



The Chemical Record

Volume 49, Number 2 -- March, 2007

Columbus Section of the American Chemical Society, Inc.

George Greene, Editor

www.acscolumbus.org -- chemicalrecord@yahoo.com

The American Chemical Society

Improving people's lives through the transforming power of chemistry.

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From The Chair

Volunteer involvement within the Society membership is key to the success of the organization. The society provides professional development to the membership through mentoring of future leaders. Members volunteer for different reasons such as continued commitment to the society and the derived benefit volunteers enjoy through service to the society's membership. Many times a society member is motivated, however, the pathway to volunteer service is unclear. The "just how" to get involved is always an issue.

The local section's leadership wants to equip members to be more effective leaders within the local section by providing leadership training to society members. One of the most effective ways to get involved within the local section is to affiliate with one of the many committees which the local section supports. The various committees include the Awards, Newsletter/Publication, Community Activities, Education, Public Relations, Government Affairs, Younger Chemists, Tellers and Science Fair Judging. From the vantage point provided through committee service, the interaction with other committees and leadership a member can choose which way to best serve the local society.

We would like to solicit committee involvement within the Local Section and provide a point of contact for prospective committee members. Give me a call at 614-873-0710 or an e-mail to ronaldmitchum@core.com to discuss just how you can benefit from being a more involved member.

Ronald Mitchum, Chair Elect



Volunteer Opportunities

Speaking of ways to become involved with the Section, here are two opportunities:

National Chemistry Week, chemistry demonstrations for elementary-age students: Contact Professor John Blaha (Jblaha@csc.edu) if you would like to volunteer to participate in the events or serve on the committee.

State Science Day, Saturday, May 12th, at the French Field House on the Ohio State University Campus: Contact Bob Kroshefsky (bobkro@urec.net) or phone him at 937-707-9276 if you would like to participate in judging the high school students' science projects.

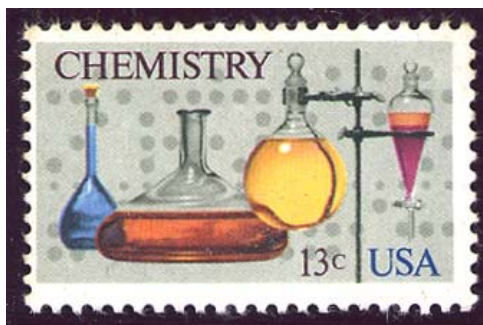
There are also several open positions in the roster of Section officers and committee chairs (included elsewhere in this edition of *The Chemical Record*); please contact Ron Mitchum (ronaldmitchum@core.com) if you are interested in serving as a chair or committee member.

Mini-Meeting

Thursday, March 8, 2007, 5:00 PM
Chemical Abstracts Service, Battelle Room
Program Contact: Maria Rosenthal, mrosenthal@cas.org

Science in Miniature: Chemistry on Stamps

Daniel Rabinovich*
Department of Chemistry
The University of North Carolina at Charlotte
Charlotte, NC 28223



ABSTRACT

Postage stamps are an inexpensive and effective way of communicating ideas and are often issued by governments or postal authorities to commemorate events and educate the general public on a variety of topics, ranging from history and geography to art and literature. A number of stamps have also been issued to celebrate scientific discoveries or to honor well-known scientists and can be used as simple yet powerful teaching tools in the classroom or to illustrate a technical presentation.

This presentation will offer an overview of stamps and other philatelic materials (*e.g.*, first day covers, maximum cards, postmarks) related to chemistry. While there are many stamps that portray famous chemists, including several Nobel Laureates, there is also a surprisingly large number of stamps that depict atoms and molecules, minerals, symbols and formulas, the periodic table, laboratory glassware, and the chemical industry. This talk will illustrate the many facets of the chemical enterprise and should be of interest to students, teachers and professionals alike, including those not pursuing philately (or chemistry!) as a formal hobby.

The talk is free and open to the public. If interested in joining Dr. Rabinovich for dinner [at own cost, at a local restaurant], Please RSVP to Maria Rosenthal at mrosenthal@cas.org



About the Speaker

Dr. Rabinovich was born and raised in Lima, Peru. He obtained his undergraduate (B.S.) degree from the Catholic University in Lima and a Ph.D. in inorganic chemistry from Columbia University in 1994. After postdoctoral work at Los Alamos National Laboratory in New Mexico, he joined the Department of Chemistry at The University of North Carolina at Charlotte, where he is now a Professor of Chemistry. His research interests are in synthetic and structural inorganic and organometallic chemistry, including the coordination chemistry of multidentate sulfur-donor ligands and the synthesis of model compounds for the active sites in nickel hydrogenases and other sulfur-rich metalloproteins, as documented in some 55 peer-reviewed publications.

MEETING NOTICE

COLUMBUS SECTION OF THE AMERICAN CHEMICAL SOCIETY, INC.

<http://www.acscolumbus.org>

Tuesday March 20, 2007

European Gardens of Yesterday and Today **Dr. Steven Still**

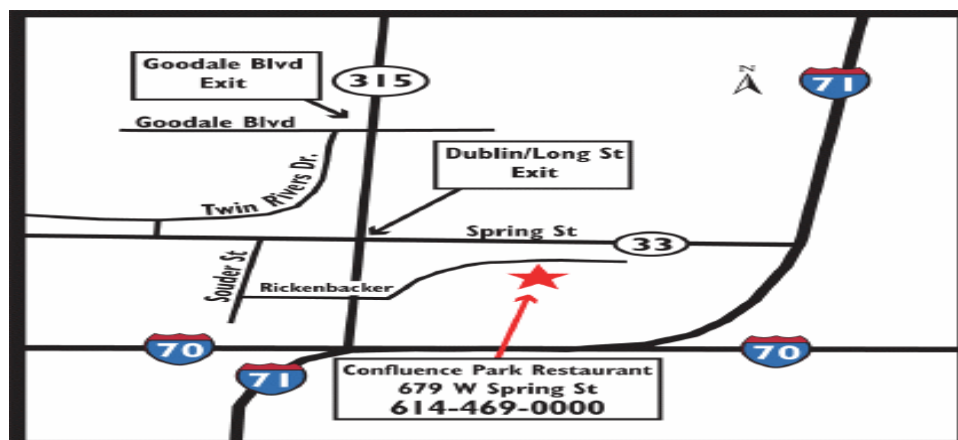
Confluence Park Restaurant
679 West Spring Street (Souder/Rickenbacker)
Columbus, OH 43215

4:30 - 5:30 PM	Executive Committee Meeting (open to all members)
5:30 - 6:30 PM	Reception: Cold Hors d'Oeuvres, Beverages
6:30 - 7:30 PM	Dinner Buffet: Garden salad with choice of Baked Salmon with Dill Buerre Sauce, Honey Glazed Ham or Pasta Vegetarian, cobbler choice and drinks.
7:40 PM	Program: D. Steven Still, Presenting an enhanced presentation "Exploring the World of Ornamental Plants in the European Gardens of Yesterday and Today". If you cannot attend the dinner, you are welcome to attend the program.
Cost	Members and Nonmembers \$20.00 Retired and Unemployed Members \$18.00 Students \$5.00 Payment will be collected at the door; cash and checks accepted.
Reservations	Please use the voice mail reservations service by calling 614-447-3600 extension 7047. Follow template for reservations*. Alternatively, please send e-mail to The Columbus Section at the following e-address: acscols@cas.org
*Voicemail/e-mail Reservations Template	<ul style="list-style-type: none">• First and last name: please spell last name.• Membership category: member, retired, emeritus, unemployed, student, non-member, other.• Employer• Your phone number, in case we need to contact you.• If you intend to come to the Executive committee meeting, please state so to allow early entry.• Indicate dinner and lecture or lecture only



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Reservations Deadline	Thursday, March 15, 2007. Your reservation is a dinner order and must be paid.
Program Contact	Ron Mitchum- 614-873-0710 ronaldmitchum@core.com
Directions	<ul style="list-style-type: none">• www.maps.google.com• Off Spring St. after crossing west under 315, turn left onto Souder St. proceed to first left –Rickenbacker.• Turn Left onto Rickenbacker• This will take you into the Confluence Park Restaurant Parking Lot• The hostess will take you to the meeting room.• Please sign-in at ACS Hospitality table.



About the Topic

I thought it would be of interest to deviate from our traditional chemistry topics and offer our society members an opportunity to hear a more general topic which will be of interest both to members and spouses and other interest groups. The topic will lift the doldrums of winter with marvelous examples of what we can expect from our own gardens this year.
--RK Mitchum

Exploring the World of Ornamental Plants in the European Gardens of Yesterday and Today

Join Dr. Steven Still in a slide enhanced presentation as he takes you on a tour of the great gardens of England, France and Italy. Dr. Still has selected the formal and informal gardens that are part of the horticulture history of these countries. No passport is required. The only requirement is the ability to relax and enjoy great beauty in the gardens of the world.

About the Speaker

Dr. Still is a professor emeritus of landscape horticulture at the Ohio State University. He is also the executive director of the Perennial Plant Association and serves on the boards of the American Horticultural Society and the Garden Writers Association. Dr. Still is the author of the "Manual of Herbaceous Ornamental Plants". He has received the AHS award for excellence in undergraduate teaching and the Gold Medal from the Massachusetts Horticulture Society for his work in the herbaceous perennial industry.



2007 Columbus Section Officers and Committee Chairs
Compiled by Ronald Mitchum,-Chair Elect

Chair	John Long	jrlong@gfschemicals.com
Chair-Elect	Ronald Mitchum	ronaldmitchum@core.com
Immediate Past Chair	Tom Weeks	tomweeks@aol.com
Secretary	Marta Pazos	mppazos@ashland.com
Treasurer	Fred Costaschuk	fredcostas@yahoo.com
Treasurer-Elect	Rosemary Loza	rloza@columbus.rr.com
Councilors	Maria Rosenthal Jeff Trent Theresa Houston	mrosenthal@cas.org jtrent@col.boehringer-ingelheim.com thouston@cas.org
Alternate Councilors	Don Songstad Ed King Anton Heyns	dsongstad@cas.org eking@cas.org aheyns@cas.org
ACS Communications	Maria Rosenthal	mrosenthal@cas.org
Archives	Steven Rosenthal	srosenthal@cas.org
Bylaws and Statutory Agent	Steven Rosenthal	srosenthal@cas.org
Chemistry Olympiad	Cynthia Hummel	chummel@worthington.k12.oh.us
College Students	Open Position	
Columbus Section Award Communications	Lewis Hogarth	westwood@infinet.com
Coordinator	Maria Rosenthal	mrosenthal@cas.org
Editor, <i>The Chemical Record</i>	George Greene	george.greene@abbott.com
Electronic Communications	John Todd Steven Watkins	jtodd@cas.org swatkins@cas.org
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Web Design/Update	Jianyong Zhu	jianyong_zhu@yahoo.com
Education	Ted Klupinski	tpklist-chem@yahoo.com
Fifty-Year Member Coordinator	Wendy Reichenbach	wreichenb@cas.org
Finance	Open Position	
High School Chemistry Teacher Affiliates Group	Jeff Bracken	bracken.5@osu.org
Hospitality	Gordon Renkes	grenkes@chemistry.ohio-state.edu
Intersociety Activities	Jerry Boone	3581 Paris Blvd. Westerville, OH 43081-4237 614-891-4126
Kids and Chemistry	Jeff Trent	jtrent@col.boehringer-ingelheim.com
Mentoring/Minority Affairs	Open Position	
Membership	George Noethlich	gnoethlich@wowway.com
National Chemistry Week	John Blaha	jblaha@csc.edu



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Nominations	Open Position	
Patterson-Crane Award	Theresa Houston	thuston@cas.org
Program Committee	John Long	jrlong@gfschemicals.com
Project SEED	Open Position	
Regional Meeting General Chair	Jimmy Cowan	cowan@chemistry.ohio-state.edu
State and Local Government Affairs	Manfred Luttinger	luttinger@battelle.org
Silver Circle	Tom Weeks	tomweeks@aol.com
State Science Day Coordinator	Bob Kroshefsky	bobkro@urec.net
Tellers Committee	Norman Rearick	normrearick@earthlink.net
Younger Chemists Committee Chair	Andra Arnett Liz Grassel	aarnett@kforce.com egrassel@kforce.com

The Executive Committee comprises the Chair, Chair-Elect, Immediate Past Chair, Secretary, Treasurer, Treasurer-Elect, Councilors (3), and Alternate Councilors (3).
A quorum, required in order to transact business, constitutes seven of the committee members.

Welcome New Members!

Compiled by George Noethlich, Membership Chair

Please join us in welcoming the following new members who have joined the Section recently:

ADNAN A EL KHALDY	HUA XU	NICOLE R BRINKMANN
ALAN T LEWIS	IAN ROBINSON	NICOLETTE HONSON
AMY C RUSSELL	IN HO KIM	PATRICK C BURGETT
AN ZHANG	JACK L PRICE	PATRICK J GRAY
ANDREW L WASHINGTON	JAMES CALVIN VIA	PAUL MICHAEL KURTZ
BO ZHANG	JAMES F RATHMAN	PETER D VAIL
CARLOS BARRIENTOS	JASON SWOFFORD	PHILLIP N DENEN
CE WANG	JIM A KRUMPELMAN	RACHEL KOPEC
CHIHAE YANG	JOHAN ALBERT FERREIRA	ROBERT E EBERTS
CHIORI SHIMIZU	JOHN CAMERON MC NETT	ROBERT N GARNER
CINDY A TISHUE	JOHN KUHN	SHENTAN CHEN
CRAIG JAMES FORSYTH	JONATHON R NEWTON	SHERI E HOLDEN
DANIEL P DURBIN	KARIN MARIA MUSIER-FORSYTH	SIMON P GARCIA
DANIEL T LAMB	KELLY LEA MORAN	STEVE WALKER
DARCY CULKIN	KEVIN P DORCY	STEVEN H WILLIAMS
DAVE FRIEDEL	LAURA TUHELA-REUNING	STEVEN K LOWER
DAVID HISE	LENA M FURCI	TED KUDRON
DENNIS BONG	LI LI	WEIWEI HU
DOROTHY JIANG	LYNN M WEYER	WENBIN QI
ELENI KARDARAS	MACDONALD WICK	WILLIAM J PYNE
ELIZABETH B QUEENAN	MARGARET MARY HAUGH	XUDONG ZHANG
EMMET S PARK	MATTHEW M YUNG	YAGNASANI GHOSH
FRANK M VON FAHNESTOCK	MICHAEL L WIGGS	YI HSUAN CHOU
GAIL L DEAN	MING ZHU	YULIN REN
GERARD O PLATAU	NAMRATA SINGH	YUMEI LUO
	NICHOLE CRISAFULLI	

New members are invited to attend their first Section meeting dinner free of charge.



2008 Central Regional ACS Meeting Coming to Columbus

The 2008 meeting of the Central Region of the American Chemical Society will be held in Columbus, sponsored by Ohio State University and the Columbus Section of ACS. Contact **Jimmy Cowan**, cowan@chemistry.ohio-state.edu, if you would like to help organize the meeting.

CAS Indexes One Million Documents In 2006

From the ACS Website

Chemical Abstracts Service (CAS) reported it has for the first time indexed and added to the CAS databases more than a million document records in a single year, reflecting the worldwide acceleration of scientific research and patents. CAS announced this signal achievement on the eve of the 100th anniversary of the organization and Chemical Abstracts™, which was first published in January 1907.

As the world's most authoritative scientific information resource, CAS' records reflect dynamic research and patenting activity worldwide as the United States still leads but the Asian powerhouses grow stronger.

CAS database statistics for 2006 indicate the international distribution of the 1,016,669 publications indexed this year:

Languages of publication: 50
Top 3
English: 68.1%
Chinese 13.1%
Japanese 10.3%

Countries of origin: 194
Top 3
U.S.: 19.4%
China (PRC) 17.6%
Japan 16.6%

Patents from 50 issuing authorities accounted for 24.4% of the publications, but contained more than 50% of the new chemical substance information recorded by CAS. The greatest number of publications were articles from CAS' extensive journal coverage in chemistry and related science, for which CAS monitors more than 9,500 titles. Additional sources included conference proceedings, symposia and other documents.

"Throughout the lifetime of Chemical Abstracts and the CAS databases, our records have mirrored the progress of research in chemistry and related sciences," said Matthew J. Toussant, CAS vice president, editorial operations. "It took 30 years for CA to publish its first million abstracts, and we have now exceeded that total in a little less than one year. This achievement dramatically illustrates the rapid pace of research occurring worldwide."

To gain access to the wealth of information in CAS databases, scientists, students, and patent professionals can use a variety of CAS products and search services. "Our comprehensive database of chemistry and related scientific information is an invaluable resource," said Catharina Maulbecker, CAS vice president of marketing and sales. "The added value of the STN® and SciFinder® search tools enables the scientific community to apply the information to full advantage as they build upon this century of knowledge."

More information on CAS databases and search services can found on the web at <http://www.cas.org>.

CERMACS to Be Held in Covington, KY

The 39th Central Regional Meeting (CERMACS) will be held May 20 – 23, 2007 in Covington, Kentucky. The Cincinnati Section is once again hosting CERMACS at the location of their last regional—an exciting success story with its regional record-breaking attendance of close to 1,100. Once again, they have developed a strong and innovative program and you have a chance to be part of it right now. Both advance registration and abstract submittal are now open online. Don't miss this opportunity to participate and to take advantage of reduced fees during early registration. You can reach both by visiting the meeting website at www.cermacs2007.org.

Topics include forensics as presented by William Dean, chief of forensic sciences, Hamilton County Coroner's Office, the "Fantastic Four Science Guys", Bassam Shakhshiri, David Katz, Al Hazari and John Fortman know how to make learning fun, illuminating molecules, chemical /biological sensors, and the art of brewing, hosted by the Master Brewers Association of America.



Science's Marketing Problem

Contributed by Manny Luttinger

From the AAAS Annual Meeting of 2007: Science Has a "Serious Marketing Problem," Says Google Founder Larry Page. See his full address at: http://news.aaas.org/index.php/news/am_page_plenary/id=127.

Scientists and engineers can change the world, but first they need to get over their "serious marketing problem," according to Larry Page, the founding CEO of the Internet giant Google.' Read the rest of this insightful presentation by pasting the URL into your browser.

Percy Julian, The Forgotten Genius

By Maria Rosenthal

The NOVA documentary that aired on February 6, 2007, features the remarkable life story of Percy Julian, one of the great African American scientists of the 20th Century. The grandson of Alabama slaves, Julian won worldwide acclaim for his work in organic chemistry and broke the color barrier in American science more than a decade before Jackie Robinson did so in baseball.

Here's a link to the Percy Julian documentary, just in case you missed the broadcast. It's nicely broken up in chapters so you don't have to watch it all at once. <http://www.pbs.org/wgbh/nova/julian/program.html>. The American Chemical Society contributed to the production of this documentary.

ChemShorts for Kids

The Elementary Education Committee of the ACS Chicago Section presents this column. They hope that it will reach young children and help increase their science literacy. Please share with children and local teachers.

A Dry Ice Demo

Kids, what causes the "smoke" from bubbling beakers and flasks in TV shows and movies? Dry ice is another name for the solid form of carbon dioxide (CO₂). It is colder than water ice but can be handled safely for short periods of time with insulating gloves. There is a video of the classic dry ice fog demonstration on-line (at http://www.metacafe.com/watch/286601/dry_ice/), with a twist. After water is added to the dry ice to create a smoky fog, hand soap is squirted into the mix. The resulting cascade of bubbles is fun, but what makes this video really interesting is the bubbles vanishing in a puff of fog when touched.

To try this at home, we recommend an adult partner only for handling the dry ice, using tongs and insulating gloves (such as leather gardening gloves). A double Styrofoam cup makes a good container, and we suggest putting this inside a secondary container (like a dishpan, for example). A ceramic coffee cup would probably also work. A single large chunk of dry ice will last longer than a number of smaller chunks, and hot water works better than cold, but just use hot water from the tap. Boiling hot water could create a hazard in handling.

Dry ice is so called because it does not melt into liquid carbon dioxide before turning into gas. The process of a liquid changing state into gas is called evaporation. When a solid changes directly into gas, the process is called sublimation.

The white cloud that forms is not smoke, but rather condensed water vapor. Tiny droplets of water make the white cloud. The clouds almost immediately disappear because the water droplets warm right back up and re-evaporate back to form invisible water vapor. This is how fog forms: when it is humid enough and the temperature drops enough you get lots of tiny water droplets forming.

Notes:

Your adult partner can get dry ice from a specialty gas company, such as one that deals in oxygen, helium, and nitrogen, or from stores that ship perishable food. Bakeries and seafood shops can often provide a good lead, or a popular restaurant could be asked if they carry dry ice. Dry ice is cold enough to cause frostbite so protective gloves are necessary. Also, be aware that extra carbon dioxide is added to the air as dry ice vaporizes. Carbon dioxide is naturally present in air, but under some circumstances, the extra amount can present a health hazard.

Reference: Dr. Anne Marie Helmenstine at
<http://chemistry.about.com/library/weekly/aa010603a.htm>, <http://chemistry.about.com/b/a/257641.htm>
<http://chemistry.about.com/b/a/257641.htm>

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Help Wanted

Chemist Position: Position available for a chemist with ICP experience. BS chemistry and experience required. Apply in confidence to: DAT Laboratory, P.O. Box 3131, Dublin, OH 43016. 1-800-733-8644 ; datlab@infinet.com. DAT Laboratory is an equal opportunity /affirmative action employer.

Columbus Section ACS Calendar of Events

Compiled by Maria Rosenthal, Ron Mitchum, and George Greene

2007	March	8	Thu	Chemical Abstracts Service, Battelle Rooms	5:00 PM: Dr. Daniel Rabinovich, <i>Chemistry and Science in Postage Stamps</i> . See details elsewhere in this issue of <i>The Chemical Record</i> .
2007	March	20	Tue	Confluence Park Restaurant 679 West Spring Street (Souder/ Rickenbacker) Columbus, OH 43215	<ul style="list-style-type: none">4:30 PM: Executive Committee Meeting, open to all Section members.5:30 PM: Reception and dinner.7:40 PM: <i>Gardens of the World</i>, Dr. Steven Still. See details elsewhere in this issue of <i>The Chemical Record</i> .
2007	March	25-29	Sun – Thu	Chicago	233 rd ACS National Meeting.
2007	April	17	Tue	TBA	Dr. Gary Stoner, <i>Cancer Fighting Compounds in Black Raspberries</i> .
2007	May	12	Sat	OSU	State Science Day 2007. Judges are needed; please see details elsewhere in this edition of <i>The Chemical Record</i> .
2007	August	19-23	Sun – Thu	Boston	234 th ACS National Meeting.
2007	October	21-27	Sun – Sat	Here, There, Everywhere!	National Chemistry Week. <i>The Many Faces of Chemistry</i> .
2008	June	TBA	TBA	Columbus	Central Regional Section ACS Meeting, sponsored by Columbus Section and The Ohio State University (Contact: Jimmy Cowan, cowan@chemistry.ohio-state.edu).
2008	October	19-25	Sat – Sun	Here, There, Everywhere!	National Chemistry Week. <i>Chemistry and Sports</i> .

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The American Chemical Society: Improving people's lives through the transforming power of chemistry.

About ACS

The American Chemical Society is a self-governed individual membership organization that comprises more than 158,000 members at all degree levels and in all fields of chemistry. The organization provides a broad range of opportunities for peer interaction and career development, regardless of professional or scientific interests. The programs and activities conducted by ACS today are the products of a tradition of excellence in meeting member needs that dates from the Society's founding in 1876.

About *The Chemical Record*

The Chemical Record, official newsletter of the Columbus Section of the American Chemical Society, Inc., is published monthly, September-December and February-May (eight issues per year.) Opinions expressed by editors or contributors do not necessarily represent the official position of the Columbus Section or of the editorial staff. We welcome your contributions to your *Chemical Record*. Please submit them via postal or electronic mail to George Greene, PO Box 360941, Columbus, Ohio 43236-0941, chemicalrecord@yahoo.com. Electronic mail contributions should be in MS Word file attachments (preferred) or plain-text messages. When preparing electronic documents, please remember that you are no longer using the old Remington typewriter so you do not need to add a carriage return at the end of each line. *Thank you very much!*

Change of Address

Changes in postal or e-mail address should be reported to the Membership Chair, George Noethlich, 2740 Bella Via Avenue, Columbus OH 43231-2305, e-mail gnoethlich@wowway.com. George will forward the change-of-address information to ACS Headquarters.

Advertising Rates

Advertising rates for *The Chemical Record* are as follows (per single insertion): Full Page, \$250; Half-page, \$150; Quarter Page, \$120; Eighth Page: \$60; Business Card, \$50. Discounts: 5% for four insertions or 10% for eight insertions during a calendar year. There is no charge for "help wanted" ads.

Section E-Mail Routing

Please send items for distribution to the Section e-mail list to Stephen Renner (srenner@cas.org) and Maria Rosenthal (mrosentha@cas.org). Maria and Stephen will perform any necessary formatting then they will forward the message to John Todd, Electronic Communications Coordinator, for distribution. If you would like to be added to the e-mail distribution list, please contact John Todd (jtodd@cas.org)



THE CHEMICAL RECORD

Columbus Section of The
AMERICAN CHEMICAL SOCIETY, INC
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