



# Double Bond

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

Volume 90

April 2018

## 2018 OUTSTANDING HIGH SCHOOL SCIENCE TEACHER OF THE YEAR

Please join us in recognizing

**Shelley Bochicchio**

of Lockport High School  
at our annual Education Awards Banquet

Wednesday, April 25, 2018

Cash Bar 6:15 p.m.  
Buffet Dinner 7:00 p.m.

Awards 7:30 p.m.  
Outstanding High School Science Teacher  
Chemistry Olympiad High Scorers  
Outstanding College Seniors

The speaker this year will be

**Dr. Timothy Cook**  
Department of Chemistry  
University at Buffalo

*When life gives you 10,000 Terawatts of Solar Power...*

**Fairdale Banquet Center**  
672 Wehrle Dr.  
Amherst, NY

Cost \$30, \$15 for students

RSVP

Please send your reservation information to Alice  
Steltermann (716-888-2340, or [steltermann@canisius.edu](mailto:steltermann@canisius.edu)).

## UNDERGRADUATE RESEARCH SYMPOSIUM

The 11<sup>th</sup> annual **ACS Undergraduate Research Symposium**, sponsored by the Western New York section, will be held at the University at Buffalo, SUNY on Saturday, April 28th. Poster abstracts are being accepted through Friday, April 20. There will be awards for various categories of outstanding presentations.

The symposium will feature keynote speaker, Prof. Ellen M. Matson, of the Department of Chemistry at the University of Rochester. Prof. Matson's research focuses on synthetic inorganic chemistry perspectives that address global issues related to energy storage and production.

More information is on the symposium website:  
[wny.sites.acs.org/undergradsymposium.htm](http://wny.sites.acs.org/undergradsymposium.htm)

## WNY CHEMISTRY OLYMPIAD HIGH SCORERS

Listed below are the students with the highest scores on this year's Western New York Chemistry Olympiad Test, along with the name of each student's chemistry teacher at their school.

<i>Student</i>	<i>High School</i>	<i>Teacher</i>
Amelia Schaeffer	Amherst Central	Mr. David Mansell
Justin Jablonski	Orchard Park	Dr. Robert Rominger
Tanner Newell	East Aurora	Mr. John Swiniuch
Anthony Sauer	Williamsville East	Ms. Stacy Bernard
Michael Wahl	Williamsville North	Ms. Colleen Sowinski
Elizabeth Javor	East Aurora	Mr. John Swiniuch
Michael Sobol	St. Joe's	Mr. Matthew Hellerer
Vivian Zheng	Williamsville South	Mr. Joseph Pray
Valerie Juang	City Honors	Ms. Elizabeth Sauer

These nine students have been invited to take the National Chemistry Olympiad exam later this month. The top 20 students from the national competition will take part in a two-week study camp in June at the U.S. Air Force Academy. They will be competing for a spot on the USNCO Team that will go to the 2018 International Competition jointly hosted by Bratislava, Slovakia and Prague, Czech Republic.

## 2018 OUTSTANDING HIGH SCHOOL SCIENCE TEACHER OF THE YEAR

### Shelley Bochicchio

Shelley Bochicchio earned both her BS in Earth Science and her MS in Physics Secondary Education from SUNY Buffalo State. Mrs. Bochicchio has taught at Lockport High School for 16 years. In that time she has instructed Regents Earth Science, Science in Action, Earth Systems, Regents Physics and currently teaches SUNY Physics. She has also been an adjunct professor for Syracuse University and is currently an adjunct for Niagara County Community College.

Mrs. Bochicchio's past projects include a Virtual AP Grant through the Erie 1 Board of Cooperative Educational Services to develop an online course for AP Physics for NYS. Mrs. Bochicchio enjoys using her strong relationships with her students to convey how math and science come together to explain everyday life. Mrs. Bochicchio is co-advisor for the Science National Honor Society and a proud member of the Science Teachers Association of NYS. As a NYS Master Teacher, she hopes to share her enthusiasm for education and grow as a STEM teacher in NYS.

## 2018 UNDERGRADUATE AWARDS

Every year, the WNY section recognizes outstanding graduating college seniors. The students listed below, nominated by their institutions, are awarded the 2018 Student General Excellence Award for outstanding academic achievement and significant research accomplishments in their undergraduate majors.

<i>Student</i>	<i>Institution</i>	<i>Major</i>
Adam Lyle	Buffalo State College	Chemistry
Gurkaran Johal	Canisius College	Biochemistry
Timothy Utz	Canisius College	Chemistry
Krystal Calabrese	D'Youville College	Chemistry
Roshaan Surendhran	University at Buffalo	Chem. Eng.
Christina White	University at Buffalo	Chemistry
Ariel Burgio	University at Buffalo	Med. Chem.

These students, along with Olympiad high scorers, will be recognized, along with the Outstanding High School Teacher of the Year at the 2018 Education Awards Banquet on Wednesday, April 25. Details about the banquet may be found on page 1.

## 76 YEARS AGO IN THE DOUBLE BOND

*The following excerpts come from the April, 1942 edition of the Double Bond*

At the March, 1942 meeting of the Western New York Section, Donald K. Tressler, Head of the Chemistry Division of the New York State Agricultural Experiment Station, gave a most enlightening lecture on "The Chemical Problems of the Frozen Food Industry." The preservation of food by freezing is not a new development. In Canada for many years foods have been preserved for long periods by Nature's cold weather. In most parts of the United States and other countries natural freezing is not practical, and mechanical freezing methods have been adopted.

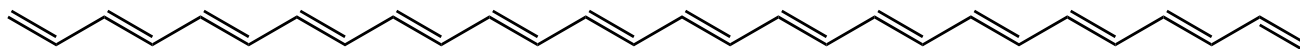
Sales resistance was quite high to frozen vegetables because of the general experience of the public with cold storage food and frost-bitten garden vegetables. The Birdseye Company adopted a few catchy names such as "Quick Frozen," and "Frosted Foods," and found that the public was much more receptive to the product if it was frozen when purchased.

To sell frozen food a dealer must have storage vaults which are capable of maintaining a temperature of zero degrees Fahrenheit. At this temperature the chemical reactions and microorganisms which cause the deterioration of food are inactive. The outstanding problem at the present time is to improve the product by more rapid freezing methods. The most attention has been focused on strawberries. The methods and the varieties best suited to freezing are fairly well established.

To increase the rate of freezing various methods have been tried. First was the freezing in still air. In tests on a four-pound roast of beef, twenty hours were required to freeze the meat, while only ten hours were required if a fan is used to circulate the air more rapidly.

The Birdseye method is to put the packed material in the freezing vaults which consist of hollow aluminum trays that are cooled by liquid ammonia. When all the trays are filled one on top of the other, a hydraulic ram squeezes the trays tightly against the packages which gives an excellent heat transfer rate, and the low temperature of -25 °F results in an extremely short freezing time.

The cooking of peas removes 50% of vitamin C present in fresh peas. Scalding for 150 seconds before freezing removes 30% of the vitamin C content. By keeping the scalding time down to a minimum, the loss in the frozen peas is comparatively low. Further, frozen peas require only half the cooking time required by fresh peas. Thus frozen peas actually contain more vitamin C when served than fresh peas would have. The speaker concluded by pointing out the fact that chemistry is not only affecting our year-round diet, but it is improving the general health and welfare of the nation as a whole.





## COUNCIL MEETING REPORT

The following is a summary of key actions from the ACS Council Meeting held March 21, at the 2018 spring ACS meeting held in New Orleans, Louisiana.

### Election Results

#### Candidates for President-Elect, 2019

The Committee on Nominations and Elections presented to the Council the following nominees for selection as candidates for President-Elect, 2019: **Harmon B. Abrahamson, Luis A. Echegoyen, Thomas R. Gilbert, and Mary Virginia Orna.** By electronic ballot, the Council selected **Luis A. Echegoyen and Thomas R. Gilbert** as **candidates for 2019 President-Elect.** These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Election.

#### Candidates for Districts I (This is WNY's district)

The Committee on Nominations and Elections announced the results of the election held prior to the New Orleans meeting to select *candidates* from the list of *nominees* for Directors from District I for the term 2019-2021. By internet ballot, the Councilors from District 1 selected **Katherine L. Lee and Laura E. Pence** as **candidates.** Ballots will be distributed on or before October 1 to all ACS members in District I.

#### Amendments to the ACS Bylaws

- The Council approved the Petition on the Composition of Society Committees [Bylaw III, Sec. 3, e, (3), (4), and (8)], which will change the requirement for Councilors on Society Committees from at least two thirds (2/3) to a majority, and remove the requirement that the Chair and Vice-Chair of a Society Committee must be Councilors.
- The Petition for Election of Committee Chairs [Bylaw III, Sec. 3, c, (1); d, 3, (3), (8); e, (3), (8); g, (3); i (3)], which would allow the voting members of all ACS committees to select their own Chairs, failed to gain the approval of Council.

#### 2019 Member Dues

- The Council voted on the recommendation of the Committee on Budget and Finance to set the member dues for 2019 at the fully escalated rate of \$175. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws

### Resolutions

The Council passed several resolutions:

- in memory of ACS Past President Ronald Breslow and other deceased Councilors;
- in gratitude for the officers and members of the Louisiana Section, host for the 255<sup>th</sup> National Meeting, the divisional program chairs, symposium organizers, and ACS staff for the planning and execution of the meeting; and
- to recognize Dr. Harry P. Schultz, former Councilor for the South Florida Section (1974-1977), on the occasion of his 100<sup>th</sup> birthday.

### Budget and Finance

In 2017, ACS generated a Net from Operations of \$28.6 million, which was \$4.8 million higher than 2016. Total revenues were \$553.1 million, increasing 5.0% or \$26.4 million over 2016. Expenses ended the year at \$524.5 million, which was \$21.6 million or 4.3% higher than prior year. This was attributable to strong performance from the Society's Information Service units (CAS and ACS Publications) and a continued emphasis on expense management across the ACS. Additional information can be found at [www.acs.org](http://www.acs.org). Click 'About ACS', then 'ACS Financial Information'. There you will find several years of the Society's audited financial statements and IRS 990 filings.

### Membership

The ACS ended 2017 with over 150,000 members. While this means that ACS remains the world's largest scientific society, this number represents a continuing decline in overall membership for the sixth year in a row.

### New Orleans Meeting Attendance

As of Monday, March 19:

Attendees	8,470
Students	6,432
Exhibitors	877
Expo only	301
Guests	505
<b>Total</b>	<b>16,585</b>

### Finally

The Board approved a resolution that recognizes and applauds the United Nations for proclaiming 2019 as the International Year of the Periodic Table, and pledged that the Society will do its utmost to recognize and participate in events celebrating this important scientific milestone and achievement.

Any question, please contact me at 827-6303 or by email at [David.Nalewajek@Honeywell.com](mailto:David.Nalewajek@Honeywell.com)

Submitted by:

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