



# Double Bond

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

Volume 87

September 2015

## SCHOELLKOPF AWARD BANQUET

The Western New York Section of the  
American Chemical Society  
invites you to be present  
at the eighty-fifth presentation of the  
Jacob F. Schoellkopf Medal

to

**Dante P. Bonaquist**

of Praxair, Inc.

Tuesday evening the fifteenth of September  
two thousand fifteen

Cash bar with hors d'oeuvres at six o'clock

Dinner at seven o'clock

Presentation to follow dinner

Salvatore's Italian Gardens  
6461 Transit Rd, Depew, NY

Formal Dress Optional

R.S.V.P. by September 11, 2015

*(further details are found on pages 2 and 3)*

## INTERNSHIP COLLABORATION AT FREDONIA

The centrally coordinated Internship Program at the State University of New York at Fredonia cultivates the participation of nearly 600 students each year in internship opportunities, with a potential reach of 1000+ employers. The Career Development Office and Fredonia faculty are eager to accelerate partnerships with WNYACS employers so that they can provide graduates with skill sets relevant to a world economy increasingly driven by technological innovation. In line with this goal, the Fredonia Science Complex was recently finalized in the fall of 2014 to facilitate creative and collaborative research and teaching, including performance science spaces and exhibits, equipping STEM students and educators with the tools necessary to become skilled, connected, creative and responsible global citizens and professionals.

The Fredonia Career Development Office supports applied learning initiatives for programs based on academic excellence, quality interaction with world-renowned professionals, and exciting, dynamic environments for learning. In addition to working with students on site, employers are invited for several recruitment opportunities on campus throughout the year, and we are honored to host members of ACS at our kick-off event of the year.

At the "Network on the Go" program featured during the first three weeks of classes, August 24 - September 11, 2015, Fredonia's undergraduate and graduate students are eager to interact with employers at information tables in a high-traffic campus location. Employers can recruit for interns, professional employees, or part-time positions in person, with supplemental postings year-round to our online job/internship database, called **Quest** at :

[www.fredonia.edu/cdo/employerlogin.asp](http://www.fredonia.edu/cdo/employerlogin.asp)

Jennifer Wilkins  
Internship Coordinator / Career Counselor  
280 Central Avenue, Fredonia, NY 14063

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### THE 2015 JACOB F. SCHOELLKOPF MEDAL

The Schoellkopf Medal is the oldest award of the American Chemical Society (ACS) given by a local section.



The Jury for the Schoellkopf Award of the Western New York Section of ACS selected Dante P. Bonaquist, Senior Corporate Fellow and Chief Scientist at Praxair, as the 2015 Schoellkopf Award recipient. Bonaquist is awarded the Schoellkopf Medal:

*In recognition of his pioneering innovations  
in industrial gas technologies and for his  
leadership in driving their  
commercialization.*

Dante Bonaquist, Senior Corporate Fellow at Praxair, currently works with Praxair's management team to evaluate emerging technologies and position the corporation for sustainable growth. During his 35-year career with Praxair, Bonaquist has contributed to the development and design of atmospheric and process gas production plants, high temperature electrochemical technology, advanced control systems, process optimization methods, decision support technology and low temperature systems. He holds 119 US patents, more than any other Praxair associate.

Bonaquist began his career in 1980 in Union Carbide's Gas Products Engineering group at the Tonawanda, NY Technology Center (Praxair was spun off from Union Carbide in 1992). Following assignments in engineering and R&D, he became manager of Process

Development in 1994. Two years later, he was promoted to Director of Cryogenic Processes and Systems R&D. He continued to lead this group until 2003. His innovations and leadership led to the development of new process cycles for air separation, novel refrigeration systems, improved cryogenic distillation equipment, advanced process control and real-time energy optimization.

After a highly successful career in cryogenic technology, Bonaquist became Director of Hydrogen, Energy and Ceramic Membrane Technologies in 2003. His strategic decisions for the ceramic membranes program have led to development of novel syngas technology with potential applications in methanol and gas-to-liquids production. Under his leadership, energy technology efforts were expanded to other areas of national concern such as carbon dioxide capture from coal-fired power plants, the use of carbon dioxide to enhance oil recovery, and conversion of biomass and/or natural gas to liquid fuels and lubricants.

Bonaquist was appointed Senior Corporate Fellow in 2006. Since 2012, he has taken on the responsibility of identifying external technologies and collaboration opportunities in all areas of R&D at Praxair.

In 2002, he received Praxair's Innovation Award for his sustained technical contributions. The American Institute of Chemical Engineers honored him in 2003 with its Institute Award for Excellence in Industrial Gases Technology. He was named an Alumni Fellow by the Penn State Alumni Association in 2008.

Bonaquist holds a BS in Chemical Engineering (with High Distinction) from Penn State.

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### CALL FOR OFFICER NOMINATIONS

If you are interested in the goals and activities of the American Chemical Society, then get involved with the Western New York Local ACS Section. We are looking for members who can bring energy and ideas to the Local Section Executive Committee. Offices to be filled include Chair-Elect, Vice-Chair, Treasurer, Councilor and Member-at-Large positions.

If you are interested in becoming more active in our section, or wish to nominate someone, please contact a member of the current executive board listed at the end of this newsletter to discuss your ideas. If you have no experience with the local section, contact us; we can help you get involved!

Nominations, including contact info for you and the nominee, should be sent to Dr. Timothy Gregg by email at [greggt@canisius.edu](mailto:greggt@canisius.edu) or (716) 888-2259 by September 15, 2015.

Elected officers must be members of ACS.

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**2015 SCHOELLKOPF AWARD BANQUET**

Tuesday, September 15, 2015

Salvatore's Italian Gardens

6461 Transit Rd, Depew, NY

For reservations, please call Alice Steltermann at the  
Canisius College Department of  
Chemistry and Biochemistry  
(716) 888-2340

*Dinner Selections:*

**Prime Rib**

**Chicken Saltimbocca**

**Broiled White Fish**

**Roasted Vegetables**  
*with Mediterranean Orzo*

Wine served with meal

*\$40 per person (\$20 per student)*

***Please respond by September 11, 2015.***

*Make checks payable to  
Western New York Section – American Chemical Society.*

**75 YEARS AGO IN THE DOUBLE BOND**

*This 'Brain Teaser' appeared in the June, 1940 edition  
of The Double Bond*

Five men are in a poker game--Brown, Perkins, Turner, Jones and Reilly. Their brands of cigarettes are Luckies, Camels, Kools, Old Golds and Chesterfields, not respectively. At the beginning of the game, the number of cigarettes possessed by each of the players was 20, 15, 8, 6 and 3, not respectively. At one point later in the evening when no one was smoking, the following conditions ensued:

- a. Perkins asked for 3 cards.
- b. Reilly had smoked half of his original supply of one less than Turner smoked.
- c. The Chesterfield man originally had as many more plus half as many more, plus 2 1/2 more cigarettes than he now has.
- d. The man who draws to an inside straight absentmindedly lit the tipped end of his fifth cigarette, the last he smoked.
- e. The man who smokes Luckies has smoked two more than anyone else, including Perkins.
- f. Brown drew as many aces as he originally had cigarettes.
- g. No one has smoked all his cigarettes.
- h. The Camel man asked Jones to pass Brown's matches.

How many cigarettes did each man have originally and what brands?

*Editors note:*

*I'm happy to say times have mostly changed from the days  
when this was an interesting problem...*

*Jones had 20 Luckies  
Perkins had 15 Chesterfields  
Reilly had 8 Camels  
Turner had 6 Kools  
Brown had 3 Old Golds*

**WNYACS Officers & Staff****WNYACS Section Chair 2015**

Jeremy Steinbacher  
Canisius College  
(716) 888-2343  
[steinbaj@canisius.edu](mailto:steinbaj@canisius.edu)

**Chair Elect 2015**

Andrew Murkin  
University at Buffalo, SUNY  
(716) 645-4249  
[amurkin@buffalo.edu](mailto:amurkin@buffalo.edu)

**Vice-Chair 2015**

Jason Benedict  
University at Buffalo, SUNY  
(716) 645-4276  
[jbb6@buffalo.edu](mailto:jbb6@buffalo.edu)

**Secretary 2015-2016**

Christopher Patridge  
D'Youville College  
(716) 829-8096  
[patridge@dyc.edu](mailto:patridge@dyc.edu)

**Treasurer 2014-2015**

Andrew Poss  
Honeywell  
(716) 827-6268  
[andrew.poss@honeywell.com](mailto:andrew.poss@honeywell.com)

**Councilor 2014-2016**

Peter Schaber  
Canisius College  
(716) 888-2351  
[schaber@canisius.edu](mailto:schaber@canisius.edu)

**Councilor 2013-2015**

David Nalewajek  
Honeywell  
(716) 827-6303  
[david.nalewajek@honeywell.com](mailto:david.nalewajek@honeywell.com)

**Newsletter Editor**

Timothy Gregg  
Canisius College  
(716) 888-2259  
[greggt@canisius.edu](mailto:greggt@canisius.edu)

**Schoellkopf Award 2015**

Timothy Gregg  
Canisius College  
(716) 888-2259  
[greggt@canisius.edu](mailto:greggt@canisius.edu)

**Education Committee Co-Chairs**

Sarah Evans  
(716) 888-2342, [evans51@canisius.edu](mailto:evans51@canisius.edu)  
Valerie Frerichs  
(716) 645-4135, [zuccari@buffalo.edu](mailto:zuccari@buffalo.edu)

**Chemistry Olympiad**

Mariusz Kozik  
Canisius College  
(716) 888-2337  
[kozik@canisius.edu](mailto:kozik@canisius.edu)

**National Chemistry Week**

David Nalewajek  
Honeywell  
(716) 827-6303  
[david.nalewajek@honeywell.com](mailto:david.nalewajek@honeywell.com)

**Senior Chemists**

Joseph Bieron  
Canisius College  
(716) 888-2357  
[bieron@canisius.edu](mailto:bieron@canisius.edu)

**Member-at-Large 2015-2016**

Sarah Evans  
Canisius College  
(716) 888-2342  
[evans51@canisius.edu](mailto:evans51@canisius.edu)

**Member-at-Large 2014-2015**

Dominic Ventura  
D'Youville College  
(716) 829-7545  
[venturad@dyc.edu](mailto:venturad@dyc.edu)

**Newsletter Assistant Editor**

Alice Steltermann  
Canisius College  
(716) 888-2340  
[stelster@canisius.edu](mailto:stelster@canisius.edu)

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