



ALI "QUOTES"

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THE NEWSLETTER OF THE PRINCETON ACS

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Meeting Announcements

This is the only notice you will receive of the October meeting. Please save it and/or make a note of it in your calendar. Meeting information can also be found on our web page: <http://www.princeton.edu/~pacs>

September Monthly Meeting

Professor Jannette Carey
Department of Chemistry
Princeton University

**Topic: Molecular and Biological Constraints on
Ligand-Binding Affinity and Specificity**

Date: Wednesday, September 19, 2001

**Time & Place: 5:30 p.m. Lecture, Room 124
Frick Chemistry Laboratory
Princeton University
6:45 p.m. Dinner at Prospect House**

Abstract: Molecular recognition is at the root of essentially all biological processes. Each molecular interaction must display a unique combination of affinity and specificity in order to serve its physiological purpose. The molecular mechanisms that are used to achieve the required values of affinity and specificity in various biological systems will be reviewed. Comparative analysis of these mechanisms can be used to distill out general principles of molecular recognition. The conclusions are relevant for related areas such as drug development.

Coming in November...

**Rep. Rush Holt (D-NJ) will address our section
on current issues of relevance to the scientific
community.**

**Thursday, November 8
5:30 p.m. at Frick Laboratory, Rm. 120 (Kresge)
7:00 p.m. Dinner at Lahiere's in Princeton**

**For more information, check our website at
www.princeton.edu/~pacs. For dinner
reservations, call Denise D'Auria at
(609) 258-5202. Details will follow in the next**

October Monthly Meeting

Peter A. Rona
Professor of Marine Geology and Geophysics
Institute of Marine and Coastal Sciences and
Department of Geological Sciences
Rutgers University

**Topic: Marine Mineral Resources For the New
Millennium**

Date: Tuesday, October 16, 2001

**Time & Place: 5:30 p.m. Lecture, Room 124
Frick Chemistry Laboratory
Princeton University
6:45 p.m. Dinner at Prospect House**

Abstract: The talk will show how our vision and potential utilization of nonfuel marine minerals is expanding rapidly with major advances in our knowledge of the Earth and discoveries that link inorganic and organic processes. Ocean basins were regarded as passive containers of the ocean until the advent of the theory of plate tectonics in the 1960's. The view as passive containers accounts for mineral deposits on continental shelves derived from mechanical erosion of continental rocks (sand and gravel, heavy metals, and gemstones) and manganese nodules in the deep ocean basins (Mn, Cu, Ni, Co; water depths 4000-6000 m) derived from chemical erosion of these rocks. Of these minerals sand and gravel for construction and desalination of seawater for fresh water are growing fastest as materials necessary for survival. Diamonds have developed into a major industry offshore southwest Africa. The theory of plate tectonics changed our view of ocean basins from passive sinks to active sources of mineralization. Heat related to the creation and destruction of the ocean crust at plate boundaries drives sub-seafloor hydrothermal circulation systems. These systems concentrate massive sulfide deposits (copper, iron, zinc, silver, gold) and are sources of chemical energy utilized by heat-tolerant microbes to manufacture their food at the base of a vent ecosystem linking inorganic with organic processes. The microbes are sources of novel organic compounds with applications to industrial processes and pharmaceuticals and may themselves relate to the base of the evolutionary tree of life. Marine mining for both minerals and microbes is accelerating with great potential for economic benefits and environmental harm.

*The lecture is free and open to the public. The cost for dinner is **\$20.00** per person, including wine (students and retirees, **\$10.00**). Reservations are necessary to attend dinner, but not necessary for the lecture. For dinner reservations, please contact **Denise D'Auria at (609) 258-5202, denised@princeton.edu**. Dinner reservations must be made by **Wednesday, Sept. 12** for the September meeting, and **Tuesday, October 9** for the October meeting. **Please call to cancel your reservations if you cannot attend. No-shows will be billed for the cost of their dinner.***

Chairman's Corner

William Chiang

I hope that everybody had a wonderful and safe summer. The fall season is upon us and I am happy to report that we will have some very interesting speakers scheduled. In September, Professor Jannette Carey of Princeton University will speak on the topic of molecular recognition in biological systems. She is well recognized for interfacing chemistry with biology and known for her ability to communicate complex ideas to a general audience. In October, Professor Peter Rona of Rutgers University will be joining us and for a talk on his work in oceanography. To be honest, his involvement was a suggestion by members of our section and the topic adds to the diversity of topics of our program for the year. I look forward to a talk of both interesting science and wonderful pictures of his travels.

I also like to take this opportunity to introduce some issues concerning the operations of the section. First, a Chair-Elect needs to be selected in the upcoming months; this person will become the Chair of the section during 2003. We generally alternate between academia and industry for this position, and this year we need someone from industry. The main functions of this position are to organize the seminar series for the year and to make decisions with regard to section activities, finances and involvement in community events such as National Chemistry Week. The amount of work is minimized by the great set of officers who provide invaluable advice and support. Please contact me at wchiang@sarnoff.com if you are interested.

As I mentioned, the success of the section is dependent on the officers who volunteer their time to help run the organization. Lynne Greenblatt, who has been responsible for producing and mailing the Newsletter to all the members, will be relinquishing this position after eleven years. After having worked with her since 2000, I cannot imagine a more pleasant and reliable person as a colleague. This section is very fortunate to have her involvement and her continued participation in the board meetings. As a result of this change, we are seeking a replacement for Lynne, but also recognize that the responsibility of this position will also change. Thus far, everyone receives a hardcopy of the Newsletter, and we need to know whether certain members would like theirs sent electronically. Instructions for subscribing to the e-mail list follow. Having more Newsletters sent electronically will make it easier on the officer and may reduce costs, but we understand that some may have preference to a hardcopy and we will continue to provide that service.

Instructions for Subscribing to the e-Mail List

Send an e-mail message to the following address:
listproc@lists.Princeton.edu

In the body of the message, type the following:

subscribe princeton-acs Your Full Name

(example: subscribe princeton-acs John Smith)

To remove your name from the list, type **unsubscribe princeton-acs Your Full Name**

If you subscribe, but you also want a hard copy of the newsletter sent to you, please notify us via our website, www.princeton.edu/~pacs. Effective January 2002, we will no longer send hard copies of the newsletter to members on the e-mail list, unless specifically requested.

Chemistry in Art Workshop

Kathryn Wagner

Kudos to the enthusiastic volunteers responsible for the success of the ACS Hands-on Chemistry in Art workshop for teachers held at Frick Laboratory on May 23. ACS members who participated were Wyeth-Ayerst employees Thomas Caggiano, Cristina Grosanu, Lynne Greenblatt, Amy Lee, Marla Williams, and Jerome Wu, and retired members Bill Barnard, Frank Long, and Klaus Wagner. Princeton students Hanna Glomska, '01, and Diane Horowitz, '01, also helped. George Gasparian of Sensors Unlimited, Inc provided a near-IR reflectography demo. We hope to see you all again for the next hands-on event!

Princeton ACS will hold the second annual National Chemistry Week Open House on Friday, November 9, 2001. This year's theme is "Chemistry in Art". Children and their parents will have a chance to make the art-chemistry connection through demonstrations and hands-on activities. We will need MANY volunteers. Since last year's program, "Chemistry in the Kitchen", was so successful, we are likely to have an even bigger crowd this year. (We will also have more space.) If you will be available between 6:00 and 9:00 on November 9, and you would like to help kids have fun with chemistry, please contact Kitty Wagner, kmwagner@princeton.edu, (609) 258-2937. Any necessary training will be provided. [If you'd like to help, but you prefer to keep one step removed from messy stuff, we will need a photographer and guides as well as activity supervisors.]

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CALENDAR OF EVENTS

Sep 11	Trenton ACS Monthly Meeting Speaker: Lynn Bradley, TCNJ Contact: Pete Boughton, PeteJBo742@aol.com	Rider University Lawrenceville, NJ
Sep 12	Chemical Consultants Network Speaker: Donald J. Koestler www.chemconsultants.org (215) 382-1589 or CCNRESERVATIONS@aol.com	The Cynwyd Club Bala Cynwyd, PA
Sep 19	Princeton ACS Monthly Meeting	Princeton University
Oct 10	Trenton ACS Monthly Meeting Contact: Pete Boughton, PeteJBo742@aol.com	Rider University Lawrenceville, NJ
Oct 10	Chemical Consultants Network Speaker: Dr. Richard Saferstein www.chemconsultants.org (215) 382-1589 or CCNRESERVATIONS@aol.com	The Cynwyd Club Bala Cynwyd, PA
Oct 16	Princeton ACS Monthly Meeting	Princeton University
Nov 8	Princeton ACS Monthly Meeting Speaker: Congressman Rush Holt (D-NJ) (609) 258-5202 or denised@princeton.edu	Princeton University Dinner at Lahiere's Princeton, NJ



Princeton Section ACS

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