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# THE OCTAGON



Volume 85, No. 5, January 2002

Lehigh Valley Section, American Chemical Society

## LVACS Meeting

The next meeting of the LVACS will be held at Moravian College, North Campus on Tuesday February 12, 2002. The topic will be *Identifying Diabolic Pathogens with Separation Techniques*. The reception and dinner will take place in the UBC Room of the Hauptert Union Building, while the meeting and talk will take place in the Dana Lecture Hall Collier Hall of Science.

**Reception:** 5:30 pm

**Dinner:** 6:30 pm

**Meeting, Talk:** 8 pm

**Cost:** \$20

### Menu:

Boneless Chicken Breast  
braised with  
Wild Mushrooms  
and  
Pearl Onions

**Reservations:** Contact LouAnn Vlahovic by noon on Thursday, February 7. Please include your name, affiliation, and phone number, in case of inclement weather. Registration can be done by phone (610-861-1300) or by email [melnv01@moravian.edu](mailto:melnv01@moravian.edu) (the last two digits are numbers).

## Abstract

### *Identifying Diabolic Pathogens with Separation Techniques*

Pathogens like gram negative anaerobes have been identified by their fatty acid profile via gas chromatography in thousands of labs around the country. TB is one of four microbes producing mycolic acids, which are characterized via HPLC. Using UV detection, the incubation requires 30 days to produce recognizable patterns. Using fluorescent derivatives the incubation is only 24 hours. Viruses like Lyme Disease and HIV are typically done via a western blot immune assay, which has limited sensitivity and frequent false positives. Clinical symptoms are often recognized before the assay confirms via western blot in as many as 50% of the cases.

Capillary immuno fluorescence techniques are about 1000 fold more sensitive and more selective, and have been used to more definitively diagnose Lyme Disease and HIV. Mad cow prions can be detected in blood via capillary immuno fluorescence, where as animals must be sacrificed to provide a brain sample for confirmation via western blot assays. CE DNA fingerprinting common with forensic assays is being used with bacteria and viruses to clarify the origin of these materials. These examples will be used to chart the progress of separation techniques for both sensitivity and selectivity, while illustrating fundamental mechanisms.

## Author

Bill Suits has a BS from the University of Wisconsin in Madison, where he played on Wisconsin's Big Ten Championship football team in 1959 and in Rosebowl in 1960. As a sophomore he began working in a metabolic research lab, and was in the Department of Medicine by the time he graduated. He did his first work with GC in 1960 and HPLC in 1962. Growing up with the technology, and working with the companies developing instrumentation introduced him to the world's leading manufacturers. Suits has been working with separations for forty years. He has worked with Packard Instruments, Varian, Dionex and Beckman performing sales support and application method development using GC, HPLC, SFC and CE. Now he serves as president of Chromatography Connections and as a manufacturer's representative and separations consultant. He is currently chair of the North Jersey Section of the ACS.

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All applications for membership in the American Chemical Society should be sent to the Secretary at the address above. This publication, founded in 1894, is devoted to the interests of the Lehigh Valley Section of the American Chemical Society. It is published eight times each year (January through May and September through November) and mailed free to members of the Local Section; subscription fee to non-members is \$1 yearly.

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Last month I wrote a column explaining how Dr.s Sherma and Bouis, our section Chair and Chair-Elect, and me would like to see the Octagon grow into something truly noteworthy.

I let you know that the Octagon will be available on the internet at :  
www.esu.edu/~mjwilson/acsllocal/index.html

By accessing this web site you should be able to read the Octagon about 2 weeks sooner than you currently receive it in your mail box. This will give you more time to plan to attend meetings. Starting in the fall we plan to have e-mail notification of when the Octagon is posted on the web page. If you would like this notification in place of receiving a hard copy of the Octagon or in addition to a hard copy, please send an e-mail to LVACS\_Octagon@yahoo.com

I hope you enjoyed the January edition of "Chemistry in the Valley" authored by Dr. Bouis, and are looking forward to his next segment. We will accept submissions from any members of articles of this kind. I also discussed last month how we would like local "chemistry related" news.

Continuing on with our ideas for improvement, we would like to see more sharing of local research ideas. The Lehigh Valley abounds with colleges—these very colleges host the LVACS meetings. Many students and professors at these colleges are doing interesting research work that we would like to hear about in the Octagon. Please consider submitting abstracts of your work or encouraging your students to do likewise. Also, if you will be presenting a subject at a conference, please let us know in advance and/or after the event. Pictures are welcome!

If you aren't in academia we don't want to exclude you. In industry there are more restraints on open sharing of research, but if you are having research published in a jour-

**Editor's Notes**

nal or are similarly free to publically discuss your research, please feel free to submit abstracts for publication in the Octagon.

In addition to learning about local research, we would like to hear members views on books, web sites, computer programs and articles of interest to the LVACS membership. If you just got a really fantastic molecular modeling software package that you think others in the LVACS would be interested in, please write a review.

We would also like to start including job ads...both from local employers seeking new employees, and from section members who are looking for employment. Ads of this sort will be run free of charge, please let the hiring managers at your place of work know about this service.

In asking for articles, some people may tend to hold back because they fear that their writing skills aren't something they would want the entire membership of the LVACS to see. Please do not let this hinder you from contributing to the Octagon! Part of why an editor (me!) is paid is to take your wonderful ideas, and correct the spelling, grammar, and punctuation mistakes. So let the ink flow!

After reading of all these ideas, if you feel inspired with more ideas, please, share them with me! E-mail waxwoman98@yahoo.com.

**Spring Meeting Schedule**

March, Desales Friday, March 15,  
HS Teachers Night

April, Lafayette April 9-11, Student  
Awards Night

May, Cedar Crest May 6-10, Spouses  
Night



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**The March LVACS meeting will be at the Desales University on Friday, March 15. Details will be in the next issue of the *Octagon*.**

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