



# ALI "QUOTES"

Volume 16, Issue 6

THE NEWSLETTER OF THE PRINCETON ACS November/December 2006

Website <http://www.princeton.edu/~pacs/>

## Monthly Dinner Meeting

Thursday, November 9, 2006

*Our guest speaker will be*

**Dr. G. Charles Dismukes,  
Chemistry Department, Princeton University**

### **"Nature's Renewable Energy Blueprint: Future Fuel from Photosynthesis & Biomimics"**

**Time: 6:00 PM**  
**Lecture: Frick Laboratory, Room 120**  
**Dinner: following lecture, at Kalluri Corner**

#### **Abstract**

Natural photosynthesis is intrinsically highly efficient, with maximum photon capture efficiency approaching 100% and energy conversion efficiency for light into O<sub>2</sub> and primary products ranging from 59% to > 10%. However, at incident solar intensity this high efficiency is never attained for conversion to biomass - significantly less than 1% typical - owing to the sophistication of phototrophs in converting sunlight into its own power sources for cellular needs. This talk will discuss strategies for harnessing this significantly larger fraction of energy production capacity than is available from conventional biomass, by the conversion of water into hydrogen using cyanobacteria and microalgae as more efficient fuel factories. Nature's blueprint for the catalytic site in natural photosynthesis that powers global O<sub>2</sub> production from water has been obtained from recent basic research. The design of man-made catalysts that use this blueprint has begun to yield promising results for solar-based methods for direct solar water splitting into H<sub>2</sub> and O<sub>2</sub>.

#### **Biography**

Dr. Dismukes received his BS in Chemistry from Lowell Technological Institute in 1971 and his PhD in Radiation Chemistry from the University of Wisconsin in 1976. He joined Princeton University in 1978 and became a full professor in 1991. He is an affiliated member of the Princeton Environmental Institute (1995) and the

Princeton Materials Institute (1990.) He has received numerous national and international awards and honors. He has provided significant service to the government and his profession e.g. in 2003 he was plenary lecturer/advisor to the US DOE-BES on Hydrogen Production Technologies: DOE Planning Workshop on "Basic Research for Hydrogen Production, Storage and Use", in 2005 he was advisor to the US DOE-BES: DOE Solar Hydrogen Workshop. Most recently he was conference chair, "Biological Hydrogen Production from Water and Light: Current Status & Future Prospects" sponsored by the US Air Force Office of Scientific research, July 2006. Since 1980, he has given over 160 invited lectures at scholarly meetings and has over 140 publications and patents. See [www.princeton.edu/~catalase](http://www.princeton.edu/~catalase) for more information.

#### **Reservations**

The meeting will be held in room 120, Kresge Auditorium, Frick Laboratory, Princeton University (see [www.princeton.edu/~pacs](http://www.princeton.edu/~pacs) for more information). The seminar is at 6 PM followed immediately by dinner at Kalluri Corner Restaurant, 235 Nassau St. Princeton, NJ. The seminar is free and open to the public. Reservations are required for dinner, which is \$25 for full members, \$15 for retirees and \$10 for students. All reservations will be billed, for the section pays on the number of reservations, not the number of attendees. Please contact Denise D'Auria at (609) 258-5202 or [denised@princeton.edu](mailto:denised@princeton.edu) by Thursday, November 2 to make or cancel reservations.

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## Monthly Meeting & Year End Celebration

Thursday, December 14, 2006

*Guest speaker will be*

**Dr. George Crull, Bristol-Myers Squibb,  
2006 Princeton ACS Section Chair-elect**

**Time: 6:00 PM**  
**Lecture: Frick Laboratory, room 124**  
**Dinner: Prospect House (following lecture)**

### Biography

George received his PhD from the University of South Carolina. Following postdoctoral work at the University of Iowa, he joined SUNY Stony Brook. He has been at Bristol-Myers Squibb for the past 14 years and is currently a Principal Scientist in Drug Development. He has been an ACS member for 23 years. Last year he served as senior co-chair for the NJACS NMR Topical group. He frequently provides science enrichment classes to elementary school children

### Reservations

The meeting will be held in room 124, Frick Laboratory, Princeton University (see [www.princeton.edu/~pacs](http://www.princeton.edu/~pacs) for more information.) Seminar is at 6 PM followed immediately by dinner at Prospect House. The seminar is free and open to the public. Reservations are required for dinner, which is \$35 for full members, \$25 for retirees and \$15 for students. All reservations will be billed, for the section pays on the number of reservations, not the number of attendees. Please contact Denise D'Auria at (609) 258-5202 or [denised@princeton.edu](mailto:denised@princeton.edu) by Thursday, December 7 to make or cancel reservations.

## NEWS from the ACS NATIONAL MEETING

Our councilors, Barbara Lences and Lynne Greenblatt attended the 232<sup>nd</sup> ACS National Meeting September 10-14, 2006 and filed the following report:

### Actions of the Council

Petitions for Consideration: The Council received three petitions for consideration: Petition on Election Procedures 2006; Petition on Multi-Year Dues; and a Petition on Rules for Nominating Members of Nominations and Elections for National Offices. A brief discussion ensued on the Petition on Rules for Nominating Members of Nominations and Elections for National Offices. Action is expected on these petitions at the 2007 spring national meeting in Chicago.

Committee Review and Committee Change in Status: As part of a regular review, the Council VOTED to continue the Committee on Public Relations and Communication, the Committee on Environmental Improvement, and the Committee on International Activities subject to concurrence by the Board of Directors. The Council also VOTED to support the request of the Committee on Community Activities that its status be changed from an "other committee" of the Board to a joint Board-Council Committee. The purpose of the Committee on Community Activities is to improve the public perception of

chemistry by providing programs to connect chemists with their communities.

Registration Report and 2007 National Meeting Registration Fee: As of September 12, 2006, the ACS fall national meeting had attracted 15,603 registrants. Totals in select categories are as follows: Regular attendees 9,373; Students 3,350; Guests 510; Exhibit Only 504; and Exhibitors 1,666. The Committee on Meetings and Expositions reported that national meeting financial targets continue to be met, and therefore recommended to the Board of Directors that there be no increase in national meeting registration fees for 2007.

The Society's Membership: The Committee on Membership Affairs reported that through August 2006, a record 12,137 new applicants have been added to the Society's membership, and that the Member-Get-A-Member campaign is well on its way to the goal of 1,000 new members in this year.

### Actions of the Board of Directors

Meetings: On the recommendation of the Board Committee on Professional and Member Relations, the Board voted to proceed with "phase one" plans to arrange the 2008 ACS/AIChE joint meeting, which involves working within the framework of the cosponsorship guidelines, engaging the support of the relevant technical divisions, and developing a suitable budget. The Board also discussed plans for a third conference in Malta entitled, *Frontiers of Chemistry III: Research and Education in the Middle East* and agreed to recommend inclusion of \$50,000 for this meeting in the 2007 budget. The conference will take place in December 2007.

The Society's Mission: On the recommendation of the Committee on Planning, the Board voted to adopt a revised ACS mission statement: "To advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people."

The Society's Staff: The Board received a report from the Executive Director/CEO and several of her senior staff members on the activities of the Publications Division, Chemical Abstracts Service, Human Resources, the Web Presence Project, and the Society's General Counsel. On the recommendation of the Committee on Executive Compensation, the Board agreed to a proposed list of 2007 organizational objectives. The Board also received a status report from its consultants, who are helping to review the Society's executive compensation system. The compensation of the Society's executive staff receives regular review by the Board.

The Society's Finances: The Board, through the Committee on Budget and Finance, voted to approve funding requests for the Society's Green Chemistry Institute and for workshops with Hispanic and Native American-serving institutions and to include these funding amounts in the Society's 2007 proposed operating budget.

## Section Receives Earth Day Award!

This past August we received notification that the section was selected as a finalist for a Chemists Celebrate Earth Day Award for ***Creative & Innovative Use of the Chemists Celebrate Earth Day Theme*** (see letter at right).

Winners were announced at the National Meeting and our councilors, Lynne Greenblatt and Barbara Lences, had the honor of bringing home the trophy!

Congratulations to our Earth Day Activities Coordinators, Maddy and Schuyler Antane, who worked tirelessly to pull this off!

As part of the earth day activities, a poster contest was sponsored by the ACS. Students were asked to draw a picture depicting the theme "Dig it!" Winners' posters from our local contest were submitted to the national competition and we were delighted to learn that Princeton won first place for the Earth Day poster in the Grade 3-4 category!



Membership Division  
Office of Community Activities

American Chemical Society

1155 SIXTEENTH STREET, N.W.  
WASHINGTON, D.C. 20036

August 31, 2006

Dear Istvan Pelczer,

On behalf of the Committee on Community Activities (CCA), it is my pleasure to inform you that the Princeton Local Section has been selected as a finalist for the following Chemist Celebrate Earth Day Award(s):

- **Creative & Innovative Use of the Chemists Celebrate Earth Day Theme**

Recipients will be announced and awards will be presented at the 232<sup>nd</sup> ACS National Meeting in San Francisco, CA on Tuesday, September 12 at the Hilton San Francisco, Union Square 13. The award presentation will be during the CCA Reception and Open Meeting scheduled from 1:30-3:00 pm. If you, your CCED Coordinator, or other Local Section representative will be at the San Francisco meeting, we hope that you will join us.

Please send the name and contact information (email address, telephone number, etc.) of the representative who will be at the San Francisco national meeting to accept the award, should your Local Section be named a recipient to [t.williams@acs.org](mailto:t.williams@acs.org) or (800) 227-5558, ext. 6097 by **Wednesday, September 6, 2006**. Your presence will allow other local sections to see examples of outstanding CCED activities and have the opportunity to ask questions about the activities.

Congratulations on an outstanding year of achievement and we look forward to seeing you in San Francisco!

Sincerely,

*V. Michael Mautino*

V. Michael Mautino  
Chair, Committee on Community Activities

cc: Schuyler Antane, CCED Coordinator

### Princeton & Trenton Sections to Sponsor Chemagination 2007

The Princeton & Trenton Sections are joining forces once again to sponsor the Chemagination contest for the coming year. This is a contest for high school students in which they are asked to write an article about a chemical innovation that occurs 25 years in the future. The local contest will be held in mid-February. If you are interested in helping out or learning more about the contest please contact Louise Lawter and Sharon Sibilia at [chemagination@yahoo.com](mailto:chemagination@yahoo.com).

### National Chemistry Week Student Poster Contest

As part of the National Chemistry Week 2006 celebration and in recognition of its theme, "Your Home – It's All Built on Chemistry", the American Chemical Society (ACS) and the Princeton Local

Section of the ACS are sponsoring a poster contest for students in grades Kindergarten – Grade 12.

Students are invited to create a poster that will serve as a public service announcement emphasizing the role of science/chemistry in the home and/or home safety improvements over the years. Participants should create a poster that has a "chemistry/science in the homes" message for the general public.

Prizes will be awarded for 1<sup>st</sup> & 2<sup>nd</sup> place in categories: K-2nd, 3rd-4th, 5th-8th, 9th-12<sup>th</sup>. Local winners will be automatically entered in the National ACS contest. Deadline for poster submissions is December 1, 2006. Educators, you can find important information about the contest - connections to chemistry and alignment to the National Science Education Standards at [www.chemistry.org/ncw](http://www.chemistry.org/ncw). Local contest rules are also at [www.princeton.edu/~pacs/](http://www.princeton.edu/~pacs/). If you have questions or would like to participate, contact Kathryn Wagner, [kmwagner@princeton.edu](mailto:kmwagner@princeton.edu), (609) 258-2937.



**Demonstrations &  
Supervised Hands-On  
Activities,**

Make paint and cement,  
build structures, investi-  
gate materials, dye cloth,  
learn about the chemistry  
around your house.

**Children 12 and under  
must be accompanied by a  
responsible adult.**

Free admission;  
reservations required  
Contact kmwagner  
@princeton.edu or leave a  
message at (609) 258-2937.  
(leave name of responsible  
adult(s), #of children)

**YOUR HOME:  
IT'S ALL BUILT  
ON  
CHEMISTRY!**

The Princeton  
Section  
of the ACS  
invites you to join  
them for

**ACTIVITIES  
NIGHT**

**FRICK  
LABORATORY,  
PRINCETON  
UNIVERSITY**

**FRIDAY,  
OCTOBER 27,  
2006  
7:00 pm- 9:00pm**

**2006 OFFICERS / COMMITTEE CHAIRS**

**Chair:**

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Princeton University  
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ipelczer@princeton.edu

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**Councilor:**

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**Chemagination**

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