

THE DETROIT CHEMIST

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At this time, each subscriber to the Chemist gets a paper copy and (if they are interested) the electronic edition. The paper edition of the Chemist costs the section about \$0.60 to produce and mail per copy. In the past, people have occasionally asked to get only the electronic edition. This was not possible, due to the way that the mailing lists were produced. I believe that I have now found a way to filter the mailing list so that we can allow subscribers the option to get only the electronic edition if they wish. If you would like to receive only the email edition of the Detroit Chemist, please send me an email to that effect at: jim.landis@gt.org. Ph: 248-577-2217

MAY MEETING ACS/CIC AWARDS BANQUET

SPEAKER:	David Luckins, General Motors Corporation
TOPIC:	Geologic Chemistry of Caves
SITE:	Beach Grove Country Club See map on last page
TIME & DATE	May 19, 2004
	Cash Bar: 6:15, Dinner: 7:00 p.m.

Our annual dinner meeting with our colleagues of the Windsor CIC will be on May 19 at the Beach Grove Country Club in Windsor. On that night we will recognize our 50 year members, Section Distinguished Award Recipient: Dr. Mark Benvenuto, ACS Award winners from local colleges and universities, and winners of the Detroit Section's awards at the Metropolitan Detroit Science Fair. Abstract: Caves can be very dark scary places for most people. The speaker finds caves full of beautiful curious geologic formations. David Luckins will be discussing the chemistry that forms stalagmites and stalactites. The presentation includes many amazing photographs David has extracted from the book: "World's Best Cave Photographers" and a few he took while exploring caves.

The evening schedule will include cash bar from 6:15 - 7:00, dinner at 7:00, with awards and lecture at 8:00. The dinner menu will feature chicken and will cost \$25 USD and \$35 CDN, payable by check at banquet. A special vegetarian meal is available if necessary; notify Kevin L. Perry when making reservations. Please note that due to dress code of the Country Club, no one will be admitted that is wearing denim. Reservations must be received by Friday, May 14, 2004. To make reservations please contact Kevin Perry at by email at: Kevin.l.perry@gm.com or by phone at: 586 986-1928

SECTION ANNUAL MEETING

Section Bylaws call for an Annual General Membership Meeting. The Section's 2004 Annual Meeting will be held on Tuesday, May 11th starting at 7:00 pm in Room 108 of the Science Building on the campus of the U of M -Dearborn. Section members are welcome to attend and to present business items before the Executive Committee. As usual the regular May Executive Committee Meeting will immediately follow the Annual Meeting. Non-Executive Committee Section members are welcome to stay for the regular meeting. A quorum of 15 members is necessary to conduct business at the Annual Meeting. For more information, call the Section Secretary, Steven Scribner at (313) 927-1321.

2005 SECTION OFFICERS AND COUNCILORS

The Section's Nominating Committee has selected a slate of candidates to run for election for 2005 officers. According to the bylaws, Councilor and Alternate Councilor offices must have at least one more nominee than there are available openings. Councilors and Alternate Councilors serve three year terms. Nominations may also be made by petition. Section members interested in running for an office can submit a Petition to the Section Secretary giving the office for which they wish to run. The Petition must be endorsed by 1% of the Section Membership (16 members). and sent to the Section Secretary, Steven Scribner, postmarked on or before June 30, 2004. For more information or for help in obtaining the necessary endorsements, call the Section Secretary, Steven Scribner at: (313) 927-1321, or by e-mail: sscribner@marygrove.edu

NOMINEES FOR FALL 2004 ELECTION

Chair-Elect: Mark Benvenuto
Secretary-Elect: Anthony Sky
Treasurer-Elect: Mary Kay Heidtke
Councilor (choose 2): Ted Biermann, James Landis, Jr., Walter Siegl
Alternate Councilor (choose 2): Mark DeCamp, Sunitha Grandhee, Ed Havlena.

SECTION 50 YEAR MEMBERS

The Detroit Section would like to congratulate:

Mr. Taki J. Anagnostou
Mr. Edward Leonard Budzinski
Dr. E. J. Havlena
Dr. J. R. Soulen

on 50 years of ACS membership.

Join us in honoring them at the CIC Meeting on May 19.

2004 ACS REGIONAL MEETING CALL FOR PAPERS **36th Great Lakes Regional Meeting** **<http://membership.acs.org/g/qlrm04>** **Oct 17-20, 2004**

The Illinois Heartland Section formerly the Peoria Section of American Chemical Society announces a call for papers and invites you to join with us in "2004 Formulate Your Future". You will be able to present your work to some of the best minds in Education, Industry and Government at one of the more than 80 technical and poster sessions

Oral and poster papers from all areas of chemistry are welcome. Please contact the program chairs below for additional information. Abstracts opened April 26, 2004. More information from Dr. Jim Kenar, 309.681.6103, kenarja@ncaur.usda.gov or Dr. Vicki Finkenstadt at 309.681.6469, finkenvl@ncaur.usda.gov or <http://membership.acs.org/g/qlrm04/>

KIDS AND CHEMISTRY UPDATE

On March 20 we participated in the Career Choices program at Kimball High School in Royal Oak. More than 500 kids picked up material from our booth and our volunteers gave approximately 85 ne-on-one interviews with

interested high school students. This was a first-time event for Kids & Chemistry and we were extremely pleased with the results. Special thanks go to Christine Utter and her groups of volunteers (Gina Ludwig, Mary Kay Heidtke, Felix Schneider and Michael Babcock) for making this happen.

On Saturday April 24, we held a hands-on program at Cranbrook Science Museum in conjunction with the Tri-Sectional program featuring Jack Lousma. This program is being organized by Mary Kay Heidtke and Denise Grimsley and will include volunteers from the Toledo and Huron Valley Sections as well as our own. On Thursday, May 6, 2004 we will make our 6th annual appearance at the Rouge Water Festival on the U. of Michigan-Dearborn campus. Each year this program has grown larger; this year we expect to run 2 parallel sessions, doing 25-minute programs with 16 different 5th grade classes (400 students). We have had 12 volunteers signed up so far.

Although no information is available yet, we plan to hold our annual program at the Comerica Taste Fest on the 4th of July weekend. We are always looking for new volunteers to join us for that program. If you would like to receive details of the Taste Fest program or any of our future programs, and you are not already on the Kids & Chemistry e-mail list, send a message to wsiegl@sbcglobal.net. Kids & Chemistry programs are a great way to network with some fellow chemists and at the same time make a contribution to the community.

Occasionally we have requests for speakers to visit classrooms, usually to represent/describe to students what chemists or chemical engineers do. This typically involves a single volunteer going to a classroom. We are putting together a separate list of volunteers who enjoy this kind of outreach. Several people have already responded. If this sounds like your type of volunteer activity, please reply to the address above and we will contact you whenever we receive a request. You don't have to be an ACS member to participate in any of these programs!!

MAY ANACHEM/SAS MEETING

SPEAKER:	Sanford Asher, University of Pittsburgh
TOPIC:	Adventures in UV-Resonance Raman Spectroscopy: Lots of Information
SITE:	Ford Sci Labs
TIME & DATE	May 12, 2004, Starting at 5:45pm

Raman spectroscopy is generally considered a linear spectroscopy. The mechanism involves the inelastic scattering of light due to the coupling of electronic and vibrational motion. Raman spectral measurements convey much more information than typical absorption and fluorescence measurements in the IR through UV spectral region, because the phenomenon probed (the electronic and vibrational coupling) is extremely sensitive to molecular structure, environment and dynamics. The resonance Raman phenomenon, which occurs upon excitation within an electronic transition, results in a dramatic increase in the Raman scattering for vibrations coupled to the electrons involved in the electronic transition. This gives rise to high selectivity and sensitivity to nuclear motion localized in the vicinity of the resonant electronic orbitals. The vibrations enhanced give information on the excited state structure and dynamics. We have developed UV Raman spectroscopy with the goal of utilizing resonance Raman excitation within the UV electronic transitions of molecules. This work has led to new insights into the nature of UV electronic transitions in both the gas and condensed phase. We have established the assignment of the electronic transitions of amides, carbonyls, etc. We will discuss the excited states of the peptide bond of peptides and proteins and will also discuss applications of UV Raman Spectroscopy to studies of biomolecular structure and dynamics.

Sanford A. Asher received his BA in chemistry at the Univ. of Missouri, St. Louis in 1971 and completed his Ph. D. in chemistry at the Univ. of California, Berkeley in 1977. Dr. Asher served as a Research Fellow in Applied Physics at Harvard Univ. between 1977 and 1980 and in 1980 Dr. Asher became Assistant Professor of Chemis-

try at the Univ. of Pittsburgh. Dr. Asher is presently Professor of Chemistry at the Univ. of Pittsburgh and Adjunct Professor of Chemistry at Carnegie Mellon Univ. Dr. Asher's research program at Pitt has involved development of new materials and the development of new spectroscopic techniques. His group developed UV resonance Raman spectroscopy as a new technique for fundamental and applied structural and trace studies of molecules in complex matrices. His group is using UV resonance Raman to examine the first stages in protein folding. In addition, Dr. Asher's research group pioneered the development of photonic crystal materials. In this work they develop new optical devices such as optical switches and filters and novel chemical sensing materials. These photonic crystal materials are fabricated from self-assembling colloidal particles. The research group is utilizing these photonic crystal chemical sensing devices to determine glucose in tear fluid. This glucose sensor is being developed as part of a contact lens; a diabetic patient would determine their glucose concentration by looking at the color of the sensor by using a mirror. Professor Asher has received many awards including the 2002 ACS Pittsburgh Award, 2002 Ellis R. Lippincott Award, the 2000 Enterprize Award, the Bomem-Michelson Award and the SAS Lester W. Strock Award.

The entrance to the Ford facilities is through the gates at Village and Oakwood across from Greenfield Village. The Labs are located at corner of Village and Military Roads entering the parking lot from Village Rd. If you care to join the speaker for dinner following the presentation please call Felix Schneider and leave a message at 248-583-1578 or email Felixschn@aol.com.

2004 METRO DETROIT SCIENCE AND ENGINEERING FAIR

For the 8th straight year members of the Section's Environmental & Safety Committee judged in the Professional Awards Division of the Senior Fair. Up to four awards could have been designated; two for projects in the Outstanding category and two in a Commendable category. Outstanding project students are each given a \$100 US Saving Bond and \$50 for a commendable project. Winning students, their parents and teachers are invited to the May Section Meeting where bonds and certificate are presented.

This year's judges were Peter Warner, Wallace Ribbron, Sharon Newlon, Keith Williams, Orin Gelderloos, Scott Browne, and Ed Havlena. Judging begin with a quick screening process used to pick out only projects that dealt with both environment and chemistry. The entire Senior Division of the Fair was included in this process. The only criteria here was to find chemical/environmental projects for detailed appraisal by the entire team of judges. One team of judges screened the physical sciences and a second team the life sciences, about 450 projects in all. This initial process found 20 projects that deserved more investigation including interviews with the students by the entire judging team. Each project was rated individually by each judge. The ratings were combined and the final decision was that one project was worthy of the Outstanding award and two were Commendable. The results are shown below.

OUTSTANDING

Shannon Morey, Grade 10
Imlay City HS, Imlay City, MI
Cold Vapor AAS Analysis of Hg Concentrations in Tuna

COMENDABLE

Savina Aneja, Grade 12
Detroit Country Day Upper, Beverly Hills, MI
Soil Component Filtration Properties

Sara Worsham, Grade 12
Onsted HS, Onsted, MI
Does the Type of Waste Management System Effect Water Quality Over Time?

COUNCILOR'S REPORT FROM ANAHEIM

The 227th ACS Convention in Anaheim at the end of March saw the Council meeting held on Wednesday morning. Walter Siegl, Charlene Hayden, and Jim Landis attended as councilors from our Section. As usual, there were a number of reports and "normal" Council business, but there were three items in which your Councilors think the whole section will be interested. The first was a dues increase. We don't like the idea of dues increases in general, but this is only a cost-of-living increase. It means that the membership dues of \$120 will become \$123 next year. Reluctantly, we voted for this.

The second was a special discussion item that was put on the Council agenda for this meeting. ACS President Charles Casey and Board Chair James Burke briefed the Council on the status of partnership efforts between the American Chemical Society and the American Institute of Chemical Engineers (AIChE) and noted the implication of these efforts for ACS. Councilors then participated in a discussion of this issue. Currently the ACS and the AIChE are pursuing a programmatic alliance that will more fully serve the needs of their members and the chemical enterprise, while enhancing both organizations' abilities to achieve their missions. Consideration also is being given to a membership alliance that could include expanded opportunities for members to participate more fully in both organizations. The discussion at Council revealed strong support for moving forward with these initiatives and identified key factors for consideration. A full merger is not being considered.

A slate of nominees for society president-elect for 2005 was selected and will be announced in an upcoming issue of Chemical and Engineering News. The Council also received for consideration three petitions: Petition for Electronic Balloting; Petition to Change Division Annual Report Deadline; and Petition for Membership Requirements for Teachers. Action is expected on these petitions at the 2004 fall national meeting in Philadelphia.

If you have questions about these issues, or if you'd just like to get in contact with a Councilor, please contact Charlene Hayden at: charlene.hayden@gm.com, Jim Landis at: jim.landis@hstna.com or Walter Siegl at: wsiegl@sbcglobal.net.

2004 U.S. NATIONAL CHEMISTRY OLYMPIAD Detroit Local Section Examination

On Thursday, March 18, 174 chemistry students representing 24 area high schools converged on the University of Michigan-Dearborn for the local section exam for the US National Chemistry Olympiad. This two-hour exam is the first step in the process of selecting the four-person US Olympiad team. The exam itself consisted of 70 multiple-choice questions and an essay question used as a tiebreaker. Following the exam, Prof. Mark Benvenuto of the University of Detroit Mercy provided an answer for the essay question that dealt with the chemical properties of sodium fluoride.

The top ten students on the local section exam were selected as Nominees of the Detroit Section and the next ten students were named as Runners-up. The names and schools of the Nominees and Runners-up are listed below. The Nominees returned to UM-Dearborn on April 15 for the National Exam. Following the exam the Nominees, their teachers and families were guests of the Detroit Section at the awards dinner. Through the generosity of the General Motors Corporation the Nominees received cash prizes of \$300 in recognition of their accomplishments. At the awards dinner Troy High School was presented with the Olympiad Achievement Award for compiling the highest average score on the local section exam.

The Chemistry Olympiad program is organized locally by Mark DeCamp, Detroit Section Olympiad Coordinator, assisted by the Section's Education Committee. The following schools participated: Adams High School (Rochester), Anchor Bay High School, Andover High School, Athens High School (Troy), Belleville High School, Brighton High School, Cass Technical High School, Chippewa Valley High School, Cranbrook Kingswood School, De La Salle Collegiate, Dearborn High School and Detroit Country Day School.

NCO Detroit Nominees (Name/Hometown/High School/Teacher)

Alexander Flis #/Grosse Pointe Park/Cranbrook Kingswood/Edwin Van Dam
Eric Fritz */Troy/Troy High School/Ross Graham
Brock Jackman/Grosse Pointe Park/Grosse Pointe South H.S./Frank Martin
Zach Maddock #/Brighton/Brighton High School/Rick Des Jardins
Alexander Munk ?/Northville/Northville High School/Thomas Silak
Kathleen Murphy/Bloomfield Hills/Det. Country Day School/Julia Winter
Alice Qi/Novi/Novi High School/Hanson/Helmkamp
Robert Rhein/Brighton/Brighton High School/Rick Des Jardins
Ankit Singla/Bloomfield Hills/Andover High School/Dennis Kwasny
Prasanna Venugopal/Novi/Novi High School/Hanson/Helmkamp
Steve Zhang #/Troy/Troy High School/Ross Graham

Nominee, 2003, * Nominee, 2002, Runner-up, 2003

? Runner-up, replaced Brock Jackman who was unable to take the National Exam as Nominee.

NCO Detroit Runners-Up (Name/Hometown/High School/Teacher)

Howard Haselhuhn/Brighton/Brighton High School/Rick Des Jardins
Ian Hsu/Troy/Athens High School/Jane Marie Moss
Cassie Jeng/Novi/Novi High School/Hanson/Helmkamp
Andrew Kim/Troy/Troy High School/Ross Graham
Rebecca Kow/Troy/Troy High School/Ross Graham
Felix Liu/Novi/Novi High School/Hanson/Helmkamp
Jennifer Macdonald/Novi/Novi High School/Hanson/Helmkamp
Asish Misra/Flint/Det. Country Day School/Julia Winter
Claire VerHulst/Brighton/Brighton High School/Rick Des Jardins

CSI at EMU

Sponsored by Eastern Michigan University's
Department of Chemistry and Continuing Education
Monday, June 28 through Wednesday, June 30: 30 a.m. to 4:30 p.m.
Summer Workshop in Forensic Chemistry for High School Teachers

Larry Kolopajilo, Assistant Professor, Department of Chemistry, Eastern Michigan University
Dennis Atkins, Teacher, Northwest High School, Jackson, MI

At the completion of this three-day, hands-on workshop, high school teachers will be able to perform laboratory experiments in the following areas:

- * Fingerprinting with ink, iodine and super glue.
- * DNA Fingerprinting with the Polymerase Chain Reaction (PCR).
- * Thin Layer Chromatography of drugs and pigments.
- * Handwriting Analysis with paper chromatography to identify inks.
- * Infrared Spectroscopy to identify common drugs and chemicals.
- * Hair Analysis with a Computer Microscope.
- * Spot tests and UV/V's spectroscopy to identify heavy metals and anions.

The cost is \$500, which includes all classroom instruction, lab materials, meals each day and parking. The cost to attend the three-day workshop and live on campus in the Phelps-Sellers Residence Hall is \$550. 1.8 SB-CEUs (.6 per day) are available for an additional \$20. Registration deadline is Monday, June 7. For more information contact JoAnna DeCamp, joanna.decamp@emich.edu, 800.777.3521

**ANACHEM FELLOW AWARD
HONORING
DR. DAVID RORABACHER, WAYNE STATE UNIVERSITY**

TOPIC: ANACHEM Fellow Award Night
Sinbads On The River
COST: \$25 per person
TIME & DATE: June 7, 2004
Dinner 6:30pm

The Buffet will include four entrees, a salad bar, vegetables, and dessert. A cash bar will also be available. You must reserve. To reserve, call Felix Schneider at 248-583-1578 or email at felixschn@aol. Deadline for reservations and cancellations is June 2, 2004. No shows will be billed.

David Rorabacher is a native of Ypsilanti, MI. and received his B.S. degree in chemistry from the University of Michigan-Ann Arbor in 1957. Following graduation, he spent one and a half years as a research engineer in the Process Development Department at the Ford Motor Co. In January 1959 he entered the chemistry graduate program at Purdue Univ. from which he received a Ph.D. degree in analytical chemistry in 1963. He immediately joined the faculty of the Department of Chemistry at Wayne State for a year before embarking on an NIH post-doctoral fellowship in the laboratory of Nobel Laureate Manfred Eigen at the Max Planck Institute for Physical Chemistry in Goettingen, Germany. There he learned to utilize the relaxation techniques developed by Eigen for studying the kinetics of fast chemical reactions. In the Fall of 1965, he returned to Wayne State where he currently serves as head of the Analytical Chemistry Division, has been a past Associate Dean, and has served on a wide variety of departmental, college and university committees. He has received the Board of Governor's Faculty Recognition Award (1983), the President's Award for Excellence in Teaching (1990) and the Outstanding Graduate Mentor Award (2002).

David has been an active member of Anachem since the 1960's. He has served two 5 year terms as a member and Chairman of the Anachem Award Committee as well as being a multi-time member of symposia program committees and symposia session chairs. He and his students have also contributed many papers to the Symposia.

CALENDAR OF UPCOMING EVENTS

May 4, 2004

The Detroit Society of Coatings Technology (DSCT) is sponsoring the 29th Annual FOCUS Conference on the theme: Racing to a High Performance Finish.
See March Chemist for details.

May 12, 2004

Sanford A. Asher entitled
Adventures In UV Resonance Raman Spectroscopy: Big Photons Yield Lots Of Information.

May 19, 2004

ACS/CIC Annual Joint Awards Banquet with CIC.

June 2 - 4, 2004

2004 Central Regional Meeting

June 28-30, 2004

CSI: at EMU,
Workshop in Forensic Chemistry for High School Teachers.

September 21, 2004
September Section Meeting
Dr. Alexander M. Shedinsky
Amber, Real and Fake
. Details TBA

Oct 17-20, 2004
36th Great Lakes Regional Meeting
Peoria, Illinois.

November 8, 2004
ANACHEM Symposium
Burton Manor in Livonia, MI.
Keynote presentation by Anachem Award recipient for 2003 Dr. Catherine Fenselau.

MAP & DIRECTIONS

MAY SECTION MEETING

The easiest and most direct way to get to the Beach Grove Golf and Country Club is to take the bridge or Tunnel to Canada. From the bridge exit you are traveling south. Turn around and proceed north to the river and turn right onto Riverside Drive. From the tunnel exit turn right then left at the first traffic light to Riverside. Turn right onto Riverside. Follow Riverside east through Windsor along the river and Lake St. Clair through Tecumseh and St. Clair Beach past the Lakewood Country Club to the BG&CC on your left. The Club is about 10 miles from the tunnel. Driving time from the bridge is about 25-30 minutes and 20-25 minutes from the tunnel.

