



Double Bond

The newsletter of the Western New York Section of the American Chemical Society

Volume 78

April-May 2006

EDUCATION NIGHT AWARD DINNER

Russell K. White of Canisius High School has been selected as the 2006 Distinguished High School Science Teacher of the year. The award will be given during the WNYACS annual Education Night Award Dinner.

Wednesday, May 3, 2006
Fairdale Banquet Center
Cheektowaga, NY

The event will also honor the winners of this year's Chemistry Olympiad and the Outstanding College Students of the Year.

In addition, the evening will feature a dinner lecture by Dr. David Watson from the chemistry department at the University at Buffalo, SUNY.

See the article on page 13 to learn the details and for information on making your reservations.

JACOB F. SCHOELLKOPF MEDAL

The Schoellkopf Committee of the Western New York Section of the American Chemical Society is pleased to present the 2006 Jacob F. Schoellkopf Medal to Frank V. Bright. This award is the oldest local section award in the nation, and was named in honor of chemical industry entrepreneur Jacob F. Schoellkopf, founder of National Aniline Works.

Make note of the time and place of this year's award presentation:

Tuesday, May 9, 2006
Sonoma Grille, Snyder, NY

Your invitation to the section's premiere event of the year is printed on page 12 of this issue of *Double Bond*.

FROM THE EDITOR

Greetings Western New York,

This edition of the newsletter comes out simultaneously with spring. I hope I have not jeopardized our prospects for nice weather by saying it's coming. The weather in Atlanta, GA was only a bit better than here at the end of March during the recently concluded 231st ACS National Meeting. I know I crossed paths with many Western New York chemists there, and I trust many others enjoyed the meeting as well.

This *Double Bond* also bears news and information on two of the most important events on our local calendar. I urge members to read the biographic info on our award winners, both Schoellkopf medalist Frank Bright and Western New York's distinguished high school science teacher of the year, Russell White. I likewise hope everyone sincerely interested in chemistry in our region will come to the events planned to celebrate another year of outstanding education and science in our section.

Education Night and the Schoellkopf Award Banquet are excellent opportunities to increase your participation in the local ACS section. I especially encourage chemistry people who are new to the region to come to one of these events, sample the atmosphere and meet with an officer or councilor or two. Who knows? You could go away that evening as the proud chair of your very own committee.

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2006 SCHOELLKOPF MEDAL

*The Western New York Section of the
American Chemical Society
Invites you to be present at
The Seventy-Sixth Presentation of the
Jacob F. Schoellkopf Medal
To
Dr. Frank V. Bright
Tuesday evening the Ninth of May
Two Thousand Six*

*Cash Bar with Cold and Hot Hors D'oeuvres
at 6 O'clock PM
Dinner at 7 O'clock PM
Presentation to follow Dinner*

*Sonoma Grille
5010 Main Street
Snyder, NY 14226
Formal Dress Optional R.S.V.P.*

Reserved Tickets may be picked up at the door

Dinner Selections:

- *Sliced Filet Mignon with Chicken Kiev Combination*
- *Chili Rubbed Salmon with Sweet Pepper Salsa*
- *Penne ala Roma with Artichokes (Vegetarian)*

Wine served with meal

For reservations call:

*Ms. Alice Steltermann
Department of Chemistry and Biochemistry
Canisius College
2001 Main Street
Buffalo, New York 14208
(716) 888-2340*

Plates at \$40.00

*Please respond by May 3rd
Make checks payable to
Western New York Section - American Chemical Society*



"The 2006 Schoellkopf Jury of the Western New York Section of the American Chemical Society cites Frank V. Bright for his innovative research on xerogel based sensors, tailored materials for medical and antifouling applications, environmentally friendly chemistries based on supercritical fluids and ionic liquids, nondestructive chemical analysis using ultrafast lasers, and designing and constructing specialized instrumentation. The jury also cites Frank V. Bright for his leadership as a prolific scientific author, a mentor to many students, and an exemplary classroom instructor."

EDUCATION NIGHT 2006

The Western New York section of the American Chemical Society will celebrate the rising generation of chemists as well as the educators who guide them at this year's Education Night Award Dinner. The event will take place May 3rd, 2006 at the Fairdale Banquet Center located at 672 Wehrle Drive, Cheektowaga, NY (632-1221), at the intersection of S. Forest Rd. and Wehrle. The dinner speaker will be Professor David Watson from the University at Buffalo. He will give a lecture on "Modern Applications of Nanotechnology". A cash bar will be available from 5:30 PM; the buffet dinner is at 6:30 PM, to be followed by the award ceremonies to honor Chemistry Olympiad students, college students, the Distinguished High School Science Teacher and Dr. Watson's talk, which will probably begin at about 8:15 PM.

To reserve space call Alice Steltermann at 888-2340 between 8:30 AM – 3:00 PM by April 27th. The cost is \$25.00, payable at the dinner.

Distinguished High School Science Teacher

Russell K. White has been teaching at Canisius High School since 1969 and is the recipient of the Bene Merenti award for service and dedication to Canisius High School. The numerous letters of support clearly demonstrated his dedication to teaching chemistry and his ability to inspire his students to achieve success in all walks of life. Through his initiative, the school began the annual Canisius High School Science Challenge for science students.

Chemistry Olympiad Winners – schools, teachers

Ari Binder – Amherst HS, Mr. Dennis Bauer
 Brian Chmielowiec – SJCI, Mr. Matthew Hellerer
 Jerry Richard – Orchard Park HS, Dr. Robert Rominger
 Ben McCabe – Kenmore West HS, Mrs. Marilyn Drnevich
 Laura Posner – Williamsville North HS, Ms. Colleen Fryling
 Adam McCabe – Kenmore West HS, Mrs. Marilyn Drnevich
 Alexandra Best – Nichols HS, Mr. George Mayer
 David Farhi – Nichols HS, Mr. George Mayer
 Steven Leonard – City Honors HS, Ms. Valerie Davis

Outstanding College Students of the year

Buffalo State College, Chemistry	Lori McLean
Canisius College, Chemistry	Michael Colvin
Canisius College, Biochemistry	Elizabeth Gruber
University at Buffalo, Chemistry	Rishi Chugh
University at Buffalo, Biochemistry	Catherine Dodds
University at Buffalo, Chemical Engineering	Chin Giaw Lim
University at Buffalo, Medicinal Chemistry	Rachel Kirsch

Heartfelt thanks go out to the members of the Education Committee, Ron Spohn, Ed Kisailus, Luis Colon, Joanna Christopher and Mariusz Kozik.

NATIONAL CHEMISTRY WEEK: "YOUR HOME—IT'S ALL BUILT ON CHEMISTRY"

October seems far away, but it and National Chemistry Week (NCW) will be here before we know it. Each year the American Chemical Society's NCW campaign reaches millions of people with positive messages about the contributions of chemistry to their daily lives. It is the one time during the year that chemists unite with the common goal of spreading the word that chemistry is good for our economy, our health, and our well-being. The celebration dates for 2006 are **October 22 – 28**. Theme: **Your Home—It's All Built on Chemistry**.



Planning starts long before NCW arrives, and anyone interested in the activities going on in the Western New York local section should contact NCW coordinator, David Nalewajek (716) 827-6303 david.nalewajek@honeywell.com.

Some ways that you can contribute to the NCW campaign are: helping at an event planned by the NCW coordinator; performing chemical demonstrations at a neighborhood school; conducting hands-on activities with children at museums, malls, or libraries; or writing articles or letters to the editor of the local paper.

NCW is sponsored by the Office of Community Activities (800-227-5558 ext. 6097, ncw@acs.org). Visit <http://chemistry.org/ncw> over the summer as more content is added!

CALL FOR WCC OVERCOMING CHALLENGES AWARD NOMINATIONS

The Overcoming Challenges Award (OCA) acknowledges the efforts of women and undergraduates who have overcome economic, personal, and/or academic hardships in pursuit of an education in the chemical sciences. The award consists of a plaque, a \$250 honorarium, and \$1,000 for travel expenses to the fall ACS National Meeting where the award is presented. Award candidates must be women matriculating as an undergraduate chemical science major/minor in a two-year program or at a four-year school not granting a doctoral degree in chemical-related disciplines. Nominations are due May 1, 2006, and should be sent to: Women Chemists Committee, American Chemical Society, 1155 16th Street, N.W., Washington, DC 20036. For additional information, contact the WCC at wcc@acs.org or visit <http://membership.acs.org/W/WCC>.





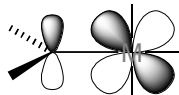
REVISING THE ACS GUIDELINES FOR TWO- AND FOUR-YEAR PROGRAMS

**19th Biennial Conference on Chemical Education
July 30-August 3, 2006
Purdue University**

Most four- and two-year college faculty members are familiar with the ACS Guidelines for chemistry programs in four-year colleges and universities. On behalf of ACS, the Committee on Professional Training (CPT) approves departments or programs that meet the guidelines, and chairs certify those students who have met the curricular guidelines of the approved program.

Many members however remain unaware of another resource, designed specifically for two-year programs by the Society Committee on Education (SOCED). Although the *Guidelines for Chemistry Programs in Two-Year Colleges* are not used in any formal ACS approval process, they do serve as a guide for institutional self-studies and program reviews. The *Guidelines for Chemistry Programs in Two-Year Colleges* are focused on transfer programs and should be revised to reflect the revisions being made to ACS Guidelines for four-year programs.

SOCED and CPT have begun a dialog about the respective revisions and ways in which two- and four-year programs can work together to enhance undergraduate education in chemistry. You are invited to contribute to this discussion during the upcoming symposium titled **“Revising the ACS guidelines for two-year and four-year programs: A community dialog of issues and opportunities”** at the upcoming 19th Biennial Conference on Chemical Education, www.chem.purdue.edu/bcce, which will take place at Purdue University, IN on July 30 – August 3, 2006.



THIS MONTH IN CHEMICAL HISTORY - #1

Harold Goldwhite, California State U.,
Los Angeles; Prepared for SCALACS, the
Journal of the Southern California,
Orange County, and San Gorgonio
Sections of ACS.

A few years ago I obtained a number of volumes of a series “The Mallinckrodt Collection of Food Classics” published by that manufacturer in the mid-1960s. Most of the books are facsimile reprints of early classic cookbooks, but Volume II is different. It is a facsimile of an 1820 Philadelphia publication reprinting rapidly an English publication of the same year. This influential book, by the chemist Fredrick Accum, deserves to have its complete title, in the early 19th. century style given here: “A Treatise on Adulterations of Food and Culinary Poisons. Exhibiting The Fraudulent Sophistications of BREAD, BEER, WINE, SPIRITUOUS LIQUORS, TEA, COFFEE, CREAM, CONFECTIONERY, VINEGAR, MUSTARD, PEPPER, CHEESE, OLIVE OIL, PICKLES. And other articles employed in domestic economy. And METHODS OF DETECTING THEM.”

So who was Fredrick Accum, and why this book? For the following biographical sketch I am greatly indebted to a substantial article on Accum by Lawson Cockroft which appears on the website of the Royal Society of Chemistry’s Library and Information Service. Accum was born in Germany on March 29, 1769. His father was a merchant and soap-maker. After beginning his education at the local gymnasium Fredrick was apprenticed to a local pharmacist and became acquainted with the family of William Brande, who provided medicines to the court of George III in London. Accum moved to London in 1793, worked in Brande’s laboratory, and extended his education by attending lectures. He got to know William Nicholson who edited a well-respected chemical journal (Nicholson’s Journal) and helped to translate foreign articles for inclusion. In 1798 Accum began to contribute a series of articles to the journal on adulteration of medical preparations.

Accum set up his own establishment in 1800 as a supplier of chemicals and equipment and developed considerable expertise in analytical chemistry to ensure the quality of his products. For a year he assisted Humphry Davy as a demonstrator at the Royal Institution. Accum’s first book, “System of Theoretical and Practical Chemistry” was published in 1803 and was well subscribed, and he began to offer the only laboratory course in experimental chemistry

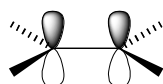
available in London at that time. Accum's American pupils included James Dana, the famous mineralogist, and Benjamin Silliman, first Professor of Chemistry at Yale. Not surprisingly Accum's equipment and chemicals found their way to the initial Chemistry Departments established in the United States.

Accum became interested in the novel prospect of providing coal gas commercially for heating and lighting and testified to government committees on the subject. By 1815 some fifteen miles of London streets were gas-lit, and Accum, always alert to new opportunities, published a book on coal gas manufacture. In 1817 he published a book "Chemical Amusement" describing experiments suitable for the drawing room, and created "Chests of Chemical Amusement" containing the necessary chemicals and equipment and selling for ten to eighteen guineas, a lot of money at the time.

By 1820 Accum was ready to publish his magnum opus mentioned above and concerned with adulterations of food products. It was reviewed in all the leading journals – not the chemical journals but the popular literary magazines such as Blackwood's and the Edinburgh Review. The first thousand copies sold out in under a month and a second edition appeared immediately. The book, and Accum, were vigorously attacked by food and drink manufacturers who alleged that they were unfairly smeared by the work. Meanwhile Accum was accused of mutilating books in the collection of the Royal Institution, and a warrant for a search of his rooms led to the discovery of some 30 pages removed from books in the Royal Institution's library. Accum was released on bail but never came to trial. Badly depressed he left England, forfeited his bail, and returned to Germany.

He soon obtained two posts related to applied chemistry in Berlin. He published in 1826 his only book in German on the properties of building materials. While he continued to publish in the journal of the Berlin Royal Academy of Sciences his articles were submitted either anonymously or under the rather transparent pseudonym of Mucca. New editions of his treatise on adulteration appeared in England without his name on the title page. And it was not until 1860 that food regulation was written into law in England in the Adulteration Act. But Accum had died in Berlin in June 1838.

In my next column I will look at the contents of Accum's Treatise. Ψ



60 YEARS AGO THIS MONTH IN WESTERN NEW YORK

The title, *electron*, was used for a member who participated every week in a lunchtime presentation series on broadly ranging topics. A summary of the past year's talks was published in the April 1946 *Double Bond*...

November 28, 1945 "Claisen condensation"—Dr. Robert Levine, Mathieson Alkali Works, discussed the subject ably, but a metallurgical *electron* could not absorb enough of it to reradiate a photon.

January 16, 1946 "Stereochemistry of Nitrogen Compounds"—Dr. Robert Abelman gave an interesting account of the long search for optically active trivalent nitrogen compounds and a description of his own work on the addition products of substituted ethylene imines to methacrylate esters. No bona fide optical isomers of trivalent nitrogen have yet been isolated.

Also in that issue was the following sentiment on short-sightedness that grips the whole nation when people cannot keep the big picture in focus long enough to do the right thing.

LETHARGY

Strange as it may seem, America and the world in general appear to need further demonstration of what a third World War would be like in an age of atomic power.

A large segment of the American public appears to have shaken off the mental reactions so universally prevalent when the news of the bombing of Hiroshima dramatically proclaimed the dawn of a new and revolutionary era. Problems attending reconversion, the struggle between labor and management, inflation, lack of adequate housing facilities, rapid demobilization of our armed forces and a hundred and one other domestic questions have pushed the atomic bomb and its dreadful implication of a direct threat to the future welfare of humanity into the background. Yet, by comparison, these problems are definitely of secondary importance.

The American public must be aroused from its lethargy!

--Walter J. Murphy.

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