

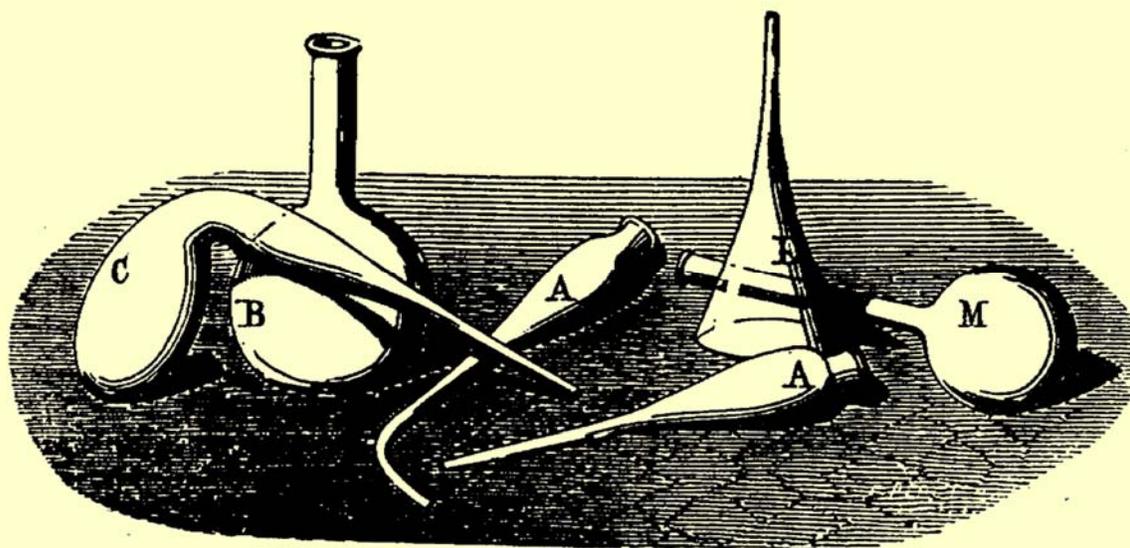


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American Chemical Society

# DIVISION OF THE HISTORY OF CHEMISTRY



## NEWSLETTER

248<sup>th</sup> ACS National Meeting  
San Francisco, CA  
August 10-14, 2014

*S. C. Rasmussen, Program Chair*

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## Mission Statement

The Division of the History of Chemistry (**HIST** - <http://www.scs.illinois.edu/~mainzv/HIST/> ) of the American Chemical Society (ACS) seeks to advance knowledge and appreciation of the history of the chemical sciences among chemists, students, historians of science, and the broader public by

- Encouraging research and scholarship in history of the chemical sciences;
- Providing a welcoming environment for the discussion of history of chemistry in a variety of venues, particularly in symposia at national ACS meetings;
- Serving as a resource for chemical scientists in general, and members of the ACS in particular, who seek to understand the roots of their discipline, sub-discipline, or interdisciplinary subject;
- Recognizing major achievements from the past in the chemical sciences and the individuals who made those achievements;
- Publishing a scholarly journal in history of chemistry;
- Interacting with other organizations interested in the history of science; and
- Adding value to the ACS by helping it achieve its vision and missions.

## Message from Ned Heindel, HIST Division Chair

San Francisco meetings are always a highlight of ACS activities. Even in down-economies the Chemistry brotherhood/sisterhood loves to rally in the City by the Bay...must be the cable cars and the sushi. Every Division's programming (including HIST's) is packed full so don't even bother asking Seth to do a last minute insertion of a paper. We've got the 2014 HIST Award and the symposium connected to Professor Homburg's area of scholarship. Mary Virginia Orna's and Marco Fontani's coming out party for their new book is celebrated by their symposium on *Found and Lost: Incredible Tales of Spurious, Erroneous, and Rehabilitated Elements* (Bet you never knew an element could be "rehabilitated"? If you're curious about that process you'll just have to come and Mary Virginia will teach you how it's done!).



And don't forget to attend the Presidential Symposium on the *Science and Legacy of Attila Pavlath* or the *Symposium on the HIST Citation for Chemical Breakthrough Award Program*. Virginia Trimble is going to be your HIST tutor and Seth, our Program Chair, has assembled a superb set of general papers. The Division's social activities are chronicled elsewhere in this newsletter so please do come and network with your colleagues.

One last point, this is my final message as chair. At this meeting I transfer to Gary Patterson, the chair-elect, the key to the HIST Executive Wash Room, the cell phone number of our Divisional chauffeur who is on a 24/7 retainer, and, of course, our sacred gavel carved from the wood of Isaac Newton's apple tree (Gary, no selling that on eBay to raise research funding! I'll be watching.).

It has been a great two years. Thank you all for the opportunity to be your Chair.

*Ned D. Heindel, HIST Chair*

## Message from Gary Patterson, HIST Division Chair-Elect

These are exciting times for the worldwide history of chemistry community. Active groups have formed in many places. The Royal Society of Chemistry now has a history group. The History of Science Society is gaining strength in chemistry. The Europeans have a strong “working group in the History of Chemistry.” And SHAC now has a stronger presence in America. HIST is a partner in all these activities. While HIST is a Division of the American Chemical Society, chemistry is an international community, and we are happy to be a part of it.



The winner of the HIST Award for 2014 is well-known in Europe, but less so in HIST. Please make sure to get to know Ernst Homburg. He is part of the glue that cements the European community in the History of Chemistry. We have also attracted a good group of other Europeans to help celebrate the Award.

Another area of interest for the Chair-elect is the election of the next Chair-elect. Please help the nominating committee identify and recruit the best person you know for this position.

*Gary Patterson, HIST Chair-Elect*

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## Report of Councilors, Division of the History of Chemistry 247<sup>th</sup> ACS National Meeting - Dallas, Texas; March 19, 2014

### Election Results

- The Committee on Nominations and Elections presented to the Council the following nominees for selection as candidates for President-Elect, 2015: Peter K. Dorhout, William A. Lester, Jr., Christopher K. Ober, and Henry F. Schaefer III. By electronic ballot, the Council selected **Peter K. Dorhout** and **William A. Lester, Jr.** as **candidates for 2015 President-Elect**. These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Election.
- The Committee on Nominations and Elections announced the results of the election to select *candidates* from the list of *nominees* to serve as Directors from District III and District VI on the Board of Directors for the term 2015-2017. Nominees for District III included Dee Ann Castell, Pat N. Confalone, Anne S. DeMasi, and Kathryn E. Uhrich. Nominees for District VI included Allison A. Campbell, Paul W. Jagodzinski, Lee H. Latimer, and Eleanor D. Siebert. By mail ballot, the Councilors from these districts selected **Pat N. Confalone** and **Anne S. DeMasi** as **District III candidates**; and **Paul W. Jagodzinski** and **Lee H. Latimer** as **District VI candidates**. Ballots will be mailed on or before October 10, 2014 to all ACS members in District III and District VI for election of a Director from each District.

### Candidates for Directors-at-Large

- The Committee on Nominations and Elections announced the selection of the following candidates for Directors-at-Large for a 2015-2017 term: Dawn A. Brooks, William F. Carroll, Jr., Barbara A. Sawrey, and Ellen B. Stechel. The election of two Directors-at-Large from among those candidates and any selected via petition will be conducted in the fall. Ballots will be mailed to the Council on or before October 10, 2014.

### Committee Continuance

- As part of a regular performance review, the Council VOTED unanimously to continue the Committees on Chemical Safety, on Chemistry and Public Affairs, and on Minority Affairs. Continuation of these three committees requires Board concurrence.

### 2015 Member Dues

- The Council voted to set the member dues for 2015 at the fully escalated rate of \$158. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.

### **Divisional Allotment Formula**

- After voting to postpone its implementation by one year, the Council voted to approve a revised formula for allocating dues funds to divisions. This formula, which was presented by the Committee on Divisional Activities, will be effective with allocations for 2015 division performance. *Please note that the HIST Councilors supported the amendment to postpone the implementation for one year because the reason given for this request was that the larger Divisions, that would stand to lose a certain percentage of their allocations, already had plans in the works based precisely on that allocation and would have appreciated more notice of the change. They did, however, support the new formula even though they would have a slightly reduced allocation because they want to show their support for the smaller Divisions.*

### **Changes in Local Section Territory**

- On recommendation of the Committee on Local Section Activities, the Council voted to approve the petition from the North Jersey Section to include the area of the former Monmouth County Section in its territory, effective immediately.

### **New International Chemical Sciences Chapter**

- On recommendation of the Committee on International Activities and subject to the concurrence of the Board of Directors, the Council voted to approve petitions to charter the South Korea International Chemical Sciences Chapter and the Malaysia International Chemical Sciences Chapter.

### **Society Committee Oral Reports**

#### **Budget and Finance (B&F)**

- In 2013, ACS generated a Net from Operations of \$15.1 million, which was \$2.0 favorable to the budget. This represents the Society's tenth consecutive year of positive operating results. Total revenue was \$490.5 million, which was \$8.8 million (or 1.8%) lower than budget, and essentially flat when compared with 2012. The result was largely attributable to cost containment measures throughout the ACS. Unrestricted Net Assets rebounded in 2013, rising to \$207 million, and more than doubling from the 2012 level.

#### **Education (SOCED)**

- SOCED approved a pilot program to form ACS International Student Chapters.

### **Standing Committee Oral Reports**

#### **Membership Affairs (MAC)**

- For 2014, MAC authorized an individual member test for India to allow for a \$52 full Member dues rate. At this meeting, MAC extended the test to include new and renewing members in India for three years.

#### **Economic and Professional Affairs (CEPA)**

- Findings from the ACS 2103 New Graduate Survey have been compiled and reveal troubling news: overall unemployment among new graduates rose from 12.6% in 2012 to 14.9% in 2013. This is primarily due to the high unemployment among recent Bachelors. New graduates must be at the top of our priority list for employment assistance in 2014.

#### **Meetings and Expositions (M&E)**

- As of this morning (March 19, 2014), the ACS spring national meeting had attracted 13,680 registrants, including 6,853 regular attendees and 5,140 students. The meeting had 10,050 papers presented.
- The new ACS Mobile Application had over 6,000 downloads by meeting attendees.

- M&E voted to eliminate the author index in the hard program meeting program book beginning with the spring 2015 meeting, The searchable author index is now available via the mobile application and other electronic means.

### **Divisional Activities (DAC)**

- Operating as a DAC subcommittee, the Multidisciplinary Planning Group is proposing the following 2017 national meeting themes to the divisions for their consideration:
  - Spring, San Francisco: *Advanced Materials, Technologies, Systems and Processes*
  - Fall, Washington, DC: *Chemistry's Impact on the Global Economy.*

### **Local Section Activities (LSAC)**

- LSAC will initiate the process to dissolve the Ocean County Section as a result of the group's failure to meet the criteria to remain an active section.

### **Other Committee Oral Reports**

#### **Chemical Safety (CCS)**

- CCS has published its first-ever Safety Alert concerning the Rainbow Demonstration, in *Chemical and Engineering News*, March 17, 2014. Copies were distributed to Councilors.

#### **Special Discussion Item**

- A special discussion item was put on the Council agenda for this meeting. ACS President Tom Barton presented and moderated a discussion on "What can ACS do to increase the quality of science education in grades K-12? Following the presentation, 39 Councilors engaged in a robust discussion on the factors impacting the quality of K-12 science education in the U.S.

#### **Activities of HIST Councilors**

**Mary Virginia Orna** – after completing 18 years on the elected Committees of Council (Nominations and Election, Committee on Committees, and Council Policy Committee) began her assignment as an Associate on the Local Section Activities Committee, and the Technology, Tools, and Operations Subcommittee.

**Roger Egolf** – continues to serve on the Divisional Activities Committee and chairs the DAC Constitution and Bylaws Subcommittee. He also serves as DAC liaison to the Constitution and Bylaws Committee of Council and the HIST and SCB Divisions.

*Mary Virginia Orna, Roger A. Egolf, Councilors*

### **2014 HIST Award Banquet**

As part of its activities at the 248th ACS National Meeting in San Francisco, the History of Chemistry Division of the American Chemical Society is pleased to host the 2014 HIST Award Banquet. To be honored at the banquet will be Professor Ernst Homburg, winner of its 2014 HIST Award, and Professor Stephen J. Weininger, winner of its 2013 Outstanding Paper Award. The Banquet will be held at the Far East Café, centrally located in the heart of Chinatown (631 Grant Avenue). The Banquet will start at 7 PM and will feature their Peking Duck & Lobster Dinner. **Tickets are \$30 and can be purchased from Vera Mainz, HIST Secretary-Treasurer** (Tickets cover the full cost of the meal, with the exception of beverages, which can be purchased onsite during the Banquet). The Far East Café is approximately 2 miles from the HIST Technical Sessions at the InterContinental, but is only about two blocks from either the Omni San Francisco or Hilton Financial stops on the Route 3 ACS shuttle.

### **2013 HIST Outstanding Paper Award**

The paper "Chemistry for the "Industrial Classes": Laboratory Instruction, Mass Education and Women's Experience in Mid-Western Land Grant Colleges, 1870-1914," by Dr. Stephen J. Weininger

(Worcester Polytechnic Institute), was selected for the 2013 HIST Outstanding Paper Award. The award is presented to the author of the best paper published in the *Bulletin for the History of Chemistry* during the previous three years, including the award year, and consists of a plaque, a cash award of \$100, and \$150 worth of books from the current publications of Chemical Heritage Foundation. Dr. Weininger will also be a guest of honor at the 2014 HIST Award Banquet to be held at the National ACS Meeting in San Francisco. Dr. Weininger's paper was published in volume 38(2) of the *Bulletin for the History of Chemistry* (2013, pages 97-108).

## A Special Opportunity

The Division of the History of Chemistry is pleased to announce to its members that a complimentary copy of the recently-published volume "The Lost Elements: The Periodic Table's Shadow Side" (by M. Fontani, M. Costa, M.V. Orna; Oxford University Press, 2014) is available upon request. Please send your order to Dr. Vera V. Mainz, Division Treasurer, at mainz@illinois.edu (or by mail to 2709 Holcomb Drive, Urbana, IL 61802). Please include your mailing address and your email address. One copy of the volume per Division member is available on a first-come, first-served basis while supplies last.

In his preface to the book, Nobel Laureate Roald Hoffmann remarked that this is the most entertaining book he has read in decades. There is no other book that gathers into one place the illegal tenants that once occupied the periodic table along with many other "false" or "lost" elements that never made it into the periodic table in the first place. Read how even Nobel Laureates, along with rank amateurs, fell into the trap of proclaiming an elemental discovery when there was nothing there!

Please remember that only members of the HIST Division are eligible for this complimentary volume. If you are not a member, you may join the Division by sending your check for \$20.00 (for residents of North American only) along with your request. Please consult

<http://www.scs.illinois.edu/~mainzv/HIST/info/applic.php> for other membership categories. This unprecedented give-away is made possible by funding from the Ente Cassa di Risparmio di Firenze (The Savings Bank of Florence Charitable Foundation).



ENTE CASSA DI RISPARMIO DI FIRENZE

## HIST to Host Symposium at PACIFICHEM 2015

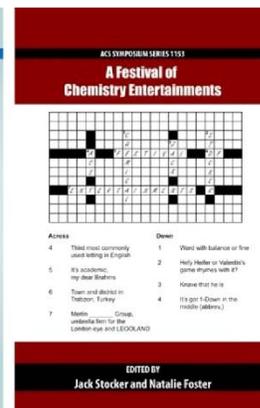
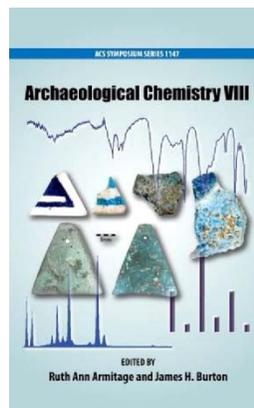
The History of Chemistry Division of the American Chemical Society has organized a historical symposium for the 2015 International Chemical Congress of Pacific Basin Societies (Pacifichem 2015). The HIST-sponsored symposium is entitled *Historical Evolution of the Chemical Community in the Countries of the Pacific Rim* and is organized by HIST officers Seth Rasmussen and Gary Patterson, along with co-organizers Trevor Levere (Canada), Yasu Furukawa (Japan), and Ian David Rae (Australia). The symposium currently has 10 confirmed invited speakers, with additional invitations still pending. Anyone interested in potentially participating in the symposium should contact either Seth Rasmussen ([seth.rasmussen@ndsu.edu](mailto:seth.rasmussen@ndsu.edu)) or Gary Patterson ([gp9a@andrew.cmu.edu](mailto:gp9a@andrew.cmu.edu)) for further information.



Pacifichem 2015 will take place in Honolulu, Hawaii, USA, December 15-20, 2015 and additional conference information can be found at <http://www.pacifichem.org>. The conference is sponsored jointly by ACS, the Canadian Society for Chemistry (CSC), the Chemical Society of Japan (CSJ), the New Zealand Institute of Chemistry (NZIC), the Royal Australian Chemical Institute (RACI), the Korean Chemical Society (KCS), and the Chinese Chemical Society (CCS). The host society for the 2015 Congress is ACS.  
*Seth C. Rasmussen, Coordinating Symposium Organizer*

## New HIST-Sponsored ACS Symposium Books

The ACS Symposium Series publishes peer-reviewed books developed from the ACS technical divisions' symposia and has been a popular venue for the dissemination of historical work presented as part of the HIST programming at ACS National Meetings. Recently two new HIST-sponsored volumes have become available. The first of these is ACS Symposium Series Volume 1147, *Archaeological Chemistry VIII*, of which the ebook version was published by ACS in October, 2013, with the hardback version released April, 2014. The volume is based on the 12th Archaeological Chemistry Symposium held on April 7-11, 2013 at the New Orleans ACS Meeting, and is a compilation of presentations from the Symposium, the latest in a long tradition that began at the ACS National Meeting in Philadelphia in 1950. Edited by Ruth Ann Armitage and James H. Burton, the volume includes papers that show archaeological chemistry today is more than the usual studies of trace elements in pottery and lithics, which continue to contribute to our understanding of human behavior in the past.

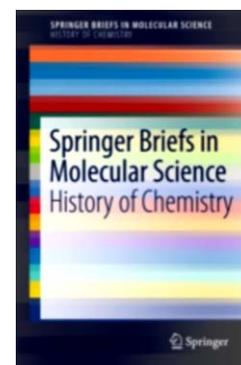


In addition, ACS Symposium Series Volume 1153, *A Festival of Chemistry Entertainments*, was published as an ebook in December 2013, with the hardback version released June, 2014. The volume is based on the symposium of the same name held at the Spring 2008 ACS Meeting in New Orleans. The HIST-sponsored symposium was organized by Jack Stocker and cosponsored by the Bolton Society. Dr. Stocker began work as editor of the current volume, but passed away in 2009, after which Natalie Foster completed the task of collecting the various presented bits of whimsy and humor, both intentional and accidental, from the world of chemistry. From chemistry-based crossword puzzles to papers delivered in verse and song, this is a surprising collection of the quirkiest incidents and episodes in the recent history of chemistry.

## New Springer Briefs in Molecular Science: History of Chemistry Volumes

Two new volumes in this series were published this last spring: *The Quest for Aqua Vitae. The History and Chemistry of Alcohol from Antiquity to the Middle Ages*, by Seth C. Rasmussen, and *Polymer Science from 1935-1953. Consolidating the Paradigm*, by Gary Patterson. Several additional volumes are also nearly ready to go into production and should be released soon. All volumes are currently available via Springer or Amazon in both softcover or ebook formats.

Volumes in the series are 50-125 pages in length, presenting concise summaries of historical topics covering all aspects of chemistry, alchemy, and chemical technology. New authors are always being sought for potential new volumes and those interested in discussing potential topics for future volumes should feel free to contact the Series Editor, Seth Rasmussen ([seth.rasmussen@ndsu.edu](mailto:seth.rasmussen@ndsu.edu)). Please visit <http://www.springer.com/series/10127> for guidelines for submitting volume proposals. *Seth C. Rasmussen, Series Editor*



## Message from the HIST Program Chair

As your Program Chair, I am happy to report that HIST programming for the upcoming meeting in San Francisco is one of our strongest lineups in quite some time (second only to New Orleans, 2013). We will have 48 oral presentations over three and a half days of sessions, which will span four focused symposia, as well as *two!* General Papers sessions. In addition, Virginia Trimble will be presenting the HIST tutorial for San Francisco, entitled *HIST Tutorial: Impact of World War I on chemistry, physics, and astronomy*.



With this wealth of HIST programming, however, it is somewhat disappointing that we will still have only three posters to represent the division in SciMix on Monday night. Not to beat a dead horse, but SciMix is the single best opportunity for us in HIST to share the history of chemistry with the rest of the ACS membership, ***most of which are unaware that ACS even has a HIST division!*** As such, please consider participating in SciMix when submitting your abstracts to HIST. While it does mean preparing a poster in addition to your regular oral presentation, it does go a very long way in promoting the division and contributing to its continued health and prosperity.

In other programming-related news, I am happy to point out that the San Francisco meeting will be our last meeting to use the current PACS for abstracts and programming. The new system will officially be called MAPS (MeeAng AbstrActs ProgramMing System) and is build and maintained by Scholar One, owned by Thompson Reuters. The *Abstract System Replacement Advisory Group* (of which I serve as a member) has been putting it through its paces, system testing via mock meetings, and suggesting improvements, changes, etc. MAPS will officially go online for the Call for Papers of the Spring 2015 meeting in Denver and we all hope that it will be a significant improvement over PACS. With that said, however, it will be a new system, which always means that there will be a learning curve, as well as some unexpected surprises. With that in mind, please try to submit your abstracts early if all possible for Denver. The official deadline for Denver is **November 3rd**, so that gives you ample opportunity to get abstracts in well before the deadline. *In addition, it may be a bit more difficult for the Program Chairs to add late abstracts with the new system (at least initially), so it is all that much more important that you get your abstracts in on time, if not early.*

As always, if you have programming ideas or would like to provide suggestions or feedback, please don't hesitate to let me know ([seth.rasmussen@ndsu.edu](mailto:seth.rasmussen@ndsu.edu)).

*Seth C. Rasmussen, HIST Program Chair*

## HIST SYMPOSIA, 248<sup>th</sup> ACS Meeting in San Francisco, CA, August 10-14, 2014

*Schedules and abstracts are listed at the end of this Newsletter.*

### Symposium on the HIST Citation for Chemical Breakthrough Award Program

In 2006, the Division of the History of Chemistry announced the first recipients of the then new Citation for Chemical Breakthrough award program. This award, which recognizes breakthrough publications, books and patents worldwide in the fields of science embraced by the ACS, are presented to the institutions at which the work was performed. Since that time, 45 awards have been presented (not counting the 2014 award year) in 10 countries (France, Germany, Italy, Latvia, The Netherlands, Poland, Russia, Switzerland, the United Kingdom including England and Scotland, and the United States). This symposium will discuss the overall award program, placing it in the context of HIST's other award programs, as well as focusing on specific individual awards which exemplify the breadth and impact of the awards. Most of the speakers have participated in award presentations and will discuss the impact of these awards in their presentations. The symposium will be held **Sunday afternoon**, August 10, at the InterContinental San Francisco - Twin Peaks.  
*J. Seeman, Organizer*

### Found and Lost: Incredible Tales of Spurious, Erroneous and Rehabilitated Elements

*Cosponsored by INOR*

The title of this symposium is just what it says. Hundreds of so-called elements were thought to have been found, only to be lost or ejected from the periodic table when it was learned that they were erroneous discoveries, downright frauds, or sometimes genuine elements, but thought to be false by the “experts” until rehabilitated decades later. This symposium will not cover all of these instances due to lack of time, but it will cover three wrong tracks thought to lead to element 61. Also discussed will be the vexed issue of element 72, perhaps the most contentious priority dispute in elemental history. Other topics to be discussed will be the rediscovery of vanadium as “erythronium,” the first “patented” element, found and lost elements on stamps, and the stories of three ACS Presidents who actually reported discovering elements later shown to be false. In addition to popular authors on the periodic table like Eric Scerri, and the announcement of the publication of the book, “The Lost Elements: The Periodic Table’s Shadow Side,” the symposium will feature keynote speaker Sam Kean, popular science writer and author of “The Disappearing Spoon”. The symposium will be held **Monday morning and afternoon**, August 11, at the InterContinental San Francisco - Grand Ballroom C.

*M. Orna and M. Fontani, Organizers*

### **Science and Legacy of Attila Pavlath**

The 5<sup>th</sup> in a series of symposia on the Science and Legacy of Past ACS Presidents. Join colleagues, friends and family celebrating the career of Attila Pavlath. Be prepared to be surprised at the many contributions of Attila that you did not know about. And maybe share to remembrance of your own. Speakers include: professional colleagues (Ferenc Darvas, pioneer in flow chemistry from Budapest, Hungary, and John Finley USDA colleague), ACS colleagues (Paul Vartanian of California Section ACS and past ACS president Ann Nalley) and son George Pavlath. The symposium will be held **Tuesday morning**, August 12, at the Moscone West - Room 3002.

*J. Hayes, Organizer*

### **HIST Award Symposium Honoring Ernst Homburg**

An international group of historians of chemistry will give papers in celebration of Ernst Homburg. Gary Patterson will be in the Chair. Peter Morris, the official nominator, will give a few introductory remarks and present a paper on “The chemist and the laboratory.” The kind of chemistry that can be done is determined by the kinds of laboratories available to the chemist, but the kinds of laboratories available are often determined by the desires of the chemist. The history of this interaction over the last 400 years will be surveyed. Brigitte van Tiggelen, the Belgian historian of chemistry, will discuss “Women chemists in the 18th century in France, with an emphasis on Madame d’Arconville.” Alan Rocke, from Case Western Reserve University, will examine the German context with a paper “Science versus practice’ and the German chemist ca. 1860: Erlenmeyer in context.” Will the biographer of Kolbe reveal the real Erlenmeyer? Carsten Reinhardt, President of the Chemical Heritage Foundation, will present some thoughts on “Identities in twentieth century.” The landscape of chemistry changed radically during this period due to both geographical and demographic factors. John K. Smith, from Lehigh University, will discuss “Chemists in American industry between the world wars.” Sy Mauskopf will examine “Patents, powders, profits: the significance of the patent infringement trial, Nobel’s Explosives Co. v. Anderson (1894).” And Ernst Homburg, from Maastricht University in the Netherlands, will present the Prize lecture: “Chemists and chemical societies: 1500-1900.” Concluding remarks by Arnold Thackray will lead into the celebration dinner. The symposium will be held **Tuesday afternoon**, August 12, at the InterContinental San Francisco - Twin Peaks.

*P. Morris and G. Patterson, Organizers*

## UPCOMING NATIONAL MEETINGS AND HIST DEADLINES

Offerings are subject to change. Check the [HIST website](#) for updates.

### Denver, March 22-26, 2015

Submit your abstract via the new online Meeting Abstracts Programming System (MAPS) by **November 3rd, 2014**. If you do not have access to a computer for use in the submission or are having difficulties in submitting your abstract, contact Seth Rasmussen ([seth.rasmussen@ndsu.edu](mailto:seth.rasmussen@ndsu.edu)). Check the call for papers in *Chemical and Engineering News* or [www.acs.org](http://www.acs.org) for changes in the abstract deadlines.

**HIST Tutorial and General Papers.** (**Seeking contributors**) Seth C. Rasmussen, Department of Chemistry and Biochemistry, North Dakota State University, NDSU Dept. 2735, P.O. Box 6050, Fargo, ND 58108-6050, Phone: (701) 231-8747, Email: [seth.rasmussen@ndsu.edu](mailto:seth.rasmussen@ndsu.edu)

**Modern Chemical Warfare: History, Science, Toxicology, and Morality.** (Invited) Joseph Gal, Department of Medicine and Department of Pathology, University of Colorado School of Medicine, Aurora, Colorado 80045, Email: [joe.gal@ucdenver.edu](mailto:joe.gal@ucdenver.edu)

**Chemical Technology in Antiquity.** (Invited) Seth C. Rasmussen, Department of Chemistry and Biochemistry, North Dakota State University, NDSU Dept. 2735, P.O. Box 6050, Fargo, ND 58108-6050, Phone: (701) 231-8747, Email: [seth.rasmussen@ndsu.edu](mailto:seth.rasmussen@ndsu.edu)

### Boston, August 16-20, 2015

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**Science and Legacy of Henry Hill.** (Invited and **Seeking contributors**) Jan Hayes, Hayes, 6829 Barbara Lee Circle, Sacramento, CA 95842, Phone: (916) 331-6886, Email: [janan.hayes@yahoo.com](mailto:janan.hayes@yahoo.com)

**Fifty years of Innovation: The Legacy of the Westheimer Report.** (Invited) Roger A. Egolf, Pennsylvania State University -Lehigh Valley Campus, 8380 Mohr Lane, Fogelsville, PA 18051-9999, Phone: (610) 285-5110, Email: [rae4@psu.edu](mailto:rae4@psu.edu)

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## News from the Chemical Heritage Foundation

The [Chemical Heritage Foundation](http://www.chemheritage.org/) - <http://www.chemheritage.org/> (CHF) fosters an understanding of chemistry's impact on society. An independent nonprofit organization, we strive to inspire a passion for chemistry, highlight chemistry's role in meeting current social challenges, and preserve the story of chemistry across centuries. CHF maintains major collections of instruments, fine art, photographs, papers, and books. We host conferences and lectures, support research, offer fellowships, and produce educational materials. Our museum and public programs explore subjects ranging from alchemy to nanotechnology.

### 2014 Biotechnology Heritage Award

CHF and the Biotechnology Industry Organization (BIO) selected Robert Langer as the winner of the 2014 Biotechnology Heritage Award. The award was presented during BIO's annual international convention, held in San Diego, June 23–26, 2014.

Robert S. Langer is the David H. Koch Institute Professor at the Massachusetts Institute of Technology. He has written over 1,240 articles and is the most cited engineer in history. He holds 1,026 patents (512 issued) worldwide, which have been licensed or sublicensed to over 250 pharmaceutical, chemical, biotechnology, and medical-device companies. He served as a member of the U.S. Food and Drug Administration's Science Board from 1995 to 2002 and as its chairman from 1999 to 2002.

Langer has been honored with over 220 major awards. He is one of seven individuals to have received both the U.S. National Medal of Science and the National Medal of Technology and Innovation. He has also received the Charles Stark Draper Prize, the Millennium Prize, the Priestley Medal, the Wolf Prize in Chemistry, and the Breakthrough Prize in Life Sciences. He is the only engineer to have been given the Gairdner Foundation International Award. In 1998 he received the Lemelson-MIT Prize for being “one of history’s most prolific inventors in medicine.” Langer has been elected to the Institute of Medicine of the National Academy of Sciences, the National Academy of Engineering, the National Academy of Sciences, and the National Academy of Inventors.

Forbes (1999) and BioWorld (1990) named Langer one of the 25 most important individuals in biotechnology in the world. Time and CNN (2001) named him one of the 100 most important people in America and one of the 18 top people in science or medicine in America. Langer has received 22 honorary doctorates from institutions including Harvard University, the Mt. Sinai School of Medicine, Yale University, and the Eidgenössische Technische Hochschule. He received a bachelor’s degree from Cornell University in 1970 and an ScD from MIT in 1974, both in chemical engineering.

### **2014 Franklin-Lavoisier Prize**

CHF and the Fondation de la Maison de la Chimie (FMC) presented the Franklin-Lavoisier Prize to Fred Aftalion on April 3, 2014, at the CHF headquarters in Philadelphia.

A graduate of the École Nationale Supérieure de Chimie de Paris, Aftalion devoted his life’s work to chemistry. He studied under Herman Mark in Brooklyn Polytechnic’s Polymer Institute in 1946. His first job in the chemical industry was as an engineer with Hercules, with which he spent five years in the United States and Latin America. Returning to France in 1951, he joined Naphtachimie, where he set up the marketing networks of what was then a new petrochemicals company.

Called in by Laboratoire Roger Bellon in 1956 to take over the management of the Société Française d’Organo-Synthèse (SFOS), he turned it over the course of the next three decades into an efficient specialty chemicals enterprise. Aftalion also served as president of Société la Vermiculite et la Perlite, now an affiliate of Elf Aquitaine, and he became a board member of Rhône Poulenc Spécialités Chimiques when SFOS was acquired by that company. He is currently a member of the Board of Directors of Total Chimie and of the Maison de la Chimie.

As an author, Fred Aftalion has recorded and enhanced our understanding of our chemical heritage, as well as made known the important impact of the chemical sciences and technologies among the broader public. His book, *A History of the International Chemical Industry*, is a seminal work of history and a unique publication, chronicling the rise of the chemical industry around the globe and the important human benefits that it has brought. The only book of its kind, *A History of the International Chemical Industry* has also advanced the sense of community among the various participants in the chemical endeavor.

## **News from the Society for the History of Alchemy and Chemistry**

Founded in 1935, the Society for the History of Alchemy and Chemistry (SHAC) has consistently maintained the highest standards of scholarship in all aspects of the history of alchemy and chemistry from early times to the present. The Society has a wide international membership of over 200 with members from 28 countries.

### **The Rare Book Collection of the Middle Temple Library, London**

The Middle Temple Library is one of the last places where you might expect to find alchemical and occult rare books, but it includes a sizeable portion of John Donne’s library (79 books, largest collection of any institution), 28 defences of Rosicrucianism at the height of the early seventeenth-century furore, and over 73 books on alchemy, printed between 1538 and 1637. The earliest alchemical book is the 1538 *Alchimia* by Petrus Kertzenmacher (printed in Strasbourg), one of only two copies in the UK. Other gems include a John Dee’s copy of *De typographiae inventione*, printed in Copenhagen in 1566, six books on palmistry, dating from 1538 to 1621, and a German illustrated manuscript dated ca. 1390-1415 on astrology, astronomy, calendars and fortune-telling. Limited finances mean that advertising is mainly by word-of-mouth and by

the enterprising spirit of Senior Librarian, Renae Satterley, who is always seeking to uncover new avenues of promoting the library's collection. Needless to say, she would welcome anyone with a scholarly interest in the Middle Temple rare books and would be pleased to hear from historians of alchemy and early chemistry, who can contact her at [r.satterley@middletemple.org.uk](mailto:r.satterley@middletemple.org.uk) in order to make an appointment to see one or more books. The collection can be consulted from 10 am to 5 pm Monday to Friday in the main hall of the Middle Temple Library and the Library catalogue can be accessed at <http://www.middletemplelibrary.org.uk/client/default>.

### **Sources of Alchemy and Chemistry**

Last year, SHAC launched a new series of monograph-length volumes: *Sources of Alchemy and Chemistry: Sir Robert Mond Studies in Early Chemistry*. This series provides critical editions and English translations of some of the foundational texts in the history of alchemy and early chemistry. The series is named in honour of the Society's first and only President, Sir Robert Mond (1867–1938). The publication of this series has been made possible by the extremely generous support of Robert Temple, and is to be made available free of charge to all SHAC members.

The series is under the general editorship of Professor Lawrence M. Principe (Johns Hopkins University) and Dr. Jennifer M. Rampling (University of Cambridge). The international editorial board is comprised of Professor Charles Burnett (Warburg Institute), Dr. Michèle Mertens (Université de Liège) and Professor Cristina Viano (CNRS, Paris).

The Sources of Alchemy and Chemistry relies on the work of an international group of scholars working to edit and translate early texts. This work is facilitated by a series of annual workshops, which bring together specialists in Greek, Coptic, Syriac, Arabic, Hebrew and Latin alchemy to share their expertise and critique one another's work. For a report on this year's workshop, see below under the Reports section.

The first monograph in the series has now been sent to SHAC members with the first issue of *Ambix* 2014. It contains one of the earliest known chemical texts: the *Four Books of Pseudo-Democritus*, edited by Dr Matteo Martelli (Berlin) [http://maneypublishing.com/index.php/books/the\\_four\\_books\\_of\\_pseudo-democritus/](http://maneypublishing.com/index.php/books/the_four_books_of_pseudo-democritus/). Martelli has presented not only a fresh edition and translation of the surviving Greek fragments, but also, for the first time, additional materials preserved in Syriac. The volume also presents important examples of the medieval and early modern reception of these writings, including the dialogue of Synesius and Dioscorus – the most influential Byzantine commentary on the *Four Books* – and previously unpublished Latin translations of both the *Four Books* and Synesius' commentary made by Matthaëus Zuber in 1606. Accompanied by a full introduction and commentary, these sources offer new and significant insights into the world of ancient chemistry: practical recipes and lists of ingredients, clues to the doctrinal content of ancient alchemy, and early hints of a tradition that linked the alchemist 'Democritus' to the wisdom of Egypt and Persia.

### **News from the History of Science Society**

The History of Science Society is the world's largest society dedicated to understanding science, technology, medicine, and their interactions with society in historical context. It was founded in 1924 to foster interest in the history of science and its social and cultural relations.

#### **Isis in Transition**

Isis will move to the Descartes Centre at Utrecht University on July 1st. The editor in chief for the next five years will be H. Floris Cohen, professor of comparative history of science and former chairman of the Descartes Centre for the History and Philosophy of the Sciences and the Humanities at Utrecht University. You can learn more about him at <http://www.hfcohen.com/>.

Isis' move to the Descartes Centre is financially supported by Utrecht University, the Ammodo Foundation, The Huygens Institute for the History of the Netherlands in The Hague, and Museum Boerhaave in Leyden. The Isis office at York University, Toronto, Canada will shut down on June 17, and will open

again at the Descartes Center, Utrecht University, Netherlands on July 7. After July 7, messages may be sent to ISISJournal@uu.nl and will be answered by the new editorial office.

### **Reflecting on a Century of Scholarship: The Five Most Influential *Isis* Articles Ever Published**

In celebration of the centenary of the publication of *Isis*, readers were asked to vote on the top five articles that have appeared since the journal started in 1913 with George Sarton at the helm. The articles voted into the top five spots may come as a surprise. First, they all fall between the years 1961 and 1988. There are no articles from the last twenty-five years, but perhaps that is appropriate if we are to think of the top five as classics in the field. However, it is interesting there are no representatives from the first fifty years of the journal. Second, the majority of the articles deal with the early modern, not the modern, period. It is a reminder of the exciting work done over the years on the early modern period and the continuing importance that this area will play in the future. Finally, there is a heavy emphasis in these five pieces on the physical sciences. Not one of the articles focuses on the history of biology, which is such a dominant force in our field at present. But the names of the authors will come as no surprise—they are among the most influential historians of science of the past fifty years.

1. The House of Experiment in Seventeenth-Century England, Steven Shapin. Volume 79, Number 3, September 1988, <http://www.jstor.org/stable/234672>
  2. Totius in Verba: Rhetoric and Authority in the Early Royal Society. Peter Dear. Volume 76, Number 2, June 1985, <http://www.jstor.org/stable/231744>
  3. The Function of Measurement in Modern Physical Science. Thomas S. Kuhn. Volume 52, Number 2, June 1961, <http://www.jstor.org/stable/228678>
  4. Scientific Internationalism and the Weimar Physicists: The Ideology and Its Manipulation after World War I. Paul Forman. Volume 64, Number 2, June 1973, <http://www.jstor.org/stable/229595>
  5. Laboratory Design and the Aim of Science: Andreas Libavius versus Tycho Brahe. Owen Hannaway. Volume 77, Number 4, December 1986, <http://www.jstor.org/stable/233163>
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