

## **The Collapse of the World Trade Center Towers**



Dr. Richard Gann  
National Institute of Standards and Technology

### **Student Awardees, page 4**

Tuesday, April 4, McDaniel College

# April Dinner Meeting

Tuesday, April 4, 2006

McDaniel College, Westminster, Maryland

6:00 - 6:50 pm	Registration and Social
7:00 - 7:50 pm	Dinner
8:00 - 9:00 pm	Student Awards and Keynote Speaker Dr. Richard Gann Building and Fire Research Laboratory National Institute of Standards and Technology

Cost for the dinner is \$20.00 for members; \$15.00 for spouses, retired chemists and guests, and \$10.00 for students. For reservations please contact Shirish Shah at 410-323-0803(H) or by email at [dr.shah@juno.com](mailto:dr.shah@juno.com).

**Directions to McDaniel College.** Travel north on Route 140 to Westminster. Proceed around Westminster on Route 140 through six traffic lights until the divided highway reverts to a two-lane road. Turn left on to Route 31. At the first traffic light turn left on to Route 32 (Main Street). Turn right into the Harrison House parking lot.

## The Collapse of the World Trade Center Towers

On September 11, 2001, terrorists flew airplanes into the two 110-story towers of the New York City World Trade Center (WTC). Within 56 min and 102 min, respectively, the buildings collapsed; by the end of the day, the entire WTC was destroyed and 2749 people had lost their lives. On the one hand, the terrorists appeared to have succeeded at their highest expectations; on the other hand, the loss of life was a small fraction of what it could have been.

In September 2005, NIST concluded its investigation into the collapse of the towers. The goal was to investigate the building construction, the materials used, and the technical conditions that contributed to the outcome of the WTC disaster so as to improve the way buildings are designed, constructed, maintained, and used; to improve tools and guidance for industry and safety officials; to recommend revisions to current codes, standards, and practices; and to improve public safety.

This talk will present what happened on that day and insights into how the investigation team was able to reconstruct the unfolding events and the mechanisms of the structural collapse.

## Nominations for the 2006 Maryland Chemist Award

The Maryland Chemist Award Committee is accepting nominations and recommendations for the 2006 Maryland Chemist Award. Supportive documentation should include copies of the resume of the nominee and his/her list of publications. A short statement describing the outstanding contributions of the nominee to scientific research, education, industry, technology, etc., will be helpful and appreciated.

Please send nominations to S. Munavalli, 700 Paige Circle, Bel Air, MD 21014. The deadline for submission of nominations is **April 15, 2006**.

# ACS Maryland Section - Officers and Committee Chairs

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## Section Officers

Chair: Sandra K. Young, 410-306-0679  
skyoung@arl.army.mil

Vice-chair: Stephanie J. Watson  
301-975-6448  
sstephanie.watson@nist.gov

Chair-elect: Lev Ryzhkov, 410-704-3831  
lryzhkov@towson.edu

Secretary: Sara Narayan, 410-602-7326

Treasurer: Angela Sherman, 410-532-5713  
CND of MD  
4701 North Charles Street  
Baltimore, MD 21210  
asherman@ndm.edu

## Councilors

Merle I. Eiss 410-484-0521 meiss32@aol.com	Donald Jones 202-364-2740 djones@erols.com
David Roswell 410-617-2458 droswell@loyola.edu	Charles Rowell 410-647-9452 rowell@toad.net

## Alternate Councilors

Shekar Munavalli, Shirish Shah  
Paul Smith, Joseph Topping

## Members at Large

Karen Hatwell, Maurice Iwunze,  
Jan Kolakowski, Liina Ladon, James Nwaba

## Committee Chairs

Student Awards (March):  
George Farrant, 410-455-4120  
gfarrant@ccbcmd.edu

Remsen Award (May/June): Lev Ryzhkov

Braude Award (October): Charles Rowell

Maryland Chemist Award (December):  
Shekhar Munavalli, 410-436-2819  
Shekar.munavalli@sbccom.apgea.army.mil

Maryland Service Award:  
Shree Iyengar, 410-541-2266

## Maryland Section on the Web: <http://mdchem.org>

Webmaster: Sandy Young  
(chemists4fun@yahoo.com)  
Paul Smith, pjsmith@umbc.edu

## Programs

Archives: Ernie Silversmith, 443-885-3214

Career Planning: Linh Cheong, 410-762-1159

Earth Day: Paul Smith & Sandy Young

Environmental Issues:  
Shirish Shah, 410-704-2720  
sshah@towson.edu  
Sandy Young

Finance Committee:  
Jan Kolakowski,  
410-436-2755, jan.kolakowski@us.army.mil

Government Relations:  
Shirish Shah & Robert von Tersch

Long Range Planning: Shekar Munavalli

MARM: Shirish Shah & Alan Samuels

Membership: Merle Eiss

Minority Affairs:  
Alfred Amah, 410-602-7164,  
f-amah@mail.vjc.edu

Public Relations:  
Shirish Shah & Walter Roy,  
Walter\_Roy@mccormick.com

Retired Chemists: Alvin Bober, 410-581-5321

Women Chemists/Younger Chemists:  
Sara Narayan, 410-602-7326  
Amanda Miller

## Educational Programs:

Chemistry Olympiad/Chem-a-Thon:  
Shirish Shah & Mike Zapf,  
Mike\_Zapf@mccormick.com

Continuing Education/High School Education:  
Shirish Shah  
Ellen Pisciotta

Kids & Chemistry/Chemistry-in-the-Library:  
Sue Procell, 410-436-4604,  
suzanne.procell@us.army.mil  
Sandy Young

National Chemistry Week (NCW):  
Shirish Shah & Sandy Young

## Chesapeake Chemist Editor: [cakvt@hotmail.com](mailto:cakvt@hotmail.com)

Cindy Kronman  
734 Benfield Road  
Severna Park, MD 21146

The Chesapeake Chemist is published monthly September through May by the Maryland Section of the American Chemical Society. Send submissions to the editor in electronic format. The Maryland Section is not responsible for opinions expressed herein. Editorials express the opinions only of the authors. The editor is not responsible for all unsigned material.

# Student Awardees



David (Chris) Parr  
Anne Arundel  
Community College



Ryan Cleary  
Mount Saint Mary's  
University



Matthew Loftus  
University of Maryland  
Baltimore County



Craig Tieman  
United States  
Naval Academy

## Awardee Gifts

Award Certificates

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Randall Reif  
Saint Mary's College  
of Maryland



Kimberly Still  
Villa Julie College



Cassie Slentz  
Washington College



Holly Haley  
Hood College



Matthew Copeland  
McDaniel College



**Not Pictured**

Andrew Grubb-Wheeler  
Community College of  
Baltimore County – Catonsville

Jovon Lewis  
Coppin State College

Matthew Kier  
Goucher College

Inae Park  
Howard Community College

Ellen Minnihan  
Johns Hopkins University

Lisa Christadore  
Loyola College

Rebecca Ward  
McDaniel College

Nnamdi Ofoegbu  
Morgan State University

Sarah Wassink  
College of Notre Dame

Alicia Fraind  
Towson University

## 50-year member luncheon scheduled for May 26

The Maryland Section will honor this year’s ACS 50-year members at a luncheon at the Belmont Conference Center, Howard Community College, on May 26, at noon. The Belmont Center is in Elkridge, Md., just off Route 1. J. Joseph Curran, Jr., attorney general for the state of Maryland will be the section’s honored guest.

The cost for the luncheon will be \$25.00 for members and guests, \$20.00 for retired members and \$10.00 for students. Please make reservations with Alvin Bober at [adbobert@juno.com](mailto:adbobert@juno.com) or 410-581-5321 T, or 410-581-5785 F, or by USPS at 9800 Middle Mill Drive, Owings Mills, MD 21117.

The 50-year luncheon committee--Alvin Bober, Charles Rowell, Ernest Silversmith, and Shirish Shah--has developed an appropriate congratulatory program for our 2006 honorees.

## Maryland Section picnic to feature expanded menu

The Annual Family Picnic will be held from noon to dusk, Sunday, July 9, at the Patapsco State Park (Pavilion # 501) McKeldin Area, Marriotsville Road. Entrance to the park is free for seniors (62 & up) and children under 16. There is a small fee for others.

The cost for this year's picnic is still \$15.00 per family or \$7.50 for an individual, despite the section's expanding the usual menu of hotdogs and hamburgers to include steak, chicken, sweet corn on the cob and other culinary delights. The section will also provide soda, water, condiments, paper goods, utensils, etc.

Each participating family or individual is asked to bring other picnic food dishes. In deciding what to bring, please use the initials formula shown here, based on the first letter of your surname: A – F, Side Dish; G – L, Dessert; M – R, Snack; and S – Z, Salad.

The '06 picnic will be a gastronomic experience. To make reservations, please send checks, payable to Maryland Section, ACS, to Alvin Bober, 9800 Middle Mill Drive, Owings Mills, MD 21117, adbober@juno.com. After June 30<sup>th</sup> please call 410-581-531.

## Section to participate in Earth Day cleanup

The Maryland Section of the American Chemical Society (<http://www.mdchem.org>) is teaming up with the Herring Run Watershed Association (<http://www.herringrun.org>) to participate in a pre-Earth Day Clean-Up event at the Herring Run Watershed. We are looking for volunteers to help clean-up a section of the watershed for which the Maryland ACS has volunteered to be responsible.

**When:** Saturday, April 1<sup>st</sup>, 2006. Clean-up from 9 am to 12 pm or when we finish. Come for an hour or stay the whole time; we will appreciate your participation.

**Where:** Herring Run Park in northeast Baltimore City adjacent to Lake Montebello. The park entrance is at the intersection of Harford Road and Argonne/Parkside Drives. The entrance is not labeled with a street sign, but there is a sign for Herring Run Park once you turn onto the street. The meeting location is at the end of the park street by the viaduct under Harford Road. If you want more detailed directions, please e-mail Paul Smith at [pjsmith@umbc.edu](mailto:pjsmith@umbc.edu) (put "Earth Day" in the subject line).

**Details:** Wear sturdy shoes and old clothes; bags and gloves will be provided; refreshments will be available (drinks/snacks); and 'Earth Day' t-shirts for the first 40 participants. If you already have a Chemistry-in-the-Library t-shirt, please wear it to show your support.

If you can't get into the city to help with our specifically identified area but still want to participate, please contact the Herring Run Watershed Association through their website to determine other available sites: there are more than 100 clean up sites in Baltimore City, Anne Arundel, Baltimore, Carroll, Howard and Harford Counties.

## Undergraduate Travel Awards granted

The section received two applications for Undergraduate Travel Awards and funded both. Joanna Duckworth, Villa Julie College, will be attending MARM in Hershey and presenting a poster on her research with Professor Karen Hatwell. Cassie Slentz, Washington College, will be attending the national meeting in Atlanta and presenting two posters, one on her research and one on the activities of the Student Affiliate Group at Washington College.

## April Historical Events in Chemistry

by Leopold May, The Catholic University of America, Washington, D.C.

- April 1, 1860 Sergei N. Reformatsky, who synthesized organozinc halides (Reformatsky reaction), was born on this day.
- April 2, 1900 Melville L. Wolfrom, who was born on this day, did research on the structural forms of sugar and the structure of heparin and streptomycin. He founded the *Advances in Carbohydrate Chemistry*.
- April 5, 1956 Marshall Gates and G. Tschudi announced the synthesis of morphine.
- April 6, 1927 Paul J. Crutzen, a researcher on air pollution, particularly ozone layer; was born on this day. He shared the Nobel Prize in 1995 with M. J. Molina and F. S. Rowland for their work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone.
- April 7, 1914 Birthdate of Walter H. Stockmayer, who did research in polymer chemistry.
- April 10, 1790 The U. S. Patent Office was established on this date according to Article 8, Section 1 of the Constitution. The first patent was on potash and pearl ash granted to Samuel Hopkins.
- April 13, 1760 Birthdate of Thomas Beddoes, who studied the medical treatment of disease by the therapeutic inhalation of different “factitious airs” or gases and vapors and established the Pneumatic Institution for Inhalation Gas Therapy in 1798.
- April 15, 1896 Birthdate of Nikolai N. Semenov, Nobel Prize winner with Cyril N. Hinshelwood in 1956 for their research into the mechanism of chemical reactions.
- April 16, 1943 Albert Hofmann accidentally discovered the hallucinogenic effects of lysergic acid diethylamide (LSD).
- April 18, 1898 W. Albert Noyes, Jr., a researcher in photochemistry; was born on this date. He served as editor of *Journal of American Chemical Society*, 1950-1962.
- April 19, 1933 Monsanto incorporated on this date. It was started as the Monsanto Chemical Works on November 29, 1901.
- April 20, 1912 Birthdate of Gertrude E. Perlmann, who did research in protein chemistry. She received the Garvan Medal in 1965.
- April 22, 2006 The ACS celebrates Earth Day on this date.
- April 23, 1917 Rohm & Haas Co. was incorporated on this date.
- April 25, 1953 James D. Watson and Francis H. C. Crick, “Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid” was published in *Nature*.
- April 26, 1834 Hugo Joseph Schiff discovered the condensation products of aldehydes and amines, or Schiff Bases. He invented the color test to distinguish aldehydes from ketones and was born on this date.
- April 27, 1896 The developer of Nylon in 1935, Wallace Carothers, was born on this date.
- April 28, 1924 Birthdate of Alfred Bader, who founded the Aldrich Chemical Co., in 1951 and cofounded the Sigma-Aldrich Corp., in 1975.
- April 29, 1870 Atlantic Richfield Co. was incorporated on this day.

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## Upcoming events

- |               |  |
|---------------|--|
| May 26, 2006  | 50-year Membership Luncheon, Belmont<br>J. Joseph Curran, Jr., speaker                             |
| June, 2006    | Remsen Award, Johns Hopkins University   |
| June 4-7 2006 | MARM, Hershey Lodge, Hershey, Pa.<br><a href="http://www.marm2006.org">http://www.marm2006.org</a> |
| July 9, 2006  | Sunday, Section Picnic, Patapsco Valley State Park,<br>McKeldin Area                               |



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