

ANACHEM/ACS/SAS Meeting and Tour Chemistry Department – Wayne State University Wed., 26 April, 2006 6:00 PM

The Chemistry Department at Wayne State University has just completed a \$26M+ renovation of approximately 36,000 square feet of laboratory research space to the highest possible research utilization and safety standards. This evening's presentation will include a tour of these exciting new facilities, as well as a brief lecture and tour of the Central Instrumentation Core Facility.

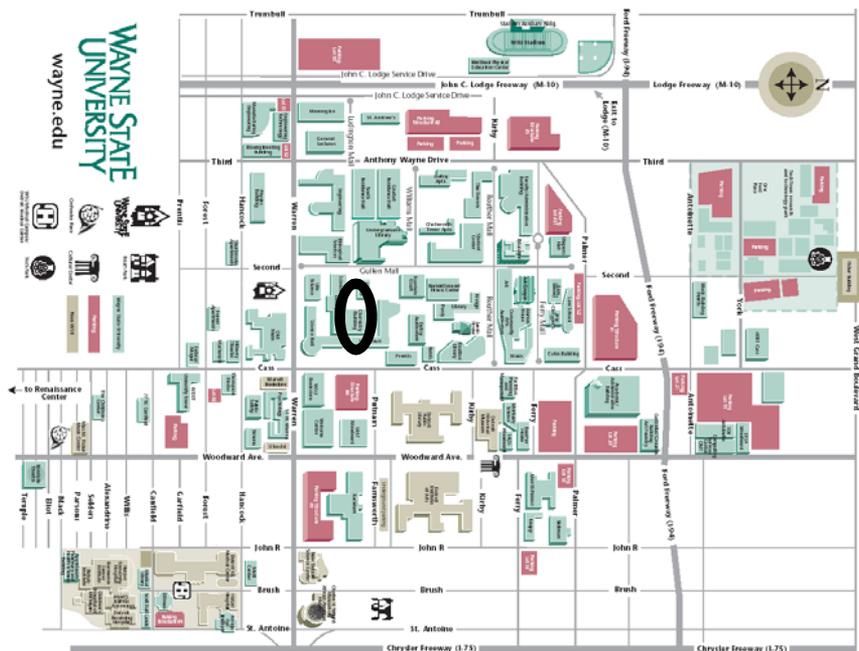
The Central Instrumentation Facility (CIF) was established in 1982 within the Chemistry Department at Wayne State University. The purpose of this facility is to make available to researchers in the University community, and beyond, on a shared basis, major analytical instrumentation. The Central Instrumentation Facility maintains a variety of modern analytical instruments to provide routine analysis and research support. The facility consists of several major areas of emphasis: Mass Spectrometry, X-Ray Crystallography, Nuclear Magnetic Resonance, TEM/SEM Microscopy, Small Instruments, Computer Support, and Glass Blowing Operations. Knowledgeable and experienced professional staff provide assistance in using the various techniques in each section.

Prof. David M. Coleman who has served as Associate Chairman of the Department and as Director of the Central Instrument Facility for several years will present the lecture and tour.

Reservations: *You must make a reservation to attend as we are limited to 40 members. After 40 reservations are received you will be placed on a call back list if there are cancellations. Please make your reservation by calling Ed Havlena at 313-393-3685 and leave your name and number or email Havlena@detroitsection-*

Location & Parking: Please park in Parking Structure #6 which is located on the corner of Cass & Putnam Avenue. To get there enter Putnam Ave. from Cass. Putnam is a one-way street going east. Once on Putnam enter the VISITOR section of the Parking Structure. Please bring your parking ‘ticket’ with you so we can validate it and provide free complimentary parking. The Chemistry Department is located directly west of the parking structure. Please use the visible east door for entry. A map is attached (or go to <http://campusmap.wayne.edu/?location=CHEM> for a detailed map).

Dinner: We will gather afterwards at the nearby, and very popular Traffic Jam & Snug for dinner. If you want to go to dinner following the tour please make your reservation when you reserve the tour.



April Meeting Location

**ANACHEM/SAS MAY, 2006 MEETING
WEDNESDAY, MAY 3, 2006**

Topic: Optical Diagnosis: Infrared and Raman Micro-Spectroscopic Studies of Human Cells

Speaker: Professor Max Diem, Dept. of Chemistry and Chemical Biology, Northeastern University, Boston, MA

Place: Kelly Scientific Services Auditorium 999 W. Big Beaver RD (16 Mile) Troy, MI

Time: 6:00PM

The development of micro-spectroscopy (i.e., the collection of infrared and Raman spectral data through microscopes) has created a new field of research in which spectroscopic methods are applied to medical diagnosis. Normal and diseased cells differ very slightly in their chemical composition, which is manifested in subtle differences in their infrared and Raman spectra. Yet, even spectra of healthy cells show an enormous variance, which was not properly understood until recently. Modern methods of multivariate statistics, such as cluster, principal component and artificial neural network analysis can detect small, but significant variations in cellular spectra even in the presence of large, uncorrelated heterogeneity, and thereby detect cellular abnormalities.

The potential applications for this methodology are nearly unlimited. Since micro-spectral analysis does not require staining or labeling of the cells, these methods can be used for screening live cells for the presence of disease, such as cancer. Since the observations are machine-based and objective, they offer an enormous advantage over present methods of cytology, which are based on visual, microscopic inspection of (stained) cells, and human inter

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pretation.

This presentation will introduce experimental and mathematical principles of micro-spectroscopy and data analysis, and present selected applications of spectral classification and detection of disease.

Professor Diem received his undergraduate degree from the Universitat Karlsruhe, Germany, in 1970. An acute case of Wanderlust lured him to Ohio, where he received his PhD from the University of Toledo, part of the Ohio State system, in 1976. His PhD thesis, and ensuing postdoctoral research in the laboratory of Prof. Larry Nafie at Syracuse University were in the newly emerging field of Vibrational Optical Activity (Infrared Circular Dicroism and Raman Optical Activity). Prof. Diem worked in both these fields from 1980 to about 1995 at the City University of New York, Hunter College, where he rose through the ranks of Assistant, Associate and :Professor of Chemistry.

During a sabbatical leave of absence in 1995, he was introduced to the field of infrared and Raman spectroscopic studies of human cells and tissues. This is a new and exciting field of spectroscopy with enormous diagnostic potential.

Professor Diem moved his entire laboratory to the Department of Chemistry and Chemical Biology at Northeastern University late in 2005 where he was appointed: Professor of Chemistry.

Dinner: Following the presentation you are invited to join Professor Diem at dinner at the new Kruse and Muer Restaurant. For reservations please call Felix Schneider at 248-583-1578 or email at Felixschn@aol.com by Tuesday, May 2.

31st Annual FOCUS Conference

The Detroit Society of Coatings Technology (DSCT) is sponsoring the 31st Annual FOCUS Conference - the theme being **Globalization, Regulation and Innovation**.

The Conference will be held on May 4, 2006 at the MSU Management Center in Troy, Michigan. The conference is an educational event for coatings formulators and manufacturers, end users, raw material and equipment suppliers, educators and students. The conference features technical speakers in two tracks and a two tutorial sessions. ("Polymers - Fundamentals and Coatings

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Applications" and "Coatings Formulation: Guidelines and Tools")

The conference also includes an all day Coatings Showcase exhibit by suppliers to the industry.

Registration is \$100 prior to April 17 and \$125 at the door. (Students, \$40). Program and registration information can be found on the Detroit Society website, www.dsct.org. or call Bev at 248-546-2934.

Submit Your Topics for the Industrial Women's Networking Dinner!

The Industrial Relations Committee is planning a "Networking" dinner meeting for women industrial chemists. A more complete announcement will be published in the May issue of *The Detroit Chemist*, but the preliminary meeting information is as follows:

Tuesday, June 6th at 6.30 p.m.

Kerby's Koney Island (in the Meeting Room)

21200 Haggerty Rd, Northville, MI

Tel: (248) 449-7088

The objective of the meeting will be to discuss issues pertaining to women in industry such as:

1. Career balance (e.g., company policies on flexible hours, telecommuting, maternity leave, etc.),
2. Issues for dual career couples (e.g., promotion & relocation strategies),
3. Dealing with the tough Michigan job climate & finding career alternatives.

We'd like to hear from you! Please comment on these topics or submit your own ideas to Sunitha Grandhee (248-926-4226, sgrandhee@exatec.biz) or Charlene Hayden (586-986-0854, charlene.hayden@gm.com)

Successful Student Affiliates Research Symposium Held At Oakland University

Oakland University senior Diana Semma, the President of this year's OU SAACS, and the Oakland University Department of Chemistry deserve a big pat on the back for a job well done on this year's Student Affiliates Research Symposium. Diana was able to marshal eight student speaker and five student poster-presenters from her home university, plus the University of Detroit Mercy, and Lawrence Technological University to present. The symposium started off with a continental breakfast and oral presentations that spanned the areas of organic, physical, and biochemistry. A tremendous lunch at Meadowbrook Hall followed. The afternoon session was divided into a series of talks and a poster session, both of which again spanned several disciplines within chemistry.

This year's symposium saw close to thirty attendees including 20+ students, a number of whom were attending their first scientific forum. If you were unable to attend, keep a note to yourself about a Friday in March of 2007. The next SAACS research symposium should be hosted at the University of Detroit Mercy. But again, Diana and colleagues can chalk one up in the 'win' column for this year. Job well done!

37th Central Regional Meeting to Take Place in May

The Central Regional Meeting (CRM) will take place May 17 – 20, 2006, in Frankenmuth, Michigan, during their World Festival of Beer. CRM will open with Jean Michel Cousteau speaking on Ecology and Economics of the Sea and end with a two-day silicon symposium with many exciting programs in between. Visit their website at www.crm2006.org.

Volunteers Needed – Kids & Chemistry Program

On Saturday, March 18, we began the 2006 program year with our 3rd annual participation in the Career Choices program at Kimball High School in Royal Oak. Christine Utter (GE Plastics) again organized our participation and did a great job – thanks Christine. More than 300 kids and parents picked up career literature, periodic tables and other ACS material from our booth while our volunteers gave more than 100 one-to-one interviews with students on what chemists do. Our thanks to Christine's team of volunteers which included: Mary Kay Heidtke (Magni Ind.), Kevin Perry (GM Res.), Manoj Gupta (BASF Southfield), Angela Allen (UofM-D), Emil Lozanov (Wayne State), Jim Landis (Henkel), and Felix Schneider (US FDA, ret.).

On **Thursday, May 4, 2006** we will make our 8th annual appearance at the Rouge Water Festival on the U. of Michigan-Dearborn campus. This year we again plan to run 2 parallel sessions – if we can get enough volunteers. This will be a classroom/lab type setting with 5th graders. Groups of approximately 25 students will rotate through our labs for 25-minute sessions focusing on using pH as a measure of water quality. The kids use universal indicator to determine the pH of various household and water samples. We talk to the kids about the impact of modern lifestyles on environmental issues such as acid rain and engage them in a dialog about what they can do to help improve air quality. Felix Schneider will again organize the program. If you have never participated in a Kids & Chemistry program, this is a great way to start. You can respond to Felix at: felixschn@aol.com or to myself at wsiegl@sbcglobal.com. When you respond, please include name, phone number and address so that we can mail you a map and other program materials. The program runs from approximately 9:00 – 2:00; bag-lunch and a tee-shirt are provided by the Festival organizers.

If you are new to the Detroit Section, or if you are not, we extend a warm welcome for you to join us for one of our events. This is a great way to begin your involvement in your professional society. It's a great way to meet other chemical professionals in the

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Detroit area and it's a great way to participate in a community outreach program. Our mission is to deliver to young people the message that chemistry can be fun. You don't need any special training to work with us. We have a really nice group of volunteers – friendly, stimulating, fun to work with. Come join us! To be added to our e-mail list, send a message to wsiegl@sbcglobal.net. (hope to hear from you.)

Submitted by Walter Siegl

Education Committee Holds Local High School Chemistry Teacher Tour and Workshop at the Glass Academy

On Saturday, 11 February 2006 the ACS Detroit Local Section Education Committee held a tour and glassblowing workshop for local high school chemistry teachers. The afternoon was hosted by the Glass Academy, a state certified trade school located in Dearborn specializing in glassblowing, stained glass, neon, lamp-working and machine embroidery. Proprietors Chris Nordin and Michelle Plucinsky started the afternoon by giving the twenty-plus attendees a tour of their facility, a spacious renovated warehouse. One side of the building is set up with walled-in sections for teaching workshops, while the other side houses the hot glass and numerous ovens. After a hands-on demonstration of Rupert drops (quickly water-cooled glass droplets that shatter when their ends are broken), the group observed a glassblowing demonstration using graphite molds. Artisans demonstrated the skills required to generate a glass vase and bowl. The day finished with a presentation of neon glass tube working where participants got to try their own hands at bending glass into a 90 ° angle – most agreed that this is far more difficult than it first seems!

The Glass Academy regularly hosts workshops and training sessions that anyone can sign up for. More details can be found at the company's website (www.glassacademy.com). Experienced

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artisans are on call to spread the word about the art of glass manipulation.

Every year in February, the Education Committee hosts a free high school chemistry teacher development day. Past excursions have been centered on a chemical forensics workshop and the Detroit Institute of Art conservation department. If any of this sounds interesting to you, contact Chair Matt Mio at miomj@udmercy.edu to see how you can become connected with the ACS Detroit Local Section Ed Committee.

Submitted by Matthew J. Mio

National Chemistry Week: “Your Home—It’s All Built on Chemistry”

October seems far away, but it and National Chemistry Week (NCW) will be here before we know it. Each year the American Chemical Society’s NCW campaign reaches millions of people with positive messages about the contributions of chemistry to their daily lives. It is the one time during the year that chemists unite with the common goal of spreading the word that chemistry is good for our economy, our health, and our well-being. The celebration dates for 2006 are October 22 – 28 with the theme, “Your Home—It’s All Built on Chemistry”.

Planning starts long before NCW arrives, and the Detroit local section coordinator is Denise Grimsley. Contact the NCW Coordinator at grimsld@basf-corp.com.

Some ways that you can contribute to the NCW campaign are: helping at an event planned by the NCW coordinator; performing chemical demonstrations at a neighborhood school; conducting hands-on activities with children at museums, malls, or libraries; or writing articles or letters to the editor of the local paper.

NCW is sponsored by the Office of Community Activities (800-227-5558 ext. 6097, ncw@acs.org). Visit <http://chemistry.org/ncw> over the summer as more content is added!

Please join the celebration!

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Invitation for Feedback on the ACS Approval Guidelines

The ACS Committee on Professional Training (CPT) is undertaking a major revision of the ACS Guidelines for approval of bachelor's degree programs in chemistry. The goals of revising the ACS guidelines include:

- Simplifying the ACS guidelines for approval of chemistry programs
- Allowing greater flexibility for departments to develop certified degree tracks
- Encouraging department-initiated innovation and curriculum improvement
- Providing faculty and infrastructure requirements that support excellent chemistry programs.

The overview of the proposed revisions to the ACS guidelines ([link](#)) that CPT is considering can be accessed from the CPT website at www.chemistry.org/education/cpt.

CPT invites you and your department to respond to these proposed changes by June 1, 2006, and thereby contribute to the ACS guidelines revision process. Please send comments to CPT by email to cpt@acs.org with a subject of "ACS Guidelines Revision."

Thoughts to Ponder...

The best way to have a good idea is to have a lot of ideas. --Linus Pauling

...being a leader means playing off people's strengths instead of reprimanding them about their weaknesses. --Gerald Chamales

Calendar of Upcoming Events

April 26, 2006 — Tour of the Chemistry Department – Wayne State University *See pages 1 and 2 for details.*

May 4, 2006 — 31st Annual FOCUS Conference - on Globalization, Regulation and Innovation *See page 4 for details.*

May 4, 2006 — Kids and Chemistry at the Rouge Water Festival *See page 7 for details.*

May, 2006 — Annual Awards Meeting, held jointly with the Windsor CIC *See May Chemist for details.*

May 6, 2006 — “Optical Diagnosis: Infrared and Raman Micro-Spectroscopic Studies of Human Cells” *See pages 3 and 4 for details.*

May 17-20, 2006 — Central Regional Meeting *See page 6 for details.*

June, 2006 — Tri-Sectional Meeting hosted by the Huron Valley Section *See May Chemist for details.*

June 6, 2006 — Industrial Women's Networking Dinner *See page 5 for details.*

Detroit ACS Section and ANACHEM on the Web

A Website for the Detroit ACS Section and ANACHEM, maintained by Ed Havlena can be found at:

<http://www.detroitsection-accs.org>

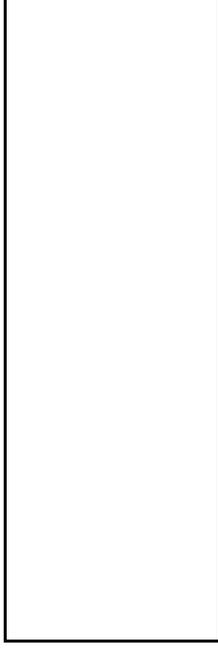
The Detroit Chemist is now also available via email in text-only form. The email version is distributed at the same the issue goes to press (much sooner than the printed and bulk mailed edition). To subscribe send an email to: majordomo@angus.mystery.com with

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Attn: Dated Material

Here's your copy of the April Detroit Chemist