

ACS – Northeast Wisconsin Section

American Chemical Society

April 2012

Have Your Chemistry and Eat it Too!

What a Spring it has been! March was really more a cuddly kitten than the rabid lion of recent years. Spring usually starts a bit of a cooking spree in me. I'm not sure if it is the weather, the promise of produce to come, or the extra candy. In a happy coincidence, there have been two recent articles that have fueled my fire even further. The first was an article highlighted in C&EN and published in the Journal of Agricultural and Food Chemistry by Golon and Kuhnert. In this article, the authors investigated and characterized an amazing amount of complex compounds found in caramel. It was a fascinating look into the diversity and complexity of molecules that the everyday cook produces on the stovetop. This article was followed a few days later with a report from the national ACS meeting on a whole section entitled "Cocoa: Science and Technology". While I wasn't able to attend the meeting, the combination of these two articles was just too rich and forced me into the kitchen to try a new dark chocolate ice cream recipe. I'm not sure what makes me a bigger chemistry junkie – getting dessert inspiration from journal articles or all the structures running through my mind while caramelizing the sugar that went into the recipe! Either way, the results were pretty tasty and well worth the effort.



Corey Cunningham – Chair

William Carroll, past president of the ACS will be our guest speaker at our April meeting. I hope to see many of you at St. Norbert College!

◆ April 2012 Section Meeting

William F. Carroll Jr., Ph.D.

**“From Garbage to Stuff:
How We Recycle Plastics”**

Tuesday, April 17th at 6:30 pm
St. Norbert College
JMS 219



[Map](#)

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William F. Carroll Jr. Ph.D., “From Garbage to Stuff: How We Recycle Plastics”

Is that recycling bin the springboard to giving material a new life or is it simply a blue wastebasket? What about surplus materials from industrial processes? Do they find their way out the back door to the landfill? This presentation discusses the four critical steps in recycling-- collection, separation, reprocessing and remanufacture-and how they relate to plastics. The technology, the cost and the efficacy of the processes all matter. And the operative word, plastics, really is plural. Presentation includes a primer in the basic kinds of plastics, how they differ and how they're used in common articles, especially packaging. The presenter brings a few common articles for demonstrations, and promises not to recycle an old quote from The Graduate.

Dr. William F. Carroll, Jr. holds a Ph.D. in Organic Chemistry from Indiana University, Bloomington, IN. He received an M.S. from Tulane University in New Orleans, and a B.A. in chemistry and physics from DePauw University in Greencastle, IN. He is currently Vice President, Industry Issues for Occidental Chemical Corporation and also Adjunct Professor of Chemistry at Indiana.

Bill is Chair of the Board of Directors of the American Chemical Society, and also a Past President (2005). He is a Fellow of the Royal Society of Chemistry, and a National Associate of the National Research Council of the National Academies. He is a member of the advisory board for the Tulane School of Science and Engineering. In 2009 he was chair of the Council of Scientific Society Presidents.

On behalf of OxyChem he has chaired numerous committees for industry associations, including the American Chemistry Council and the Vinyl Institute. He has served on expert groups commissioned by the United Nations Environment Programme, the US Environmental Protection Agency and three states--most recently the California Green Ribbon Science Panel.

Bill has received the Henry Hill Award, sponsored by the ACS Division of Professional Relations, the Michael Shea Award from the Division of Chemical Technicians, Distinguished Alumni Awards from both Indiana and DePauw and the Vinyl Institute's Roy T. Gottesman Leadership Award. He is the 2012 recipient of the Harry and Carol Mosher Award from the ACS Santa Clara Valley Section.

He holds two patents, and has over sixty-five publications in the fields of organic electrochemistry, polymer chemistry, combustion chemistry, incineration and plastics recycling

Northeast Wisconsin May Section Meeting – Section Awards Banquet

Please pencil in your calendar the May section meeting – it is a great traditional meeting where we honor local high school and college students for their achievements. It will be held at UW-Fox Valley, and will include a banquet dinner. The date has not been finalized; a separate email will be sent. If you are aware of some noteworthy accomplishments from our area, we'd love to include them in our program!

UW-Oshkosh Biodigester is Not Just Hot Air!

UW-Oshkosh has constructed the first commercial scale dry fermentation [anaerobic biodigester](#). Here is a [link](#) to a presentation that was given recently by Tom Sonnleitner, the Vice Chancellor of UW-Oshkosh.

More on UW-Oshkosh

The schedule for the Chemistry Department [Seminars](#) at UW-Oshkosh is out; if you're in the area, I'm sure they would not mind some extras in the audience. Also, many of the local colleges and universities have student chemistry clubs with students active and ready for summer chemistry jobs, and chemistry related activities. Check out the UW-Oshkosh chemistry club [facebook site](#).

Martin Rudd Interviewed in Insight Magazine

Martin Rudd, Dean of UW-Fox Valley and NE WI ACS Section Councilor, recently talked up UW-Fox Valley in the [Insight Magazine](#). Check out the link for great update on science activities at UW-Fox Valley.

Posters in the Rotunda - 2012

Every year our local colleges and universities challenge their students to summarize their work in poster presentations in Madison at the "[Posters in the Rotunda](#)" event. This year UW-Fox Valley, UW-Green Bay, and UW-Oshkosh represented our section in Madison. While not all devoted to chemistry, it is interesting to see the diversity of research the students are undertaking.

2012 Chemistry Olympiad

The [U.S. National Chemistry Olympiad](#) is an annual competition for local high school students to exhibit their chemistry talents at the local, national, even international levels. The results of the local exams are in, and students from Appleton, Neenah, Kimberly, Fond du Lac and Oshkosh have been nominated for the National Exam. The exam will be given on April 22nd. Students will be honored at our May Awards Banquet. Good luck everyone!

ON THE WEB

Chemistry Positions Available

The outlook for chemistry jobs in the area is improving. Several companies in Wisconsin are staffing up considerably:

- [Georgia Pacific](#)
- [Kimberly-Clark](#)
- [Bostik](#)
- [Hydrite](#)

Let's Get Really Small

Absolutely incredible advances have been made on the study of individual atoms and molecular systems. Check out these highlights:

- Isolation of [2 molecules](#) to Study the Reaction with Light.
- Watching [Electrons Move](#) at Berkeley.
- Selective [Stripping Electrons](#) at SLAC.
- Stretching [Individual Molecules](#) at Cornell.
- A New Picture of the [Atomic Nucleus](#) at Argonne
- Trapping [Antihydrogen](#) at CERN.
- Images of [Atoms Moving in a Molecule](#) at Ohio State.

- A New Method of [Proton Transfer](#) at USC.

Northeast Wisconsin Section Newsletter

Do you have items to share? Put it in the newsletter! Send an [email](#) and we'll be glad to get it in print.

<http://newisc.sites.acs.org/>