



## September Dinner Meeting

### Chernobyl: A Visit to the Destroyed Reactor and It's Impact

Dr. Zoller

Wednesday, September 15<sup>th</sup> 2004

**Dinner:** Matterhorn 2041 Cassopolis St, elkhart 574-262-1500  
**Menu:** Chicken Florentine, Orange Roughy or Pasta  
**Cost:** \$15  
**Social Time:** 5:30 p.m. (Indiana Time) (Cash Bar)  
**Dinner:** 6:00 p.m.  
**Seminar:** 7:00 p.m.

#### Abstract:

The explosion of the reactor at Chernobyl in 1986 has led to a better understanding of global atmospheric circulation, and to atmospheric deposition processes related to nuclear debris. The accident also taught us a lot about reactor safety, and how to control nuclear reactions and fires in nuclear facilities. The talk will go over the sequence of the reactor operation and the accident itself, including the causes of the accident. Following the accident, the cloud of radioactive debris circled the globe, and was sampled as it crossed the Pacific Ocean and the Western United States. During a trip to the Ukraine in 1992 the sarcophagus was visited, and the data and information and samples were collected. The stability of the sarcophagus will be discussed as well as information from the Russians on its future reconstruction, and current health effects of the reactor accident to the citizens of the Ukraine and Russia.

#### Biography:

Bill Zoller was born in Cedar Rapids, Iowa in 1943, but grew up in Alaska. He graduated in chemistry from the University of Alaska in 1965 and went to graduate school at the Massachusetts Institute of Technology where he studied nuclear chemistry, graduating in 1969 with a Ph.D. He became an Assistant Professor of Chemistry at the University of Maryland in 1970 after a brief post doc at the University of Hawaii. While there he and led research programs in urban air pollution, volcanic chemistry, and atmospheric chemistry in Antarctica. Much of his research has been to use Instrumental Neutron Activation Analysis to measure trace elements in samples from the atmosphere. He also has measured of radioisotopes in the environment from atmospheric weapons testing and reactor accidents, such as Chernobyl in the former Soviet Union. In 1984 he moved to the University of Washington in Seattle as a Professor of Chemistry where he still works. Within two years of arriving in Seattle, he suffered a serious auto accident in which he suffered a traumatic brain injury that removed much of his short- and long-term memory. Because he had to re-learn how to teach freshman chemistry, he devoted his time to learning how to teach in a different way. He learned to teach chemistry using a computer and PowerPoint. Since then, he has produced over 500 computer slides for teaching freshman chemistry. These slides are used with the Silberberg Freshman Chemistry book (McGraw-Hill). Since then, all major textbooks also have obtained computer slides, which the students love!

**RSVP: Dan Brown by Monday 4 pm, September 13<sup>th</sup>** via email ([Daniel.Brown.b@bayer.com](mailto:Daniel.Brown.b@bayer.com)) preferably.  
Or leave a voice mail message 574-264-8747



## May Executive Committee Report

**2004 Section Officers**

Chair – Dan Brown  
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Chair Elect/Web - Chris Dunlap  
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NCW - Dave Pearman  
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Minutes  
were  
not  
available  
as  
of  
Press  
Time



## SJV-ACS Call for 2004 Nominations

### Call for Nomination for the following ACS Local Section Officers

Nominations for positions must be submitted to Doug McMillen at **W - 574-237-4222**  
**[dmcmlle@iusb.edu](mailto:dmcmlle@iusb.edu)** no later than Sept 20 in order to have ballots ready and sent out by October 1st.

The positions open are:

<b>Chair-elect</b>	(three year commitment)	<b>Treasurer</b>	(one year appointment)
<b>Secretary</b>	(one year appointment)	<b>Member-at-Large</b>	(one year appointment)

## SJV-ACS Local National Chemistry Week Activities

The NCW theme this year is "Health and Wellness." (Don't worry--we won't be testing cholesterol or computing Body Mass Index.) We need volunteers to help out this year at various sites. It appears due to site considerations, we will be celebrating National chemistry Week for almost a month depending on where you go. We are looking for volunteers to help man the stations at any and all venues. Please contact the appropriate person if you can help. Thanks to Helen Free's effort, NCW will be using donated blood glucose meters and strips as well as control solution to demonstrate how diabetics have to test their blood glucose sugar levels. The sites and times are below:

**Elkhart: Oct. 16, 12-2 pm at Concord Mall, Daniel Brown ([daniel.brown.b@bayer.com](mailto:daniel.brown.b@bayer.com))**

**Mishawaka: Oct. 30, TBD, Chris Dunlap ([cdunlap@saintmarys.edu](mailto:cdunlap@saintmarys.edu))**

**Plymouth: Nov. 6, 10 am - 2 pm at Plymouth Public Library, 201 N. Center St., Rachele Yung ([ryung@axiompharm.com](mailto:ryung@axiompharm.com))**

## SJV-ACS Annual Picnic Recap

The picnic was earlier this year and we still had about 35 members and family attend this year. The chef switched vehicles at the last minute and forgot to move the lighter into the supply vehicle. Upon arrival at the park, I remembered the lighter being in the other vehicle and thoughts of the emergency flare charcoal broil began to fill my head. Luckily, one of the park rangers found some old matches that we used to ignite the barbeque. Everyone missed the corn this year since my corn cohort decided to go on vacation this year at the same time. Go figure that he refused to back out of his cruise, dedication is so hard to find anymore.

We did add a new twist to the picnic this year with liquid nitrogen ice cream cones. Dan had to try one before they were ready and the ice cream was fully set. I think that this will have to continue as a new tradition. The kids really enjoyed this part of the picnic. Anyways, we are thinking of different things we can do such as moving it to later in September or October and combining it with a hay ride. I am looking for input and suggestions.





# THE FILTERPAPER

Andy Edelbrock  
Bayer Corporation  
Elkhart, IN 46514

**DON'T FORGET**    **RSVP Monday September 13<sup>th</sup> for the Dinner Meeting**

**If you are receiving a paper copy of the filter paper send your Name and E-mail address to [Andy.Edelbrock.b@bayer.com](mailto:Andy.Edelbrock.b@bayer.com)**



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## ACS Mint Tour Recap

Those that made it out for the Mint Tour were given a wonderful presentation on fragrances and perfumes by Chief Perfumer Roger Howell and Chemist Norm Rowe. We learned about the various trials and tribulations of being a perfumer and how your nose must be able to clearly pick out a multitude of various scents and odors. Roger indicated that he uses his nose to release product and that he is currently working with a major fragrance company on a perfume. I think Estee Lauder might have been the name discreetly dropped and a launch of late this year or early next year. Roger also indicated that the master perfumer must revert to subterfuge to try to perfect their aroma creations. The GC-MS is widely used by knock off perfume makers to try to copy brand names and the clever perfumer will add a multitude of ingredients that have no odor but give GC-MS peaks around their key ingredients to try to hide all of the finer scents. Roger also indicated just a hint of skunk or other animal essences are routinely used in perfumes. Dan quickly brought up the fact that we learned earlier this year during our coffee talk that cat urine is considered a key component in coffee that gives it that "Maxwell House" good to the last drop taste. The tour of the facilities allowed us to see the two main still that are still used to separate the essential oils from the mint leaves. The chemical engineers in the group were intrigued with the distillation equipment and wishing our home stills had just half the theoretical plates these still had.

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