



Double Bond

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

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NATIONAL CHEMISTRY WEEK 2019

Student Illustrated Poem Contest

October 20-26, 2019

Teachers and parents! [National Chemistry Week \(NCW\)](#) is quickly approaching! Help the American Chemical Society (ACS) celebrate this year's theme, "Marvelous Metals" by getting kids involved in an **Illustrated Poem Contest**.

Here's what you need to know:

- The contest is for students in Kindergarten through 12th grade.
- WNYACS local section first-place winners in 4 age categories advance to the national contest.
- The deadline to submit entries to our Contest Chair, Rob Stewart, is Monday, October 28, 2019.
- National contest winners in each of the four age categories will receive a \$300 prize, and \$150 prizes go to each second-place winner:

(K-grade 2, grade 3-5, grade 6-8, grade 9-12).



Have fun with metals, the periodic table and poetry, then visit the [Illustrated Poem Contest page at wnyacs.org/NCW/](#) at [wnyacs.org/ncw/](#) for a complete list of rules, resources, and the **Entry Form**. We look forward to seeing our local section's creative, colorful entries!

Please pass this notice on to teachers you know!

2020 CANDIDATE BIOGRAPHIES

The following slate of candidates for WNYACS Executive positions has been established. In accordance with our bylaws, an election ballot will be circulated during the month of October, with results finalized in November. Look for a separate email from **KwikSurveys.com** describing the voting process.

For Chair (2020):

G. Ekin Atilla-Gokcumen is an Associate Professor of Chemistry in the Department of Chemistry at UB. She received her Ph.D. from the University of Pennsylvania working with Eric Meggers. Dr. Atilla then did her postdoctoral studies with Riki Eggert at Harvard Medical School before joining the UB faculty in 2013. Her research aims to understand the role of lipids in cellular processes using a combination of chemical tools and chemical biology-based approaches. Ekin is an active participant of the WiSE initiative (Women in Science and Engineering) at UB where she mentors undergraduates on their career development goals.

For Chair-Elect (2020):

Luis Velarde is an Associate Professor in the Department of Chemistry at the University at Buffalo. He maintains an active research program with interests including surface chemistry and laser spectroscopy of low-dimensional materials, environmental and biological interfaces, and heterogeneous catalysts. Luis is active in graduate and undergraduate student mentoring and K-12 outreach programs in the Buffalo Public School system. He is the current Chair of the Niagara Frontier regional section of the Society for Applied Spectroscopy. Before starting at Buffalo, he received his Ph.D. from the University of Arizona (2008) with Prof. Andrei Sanov. He was a President's Postdoctoral Fellow with Prof. Alec Wodtke (now at the Max-Planck Institute in Goettingen) at UC Santa Barbara (2008-2010) and a postdoctoral research associate at the Environmental Molecular Sciences Laboratory (EMSL) of the Pacific Northwest National Laboratory (PNNL) from 2010-2013.

For Vice-Chair (2020):

Dominick Ventura was born in Buffalo and has lived in the Western New York area his entire life. He received his B.S. degree in chemistry from the University at Buffalo in 2004, completed his Ph.D. from the same institution under professor Huw M. L. Davies in 2008, and then joined the faculty at D'Youville College in the fall of 2009. At D'Youville College he has taught general, organic, and organometallic chemistry as well as other science courses such as astronomy and natural disasters. D'Youville College has hosted the WNYACS Undergraduate Research Symposium twice and both times Dominic has chaired the organizing committee for the event. He is currently the Chair of the Department of Chemistry at D'Youville College and is overseeing the process to get their chemistry degree ACS approved. His research interests include the use of metallophthalocyanines as catalysts in various carbenoid transformations.

For Treasurer (2020-2021):

Robert Stewart is seeking reelection as WNYACS treasurer; in his previous term, Rob maintained a balanced budget while seeking low-risk growth opportunities to expand the section's operating capital by approximately 2%. Furthermore, Rob leveraged his position on the board to develop the Science Café series, which has hosted numerous successful events in the past two years – sponsoring seminars by speakers in academia, local industry, and federal government. Professionally, Rob is a senior scientist at Honeywell International, Inc. He received his BS in Chemistry from Canisius College (2011) and PhD in Physical Chemistry from Penn State University (2016). Rob was a member of the ACS student chapter at Canisius from 2007 – 2011 and served as chapter president from 2010 – 2011. In his free time, Rob enjoys the outdoors, glassblowing, and family; he can be reached at robert.stewart@honeywell.com.

For Councilor (2020-2022)

Peter Schaber is past Chair and Professor of Chemistry and Biochemistry at Canisius College. He received his B.S. in Chemistry from Canisius College in 1975, and his Ph.D. in Inorganic Chemistry from the State University of New York at Buffalo in 1980, under the direction of Dr. Robert D. Beremen. From there he accepted a postdoctoral fellowship at Argonne National Laboratory and conducted research under the direction of Dr. J. J. Katz. Dr. Schaber has published over two-dozen articles on a wide range of topics including synthesis, crystallography and chemical analysis. In his 37 years at Canisius College, he has been successful in securing over \$850,000 in external grants to support curriculum modification, instrument acquisition and chemical research. He has held the position of Science Advisor to the Food and Drug Administration, Buffalo District, and has acted as a consultant to several governmental agencies (NASA, Erie County Crime Lab, etc.) and local, national and international industrial firms. Dr. Schaber has been an ACS member since 1975 and has held the positions of

Treasurer, Vice-Chair, and Chair in the WNY Section. He was the Program Director when the WNYACS won its first national Phoenix Award in 1980 for “Best High School Program” during National Chemistry Week.

For Member at Large (2020-2021):

Lindsay Rose is a Buffalo import! She grew up in Cincinnati, Ohio and was hooked on chemistry through the influence of her high school teacher. She attended Butler University as a chemistry major and went on to earn her Ph.D. in organic chemistry from Cornell University. She is an Associate Professor of Chemistry at Niagara County Community College and received the SUNY Chancellor's Award for Excellence in Teaching in 2019. In her spare time, she enjoys cooking, photography, and spending time with her family.

Haridasan (Hari) Nair holds a Ph.D. degree in chemistry from the University of Illinois at Chicago. Currently, he is a Senior Principal Scientist in the chemical technology development group at Buffalo Research laboratory of Honeywell. Hari's interests are in the areas of emerging technologies and the development of fluorinated materials for various commercial applications. He has been working on low global warming potential (LGWP) refrigerants and foam blowing agents and was a team member that developed the commercial Solstice® brand refrigerant. Hari joined Honeywell in 1997; before that, he was a Senior Scientist at Clarion Pharmaceuticals, Madison, Wis. He has 17 articles in peer reviewed journals and 2 chapters in a conference symposium book and holds 57 granted US patents.



THE BUFFALO WATER SYSTEM

by Christine LaPorte

If you have ever walked along the waterfront or driven over the skyway in Buffalo, you have probably spotted a small circular building with a red roof. You may have wondered ‘What the heck is that?’ Well no, it is not a floating gazebo or carousel, it is the inlet to the city’s water supply. The inlet is located where Lake Erie meets the Niagara river.



The inlet to Buffalo's city water system

Each year, over 20 billion gallons of Lake Erie water are treated and distributed to residents in the city. Water from the intake is fed by gravity in a mile-long tunnel to the Colonel Ward pumping station, located at the end of Lasalle park on Porter Ave. The water is treated in several steps. Biological growth is treated with chlorine, debris is screened from the water, and fine particles are filtered through flocculation. Additives such as fluoride for anti-cavity protection and corrosion inhibitors are also added. High lift electric pumps deliver the potable drinking water to the residents of Buffalo.



Built in the early 1900's, the Colonel Ward Pumping Station is the site for treating and pumping water to city residents. In addition it still houses the 5 triple-expansion steam pumps installed in 1915. Each of these museum-piece pumps, with their 20 ft. diameter flywheels, towers 3 stories over the heads of visitors. Each generated 1200 horsepower, pumping 30 million gallons of water per day through a 4 ft. diameter discharge pipe. Efforts are currently under way to restore at least one of the engines

to working order, and to transform the Col. Ward Pumping Station into a tourist destination highlighting the prowess of Buffalo industry and technology.



For more information regarding the water treatment process, visit: <https://buffalowater.org/quality/treatment/>



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