a row should not be renominated for the fourth year in succession without prior consultation by the nominator with the chair of the Awards Committee.

Nomination forms are available from the Section Office. Contact the Administrative Secretary, Mrs. Libby Harper at: Philadelphia Section, ACS, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104-6323, 215-382-1589; email: PhilaACS@aol.com.

The completed packet of nomination materials may be emailed to PhilaACS@aol.com or nine COMPLETE SETS may be sent by April 2, 2009 to Mrs. Judith Summers-Gates, Chair, Awards Committee, at the Section Office address above.

PROJECT SEED FOR DEBORAH KILMARTIN

The Philadelphia Section would like to fund a Project SEED Endowed Student Stipend as a memorial to Deborah Kilmartin. Any gift made to **Project SEED Endowment** and earmarked as a memorial to her can be included. If we do not reach the goal of \$50,000, any funds contributed will still be used by Project SEED in her memory.

To make your gift online, go to www.acs.org/giving, click on Project SEED, then scroll down to Dedicate this Gift to Someone Special and enter Deb's name. If you prefer to write a check, you must enclose a note or write on your check that the gift is for Project SEED in memory of Deborah Kilmartin and make it payable to the American Chemical Society.

If you are planning to make a gift with your dues payment under "voluntary contribution," be sure to label it for Project SEED in Deb's memory. If you have already made a voluntary contribution, you may notify ACS that you would like it used for Project SEED in Deb's memory.

Members who are 70 ½ or older may make their gift directly from their IRA; see www.acs.org/giftplanning.

MARCH MEETING

The Philadelphia Section,
American Chemical Society
and the
University of Pennsylvania
present the

2009 Edgar Fahs Smith Memorial Lecture

DR. A. PAUL ALIVASATOS

Lawrence Berkeley National Laboratory and
Department of Chemistry, University of California, Berkeley

Nanocrystal Molecules with Applications in Single Molecule Biological Imaging

**Thursday, March 12, 2009
6:00 PM**

Carolyn Hoff Lynch Lecture Hall
Chemistry Building, University of Pennsylvania
34th and Spruce Streets
Philadelphia, PA 19104

The lecture is free

Social Hour: 5:00-6:00 PM in the Alumni and Faculty Hall of Fame, Chemistry Building,
University of Pennsylvania

Dinner following the lecture at the White Dog Café, 3420 Sansom Street
Dinner Cost: \$45

RESERVATIONS should be made by calling Mrs. Libby Harper at the Section office, 215-382-1589, or emailing PhilaACS@aol.com by **5:00 PM** on **Thursday, March 5th**. **Cancellations**, if necessary, cannot be accepted after **NOON** on **Tuesday, March 10th**. **UNCANCELLED RESERVATIONS WILL BE BILLED.**

PARKING is available for \$13 in the University of Pennsylvania Garage located at 34th and Chestnut Streets. Going south on 34th, turn left into the garage toward the end of the block past Market and just before reaching Chestnut. Metered street parking may also be available.

The Board of Directors will meet at 4:00 PM in the Makineni Room of the Chemistry Building (Room 260 in the Cret wing), University of Pennsylvania.

SPEAKER'S ABSTRACT AND BIOGRAPHY

Dr. A. Paul Alivasatos

Nanocrystal Molecules with Applications in Single Molecule Biological Imaging

Lawrence Berkeley National Laboratory
and Department of Chemistry,
University of California, Berkeley

Abstract: Over the previous decade, new techniques emerged which permit the synthesis of inorganic nanocrystals with well-controlled site and shape and even connectivity (branched) and topology (nested). These nanocrystals exhibit strangely size-dependent properties, and can be considered a type of artificial atom,

with controlled density of states. It is by now well established that these nanoparticles can be used in a wide variety of biological imaging applications.

Our current work focuses on the creation of nanocrystal molecules

in which specific groups of nanocrystals are brought together, producing a collective response. These nanocrystal molecules can, in turn, be used to sense biological events at the molecular level and can form the basis of new types of local force sensors. In this talk, one type of nanocrystal molecule will be presented, in which DNA is used to link the nanocrystals together. In a second case, the nanocrystals will be joined by inorganic linkers.

Biography: Dr. A. Paul Alivasatos is Deputy Laboratory Director at the Lawrence Berkeley National Laboratory. Additionally, he is Professor of Chemistry and Materials Science, and the Larry and Diane Bock Professor of Nanotechnology at the University of California, Berkeley.

Dr. Alivasatos attended the University of Chicago and received a BS in Chemistry with Honors in 1981. He continued his graduate studies at the University of California, Berkeley, where he worked under the supervision of Charles Harris. His PhD thesis concerned the photophysics of electronically excited molecules near metal

and semiconductor surfaces. In 1986, he went to AT&T Bell Labs where he worked with Louis Brus as a postdoctoral, and it was at this time that he first became involved in research related to nanotechnology. In 1988, he joined the faculty of the University of California, Berkeley.

He has received the Alfred P. Sloan Foundation fellowship, the ACS Exxon Solid State Chemistry Fellowship, the Coblentz Award, the Wilson Prize at Harvard, the Materials Research Society Outstanding Young Investigator Award, the ACS Award in Colloid and Surface Chemistry (2004), the Rank Prize (2006), the University of Chicago Distinguished Alumni Award (2006), the Eni Italgas Prize (2007), the E.O. Lawrence Award (2007), and the MRS Fred Kavli Distinguished Lectureship in Nanoscience Award (2008). He is a Fellow of both the American Physical Society and the American Association for the Advancement of Science. In 2004, he was elected into the National Academy of Sciences and the American Academy of Arts and Sciences. He is the editor of the American Chemical Society journal *Nano Letters*.

Dr. Alivasatos is a leader of the Helios solar research initiative at Lawrence Berkeley National Laboratory, where he is spearheading potentially transformational research into artificial photosynthesis, and the creation of new photovoltaic technology through the creation of nanoinspired devices. His research generally concerns the structural, thermodynamic, optical, and electrical properties of colloidal inorganic nanocrystals. He investigates the fundamental physical and chemical properties of nanocrystals and also works to develop practical applications of these new materials in biomedicine and renewable energy.

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606th Board of Directors Meeting
Thursday December 11, 2008
William Penn Inn
Ambler, PA

This is the edited version of the minutes. A full copy of the minutes can be obtained from the Section Office.

Present: E. Davis, C.J. Bruner, D. Cichowicz, D. Cook, R. Gates, J. Summers-Gates, K. Thrush Shaginaw, S. Miller, D. Thomas, J. Tierney, V. Tortorelli, K. Yoder.

Excused: A. DeMasi, M. Cichowicz, J. Falcone, Jr., M. Falcone, C. Pettuci, C. Rulli, T. Straub.

Also Present: L. Harper, S. Haynie, A. Heldon, J. Crawford, M. Matthews, T. Dent, R. Ewing and W. Smith.

The meeting was called to order at 6:11 PM per Chair Davis. The minutes for the November meeting were approved as amended.

COMMITTEE REPORTS:

Finance, Budget and Audit (C.J. Bruner): Chair Davis asked if there was money budgeted for new hardware and software for the Section Office. The Chemical Consultants Network would be approached about such purchases.

V. Tortorelli questioned whether \$19,000 should be transferred from the capital fund – the concern being that the requisite interest for awards would not be met. C.J. Bruner responded that the amounts should be met. Chair Davis indicated that V. Tortorelli's input be sought by the first week in January in order to ensure a smooth approval of the budget.

Nominations (D. Cichowicz): V. Tortorelli has agreed to be the MARM representative. For the Section Awards Committee, M. Prushan has been nominated to replace A. Addison as the inorganic chemist representative. Approved. There are three candidates to replace D. Koestler's vacancy and they are still being identified.

Teller's Report (L. Harper for T. Straub): T. Straub proposed that R. Phifer and M. Forman complete the Alternate Councilor terms for M. Prushan and J. Currano, respectively. Approved unanimously.

OFFICERS' REPORTS:

Chair: E. Davis thanked all those who represented her when she was unable to attend meetings. She requested that committee reports for the annual report be submitted as soon as possible. There was a communication requesting travel funds for two students presenting at the Salt Lake City Meeting – the deadline is January 31, 2009 for submission of requests. The bylaws

need to be reviewed – particularly changes need to be made to allow for electronic elections to be held – a number of other bylaw items need to be updated. D. Cichowicz and E. Davis will co-chair the committee to fulfill the task of changing the bylaws. J. Falcone would also be able to assist in this effort.

Chair-Elect: R. Gates reported that there is a speaker for the February meeting. March is the Edgar Fahs-Smith Award meeting. Chair-Elect Gates requested locations and names or future meetings in 2009 – the Speaker's Bureau has not been very helpful.

Secretary (J. Tierney): no report.

Treasurer (C.J. Bruner): The investment funds have been fluctuating wildly in value due to the present financial crisis. V. Tortorelli requested the value as of December 31, 2008 in order to evaluate the amount for the awards. D. Cichowicz asked if the Section had overspent on publications by \$30,000. He further indicated the \$8,000 already received from National should be applied to cover some of the publications deficit. Further discussion ensued and Chair Davis indicated that a follow up is required for the cost of the special *Catalyst*. Chair Davis further pressed that a review of income and expenses needs to occur in order to ensure that credits are in the appropriate place. D. Cichowicz and V. Tortorelli questioned the expenses *vis-a-vis* the Ulliyot fund. C.J. Bruner indicated that \$5088 had been used to purchase the last Philadelphia bowls. The amount available for this year's lecture is about \$5100. V. Tortorelli indicated that the initial principles as proposed by Glen Ulliyot that the fund's principal not be eroded are being violated. V. Tortorelli indicated that the CHF could not always be paid the full amount.

Motion to accept the Treasurer's Report approved unanimously.

Salary Committee: Chair Davis pondered whether the Section should give honorariums to the folks who served the Section Office at Penn. After some discussion, based on information supplied in the 2006 minutes, it was decided to give honorariums to the value of \$235.

The salary for L. Harper was discussed and it was decided unanimously and quickly that she receive a bonus and a 5% raise.

OTHER BUSINESS:

D. Cook proposed a resolution thanking Chair Davis for all her work throughout the year. The response to the resolution was a rousing round of applause.

S. Miller indicated that there was a 2nd draft of the questionnaire and a 1st draft of a letter for the proposed summer jobs list for undergraduates.

K. Thrush Shaginaw indicated that the Section has indicated that we want no association with 'Expanding your Horizons.' The proposed new acronym is GIRLS, however, S. Burcham has indicated that it is unlikely that the name can be trademarked – she is looking into this prior to the April event.

A. Heldon indicated that in June the ACS decided to push Science Education Advocacy at the state level.

The ultimate act of the meeting was the award of the Section Service Award to John Crawford by Chair Davis.

The meeting was adjourned at 7:31 PM.
Respectfully submitted by
John Tierney, Secretary

March Historical Events In Chemistry by Leopold May

| | |
|----------------|---|
| March 1, 1896 | Antoine Henri Becquerel discovered radioactivity of uranite in pitchblende on this day. |
| March 3, 1709 | Three hundred years ago, Andreas S. Marggraf, was born. He isolated zinc from calamine; distinguished between potash and soda by flame test; found alumina in clay; and discovered beet sugar in beetroot. |
| March 3, 1918 | Fifty years ago, Arthur Kornberg, shared the Nobel Prize in Physiology or Medicine in 1959 with Severo Ochoa for their discovery of the mechanisms in the biological synthesis of ribonucleic acid and deoxyribonucleic acid. He was born on this date. |
| March 10, 1762 | Jeremias B. Richter, who was born on this date, discovered the law of equivalent proportions; was the first to establish stoichiometry, and founded the basis of quantitative chemical analysis. |
| March 14, 1984 | Twenty-five years ago, the first atom of element hassium (Hs, 108) was observed at GSI Laboratory, Darmstadt on this date. |
| March 16, 1834 | One hundred and seventy-five years ago on this date, Hermann W. Vogel was born. He invented the orthochromatic photographic plate in 1873; designed a photometer; and was a researcher in spectroscopic photography. |
| March 19, 1900 | Seventy-five years ago, Frédéric J. Joliot (Joliot-Curie), H. Halban and L. W. Kowarski proved experimentally that neutron emission occurs in nuclear fission. In 1935, Joliot shared the Nobel Prize in Chemistry with his wife Irène Joliot-Curie for production of artificial radioisotopes. He was born on this date. |
| March 19, 1984 | Twenty-five years ago, the ten millionth CA Abstract was published in volume 100, issue number 12 of <i>Chemical Abstracts</i> on this date. |
| March 20, 1834 | One hundred and fifty years ago on this date, Charles W. Eliot, a teacher of chemistry and president of Harvard University, was born. |
| March 24, 1884 | One hundred and twenty five years ago, Peter Joseph William Debye was born. He was a researcher in dipole moments and powder method of x-ray diffraction and was awarded the Nobel Prize in Chemistry in 1936 for his contributions to our knowledge of molecular structure through his investigations on dipole moments and on the diffraction of x-rays and electrons in gases. |
| March 31, 1811 | One hundred and fifty years ago, Robert Bunsen invented the spectroscope with Gustav R. Kirchhoff with which they discovered cesium (Cs, 55) in 1860, and rubidium (Rb, 37) in 1861. He was born on this date and invented the Bunsen burner, filter pump, a galvanic battery, and with Henry E. Roscoe, the actinometer. |

POSTER SESSION WINNERS

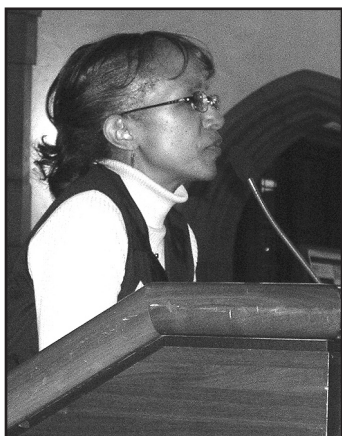
Undergraduates

| | |
|-------------------|------------------------|
| Jennifer Alleva | Temple University |
| Nathaniel Bair | Lebanon Valley College |
| Kenneth Potter II | Lebanon Valley College |

Graduate Students

| | |
|----------------|-------------------|
| John Brady | Temple University |
| Andrii Buvailo | Temple University |
| Goutham Kodali | Temple University |
| Deepti Varma | Temple University |

Recognition for the sole High School student presenter: Angaree Smith, ACS Project SEED— University of Pennsylvania.



Photos from the graduate and undergraduate poster sessions. From top: Sharon Haynie, chair of the judges; Judges Bill Smith and Ella Davis tallying results; prizewinners pose for a group photo.

Career Opportunity

Math or Science Professional Seeking a Career Change?

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Questions? Please email acsprospectives@acs.org or call 1- (800) 227-5558 and ask for ACS ProSpectives

www.acsprospectives.org

PHILADELPHIA SECTION, ACS 2009 CALENDAR OF EVENTS

| DATE | EVENT | LOCATION |
|---|---|---|
| March 9 | Delaware Valley Mass Spectrometry Discussion Group: Richard Van Breeman, University of Illinois: <i>Applications of LC-MS-MS to the Discovery and Development of Botanical Natural Products for Cancer Chemoprevention</i> http://science.widener.edu/svb/msdg | Villanova University Villanova, PA |
| March 11 | Chemical Consultants Network www.chemconsultants.org | Cynwyd Club Bala Cynwyd, PA |
| March 12 (2nd Thurs.) | Edgar Fahs Smith Lecture: A. Paul Alivasatos, Lawrence Berkeley National Laboratory <i>Nanocrystal Molecules with Applications in Single Molecule Biological Imaging</i> | University of Pennsylvania Philadelphia, PA |
| March 18 | American Institute of Chemical Engineers: Emerging Technologies Symposium http://aiche-philadelphia.org | Chemical Heritage Foundation Philadelphia, PA |
| Mar. 22-26 | ACS Spring National Meeting | Salt Lake City, UT |
| March 26 | Philadelphia Organic Chemists Club M. Christina White, University of Illinois at Urbana-Champaign www.pocclub.org | University of Pennsylvania Philadelphia, PA |
| Mar. 31- Apr. 2 | Delaware Valley Science Fair www.dvsf.org | Greater Philadelphia Expo Center at Oaks Oaks, PA |
| April 4 | Sixth Grade Girls Science Event | Chestnut Hill College Philadelphia, PA |
| April 16 | Scholastic Achievement Awards Catherine T. (Katie) Hunt, Rohm and Haas Company: <i>Sustainability—The Path Forward!</i> | Drexel University Philadelphia, PA |
| May 21 | Teaching Awards | TBA |
| June 18 | Fifty-Year Recognition Luncheon | TBA |
| Aug. 16-20 | ACS Fall National Meeting | Washington, DC |