



ISOTOPICS

The Cleveland Section of the American Chemical Society

Volume 90 Issue 3

March 2014

On Deck:

April 9, 2014

ACS Awards Night

GrafTech

March Meeting Notice

Wednesday, March 12, 2014

Meeting-in-Miniature

Center for Innovation and Growth (CIG), BW University

2:00 pm	Registration Begins
3-5:15 pm	Technical Sessions
5:30 pm	Plenary Address
6:30 pm	Dinner followed by Awards Ceremony

Be Smarter Than Your Phone

John L. West, Trustees Research Professor, Liquid Crystal Institute & Department of Chemistry and Biochemistry, Kent State University

The introduction of the smartphone has revolutionized how we do business and communicate. This talk will highlight the technologies that have come together to make the smartphone possible (with an emphasis on liquid crystal displays). It will also discuss how connections between technology, business and applications are essential for the commercial success of any new product.

DINNER RESERVATIONS REQUIRED:

Please RSVP by contacting Lisa Ponton, Meeting in Miniature Program Chair, by email at lponton@bw.edu (preferred) or by phone at (440) 826-2314 by Wednesday March 5 at noon with your name, total number of guests in your party, and phone number. Checks made out to "Cleveland ACS" are greatly appreciated; cash otherwise. \$20 for members and guests, \$10 for retirees or unemployed, \$5 for students. Dinner will include Roast Beef, Herb Baked Chicken, Pasta Primavera, Harvest Blend Rice, Vegetables Du Jour, and a Dessert Buffet.

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http://www.csuohio.edu/sciences/dept/cleveland_acs/

Directions to Baldwin Wallace Univ.

275 Eastland Rd.
Berea, OH 44017

<http://www.bw.edu/quickfacts/directions/centerinnovationgrowth/>

The CIG is building 46 in the top left corner on the map.



Call for Nominations: Irene C. Heller Award

Presented to an Outstanding High School Chemistry Teacher by the Cleveland Section of the American Chemical Society

The Cleveland Section of the American Chemical Society annually sponsors an award to recognize an outstanding high school chemistry teacher in the Cleveland Section. The award consists of an honorarium of \$1,000 and a framed certificate. The award is named for Irene Heller of North Olmsted High School in recognition of her contributions as an outstanding high school chemistry teacher and her service to the Cleveland Section. Nominations for the award should be presented to Jeff Mathys 11535 Cherokee Street,

Brecksville Ohio 44141 by close of business Friday, March 7, 2014. The nominations should consist of information on the candidate's education, professional experience and activities, awards and honors, offices held and specifics on significant contributions. The letter of nomination should highlight these significant contributions. Seconding letters are suggested. A detailed curriculum vita of the candidate may also be included. Nominations should be sponsored by at least one member of the Cleveland Section. If you do not know a local section ACS member willing to serve as Champion for your candidate, contact Jeff Mathys and he will provide one for you. The Cleveland Section is geographically confined to the counties of Cuyahoga, Geauga, Lorain, Medina, Huron, and Erie. Electronic nominations using Word or PDF Files mailed to jamathys.family@gmail.com will be greatly appreciated. Jeff Mathys may be contacted at 440-812-9666 during business hours for assistance with submissions.

The award will be presented at the April, 2014 meeting of the Cleveland Section.

Call for Nominations: Executive Committee

At this time, the Cleveland Section of the ACS is accepting nominations (including self-nominations) for the following four open positions on the Executive Committee, for 2015:

- 1 – Chair-Elect
- 2 – Treasurer
- 3 – Director (Auditing & General Awards)
- 4 – Trustee

Position details may be found at: http://www.csuohio.edu/sciences/dept/cleveland_acs/documents.htm under the ACS Cleveland Section Job Manual tab, in either Word or pdf format. Please send you nominations or self-nomination, by email, to:

Donald.A.Jaworske@nasa.gov

Thanks,

Don Jaworske, Past-Chair

Selected from ACS Discoveries!

Insect-inspired super rubber moves toward practical uses in medicine

ACS Macro Letters

The remarkable, rubber-like protein that enables dragonflies, grasshoppers and other insects to flap their wings, jump and chirp has major potential uses in medicine, scientists conclude in an article in the journal *ACS Macro Letters*. It evaluates the latest advances toward using a protein called resilin in nanosprings, biorubbers, biosensors and other applications.

Kristi Kiick and colleagues explain that scientists discovered resilin a half-century ago in the wing hinges of locusts and elastic tendons of dragonflies. The extraordinary natural protein tops the best synthetic rubbers. Resilin can stretch to three times its original length, for instance, and then spring back to its initial shape without losing its elasticity, despite repeated stretching and relaxing cycles. That's a crucial trait for insects that must flap or jump millions of times over their lifetimes. Scientists first synthesized resilin in 2005 and have been striving to harness its properties in medicine.

Kiick's team describes how their own research and experiments by other scientists are making major strides toward practical applications of resilin. Scientists have modified resilin with gold nanoparticles for possible use in diagnostics, engineered mosquito-based resin to act like human cartilage, and developed a hybrid material for cardiovascular applications. "This increasing amount of knowledge gained from studies on natural resilin and resilin-like polypeptides continues to inspire new designs and applications of recombinant resilin-based biopolymers in biomedical and biotechnological applications," the scientists state.

The authors acknowledge funding from the National Center for Research Resources, a component of the National Institutes of Health, and the National Institute on Deafness and Other Communication Disorders.

Nominations for the 2014 Yeager Award are now being accepted

The Ernest B. Yeager Award was established for the purpose of encouraging interest at the undergraduate level in spectroscopy and analytical chemistry. It is presented annually to an outstanding undergraduate student attending a college or university in Northern Ohio or Northwestern Pennsylvania who has demonstrated an interest in some aspect of spectroscopy.

The award consists of a certificate, \$400 cash, and a one year complementary membership in the Society for Applied Spectroscopy. The award is sponsored jointly by the Society for Applied Spectroscopy (SAS) and the Analytical Topics group of the American Chemical Society (ACS).

The presentation of the Yeager Award will be made at the at the 58th Annual May Conference on Spectroscopy and Analytical Chemistry, to be held at the Dolan Science Center at John Carroll University on Wednesday, May 21, 2014. The award recipient will be required to present a 20 minute synopsis of his/her work and will be recognized at the evening banquet.

Letters of nomination, supporting materials and any questions should be addressed to:

Douglas E. Rohde
Lake County Crime Laboratory
235 Fairgrounds Road
Painesville, OH 44077
440-350-5950
drohde@lakecountyohio.gov

and must arrive no later than **March 31, 2014** at which time the nomination documents will be forwarded to the Yeager Award judging panel. Electronic submissions are encouraged.

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Isotopics is looking to highlight local chemistry professionals, companies, teachers, research groups, students, events, and more. If you have an idea for an *Isotopics* article, please contact the editor. *Isotopics* is also looking for local members to join our staff. Time commitments for staff members are minimal (a few hours a year!) and your contributions will be invaluable to our local section. If you are interested in joining *Isotopics*, please contact the editor.