



## April Dinner Meeting

Monday, April 28<sup>th</sup>, 2003

Dr. Paul Valint

Dinner Cost: \$15

5:30 Social – Pasqualli Rulli's,

6:00 Dinner – Buffet - Salad, Pizza, Beverages

7:00 Presentation

### The Contact Lens: Materials, Manufacture And Properties

Contact Lenses were first made from glass around the beginning of the twentieth century. The first successful, commercial contact lenses were lathe cut from poly(methyl methacrylate) in 1948. Otto Wichterle invented soft hydrogel lenses in the late 1950's. Since then many polymer chemistries have been used with various manufacturing processes to produce better performing contact lenses. This presentation will briefly discuss the history of contact lenses, review the manufacturing procedures and the various chemical approaches including polymerization and surface modification to provide high performance contact lenses.

Paul L. Valint, Jr., Ph.D., is a Research Professor in the Chemistry Department of the University at Buffalo, The State University of New York. He recently retired as Senior Research Fellow in Global Scientific Affairs of Bausch & Lomb's Vision Care Division. He received his Bachelor's degree from the University of Buffalo and his M.S. and Ph.D. degrees in chemistry at Seton Hall University. He did a year of postdoctoral research at the University of Maryland. His career in industrial research has spanned 34 years at Exxon Research and Engineering Co. and at Bausch & Lomb. He has 67 U.S. patents and 120 publications and presentations in various areas including agricultural chemicals, water-soluble polymers and surfactants for enhanced oil recovery and new materials for contact lenses and the surface modification of contact lenses. He was President of the Surfaces in Biomaterials Foundation. He is Chair of the ACS Polymeric Materials: Science and Engineering Division and a Fellow of the same ACS Division. He was the recipient of the Clifford C. Furnas Memorial Award for 2000 from the State University of New York at Buffalo for distinguished achievement in the fields of chemistry and chemical technology at the national and international levels, in academic circles and in industry.

RSVP to Andy Edelbrock by Thursday 24<sup>th</sup> at 574-262-6967 or [Andy.Edelbrock.b@bayer.com](mailto:Andy.Edelbrock.b@bayer.com)

## Inside This Issue

Minutes from February Executive Meeting	Page 2
Spring Councilor's Report	Page 3
Recap of Coffee Roasting Lecture	Page 4
Councilor's Report Divisional Funding	Page 5
Student Paper Day Judges Needed	Page 6

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## Minutes from the January Executive Meeting

St. Joseph Valley Section of the ACS,  
Executive Committee Meeting  
February 11, 2003; 6:00 p.m.

Present: Phil Bays, Pat Boettcher, Deb McCarthy, Rachele Hall, Chris Dunlap, Dan Brown, Doug McMillen

Treasurer Report: \$4579.20 in Checking, CD balance unchanged from last report.

Minutes were approved with corrections:

100-150 people receive the Filter Paper by email out of 450.

Doug presented the schedule of speakers for the year. The March Meeting is being arranged by Andy Edelbrock. Details will be forthcoming. Dennis Jacobs will be the speaker at the April or September meeting. A trip to a mint factory was proposed for the June meeting. February dinner meeting will be at Molly McGuire's. The speaker will be Tom Parliament speaking on the Chemistry of Coffee. We are still looking for speakers for May and October. The January 29<sup>th</sup> Meeting was successful. The Speaker was Dr. Mary Kirchoff of the Green Chemistry Institute.

Chair- Elect Dan Brown reported on the ACS leadership conference he attended. Some items that were of interest are the following.

ACS offers a course for the PR officer. It was suggested that Pat (our person) should attend in the near future.

ACS now offers crime insurance for free to cover the section in the case of theft, etc. We will look into this. Will Lynch of the national office talked about Web pages. ACS has server space to host our site. We will investigate. Chris volunteered to take over web master duties.

Dan also met the chair-elects from the Indiana and Indiana/Kentucky border sections.

Doug reported that the annual report has been submitted and Phil (as councilor) signed off on it.

A National Chemistry Week (postponed) event is in the planning stages for St. Joseph County.

Doug passed along the following announcements:

The National ACS has asked for pictures of NCW events to give as a gift for Shirley Ford, NCW coordinator. It was suggested the Karen Morris may have pictures.

There was then a discussion of having an official section photographer. It was decided that an announcement will be put in the Filter Paper asking for volunteers.

The ACS has asked our section to participate in the Chemagination program. The executive committee decided to pass on this program.

The Midland local section's Career Service Committee is looking for other sections to participate in their service. We will passively participate.

The Helen Free Service Award is now accepting nominations.

The meeting was adjourned at 6:50PM

Respectfully submitted  
Chris Dunlap, Secretary



## Councilors Report

### New Orleans Meeting Spring 2003

In a separate commentary (See Page 5) I have described the major issue before Council at this meeting. I will not repeat that, but urge you to read the comments, read **C&E News**, ask questions, and exercise your voting right when the time comes. The rest of the report will be rather short and simply consists of the following items.

- Attendance: Despite the geopolitical situation, there were over 14,500 attendees at the meeting. There were 8700 papers presented which is a new record. Because some companies had imposed air travel restrictions, some papers were not given, but there were stories of people driving 20 hours to be there to give theirs.
- Membership and benefits: There are now 161,144 members in the Society, a decrease of 1.4% from the preceding year. If you go to the Insurance link on the web site (chemistry.org) you will find that the ACS, through Liberty Mutual Insurance, offers long-term care, auto, home, and property coverage insurance programs at “attractive rates” – their term, not mine. I have not checked them out.
- For 2003 the National Chemistry Week theme will be “Celebrating Chemistry: Earth’s Atmosphere and Beyond!” For 2004 it will deal with “Chemistry and Health.”
- Another web tool is “Job Spectrum” which seeks to provide employment information and opportunities to members. If you are looking for a job, that would be a good place to start.
- The candidates for President-Elect were selected by Council: William F. Carroll, Jr. and Michael E. Strem. You will receive a ballot in the fall for the election.
- A random piece of information: in terms of substances registered in CAS (small molecules). More than half of them are from the patent literature as opposed to journal literature. This change has taken place in the last year.
- Finally, our President, Elsa Reichmanis, in her report to council departed from the usual procedure of recounting what she has done in the past year. Rather she commented very effectively on the role of chemistry in the current political climate – namely a war. Her report was stunning and very well received by Council. I hope it will be reproduced in **C&E News** for the membership to read.

Respectfully submitted

J. Philip Bays



## Chemistry of Coffee Roasting

Dr. Parliament spoke to approximately 25 people at Molly McGuire's Coffee shop about the chemistry of coffee roasting and coffee flavors. He began by giving an overview of the coffee growing and processing process, and the effects these have on the flavor compounds in the coffee. The focus was mainly on the coffee roasting process. Roasting results in the loss of water, reducing sugars, proteins and amino acids. However, through a variety of reactions, many condensation products, quinic acid, aliphatic acids and aroma compounds are formed, giving roasted coffee its flavor and aroma.

Dr. Parliament then discussed in more detail many of the reactions and products that occur during roasting. In particular, he discussed the Maillard reaction in which amino acids and reducing sugars react to form many of the compounds responsible for flavors. He also gave descriptions of the formation of quinic acids, heterocyclic compounds from trigonelline and pyrazines. He then discussed the methods by which the most important compounds in coffee aromas have been catalogued. The Tressl method uses Flavor Units, which is a unit calculated by dividing the concentration by the smell threshold. Grosch used a flavor dilution factor, which is the result of how many dilutions are required before the odor becomes undetectable. Both methods result in a different set of compounds that are primarily responsible for the odor of coffee. However, both contain the compound 2-methoxy-3-isobutyl pyrazine. Interestingly, a majority of the flavor isolated from coffee is what gives clove, maple syrup, peppers and Green peas their flavor. One other compound isolated by Grosch was male Tom Cat Urine. We don't know whether his cat's mark their territory in his coffee pot or whether he drinks some of the pissy coffee found in Europe. Either way, if he offers you coffee, just say NO.

In addition, coffee roasted to four different degrees was provided for tasting by Spice of Life. Our thanks to Rob and Keen for the coffee.

## Congratulations to the Newest SJVACS Member



Jennifer and Christopher Dunlap  
Unknowingly Announce  
the Birth of Their Son  
Born Wed March 26<sup>th</sup>

Ian Samuel Dunlap  
Weighing in at 8lb -12 oz



Unapproved picture from our Spy Satellites  
Apparently they are all thrown together at birth and you just pick from the litter



## ACS Special Divisional Funding Report

### Important Message from your Councilor

I have just returned from the New Orleans ACS meeting. These comments do not constitute my full report, but there is an important message I need to communicate to you. Please read on and contact me if you have questions.

For several years the Council has been wrestling with the problem of providing sufficient support to the Divisions and Local Sections to enable them to run their programs. This issue has been particularly acute for the Divisions since they are responsible for the programming at the regional and national meetings. I have commented on these concerns in my previous reports.

While everyone has seen the need to increase funding to Divisions, the problem has been finding financing for that increase. Furthermore, the current practice of rolling funds earned from the Publications Division into the operations of Local Section and Divisional activities has complicated IRS implications. To resolve these issues the council has voted to change the Constitution and By-Laws of the Society such that 20% of the dues funds collected will be specifically designated for Local Section and Divisional activities: 55% of the collected funds will be for Local Section activities, and 45% for Divisional activities.

Now, it turns out that with the downturn in the market and the loss of advertising revenues, this will still not be enough to fund activities at the necessary level. Therefore, the council has approved a four-year plan during which the Board will add a surcharge to your dues payment. During the four years the Society will reorganize as necessary and cut programs as necessary such that the surcharge will not continue. Furthermore, since the divisional funding will be phased in during those four years, the surcharge will increase each year.

2004 Surcharge = \$2

2005 Surcharge = \$4

2006 Surcharge = \$6

2007 Surcharge = \$8

2008 Surcharge = \$0

This surcharge will be in addition to the normal dues increase calculated on the basis of the CPI. Thus, for 2004 the dues will increase from \$116 to \$120 and the \$2 surcharge will then be added to make the total dues payment of \$122. (Retired members whose dues are half-price, will pay only half of the surcharge.)

These additional funds are directed primarily to the Divisions. It is important to note that Local Section funding will not decrease as a result of this arrangement. In fact, there will be a \$113,000 set-aside to fund Local Section innovative projects. That money will be available via a competitive proposal process and will be allocated for large, small, and medium-sized sections.

While the Constitutional has been approved by the necessary 2/3 vote of the Council, it also requires approval of 2/3 of the voting Society. Therefore, late this summer you will receive a ballot asking for your approval. You will only be voting for the change to fund Divisions and Local Sections with 20% of the dues payment. The formulas for distribution are council actions. **I urge you to vote "yes" for this change.** We get many benefits from our Society and our membership dues are much less than those of many other professional societies. This plan has been worked on for four years, provides the necessary relief that will improve the Society and will not get better. If the markets improve and the Board sees Society finances move into the black, the surcharge will be reduced.

You will undoubtedly read much more about this in coming issues of **C&E News**. If you have questions or comments, please contact me:

Phil Bays

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## THE FILTERPAPER

Andy Edelbrock  
Bayer Corporation  
Elkhart, IN 46514

**DON'T FORGET** RSVP April 24<sup>th</sup> for the Chemistry of Contact Lenses

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)



Page 6

## SJV Local ACS Needs Judges for Student Paper Day

Each year the local St Joseph Valley ACS hosts a student paper day open to all undergraduate/graduate students from area colleges within our section. This year Student Paper Day is **Thursday April 24**. We are currently in **need of more judges**. If you can help out, please contact:

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