

VISIT OUR WEB PAGES

<http://www.njacs.org>

<http://www.newyorkacs.org>

<http://www.TheIndicator.org>



Join Us
at the
2005

EASTERN ANALYTICAL SYMPOSIUM

November 14-17, 2005 Somerset, New Jersey

Highlights of the 44th EAS include:

Twenty-four one- and two-day short courses

Sixteen half-day exhibitor workshops

Four student seminars

Sixty-five oral and poster sessions on topics including:

- Pharmaceutical Excipients - Analytical and Regulatory Development
- Emerging Applications in Solid-State NMR Spectroscopy
- PAT in the Pharmaceutical Industry
- High Speed and High Resolution Separations
- Advances in Mass Spectrometry for Disease Biomarkers
- Recent Advances in Spectroscopic Imaging
- Nanotechnology and Emerging Analytical/Bioanalytical Applications
- Homeland Security
- Industrial Microscopy
- High Temperature HPLC: Principles and Applications

Exhibitors displaying the latest in instrumentation, products, and services catering to those in analytical chemistry and the allied sciences

For more information on the 2005 Eastern Analytical Symposium please visit our web site at

www.eas.org

Or contact us by telephone at 610-485-4633

by fax at 610-485-9467

by email at [easinfo@aol.com](mailto: easinfo@aol.com)

Eastern Analytical Symposium
P.O. Box 633
Montchanin, DE 19710-0633



THE INDICATOR

Manager / Editor

MALCOLM STURCHIO

1 Cable Court, Montville, NJ 07045

973-331-5142; Fax 973-331-5143

e-mail: sturchio@optonline.net

Advertising Manager

VINCENT GALE

MBO Services, Inc.

PO Box 1150, Marshfield, MA 02050-1150

781-837-0424; Fax 781-837-8792

e-mail: vincegale@adelphia.net

INDICATOR COMMITTEE

New York Section Rep.

EVELYN SARNOFF

97-37 63rd Road, Rego Park, NY 11374-1624

718-459-3097

North Jersey Section Rep.

DIANE KRONE

Northern Highlands Regional High School

298 Hillside Avenue, Allendale, NJ 07401

e-mail: kroned@optonline.net

Web Master

ED HARRIS — e-mail: harris7@optonline.net

NEW YORK SECTION

<http://newyorkacs.org>

Chair

JAMES W. CANARY

Department of Chemistry, New York University

New York, NY 10003

212-998-8422

e-mail: james.canary@nyu.edu

Chair-Elect

JILL REHMANN

Department of Chemistry, St. Joseph's College

245 Clinton Avenue, Brooklyn, NY 11205

718-636-6823

e-mail: jrehmann@sjcnj.edu

Secretary

CHRISTIAN ROJAS

Dept. of Chemistry, Barnard College

3009 Broadway, New York, NY 10027

212-854-5480

e-mail: crojas@barnard.edu

Section Office

St. John's University, Chemistry Dept.

8000 Utopia Parkway, Jamaica, NY 11439

516-883-7510; Fax 516-883-4003

e-mail: njesper1@optonline.net

NORTH JERSEY SECTION

<http://www.njacs.org>

Chair

JACQUELINE ERICKSON

GSK, 1500 Littleton Road, Parsippany, NJ 07054

973-889-2368

e-mail: jacqueline.a.erickson@gsk.com

Chair-Elect

STEPHEN WALLER

Fairleigh Dickinson University, 285 Madison Ave.,

M-581-01, Madison, NJ 07940

973-443-8783

e-mail: stephen_waller@fd.edu

Secretary

BETTYANN HOWSON

49 Hillside Avenue, Madison, NJ 07940-2612

973-822-2575

e-mail: chemphun@optonline.net

Section Office

4 Cameron Road, Piscataway, NJ 08854

732-463-7271

THE Indicator

CIRCULATION: 8,500

The monthly newsletter of the New York & North Jersey Sections of the American Chemical Society. Published jointly by the two sections.

CONTENTS

Advertisers Index34
Call for Nominations29
Education24-27, 29, 35-36
New York Meetings16-20
North Jersey Meetings8-15
Others22-29
Professional/Product Directory31-33
Puzzle30
Puzzle Solution34

EDITORIAL DEADLINES

October	August 15
November	September 15
December	October 15
January 2005	November 14
February	December 13
March	January 14, 2006
April	February 14
May	March 15
June	April 14
September	July 14

Visit Us
www.TheIndicator.org

POSTMASTER: Send address changes to American Chemical Society, Department of Member and Subscriber Services, THE INDICATOR, P.O. Box 3337, Columbus, OH 43210, or e-mail: service@acs.org. Periodicals postage paid at Montville, NJ and additional mailing offices.

Published monthly except July and August. All views expressed are those of the editor and contributors and do not necessarily represent the official position of the New York and North Jersey Sections of the American Chemical Society unless so stated. Subscription price included in dues paid by New York and North Jersey Section members. Subscription price to non-members of either Section \$20.00 per year. To subscribe, make checks payable to The Indicator and mail to the Manager/Editor (see top of left column on this page).

Address advertising correspondence to Advertising Manager. Other correspondence to the Editor.

September Calendar

NEW YORK SECTION

Thursday, September 8, 2005

Chemical Marketing & Economics Group
See page 16.

Friday, September 16, 2005

High School Teachers Topical Group
See page 16.

Tuesday, September 27, 2005

NY Biochemical Topical Group
See page 17.

Deadline for items to be included in the November 2005 issue of *The Indicator* is September 15, 2005.

NORTH JERSEY SECTION

Thursday, September 8, 2005

Careers in Transition
See page 8.

Thursday, September 8, 2005

Mass Spectrometry Discussion Group,
Annual Vendor Show
See page 9.

Monday, September 12, 2005

Teacher Affiliates Executive Committee
See page 9.

Thursday, September 15, 2005

No. Jersey Group of Small Chemical Businesses
See page 10-11.

Wednesday, September 21, 2005

ChemTAG
See page 11.

Monday, September 26, 2005

Executive Committee & Project SEED
See page 8.

AFTER DINNER REMARKS

by Richard N. Zare

NYS ACS Nichols Medal Recipient, April 1, 2005, Crown Plaza Hotel, White Plains, NY

I am most grateful to so many for this opportunity to be here this evening as a guest of the New York Section of the American Chemical Society and to be your Nichols Medal recipient. I particularly want to express my thanks to my wife of 42 years, Susan Zare, who is with me this evening. She raised a family of three daughters that I am quite proud of — each in their own way finding a challenging road to travel in making a living. My eldest daughter Bethany is a professional French horn player in the Silicon Valley Symphony in San Jose, California. My middle daughter Bonnie is up for tenure this year in the Women's Study Program at the University of Wyoming, bringing to that university a special point of view. And my youngest daughter Rachel is a nurse practitioner with a master's degree in midwifery, who is presently practicing in Seattle, Washington. Susan bore the major responsibility for taking care of the family, as well as taking care of me while I all too easily got carried away pursuing chemical problems with a passion that too often left little room for family needs. While it can be said that my contributions to our family were seminal, I fear that other contributions were less significant. I think I did, however, give to each of my children a love of learning and the joys of the mind.

It is a pleasure to be recognized by your peers for your work. I am very grateful to the Nichols Medal selection committee, whoever they are. I am reminded of a story told me by my colleague and the former chair of my department, Professor John Ross. A colleague I won't identify approached John and complained to him that the colleague's work had not been sufficiently recognized. After about 15 minutes of this, the colleague asked John Ross whether he felt that his own work had been adequately recognized. John Ross said, "Just a moment," and went to the door of his office and locked it. At this point he had the full attention of the colleague. Then John told him, "Yes, my own work has been well recognized, but the trouble is that my colleagues agree with this assessment."

If I may be permitted after a wonderful dinner to speak of serious matters, I want to discuss with you the proposition that — **Science is Just a Matter of Opinion**. This is the proposition that scientific theories are to be decided by reductive beliefs rather than by data and well-supported inductive reasoning. Because science cannot prove anything, it is claimed by some that all views are equally arbitrary and decisions are to be made by appeal to other, higher authority. I think all of us should be troubled by this trend because it devalues science in the minds of the public. Without public support, the scientific enterprise flounders.

The National Science Foundation tracks the public's knowledge of basic scientific facts. The most recent data available from 2001 includes four true or false questions intended to measure understanding of natural history and human origins. Results indicate that 33% of Americans believe that "The universe began with a huge explosion," 79% believe that "The continents on which we live have been moving their location for millions of years and will continue to move in the future," and a bare majority of 53% agree with the statement that: "Human beings as we know them today developed from earlier species of animals." Scores on these items are strongly positively correlated with education, but it is unclear whether these items are actually capturing factual understanding of science, or rather in some cases reflecting the ongoing political contest pitting scientific knowledge against religious beliefs.

Polls are a useful way to gauge what the public is thinking. In a November 2004 Gallup poll, respondents were asked: "Do you think that Charles Darwin's theory of evolution is: A scientific theory that has been well supported by evidence, or just one of many theories and one that has not been well supported by evidence, or don't you know enough to say?" Only 35% of Americans indicated a scientific theory supported by evidence, whereas an equal percent indicated that evolution was just one among many theories, and 29% answered they didn't know. A December 2004 *Newsweek* poll asked its readers, "In general do you favor or oppose teaching creation science *in addition* to evolution in public schools?" Here are the results: 60% favored the idea, 28% opposed, and 12% were undecided.

Yes, I want to mention the E word — evolution — a word that high school science teachers

(continued on page 6)

Your Partner For Analytical Support Services

Rapid Results • Quality • Accuracy • Competitive Pricing



Robertson Microlit Laboratories

- Elemental CHN S, X Analysis - same day service
- Atomic Emission Spectroscopy
- Atomic Absorption Spectroscopy
- FTIR Spectroscopy
- UV / VIS Spectrophotometry
- Mass Spectrometry
- Chromatography
- Bioavailability
- Polarimetry
- Calorimetry
- Titrimetry
- Wet Chemistry
- KF Aquametry

P. O. Box 927 • 29 Samson Avenue • Madison, NJ 07940
Tel: (973) 966-6668 Fax: (973) 966-0136
www.robertson-microlit.com
email: results@robertson-microlit.com

AFTER DINNER REMARKS

(continued from page 5)

increasingly avoid using in their classes for fear of the reaction of parents and the lack of support from school administrators. Chemists might at first consider this matter not their concern. While I believe it is true that modern chemical biology and cell genetics cannot be pursued without an understanding of evolution, you may think that this problem is a special one affecting only the biological sciences. I hope to convince you otherwise.

When it comes to America's creationists, there are two places that they desperately aspire to get into: Heaven, and the nation's public schools. And while it's not possible for me to say how creationists have been faring in their quest for salvation, I can tell you that they are succeeding in gaining control of what is taught in public school systems, and they are making their voices heard on university campuses as well. Part of the reason for this, I believe, is national leadership. Few in high places speak out against the know-nothings at the state and local level but instead offer winks, nods, and occasional direct support.

An October 29th piece in the *New York Times* by Nicholas Kristof reports about President Bush: "Characteristically, he does not believe in evolution — he says the jury is still out — but he does not actively disbelieve in it either; as a friend puts it, 'he doesn't really care about that kind of thing.'" As a matter of policy, Bush told The Associated Press last Nov. 14: "I'd make it a goal to make sure that local folks got to make the decision as to whether or not they said creationism has been a part of our history and whether or not people ought to be exposed to different theories as to how the world was formed."

Another failure is our news media who insist on being "fair and balanced" in their reporting. To them this means giving equal weight to differing points of view. The news media seem unwilling or unable to distinguish between scientific fact and opinion — between observation and philosophy.

America is experiencing a range of irregular weather patterns. There is clear evidence that our polar caps are melting. Long-term data have indicated unambiguously that the world is experiencing a temperature rise. That such extreme weather might just have something to do with climate change is rarely considered, if not dismissed outright, by those in power in Washington. The Bush administration continues to question the science — despite a consensus within the US National Academy of Sciences that human activity is causing climate change. And so the present Administration continues to sanction our present petrochemical culture of excess with the dream of a Hummer in every garage. Sure, President Bush called for a "freedom car" powered by hydrogen, to be driven by any child born today. But, where is the funding for this massive endeavor as well as the exploration of alternative energy sources? Perhaps, it is waiting to be picked up on the Moon or Mars by our astronauts that our President is sending there — by another unfunded mandate. Energy use is a global problem but it seems that so many in other countries are getting more serious than we are about this problem, from developing new energy sources to finding better conservation measures.

Science is playing a diminishing role within public debate. How did this come about? In the 1950's I can remember the promise of the atom and how energy was going to be so plentiful that it would cost next to nothing. I also remember how we were told that various advances in appliances and other gadgets would bring us so much extra leisure time that a 40 hour work week would be a bad memory of the past. To many of the public, science has failed to deliver. Technological advances have not led to the unspoiled paradise that was promised. Yet, what better way do we have than science in approaching the problems of the world?

Chemistry has a wonderful opportunity to play in shaping the society we live in — but it cannot do that successfully if scientific facts cannot be elevated in importance, and it cannot do that successfully if science is allowed to become just a matter of opinion. Ideas do not fight for themselves; they are fought for by people. It is not enough to know the importance of the scientific approach. Being quiet or being vocal is like being intelligent or being smart. We can have an influence. I hope on the issue of whether science is just a matter of opinion is something that we are willing to speak about.

Thank you for giving me this opportunity to address you this evening and get something off my mind.

THIS MONTH IN CHEMICAL HISTORY

By Harold Goldwhite, California State University, Los Angeles, hgoldwh@calstatela.edu

Prepared for SCALACS, the Journal of the Southern California, Orange County, and San Geronio Sections of the American Chemical Society

A few weeks ago, in casual conversation at a party, a regular reader of my column (Professor Harry Gray of the California Institute of Technology) challenged me with a history of science question. Did I know the origin of the term "photon" as used in physics and chemistry? I flunked abysmally! Thanks to the kindness of Professor Gray, who forwarded to me several relevant documents and citations, I am now much better informed on this topic. So I might say that this column is guest written by my generous informant. Of course I take full responsibility for all errors and omissions of fact or interpretation.

The word photon in its present sense was first applied to the quantum of electromagnetic radiant energy by none less than Gilbert N. Lewis, that great contributor to our modern views of electronic structure, acids and bases, thermodynamics, and many other areas, and head of the Chemistry department of the University of California at Berkeley, in a letter to the journal "Nature". The letter appears on pages 874 and 875 of the issue of December 18, 1926 (No. 2981, Vol. 118) and is titled "The Conservation of Photons."

While Max Planck invented the idea of the quantum of radiation as a purely formal device to explain the phenomena of black-body radiation in 1900, and Albert Einstein had applied this idea to explain the photoelectric effect in 1905, thus gaining for it the attention of the scientific community, they had referred to it as a light quantum. By 1926 the supporting evidence for this aspect of quantum theory was so strong that Lewis could write: "Indeed, we now have ample evidence that radiant energy (at least in the case of high frequencies) may be regarded as traveling in discrete units, each of which passes over a definite path in accordance with mechanical laws." The parenthetical proviso reminds us that perhaps the most convincing evidence for quantized radiation up to 1926 came from the observation of the Compton effect by Arthur Compton in 1923, which involved X-radiation.

Lewis went on much further than we would accept today with his views on light quanta.

"Had there not seemed to be insuperable objections, one might have been tempted to adopt the hypothesis that we are dealing here with a new type of atom, an identifiable entity, uncreatable and indestructible, which acts as the carrier of radiant energy and, after absorption, persists as an essential constituent of the absorbing atom until it is sent out again bearing a new amount of energy." So Lewis' view of the light quantum is that it is a new kind of fundamental particle. "I therefore take the liberty of proposing for this hypothetical new atom, which is not light but plays an essential part in every process of radiation, the name photon."

Lewis proposes six fundamental postulates for the properties of photons, of which I will just mention a couple. In any isolated system the number of photons is constant. All photons [like all electrons or all protons HG] are intrinsically identical. He then goes on to suggest that the thermodynamics of radiation (the origin of Planck's invention of quantum theory) and the laws of spectroscopy lend substantial support to this view of the photon. And finally he proposes some new experiments to clarify the proposal: "... a molecular stream might be passed through the centre of a tube cooled to a very low temperature...in such circumstances ... fluorescence or the emission of light from activated atoms, would be profoundly changed."

Although the scientific world did not accept the extended views of Lewis on the nature of photons, the word was rapidly incorporated into scientific vocabulary. But this was a new use of a word apparently first coined (according to the authoritative Oxford English Dictionary) in 1916 by L. T. Troland to describe a unit of illumination of the retina, and it was still being used in this context as late as 1953. In 1921 J. Joly gave yet another meaning to the word. He proposed that the unit light stimulus discharged by a single visual fiber, which represents a very small amount of energy and must not be confused with the quantum of energy, should be called a photon. There are no subsequent citations for this use of the word,

So take care in your reading of early literature when you encounter the word photon. And make sure, when your friends ask you questions you cannot answer, that they help give you the information that will lead you to a fuller understanding.

North Jersey Meetings

<http://www.njacs.org>

EXECUTIVE COMMITTEE AND SECTION MEETING

The North Jersey Section Executive Committee meeting will be in conjunction with the Project SEED Poster Session and Dinner, at Seton Hall University. All ACS members are welcome to attend.

Date: Monday, September 26, 2005

Times: Meeting 4:30 PM

Dinner 6:00 PM

Place: Seton Hall University
400 South Orange Avenue
South Orange, NJ

Cost: Dinner \$20.00

Reservations: For dinner, call 732-463-7271 or email njacsoffice@aol.com prior to Wednesday, September 21, 2005.

Dinner at the North Jersey Meeting is payable at the door; however, if you are not able to attend and did not cancel your reservation, you are responsible for the price of your dinner.

CAREERS IN TRANSITION GROUP

Job Hunting???

Are you aware that the North Jersey Section holds monthly meetings at Fairleigh Dickinson University in Madison to help ACS members? Topics covered at these cost-free workshops are:

- The latest techniques in resume preparation
- Ways for improving a resume
- Answers to frequently asked interview question and
- Conducting an effective job searching.

The next meeting for the Careers In Transition Group will be held **Thursday, September 8, 2005**, in the Rice Lounge on the first floor of the New Academic Building. The meeting will start at 5:30 PM and end at 9:00. There will be a Dutch-treat dinner. To get the most from the meeting, be sure to bring transparencies of your resume.

Please contact vjkuck@yahoo.com, if you plan on attending this meeting.

MASS SPECTROMETRY DISCUSSION GROUP

Annual Vendor Show

~ 300 attendees due to free admission

Hourly Door Prizes

3:00 - 4:00 PM - Vendor Set Up - Hotel Ballroom

4:00 - 8:00 PM - Vendor Show

4:30 - 5:30 PM - Refreshments Provided in the Ballroom

6:00 - 7:00 PM - Dinner Served in the Ballroom

7:00 - 7:30 PM - NJACS-MSDG Announcements - Adjoining Ballroom

7:30 PM - "LTQ Orbitrap: A Revolutionary New High Resolution Accurate Mass Solution"

Dr. Anthony Ziberna

ThermoElectron Corporation
Somerset, NJ

"Research in Proteomics: Exploring Protein-Ligand Interactions and Searching for the Peptide Antigen that Causes Type I Diabetes"

Professor Michael Gross
Washington University
St. Louis, MO

"Towards Comprehensive Proteomic Analysis of Complexes, Organelles and Cells"

Professor John R. Yates
Scripps Research Institute
La Jolla, CA

8:00 - 10:00 PM - Vendor Tear Down

Date: Thursday, September 8, 2005

Times: 3:00 - 10:00 PM

Place: DoubleTree Hotel
Somerset, NJ

Cost: \$750 (payable to NJACS-MSDG)

Facilities: 6' table (electricity where needed).
Limited number, so reserve early!

To reserve tables, complete the information below and email to Ed Kerns, MSDG Treasurer, at edkerns@hotmail.com. For questions, call Ed at 732-274-4520.

Company: _____

Contact Name: _____

Contact email: _____

Contact phone: _____

Number of tables: _____

Need electricity: _____



TEACHER AFFILIATES

Executive Committee Meeting

Date: Monday, September 12, 2005

Time: 4:30 PM

Place: Chatham High School
255 Lafayette Avenue
Chatham, NJ

Contact: Diane Krone at (201) 385-4810 or kroned@optonline.net

STOP WASTING \$\$\$ on vacuum pumps!!

Rebuilding is smart.

A new pump costs **four times** what rebuilding costs.

Rebuilding is easy.

Just call 978 667 2393 for service second-to-none.

Mass-Vac does the job right.

- Factory trained technicians.
- Rebuilt and new pumps in stock.
- No-hassle parts and labor guarantee.
- Complete line of filtration and trap systems.

Because a really old, really healthy vacuum pump is a beautiful thing!



Mass-Vac, Inc.

247 Rangeway Road ■ PO Box 359 ■ North Billerica, MA 01862
978 667 2393 Fax 978 671 0014 sales@massvac.com www.massvac.com

We Focus on Doing Chemistry!



- FDA Inspected
- cGMP Synthesis
- Controlled Substances
- Custom Synthesis
- Small Lots Manufacturing
- Polymer Chemistry
- Process Development

Chemo Dynamics, LP

3 Crossman Road South
Sayreville, New Jersey 08872
Phone: 732-721-4700 • Fax: 732-721-6835
www.chemodynamics.com
E-mail: info@chemodynamics.com
John Arnett, Ph.D., Director of Operations





Dave Lee, Teacher Affiliates Member, demonstrates the excitement of chemistry at MARM 2005.

(photo, courtesy of Tom Krone)



NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

Understanding More about Online Marketing for the Small Chemical Company

Speaker: John Strazza
Director of E-Media
Chemical Week

By understanding more about the online marketing arena you can better tailor the design of your web site and your market plan to peak and meet your audience's interests. Today's topic includes questions like:

- "Should my company market its products online in the current financial environment?"
- "What are the best methods and places to market on the web?"
- "How will buyers find my product?"
- "What about e-commerce, driving traffic to the site and ROI?"

Chemical industry professionals who are asking about marketing online will find John's delivery refreshing and enlightening while enabling them to make educated decisions about E-media marketing, a new ser-

vice being offered to chemical manufacturers and distributors by Chemical Week.

John Strazza, Director of E-Media for the Chemical Business Media Division of Access Intelligence, LLC, has a no-nonsense approach to today's migration to marketing and content delivery on the web. His expertise: developing E-products and methods that market well in this new arena, and aiding companies who are facing the transition from traditional marketing methods to online methods. Being a public speaker for over a decade and having a background in the visual and audio arts, add to John's ability to clearly convey this hot and sometimes confusing topic of marketing online.

Date: Thursday, September 15, 2005
Times: Networking - Open Bar To Kick Off the New Season 5:30 PM
Dinner - Attendee Introductions 6:30 PM
Presentation and Discussion 7:15 PM
Q & A - Networking - Dessert 8:00 PM
Place: Holiday Inn, North Frontage Rd. Newark, NJ
On north side of Newark Airport
Cost: \$55 for members
\$65 for non-members

Advance Registration is Required: Reserve electronically at our web site: <http://NJChemBus.org> or call David Mason, Program Director, at 732 738 3553.

Reserve by: September 12, 2005. Please reserve early.

Cancellation Policy: Please cancel 48 hours before the meeting, or be invoiced.

Checks must be received **by September 12**, or the non-member fee will apply at the door. They are payable to: NJ Group of Small Chemical Businesses, and should be mailed to:

NJ Group of Small Chemical Businesses
P.O. Box 423
Summit, NJ 07902

SAY THANK YOU

when you contact our advertisers. It is their financial support that helps us to provide you with one of the best publications in the American Chemical Society. You could also say thank you to our editor for a job well done.

NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

Presents An Internet Marketing Course for Small Chemical Businesses

"NJGSCB Internet Marketing Starter Course"

Course Description: This 7-hour how-to course is designed for managers and entrepreneurs needing a basic understanding and knowledge of e-communication and Internet marketing. Using the NJGSCB Internet Marketing Starter Kit, the instructor will give you an overview of the process of internet marketing, and how to use your website develop sales leads, and generate sales. Each module in the Starter Kit deals with a specific internet marketing tool including a description of the tool or method, and a hands-on exercise to apply it to a real-life situation. Some of the modules are:

- How to Prepare and Plan for Internet Marketing
- How to Use the Website as a Marketing Vehicle
- How to Improve Performance and Increase Traffic.

Upon successful completion of the course, you will: (1) Have an understanding internet marketing techniques, tactics and strategies; (2) Possess information and tools to enhance and manage successfully the development of Internet traffic; (3) Understand how to set and perform online transactions and interactions such as data gathering, and (4) have a greater ability to manage the design and launch of a web page to promote, publicize and sell your products and services.

Date: Thursday, September 15, 2005

Times: Registration 8:30 AM
Presentation and Discussion 9:00 AM - 5:00 PM

Place: Holiday Inn, North Frontage Rd. Newark, NJ
On north side of Newark Airport

Cost: \$245 for members
\$295 for non-members
Space limited to the first twenty-five (25) registrants.

Advance Registration is Required:

Reserve electronically at our web site: <http://NJChemBus.org> or call David Mason, Program Director, at 732 738 3553

Reserve by: September 1, 2005. Please reserve early.

Cancellation Policy: Please cancel 48 hours before the meeting, or be invoiced.

Checks must be received **by September 12**, or the non-member fee will apply at the door. They are payable to: NJ Group of Small Chemical Businesses, and should be mailed to:

NJ Group of Small Chemical Businesses
P.O. Box 423, Summit, NJ 07902




ChemTAG MEETING

Date: Wednesday, September 21, 2005

Time: 4:00 PM
Place: Mount Saint Mary's
1645 Route 22 West at Terrill Road
Watchung, NJ

Contact: Eve Krupka at
ekrupka@mountsaintmary.org

Directions to high school:
<http://www.mountsaintmary.org/directions.htm>



DESERT ANALYTICS




LABORATORY

- CHNOSP Halogens
- Metals by AA / ICP
- Ion Chromatography
- Trace Analysis
- Coal/Petroleum

≡ Fast, Reliable Service ≡

No Charge for Phone/Fax Results

P.O. Box 41838 245 S. Plumer, #24
Tucson, AZ 85717 Tucson, AZ 85719
Fax 520-623-9218 Phone 520-623-3381
Web: desertanalytics.com
E-mail: thelab@desertanalytics.com

We Accept:   

ANALYSIS FOR THE CHEMICAL ELEMENTS

**NATIONAL CHEMISTRY WEEK
IS COMING SOON**

Do you enjoy generating lots of smiles and hearing an excited youngster ask if they can try that experiment? Why not join the North Jersey Section of the American Chemical Society (ACS) this year in its outreach to the general public? On Saturday, Oct. 22 from 9:30-4:30 (you can divide this into shift work at Fairleigh Dickinson University in Madison, the Section will be celebrating chemistry with the next generation of future scientists. Volunteers are needed to put on hands-on activities geared for 8 to 12 year olds.

The theme for this year is "The Joy of Toys". You are not limited to this topic but it would be appreciated, if many of our activities dealt with this topic. As usual our first priority is safety. Preferably, we would like presenters to use household materials to demonstrate a scientific principle. Hopefully, the students will be able to redo these experiments at home and at school. To help in the representation of the activities, hand-out instructions are very useful.

If you are out of ideas for safe activities for a table, you can look at the NCW page at the ACS website. To minimize duplication of the presentations, we will need to know by October 2 the activity you would like to conduct at your table. Individuals contacting us first with their idea(s) will be given priority, so please let us hear from you as soon as possible. **By October 12**, we need to have the names and addresses of the individuals who will be joining you at your table.

As usual we are looking for financial support to cover the many expenses associated with our activities and would be most grateful, if you would contact the appropriate individuals at your company.

Please fill out the following forms and return them to me:

Form 1. Count me in.

My name is: _____

I am volunteering to work on: _____
Saturday, Oct. 22, 9:30-12:30
 (Underline times) 12-4:00
 or all-day

I can be reached at: _____
 (work phone number)

My complete address is: _____

I am an employee at: _____

The activities at my table will be: _____

In addition to a table, I also need: _____

I will be bringing handouts on activities that the students can do at home. Yes No

I will need more than one table. Yes No
 How many additional tables will you need? _____

Form 2. My company would like to support these efforts.

The following company/individuals are willing to help defray the costs of these events: (Checks should be made out to the North Jersey Section and sent to me.)

An acknowledgement letter for this contribution should be sent to (name and full address):

Form 3. I will be joined at my table by the following volunteers.

Complete Name: _____

Institution: _____

Address (snail mail): _____

Acknowledge letters should be sent to:

Activity: _____

Time Volunteering: _____

Thanks very much for all of your help. The Section is most appreciative of your efforts.

Valerie J. Kuck
 45 Warfield St.
 Upper Montclair, NJ 07043
 vjkuck@yahoo.com



**NATIONAL
CHEMISTRY
WEEK 2005**



Poster Contest: "The Joy of Toys"

As part of the National Chemistry Week 2005 celebration and in recognition of its theme, "The Joy of Toys", the American Chemical Society (ACS) is sponsoring a poster contest for students in Kindergarten - Grade 12.

Students are invited to create a poster that will serve as a public service announcement emphasizing the role of science/chemistry in toys (i.e. toy development, toy production, materials of which toys are made, toy safety through chemistry, toys from different times in history and different cultures, toys that use chemistry to make them work).

Participants should create a poster that has a chemistry/science in toys message for the general public.

Prizes...Prizes...Prizes....Prizes...

First and second place in each of the following grade categories:

- K - 2nd
- 3rd - 4th
- 5th - 8th
- 9th - 12th

Prizes for teachers of winning students

Local Section Prizes for first second and third winners and their teachers in each category.

(continued on page 14)





IMPACT ANALYTICAL:
 MORE THAN A TESTING LAB - YOUR RESEARCH PARTNER

Our specialty: Using the best instruments and our collective years of staff experience to solve real-life, production-halting, career-threatening, boss-panicking problems. Quickly. Affordably. Authoritatively.

1910 W. St. Andrews Rd., Midland, MI 48640
 Phone: 989-832-5555 Fax: 989-832-5560
 info@impactanalytical.com www.impactanalytical.com



BRING ON THE TOUGH PROBLEMS.

Rudolph DigiPol-781, the new Automatic Polarimeter

Small in size, Big on performance



Contact for demo:
Rudolph Instruments, Inc.
 Fairfield, NJ 07004-2113
Call TOLL FREE: 1-888-4RUDOLPH
 Tel: 973 227 0139 Fax: 973 227 4576
 e-mail: rudinst@aol.com
 web: www.rudolphinst.com

Little Giant!

NATIONAL CHEMISTRY WEEK 2005

(continued from page 13)

EDUCATORS:

Find important information about this contest—connections to chemistry and alignment to the National Science Education Standards at chemistry.org/ncw.

For more information contact Jeannette Brown Jebrown@infionline.net
www.njacs.org/ncw

Posters to be submitted by December 1 to: North Jersey ACS NCW Poster Contest
4 Cameron Rd. Piscataway, NJ 08854

National Chemistry Week Poster Contest

ACS local sections are encouraged to participate in the NCW poster contest by inviting Kindergarten – Grade 12 students within their geographic area to compete in the contest.

Contest Rules:

- All entries must be original works without aid from others.
- Posters must be no larger than 14 x 22 inches in size.
- Entries on foam board will not be accepted.
- Entries must be drawn using crayons, paint, colored pencils or markers.
- Only one entry per student will be accepted.
- All entries must have the following information included on the back of the poster: name of local section, student's name, grade, name of school, school address, teacher's name, and school telephone number teacher's email

address (optional).

- Entries lacking complete and legible information will be disqualified.
- Posters must be submitted by December 1, 2005.
- ACS is not responsible for lost, damaged, or delayed postal shipments.
- All posters become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names and entries for editorial, advertising and publicity purposes.

Judging:

Participant entries will be evaluated on how well the message in the poster promotes the chemistry found in toys.

Four criteria will be used to determine the top entry for each age group:

- Artistic merit** (use of color, poster design and layout)
- Poster Message** (related to chemistry's role in the science of toys).
Note: To be competitive on the national level, poster content must correlate with the National Science Education Standards. For detailed information—see online guide at chemistry.org/ncw.
- Originality** (unique, clever and/or creative design)
- Neatness** (free of spelling and grammatical errors and/or stray marks)

The North Jersey Section will identify and submit one winning poster in each of the four (4) grade categories to the ACS Office of Community Activities in Washington, DC. All posters will be dis-

played during the 231st ACS National Meeting in Atlanta, GA, March 26 – 30, 2006. First and second place winners will be selected for each grade category during this meeting. Winners will be notified by April 14, 2006.

National Chemistry Week is a program of the American Chemical Society

Membership Division - Office of Community Activities, 1155 Sixteenth Street, NW, Washington, DC 20036 • 800-227-5558, ext. 6097 • ncw@acs



ORGANIC CHEMISTRY TOPICAL GROUP

Fall Symposium — Successful Drug Discoveries: Case Studies and Reflections

"Discovery of Sitagliptin (MK-0431): A Potent Orally Active Dipeptidyl Peptidase IV Inhibitor for the Treatment of Type 2 Diabetes"

Dooseop Kim
Merck & Co., Inc.

"Himbacine-based Thrombin Receptor (PAR-1) Antagonists as Novel Antithrombotic Agents"

Samuel Chackalamanni
Schering-Plough Research Institute

"Adventures in the Discovery and Development of a Novel CDK Inhibitor"

Allen J. Lovey
Hoffmann-La Roche Inc.

"A Nucleoside Analog Program - the Discovery of Entecavir"

Robert Zahler
Bristol-Myers Squibb Co.
"Screening diverse chemical libraries is the worst way to discover a drug"
Chris Lipinski
Pfizer (Adjunct)

Date: Friday October 21, 2005
Times: Continental Breakfast 8:00 AM Meeting 9 AM to 12 noon and 1:30 PM to 4 PM
Buffet lunch will be served
Place: The Embassy Suites Hotel
121 Centennial Ave.
Piscataway, NJ

For directions, information and further details please visit our website:

www.njacs.org/organic.html

Due to limited seating, registration and payment are required by October 13th. Registration, continental breakfast and lunch

Regular:\$75
Students or Post-docs:\$30

Name _____

Affiliation _____

Address _____

E-mail _____

To register:
Send above registration information with a check made payable to "North Jersey Section ACS" to:

Dr. Jianshe Kong
Schering-Plough Research Institute
2015 Galloping Hill Rd.
Mail Drop K-15-2-2800
Kenilworth NJ 07033
E-mail: jianshe.kong@spcorp.com



CHEM ESSENTIALS

Are you A NEW Chemistry Teacher? A Teacher NEW to Chemistry? A Chemistry Teacher Who Is Looking for Something NEW?

Then CHEM ESSENTIALS Is for YOU!

Friday evening workshops will include content, activities, labs, and alternate assessment centered around a different topic each quarter.

The 2005-06 Workshops include:

Periodic Table (November 11)

Reactions (February 10)

Equilibrium Kinetics (April 21).

Place: Somerville High School
Cost: \$20 for NJACS-TA members;
\$30 for non-members

Professional Development Certificates

Contact Patti Duncan at
PDuncan@hpregonal.org or

Go to <http://www.njacs.org/teacher.html> for more details and a registration form.



DuPont Analytical Solutions

From rapid, routine testing to complex problem-solving. One of the world's largest, and most diverse analytical laboratories, with the experience to solve your analytical challenges in:

Electronic Materials • Personal Care • Catalysis • Coatings, Pigments, and Adhesives
Specialty Chemicals • Films and Packaging • Pharmaceuticals • Plastics • Fibers • Textiles

DuPont Analytical Solutions
P.O. Box 80302
Wilmington, DE 19880-0302
Phone: (302) 695-1018

e-mail: DASolutions@usa.dupont.com
web: <http://analyticalsolutions.dupont.com>
FAX: (302) 695-1717



Contact us for all your analytical needs.

New York Meetings

www.newyorkacs.org

CHEMICAL MARKETING & ECONOMICS GROUP (CM&E)

Worldwide LNG (Liquefied Natural Gas) Outlook

Speaker: either

Mark Bye
Group Vice President for
Industrial Gases

or

David Taylor
Vice President for Energy
Services, Air Products and
Chemicals, Inc.
Allentown, PA

Date: Thursday, September 8, 2005

Times: Cocktails 11:30 AM
Luncheon 12 noon
Presentation 1:15 PM

Place: The Chemists' Club
40 West 45th Street
New York City

Fees: \$40 discount price for Members
who reserve by Tuesday,
September 6th (12 noon).
\$55 for Guests and Members
(at the door without
reservations)

To reserve: Please reserve early to be eligible for discount price. Call Vista Marketing at (718) 961-8958, or via e-mail to: cmegroup@yahoo.com. To pay online by credit card (via PayPal), go to the CM&E Website: <http://www.nyacs-cme.org/>

HIGH SCHOOL TEACHERS TOPICAL GROUP

Nanoscale Science and Technology for the HS Classroom

Speaker: Dr. Monica Plisch
Center for Nanoscale Systems
Cornell University

Date: Friday, September 16, 2005

Times: Social and Dinner — 5:45 PM

Place: Social and Dinner —
No reservations required
Caffe Pane e Cioccolato
10 Waverly Place at Mercer Street
(south-west corner)
New York, NY

(You eat, you pay cash only,
no credit cards.)

Times: Meeting — 7:15 PM

Place: New York University
Silver Center Room 207
32 Waverly Place (south-east
corner Washington Sq. East)
New York, NY

Security at NYU requires that you show a picture ID to enter the building.

In case of unexpected severe weather, call John Roeder, 212-497-6500, between 9 AM and 2 PM to verify that meeting is still on; 914-961-8882 for other info.

Note: Street parking is free after 6:00 PM. For those who prefer indoor attended parking, it is available at the Melro/Romar Garages. The entrance is on the west side of Broadway just south of 8th Street, directly across from Astor Place. It is a short, easy walk from the garage to the restaurant or meeting room.

NY-ACS BIOCHEMICAL TOPICAL GROUP — JOINT MEETING WITH THE NYAS BIOCHEMICAL PHARMACOLOGY DISCUSSION GROUP

Drug Discovery Approaches for Regenerative Medicine: Translation of Developmental Biology into Therapeutics

Organizer: John E. Hambor
Pfizer Global Research and
Development, Groton, CT

A major advance in understanding how organisms maintain and repair themselves has been the realization that under conditions of trauma and disease, the adult animal will selectively re-activate key developmental pathways to heal and regenerate tissue. In fact, it appears that certain developmental pathways (specifically the Hedgehog, Wnt, TGF/BMP, FGF, and Notch pathways) are constitutively active in adults as part of normal tissue turnover, and are subsequently upregulated when trauma occurs. An understanding of these developmental signaling pathways that the adult animal uses to promote repair and regeneration has recently lead to the first attempts to use this information to find ways of modulating and controlling those signals to promote therapeutic benefit. This symposium will offer a state-of-the-art perspective on drug discovery prospects for therapeutic approaches of regenerative medicine with a focus on the challenges that lie ahead.

“Chemical and Functional Genomic Approaches Toward Regenerative Medicine”

Sheng Ding
Scripps Research Institute
La Jolla, CA

“The Hedgehog Pathway: From the Embryonic Development to the Clinic”

Lee L. Rubin
Curis Inc.
Cambridge, MA

“Therapeutic Neurogenesis”

Lilian Wikstrom
NeuroNova AB
Stockholm, Sweden

“Initiating Limb Regeneration: What Can We Learn From the Newt?”
Craig M. Crews

Yale University
New Haven, CT

“A Novel, Oral Small Molecule Thrombopoietin Receptor Agonist”

Connie L. Erickson-Miller
GlaxoSmithKline Research and
Development,
Collegeville, PA

Date: Tuesday, September 27, 2005

Time: 1:00 – 5:00 PM

Place: New York Academy of Sciences
2 East 63rd Street
New York, New York

Space is limited. To reserve a seat, go to the calendar at www.nyas.org/bpdg

and fill out the online reservation form, e-mail BPDG@nyas.org or call 212/838.0230 x322.

NYAS Members and BPDG Affiliates may attend BPDG meetings free of charge. Non-members may attend for a fee of \$20 per event. To become a Member of the Academy, visit <http://www.nyas.org/landing.html>

GATEWAY CHEMICAL TECHNOLOGY

chemistry to meet your needs

CUSTOM SYNTHESIS

- Pharmaceuticals
- Agrichemicals
- Combinatorial Platforms
- Competitor's Products
- Intermediates
- Analytical Standards
- Metabolites

PROCESS DEVELOPMENT

- Process Evaluation
- New Route Development

SPECTROSCOPIC SERVICES

- LCMS (APCI and API-ES)
- NMR (300 MHz)
- GCMS (EI)

11810 Borman Dr • Saint Louis, Missouri 63146
314.220.2691 (office) • 314.991.2834 (fax)
www.gatewaychemical.com • rjkaufman@aol.com

POLYMER PROBLEMS?

- Complete Polymer Deformation
- Good vs Bad Comparison
- DSC, TGA, IR, UV-Vis, GC, HPLC, NMR
- GPC/SEC Molecular Weights and MWD
- Additive Package Analysis

JORDI



4 Mill Street, Bellingham, MA 02019
(508) 966-1301

Associates, Inc.
HPLC Specialists

Department of Chemistry, Stony Brook University Presents:

Stony Brook Symposium on New Horizons in Organic Chemistry

September 29-30, 2005
Charles B. Wang Center

Celebrating the Achievements of

Dr. Iwao Ojima

*Distinguished Professor of Chemistry
Director, the Institute of Chemical Biology & Drug Discovery*

On the Occasion of His 60th Birthday

Opening Lecture:

Dr. Ryoji Noyori (President, RIKEN, Japan)
Nobel Laureate in Chemistry, 2001

Distinguished Speakers:

Gunda Georg (University of Kansas)
Alain Commerçon (Aventis-Sanofi, France)
David Kingston (Virginia Polytechnic)
Ezio Bombardelli (Indena SpA, Italy)
Ralph J. Bernacki (Roswell Park Memorial Institute)
Giovanni Appendino (Univ. Piemonte Orientale, Italy)
Eiichi Negishi (Purdue University)
Masahiro Murakami (Kyoto University, Japan)
Hisashi Yamamoto (University of Chicago)
Michael P. Doyle (University of Maryland)

Gary Molander (University of Pennsylvania)
Eiichi Nakamura (University of Tokyo, Japan)
Koji Nakanishi (Columbia University)
Peter J. Tonge (Stony Brook University)
Thomas W. Bell (University of Nevada)
Scott M. Sieburth (Temple University)
Nicole S. Sampson (Stony Brook University)
Steven Rokita (University of Maryland)
Cynthia J. Burrows (University of Utah)
Glenn D. Prestwich (University of Utah)

To contact us, please e-mail us at pmarinaccio@notes.cc.sunysb.edu, call (631) 632-7890 or fax (631) 632-7942.
For more information, please click our website link on <http://www.sunysb.edu/chemistry> or
<http://ojima10.chem.sunysb.edu/~ojimaweb/homepage/symp/symp.html>.

Symposium Sponsors:

Central Glass Co., Ltd., Crystal Brook M.J., Ajinomoto Co., Inc., Great Lakes Chemical Corp.,
Mitsubishi Chemical Group, AMGEN, Cytokinetics, Inc., INDENA, Sp.A., Merck Research Laboratories,
OSI Pharmaceuticals, Yuki Gosei Kogyo Co., Ltd., Abbott Bioresearch Center, AstraZeneca R&D Boston,
Chisso America, Inc., Epix Pharmaceuticals, Givaudan Flavors Corporation, Hoffmann-La Roche,
Pfizer Global Research and Development, Schering-Plough Research Institute, Wyeth Pharmaceuticals



NEW YORK SECTION'S 2005 ELECTION RESULTS

The results of the New York Section's Spring 2005 elections were announced at the June Board of Directors Meeting. Thank you to all of the members who ran for office. Your efforts as candidates are greatly appreciated. Thank you, also, to all the New York ACS members who voted.

The results are as follows:

Chair-elect for 2006

Mrs. Joan A. Laredo-Liddell
Marymount College

Treasurer for 2006 and 2007

Dr. Stephen Z. Goldberg
Adelphi University

Directors at Large for 2006

Dr. Pamela Brown
NYC College of Technology

Dr. Rolande R. Hodel
AIDSfreeAFRICA, Inc.

Dr. Kalle Levon
Polytechnic University

Councilors for 2006-2008

Dr. Donald D. Clarke
Fordham University

Dr. Neil D. Jespersen
St. John's University

Mrs. Joan A. Laredo-Liddell
Marymount College

Councilor 2006

Dr. David N. Rahni
Pace University - Pleasantville

Alternate Councilors for 2006-2008

Dr. Stephen Z. Goldberg
Adelphi University

Dr. Barbara R. Hillery
Old Westbury College - SUNY

Dr. Robert P. Nolan
International Environmental Research

Alternate Councilor 2006

Dr. Terry L. Brack
Hofstra University

Congratulations!

BROOKLYN SUBSECTION — JOINT PROJECT WITH THE CHEMICAL EDUCATION COMMITTEE

High School Poster Session XI

The eleventh annual High School Poster Session sponsored by the Chemical Education Committee and the Brooklyn Subsection will take place on Saturday, October 29, 2005 at St. Joseph's College, Brooklyn, New York. Participants are invited to arrive from 9:00 am and judging will take place from 10:00 am until noon.

Dr. Christian M. Rojas of the Department of Chemistry at Barnard College will be the Guest Speaker for this year's audience.

All are welcome to attend.

Date: Saturday, October 29, 2005
Times: 9:00 AM - 12:00 Noon
Place: St. Joseph's College
245 Clinton Avenue
Brooklyn, NY

Additional information can be obtained at (718-636-7243) or on line at mmaier8082@aol.com.

PROTECT Your Expensive Lab Work With Research and Development Record Books

STOCK RECORD BOOKS

B50D -- Fifty pages and fifty duplicates. 1/4 inch sqs. on right pages.

B100P-- 100 pages, 1/4 inch sqs. on right pages, 100 pages, 10 sqs. per inch on left pages

B200P -- 208 pages with 1/4 inch sqs. on right and left pages.

B200PH-208 horizontally lined right and left pages.

Books have instruction and TOCs. Page size 11 x 8 1/2. Hard extension brown cloth covers. Pages open flat.

\$14.50 each, F.O.B. Chicago
CUSTOM MADE BOOKS TO ORDER
SCIENTIFIC BINDERY PRODUCTIONS, INC
2612-18 W. Nelson, Chicago, IL 60618
Phone: 773-267-1129
Fax: 773-267-1218
www.scientificbindery88yrs.com

WESTCHESTER CHEMICAL SOCIETY



Westchester Chemical Society's 2005 Distinguished Scientist Award is presented to Dr. Gary Williams of the New York Medical College by Jean Delfiner and Joan Laredo-Liddell, co-chairs of WCS. Dr. John Weisburger (left) nominated Dr. Williams.



At the Distinguished Scientist Award and Dinner, College Chemistry Achievement Certificates are presented. The Awardees and their Student Affiliate Moderators pose for a picture.

The Salute to Excellence Award is presented to Dr. Joseph A. Skrivanek of SUNY-Purchase for coordinating the College Awards for the past 15 years. Each student receives a Certificate and a CD-ROM of the "Encyclopedia of Science and Technology." Thank you and congratulations, Dr. Skrivanek!



From Process Design... To The Bottom Line



November 1-3, 2005
Javits Convention Center, New York City

Find the Latest Equipment,
Technology and Services to
Optimize Every Process Application

- Over 600 Exhibitors
- Educational Conference produced by Chemical Engineering
- Networking Events

For FREE Registration and Up-to-date Show Information:
www.chemshow.com

Serving the CPI for 90 Years

INTERNATIONAL EXPOSITION CO. Phone: (203) 221-9232 Fax: (203) 221-9260 E-mail: info@chemshow.com

Endorsing Associations:



ASSOCIATION OF CONSULTING CHEMISTS & CHEMICAL ENGINEERS

Making Money Overseas

Speaker: Elliott Weinberg
Cross Gates Consultants

Developing countries are trying to build their chemical industries. In some countries, multinational chemical companies put in facilities. However, many smaller companies try to exist. They need help in selected technologies. The help can range from turnkey plants to specific technology transfer to problem solving. At times, there may be a need for market information. Cultural differences require special attention when arriving at contractual arrangements. The consulting opportunities are many and the need for considered ethical practice is obvious.

Elliott is a world recognized authority on the stabilization and degradation of polymers

especially polyvinyl chloride. He has been involved in many aspects of overseas consulting with special attention to Asia and India. He is a fellow of American Association for the Advancement of Science, American Institute of Chemists, and Society of Plastics Engineers. In addition to consulting work, he serves as editor for two newsletters and as associate editor for the *Journal of Vinyl and Additive Technology*.

Date: Tuesday, September 27, 2005

Times: Networking/Cash Bar 6:00 PM
Dinner 6:30 PM

Presentation 7:30 PM
Place: Snuffy's Restaurant
Park & Mtn Ave (Route 22 East)
Scotch Plains, NJ

Registration: \$40 ACC&CE Members,
\$50 Non-members

To Reserve: Call Linda B. Townsend at
1-973-729-6671 or e-mail:

accce@chemconsult.org. Advanced registration is required. Cancellations must be made 24 hrs in advance or be invoiced. Please visit our web site for more details: www.chemconsult.org.



micron inc.
ANALYTICAL SERVICES

MATERIALS CHARACTERIZATION

MORPHOLOGY CHEMISTRY STRUCTURE

SEM/EDXA, TEM/SAED, EPA/WDXA
XRD, XRF, ESCA, AUGER, FTIR
DSC/TGA

3815 LANCASTER PIKE WILMINGTON DE. 19805
Voice 302-998-1184, Fax 302-998-1836

E-Mail micronanalytical@compuserve.com

WEB PAGE : www.micronanalytical.com



ACPA & CACS SYMPOSIUM

Mass Spectrometry in Biomedical Research and Drug Discovery

Program at Glance

8:30 AM	On-site Registration, Social Hour, Vendor Setup	
8:55 PM	Welcome Remarks	Y. Hsieh, J. Chen, Program Chair
9:00 AM	Bioanalytical Challenges in the Use of Deuterium and Oxygen-18 Labeled Compounds in Drug Metabolism Studies	Bogdan Matuszewski, Merck
9:30 AM	Successful Strategies for Discovery ADME-PK Studies	Walter Korfmacher, Schering-Plough
10:00 AM	New Developments on the QSTAR XL LC/MS/MS System for Metabolomics and MALDI Imaging	Julie Wingate, Applied Biosystem
10:20 AM	Break and Visit Exhibitors	
11:10 AM	Maximizing the Power of LC-Tandem Mass Spectrometry: UPLC-Quattro Premier Applications in DMPK	Kate Yu, Waters
11:30 AM	Target Organ Penetration by LC/MS/MS Analysis	Yongdong Zhu, Quest Pharmaceuticals
11:50 AM	Lunch	
1:00 PM	LC-MS/MS in the Drug Discovery and Development Process	Timothy Olah, Bristol-Myers Squibb
1:30 PM	ADME Concerns Addressed with LC-MS	Cornelis E.C.A. Hop, Pfizer
2:00 PM	Simultaneous Quantitation of Parent Compounds and Screening of Metabolites in Biological Samples Using QTrap	Wilson Shou, Covance
2:20 PM	Break and Visit Exhibitors	
2:50 PM	New TSQ Quantum; Products and Developments	Rohan Thakur, Thermo Electron
3:10 PM	Quantitation Aspects for LC-MS/MS on State-of-the-art API Instruments	Yong-Xi Li, XenoBiotic Laboratories, Inc.

Date: Friday, September 30, 2005

Times: 8:30 AM - 3:30 PM

Place: Clarion Hotel & Towers
Edison, New Jersey

Cost: Free

Pre-registration strongly suggested through website: www.tristatecacs.org.

Contact: Jerry Pappas at 732-698-2778, Beth Miller at 800-252-4752 x4926, Jiwen Chen at 908-740-4931 and Guodong Chen at 908-740-3859.

LABORATORY ROBOTICS INTEREST GROUP

Announces Winners of Student Poster Competition

As a new feature for the group's annual technology exposition and vendor show, the Mid-Atlantic Chapter of the Laboratory Robotics Interest Group has sponsored a student poster contest. The contest was held on May 17, 2005 and attracted posters from a variety of fields including astronomy, biofilms, environmental chemistry, muscle control, and plant biology.

First place went to Mipha Koh of Montclair State University. Her poster, Inhibition of Xylella Fastidiosa Biofilm Formation via Metal Chelators, was under the direction of Dr. Jeff Toney.

Second place went to Nancy Price of the Richard Stockton College of New Jersey for her poster, The Role of Calcium Oxalate Crystals as a Defense Against Predation in Common House Plants. Nancy's advisor was Dr. Kathy Sedia.

Third prize was shared by James Becker and Victor Geraldo of Montclair State University. Their poster, Expression and Purification of Acetoacetyl CoA Thiolase from Sunflower Cotyledon, was done under the direction of Dr. Jim Dyer.

Special mention must go to Anne Marie Petrock of the New Jersey Institute of Technology. Her poster on eye muscle control and visual stimulation attracted the interest of automation controls specialists who were at the meeting. Anne Marie was kept busy all night answering the many questions about this topic.

The Laboratory Robotics Interest Group is interested in sponsoring another poster contest next year. Thanks to all who participated and to members of the chapter executive board who served as the judges.



Real University. Real Degrees. Real Faculty. All Online.

Online Master's in Bioinformatics

Online Graduate Courses in Applied Chemistry

Classes Start
September 1st

Learn more about ePoly at our
2005 Graduate Information Sessions

Brooklyn Campus

Wednesday, August 17
6 MetroTech Center
Brooklyn, New York 11201

Long Island Campus

Thursday, August 18
105 Maxess Road
Melville, New York 11747



1-800-POLYTECH • epoly.poly.edu

STUDY CHEMISTRY IN WESTCHESTER

AT POLYTECHNIC UNIVERSITY'S GRADUATE CENTER

Polytechnic University offers a comprehensive master's degree in Chemistry at our Westchester Graduate Center. Qualified individuals may register for Fall 2005 courses immediately and later apply for formal matriculation.



UPCOMING CHEMISTRY GRADUATE COURSE OFFERINGS

Fall 2005

CM703 - Quantum Chemistry
CM750 - Biomembranes

Spring 2006

Organic Chemistry
Biochemistry

For course information:

teraoka@poly.edu

For enrollment information:

(914) 323-2000
laverne@west.poly.edu



WESTCHESTER GRADUATE CENTER

40 Saw Mill River Road Hawthorne, NY 10532

914-323-2000 • www.poly.edu/west

PRESIDENTIAL GREEN CHEMISTRY AWARD GOES TO MERCK

WASHINGTON, June 20 - A significantly greener, less wasteful process to manufacture a drug that reduces nausea in cancer patients is one of six achievements selected for this year's Presidential Green Chemistry Awards.

Richard D. Tillyer, senior vice president of worldwide preclinical development at Merck & Co., Inc. - representing the research team that developed the process - will accept the award at ceremonies this evening at the National Academy of Sciences. Merck is headquartered in Whitehouse Station, N.J.

The research will be presented tomorrow during a week-long international conference on green chemistry, co-sponsored by the Green Chemistry Institute of the American Chemical Society, the world's largest scientific society.

ACS also convenes the independent panel of technical experts who judge the award applications.

Merck commercialized its drug Emend® in 2003 to relieve nausea and vomiting, common side effects of chemotherapy and other cancer treatments.

At the same time, the pharmaceutical giant introduced a new method to make the drug's active ingredient, aprepitant, that reduces process waste by more than 80 percent.

"We used the first-generation process in clinical trials, but it involved hazardous materials such as cyanide and dimethyltitanocene. It also involved cryogenics - very low temperatures - and had very significant waste issues.

It actually could have been scaled up, but lots of aspects didn't make it green-efficient," said R.P. "Skip" Volante, Merck's vice president of process research.

The second-generation process requires half the number of steps, doubles the overall yield and eliminates the energy-intensive cryogenics, as well as several toxic reagents and their occupational hazards. Overall, Merck has cut more than 340,000 liters of waste per 1,000 kilograms of product, according to Volante.

"Aprepitant is an extremely complex molecule, and a real challenge to make," said Volante. Its structure contains three chiral centers - arrangements of atoms that can exist as mirror images, like left and right hands. With three chiral centers, eight different configurations of the molecule are possible. Though otherwise identical, each can

(continued on page 26)

PRESIDENTIAL GREEN CHEMISTRY AWARD

(continued from page 25)

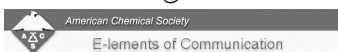
exert very different effects in the body.

The first-generation process assembled a prepartant piece by piece, and only then introduced its critical handedness to end up with the correct molecular configuration. In contrast, the new synthesis pares down both steps and extraneous materials in the process: it uses one chiral center to make another, and stitches together four readily prepared fragments into the final product, said Volante.

The notion of green chemistry - that industries need no longer choose between being environmentally benign or cost-competitive - has stepped from the blackboard into the factory in the last decade, thanks much to partnerships and incentives such as the Presidential Green Chemistry Awards.

The awards recognize innovative developments and applications of cleaner, cheaper, smarter chemistry that industry either has or

can implement to reduce pollution. The Environmental Protection Agency, which administers the awards, opens the competition to academia, small businesses and industry.



June 21, 2005
Volume 4, Number 6

The discovery of streptomycin, the first effective pharmaceutical cure for tuberculosis, was designated a National Historic Chemical Landmark in a ceremony at Rutgers University in New Brunswick, N.J., on May 24. Unlike penicillin, streptomycin was isolated as a result of a screening program devised by Selman Waksman for sampling soil microbes. ACS President Bill Carroll presented the bronze commemorative plaque to the school. For more on the discovery of streptomycin, please click here. For more on National Historic Chemical Landmarks, please visit the program's Web site.

Education



1 8 5 6

Department of Chemistry and Biochemistry

Fall 2005 - Graduate Courses, leading to the MS and PhD degrees

September 7 - December 10, 2005

Registration: September 6, 2005 10 am - 12 pm and 3 pm - 6 pm

All courses are open to students interested in pursuing degrees or in continuing education.

Course Number	Title	Day	Time
CHEM 6203 NA	Electrochemical Methods	Thurs.	7:00-10:00 PM
CHEM 6301 NA	Theoretical Organic Chemistry 1	Tues.	7:00-10:00 PM
CHEM 6403 NA	Quantum Chemistry	Wed.	6:00-9:00 PM
CHEM 6501 NA	General Biochemistry 1	Sat.	10:00 AM-1:00 PM
CHEM 6601 NA	Advanced Inorganic Chemistry 1	Mon./Wed.	7:10-8:25 PM

For more information, please visit the Department of Chemistry and Biochemistry website at <http://artsci.shu.edu/chemistry/>, or call us at 973-761-9414, or email chemistry@shu.edu.

NEW JERSEY INSTITUTE OF TECHNOLOGY - DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE

Seminar Series - Fall 2005

Wednesday, September 14, 2005

"Flexible Docking in Enzyme Active Sites"

Dr. Shashidhar Rao

Schrodinger, Inc.; New York, NY

Tuesday, September 20, 2005

"Sustainable Consumption: Retrospect and Prospect"

Dr. Maurie Cohen

New Jersey Institute of Technology

Tuesday, September 27, 2005

"Ionic Liquids: Neoteric Materials for Organic Reactions"

Dr. Sanjay Malhotra

New Jersey Institute of Technology

Times: 11:30 AM - 1:00 PM

Place: Tiernan 373

NJIT

Seminar Series Coordinator: Dr. Zeyuan Qiu, 973-596-5357, qiu@njit.edu



NJIT — OTTO H. YORK DEPARTMENT OF CHEMICAL ENGINEERING

Graduate Seminar Series — Fall 2005

Monday, September 19

"A Practical Guide for Chemical Engineers in the Industrial World"

Mr. Michael Kerlin and Mr. Joseph Quinlan

ConocoPhillips Company

Linden, NJ

Monday, September 26

"Development and Production of Crystalline Active Pharmaceutical Ingredients with Desired Physical Properties"

Dr. Boris Gordonov

Sanofi-Aventis Corporation

Bridgewater, NJ

Monday, October 10

"Finding Chemical Engineering Information with NJIT Library Databases"

Mr. Bruce Slutsky

Van Houten Library

New Jersey Institute of Technology

Newark, NJ

Monday, October 17

"Applying Molecular Engineering in Chemical Engineering"

Professor Phillip Westmoreland

Chemical Engineering Department

University of Massachusetts

Amherst, MA

(continued on page 28)

Education

RETIRED MEDICINAL CHEMISTS RISE at DREW UNIVERSITY

Invites you to join us as a Research Fellow of the Charles A. Dana Research Institute for Scientists Emeriti

We are a group of scientists who have retired from industry and are now giving something back. As we continue our own research interests, we mentor bright young Drew undergraduate science students doing research, often writing honors theses and co-authoring published papers.

You can also participate in administering ResMed, a world-renowned one-week course in medicinal chemistry, directed toward organic chemists entering pharma drug discovery programs.

Look us up at: www.depts.drew.edu/RISE/index.html
Then come see us. Please call Dr. Ashley Carter: 973-408-3687

**NJIT — OTTO H. YORK
DEPARTMENT OF CHEMICAL
ENGINEERING**

(continued from page 27)

Monday, October 31

"Inductive Teaching Strategies for Engineering Courses"
Professor Stephanie Farrell
Chemical Engineering Department
Rowan University
Glassboro, NJ

Monday, November 14

"How Efficient Can The Internal Combustion Engine Be? Fuel, Thermodynamic, and Kinetic Considerations"
Dr. John Farrell
ExxonMobil Research and Engineering Company
Annandale, NJ

Monday, November 28

"Process Improvement Engineering: How to Teach an Old Process New Tricks"
Dr. Michael Warholc
Infinium USA L.P.
Linden, NJ

Monday, December 5

"Experimental Flow Tube and Computational Study on Unimolecular Hydrogen Fluoride Elimination from 1,1,1,3,3,3-Hexafluoropropane and 1,1,1,3,3-Pentafluorobutane"
Professor Edward Ritter
Chemical Engineering Department
Villanova University
Villanova, PA

Times: Refreshments 2:30 PM

Seminars 2:45 PM

Place: Room 3710, NJIT Guttenberg
Information Technologies Center

Seminar Coordinator: Professor R. Barat
(973) 596-5605, barat@njit.edu

SEMINAR SERIES SPONSORS

Bradley Pharmaceuticals Inc. –
ConocoPhillips Bayway Refinery –
Engelhard Corporation

Infinium USA LP, Merck Research
Laboratories, National Starch and
Chemical Foundation, Inc.

**U.S. CHEMISTRY OLYMPIAD
TEAM AND ALTERNATES
SELECTED**



Michael Tinnese

The four high school chemistry students and two alternates who will represent the U.S. at the International Chemistry Olympiad were selected at the conclusion of the two-week training camp, sponsored by the American Chemical Society, the world's largest scientific society, at the U.S. Air Force Academy in Colorado on June 19. The 37th annual international competition will be held in Taipei, Taiwan, July 16-25. The students will participate along with more than 240 students from some 60 other countries in the event.

The four team members and alternates are:

Allen Cheng, Arcadia, CA., Nicholas Sofroniew, Los Angeles, CA., both of the ACS Southern California Local Section; Scott Rabin, Miami, FL., ACS South Florida Local Section, and Jacob Sanders, River Edge, NJ, ACS North Jersey Local Section. Andrew Freddo, first alternate, of Colts Neck, NJ, ACS Monmouth County Local Section and Michael Blaisse, second alternate, of Harrisburg, PA, ACS Southeastern Pennsylvania Local Section.

The U.S. students will be accompanied by two mentors—chemistry professors Nadine Szczepanski of MacMurray College, IL., and Roxie Allen of St. John's School, Houston, TX.

More than 10,000 high school students nationwide take local exams hoping to win a place on the Olympiad team. From those exams, twenty students are selected to participate at a June study camp, held at the Air Force Academy. The students receive college-level training, with an emphasis on organic chemistry, through a series of lectures, problem-solving exercises, lab work and testing. The final team members and alternates are chosen from those attending the camp.

The International Chemistry Olympiad originated with Czechoslovakia, Poland and Hungary in 1968. Other eastern European countries soon joined the event, while countries from Western Europe began participating in 1974. The first U.S. team competed in 1984, winning one silver and two bronze medals.

The ACS has sponsored the American team annually since the United States first started participating. Principal funding is through the Society's Othmer Olympiad Endowment, with additional support from the U.S. Air Force Academy; IBM Research; Merck Publishing Group; Texas Instruments, Inc.; Flinn Scientific; W.H. Freeman & Company; McGraw-Hill Companies, Inc.; Advanced Chemistry Development; Thomson, Brooks/Cole; Fisher Scientific; Pearson Prentice Hall; and John Wiley & Sons, Inc.

This article first appeared on June 27, 2005.

Call for Nominations

PAUL RYLANDER AND MURRAY RANEY AWARDS

The Organic Reactions Catalysis Society (ORCS) requests nominations for the Paul Rylander Award and the Murray Raney Award. The awards will be presented at the biennial ORCS meeting, April 2-6, 2006 in Orlando, Florida.

The Rylander Award is sponsored by the

Society, and will be presented to an individual who has made significant contributions to the use of catalysis in organic reactions. It is given annually, and consists of \$1000, a plaque, and travel expenses. The awardee is expected to address the 20th Conference and to publish the address in the proceedings of ORCS.

The Raney Award is sponsored by W.R. Grace & Co. It is presented to an individual who has made significant technical contributions to chemistry and the chemical industry via catalyst technology based on that originally developed by Murray Raney. This award is given every other year, and consists of \$1000, a plaque, and travel expenses. The awardee is expected to present an address at the 20th Conference and to publish the address in the ORCS proceedings.

Nominations should include: 1) a detailed description and critical evaluation of the candidate's achievements in the relevant areas of catalysis, 2) a current bibliography or c.v. and 3) supporting letters of nomination. The deadline for nominations is September 15, 2005.

Please send all nominations to Dr. Stephen R. Schmidt, W. R. Grace & Co., 7500 Grace Drive, Columbia, MD 21044, steve.r.schmidt@grace.com. For additional information and a list of previous award winners, please see <http://www.orcs.org>.

Education

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS
NEWARK

Graduate Chemistry Courses Fall 2005

515 *Chemical Structure Determination*
Drs. Roger Lalancette & Hugh Thompson
Mon 6:00–8:50 pm, 240 Smith Hall

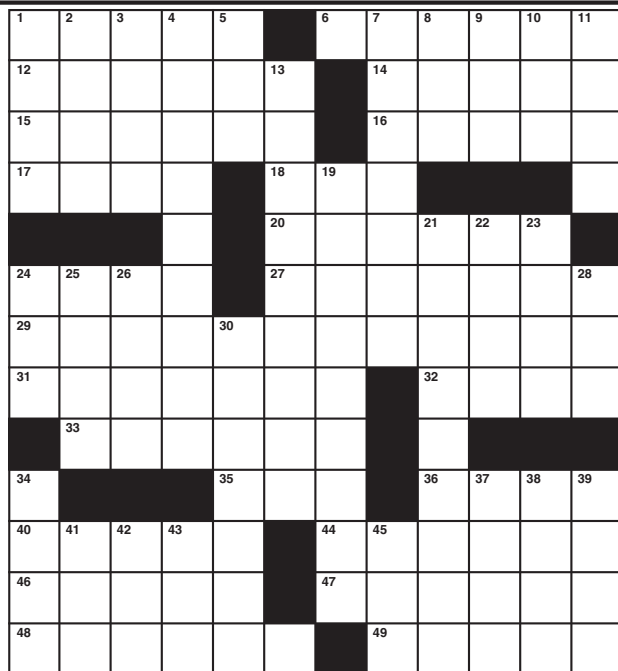
581 *Biochemistry*
Dr. Charalampos Kalodimos
Tue 6:00–8:50 pm, 240 Smith Hall

514 *Polymer Chemistry*
Frieder Jaekle
Wed 6:00–8:50 pm, 240 Smith Hall

To learn about non-degree, or full-time and part-time graduate programs, go to <http://chemistry.rutgers.edu>, or call the graduate secretary at 973-353-5173, or send email to gradchem@newark.rutgers.edu

Classes will be held on Newark Campus of Rutgers.
The Fall 2005 term begins on Thursday September 1

Puzzle



ACROSS

1. Lack conviction
6. "I paid at the _____"
12. Once a year
14. Mammary organ
15. A Karamazov
16. Stone worker
17. Badger's habitat
18. It's in stable and station
20. Absolute ruler
24. Persian poet
27. Person with refined taste
29. #1 Industrial chemical
31. Famous ocean liner
32. Gambit
33. Connects to optic nerve
35. _____ Aviv
36. Ages
40. Immature insect
44. Nabokov pre-teen
46. Beef on the hoof
47. Sodium light color
48. Rudimentary stage
49. Soothers

DOWN

1. My old man and yours
2. "Next time it's _____"
3. Single entity
4. Milk component
5. Organic gunk
7. Isomeric with maleic
8. Pure food agency
9. What kids need to buy drinks
10. Top man in industry
11. Sea eagle
13. Eponymous Mouthwash
19. As usual
21. Voices unaccompanied
22. Part of 38 down (abbrev.)
23. Andrews Sisters, e.g.
24. _____ rich
25. Conservationist
26. Old (Ger. fem.)
28. It's in comedy and tragedy
30. One authority for all powers
34. Other
37. Rivulet
38. Basic matter
39. Wood shop tools
41. Cash machine
42. Johnny _____ (Civil War)
43. In vino _____ itas
45. 10 down reversed

Solution on page 34.

Professional/Product Directory

NMR SERVICE & ANALYSIS

1H, 19F, 15N-31P FDA, DEA REGISTERED



INEXPENSIVE **GLP COMPLIANCE**
RELIABLE **24-48 hr turnaround**

NUMARE SPECTRALAB INC
3551 Winding Road, Kintnersville PA, 18930-9543
Phone: 610-346-8660
www.eclipse.net/~numare/
email: numare@eclipse.net

Polymer Problems?

Complete Polymer Deformation
Good vs. Bad Comparison
Expert Witness

Testing Services

DSC, TGA, IR, UV-Vis, GC, HPLC, NMR,
Light Scattering, GPC/SEC, MW, MWD, Viscometry,
Mass Spec.

RUSH SERVICE!

(508) 966-1301

jordiflp@aol.com
Associates, FLP



SCHWARZKOPE

Microanalytical Laboratory

Elemental & Trace Analysis
Organics, Inorganics
Organometallics
Metals by AA & Graphic Furnace
Functional Grps. - Mol. Wt.
Calorimetry
Total S. F. Halogens TOX
Concog Testing Custom Analysis
56-19 37th Ave. Woodside, N.Y. 11377
(718) 429-6248
Schwarzkopfmicro@aol.com

MATERIAL CHARACTERIZATION LABORATORY

A Unique Combination of State-of-the-Art Analytical Instrumentation & Expertise

**GC/MS • HPLC • LC/MS • FTIR • TOC • AA
ICP-MS • XRD • XRF • AFM • SEM • TEM**

York Center for Environmental Engineering & Science
www.ycees.njit.edu/labs

138 Warren Street
Newark, NJ 07102
Tel: (973) 596-5858
Fax: (973) 642-7170



Chemical Analysis Services

- Materials ID / Deformation
- Competitive Product Analysis
- Defects/Failure Analysis
- Polymer Analysis & Testing



CHEMIR
Analytical Services



(800) 659-7659 chemir.com

Atlantic Analytical Laboratory

The Global Gas Testing Experts

...with expertise in GC, GC-MS, MS and FTIR

...and 2 generations (41 years) of seamless leadership in:

- Gas Purity Certification and Impurity Identification
- Beverage grade Carbon Dioxide (CO₂) testing
- Pharmaceutical, biotechnology and medical grade testing - USP/NF
- Product/packaging headspace testing
- RGA of Semiconductor IC's via MII-Spec -- to 1µL total sample size
- Fuel gases, hydrogen, oils, lubricants
- Air quality, landfill and stack gases

Getting the right sample, and testing it in a timely manner, is everything!
For further information, please contact us at telephone (908) 534-5600
or email at info@AtlanticAnalytical.com.

Conveniently located in Central New Jersey!

Professional/Product Directory

Case Consulting Laboratories, Inc.

Chemistry - Materials

- GLP Compliant Analysis • R & D
- Testing & Evaluation • Claims Validation

622 Route Ten
Whippany, NJ 07981
973-428-9666

www.case-labs.com info@case-labs.com

CHIRAL SEPARATIONS

LC and GC Columns



Methods Development
Processing

Advanced Separation Technologies Inc.
37 Leslie Ct, PO Box 297, Whippany, NJ 07981
973.428.9080 Fax 973.428.0152

PRODUCT FORMULATION • PROCESS DEVELOPMENT

Natural & Synthetic Rubber Processing
Hydrophilic Resins & Coatings
Custom Formulation & Manufacturing

GOLDSTEIN ASSOCIATES - CONSULTING CHEMISTS
P.O. Box 88 Adelphia NJ 07710
(732) 780-7171 FAX (732) 462-3644

email: goldstein@monmouth.com
http://www.monmouth.com/~goldstein

Elemental Analysis

CHNOS ash
ICP • AA • ICP/MS
TOC • TOX • BTU
Problem Solving

HUFFMAN

LABORATORIES, INC.

Quality Analytical Services Since 1936

Phone: (303) 278-4455

FAX: (303) 278-7012

chemistry@huffmanlabs.com

www.huffmanlabs.com



Custom Synthesis of Chemicals

FTE & Bulk Production in Shanghai, China
On-time Delivery, Quality & Competitive Price

TYGER Scientific Inc.

324 Stokes Ave., Ewing, NJ 08638
Phone: 888-329-8990; Email sales@tygersci.com

NMR ANALYSIS

270 - 360 - 400 MHz • 1D/2D
Liquids/Solids • GLP/GMP Compliance

SPECTRAL DATA SERVICES, INC.

818 Pioneer • Champaign, IL 61820

(217) 352-7084 • FAX (217) 352-9748

http://www.sdsnmr.com sdsnmr@sdsnmr.com

NMRService 500MHz

*Mass

*Elemental Analysis

NuMega Resonance Labs

Tel: (858) 793-6057

Poly(Chem-Tech)

Consulting in the Material, Consumer Product and
Healthcare Sectors. Specializing in New Technology,
Dental Products and Polymer Applications

Daniel Kruh, Ph.D. 8 Braddock
President East Brunswick NJ 08816
Voice/Fax: 732-238-3182 Email: DanKruh@aol.com

NetChem

www.netchem.com sales@netchem.com

Process R&D, Chiral
Amines, Unnatural Amino
Acids & Custom Chemicals

100 Jersey Ave, Suite A211, New Brunswick
NJ, 08901 Tel: 732-846-8111 Fax: 732-846-5655

Primera

Fast and Accurate Chemical Analysis
LC/MS/MS, chiral separations, GC, HPLC, CE
dissolution, post column derivitizations,
semi-prep purification, customer synthesis
1 Deer Park Dr. Monmouth Jet., NJ 08852
732-355-9111, info@primera-corp.com

Professional/Product Directory

GALBRAITH LABORATORIES, INC. 55 years 1950-2005

- Elemental Analysis
- Organics Analysis
- Trace Analysis
- Physical Testing
- Method Development
- Method Validation
- USP, JP, BP, EP Testing
- GLP/cGMP

1.877.449.8797 | www.galbraith.com

ISSI Laboratories, Inc.

Voice: (732) 246-3930; Fax: (732) 247-4977

Email: <issi@pipeline.com>

Chromatography (HPLC, TLC, GC);
GC-MS and LC-MS; Isolation, Purification
And Identification of Unknown Substances;
Stability-Indicating Tests. GLP-Compliant.

WANT MORE ARTICLES

When you tell our advertisers that you saw their ads here they have more confidence in our newsletter's viability as an advertising medium. They advertise more. This supports our many activities.

VACUUM PUMP PROBLEMS?

Eastern Scientific specializes in the repair and precision rebuilding of all makes of mechanical vacuum pumps.

Eastern Scientific

easternsci@aol.com 781-826-3456



Structure Composition Stability
Pharmaceuticals Food
Cosmetics Packaging
Materials Failure Analysis
Identification of Unknowns
Product Liability and Forensic Science

Microbiology, GC/MS, microFTIR, HPLC, SEM/EDS, DSC

Metuchen Analytical, Inc. (800) 8484-LAB
101 Liberty Street
Metuchen, NJ 08840 FAX (732) 321-5203

www.libralabs.com

Career Opportunities

RECRUITING ?

The Indicator readership is New York/New Jersey's largest single source for chemical and bio-chemical personnel.

The Indicator reaches more than 12,000 readers each month. These professionals are active in the following types of businesses:

MANUFACTURING	73%
ACADEME	21%
INDEPENDENT LABS	7%
INDEPENDENT CONS	6%
GOVERNMENT	3%

One recruiter said — We received more qualified resumes than from our newspaper ad.

Contact Customer Service at:

781-837-0424

Email vincegale@adelphia.net

Contribute to The Indicator

The Indicator is interested in adding new features to the publication. Your input would be appreciated. Please let us know which type of feature you would like to see in future issues; i.e., book reviews, member news, short articles about your research or other ideas. Would you be willing to assist in gathering or writing such material?

Contact the Editor at:
sturchio@optonline.net
Phone: (973) 331-5142
Fax: (973) 331-5143

Puzzle Solution

1	D	2	O	3	U	4	B	5	T	6	O	7	F	8	F	9	I	10	C	11	E
12	A	13	N	14	N	15	U	16	A	17	L	18	U	19	D	20	D	21	E	22	R
15	D	16	M	17	I	18	T	19	R	20	I	21	M	22	A	23	S	24	O	25	N
17	S	18	E	19	T	20	T	21	S	22	T	23	A	24	E	25		26		27	
24					E				T		Y		R		A		N		T		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
24	O	25	M	26	A	27	R	28	E	29	P	30	I	31	C	32	U	33	R	34	E
29	S	30	U	31	L	32	F	33	U	34	R	35	I	36	C	37	A	38	C	39	I
31	T	32	I	33	T	34	A	35	N	36	I	37	C	38	P	39	L	40	O	41	Y
33	R	34	E	35	T	36	I	37	N	38	A	39	P	40							
34	E	35		36	T	37	E	38	L	39		40	E	41	R	42	A	43	S	44	
40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
40	L	41	A	42	R	43	V	44	A	45		46	L	47	O	48	L	49	I	50	T
46	S	47	T	48	E	49	E	50	R	51		52	Y	53	E	54	L	55	L	56	W
48	E	49	M	50	B	51	R	52	Y	53	O	54		55	C	56	A	57	L	58	M

Ad Index

ANALYTICAL

Astec	.32
Atlantic Analytical Laboratory, Inc.	.31
Case Consulting Labs., Inc.	.32
Chemir Analytical Services	.31
Chemo Dynamics, L.P.	.9
Desert Analytics Laboratory	.11
DuPont Analytical Solutions	.14
Eastern Analytical Symposium	.2
Eastern Scientific Co.	.33
Galbraith Laboratories	.33
Gateway Chemical Technology	.17
Goldstein Associates	.32
Guthertz Group, LLC; The	.21
Huffman Laboratories, Inc.	.32
Impact Analytical, Div. of m.M.I.	.12
ISSI Laboratories, Inc.	.33
Jordi FLP	.16
Jordi FLP	.31
Metuchen Analytical, Inc.	.33
Micron Inc.	.22
NetChem, Inc.	.32
New Jersey Institute of Technology	.31
Numare Spectralab Inc.	.31
NuMega Resonance Labs.	.32
Poly(Chem-Tech)	.32

Primera Analytical Solutions Corp.	.32
Robertson Microlit Labs	.4
Schwarzkopf Microanalytical	.31
Spectral Data Services	.32
Tyger Scientific Inc.	.32

EDUCATION

Drew University	.27
New York University	.36
Polytechnic University, Chem./Sci. Dept.	.24
Polytechnic University, Chem./Sci. Dept.	.25
Rutgers University, Newark	.29
Seton Hall University	.26
Stevens Institute of Technology	.35

EQUIPMENT

Mass Vac, Inc.	.8
Rudolph Instruments	.13

GENERAL

ACS-NY/NoJ Sections	.10
ACS-NY/NoJ Sections	.33
Scientific Bindery	.19

RECRUITING

ACS-NY/NoJ Sections	.33
---------------------	-----

Education

STEVENS

Institute of Technology

Chemistry and Chemical Biology Department
Hoboken, NJ 07030

FALL SEMESTER EVENING GRADUATE COURSES
Classes 6:15-8:45 PM • Semester Begins August 29, 2005

Special Courses

MODERN MASS SPECTROMETRY — Ch 666 (Thurs.)

Hands-on course from fundamentals through biological and biochemical applications; EI, CI, FAB, MALDI, ESI, TOF, FTMS, etc. included.
Prereq. — UG Organic and Physical Chemistry. Prof. Attygalle

POLYMER FUNCTIONALITY — Ch 674 (Tues.)

Synthetic polymers, biopolymers, and polymer applications in biotechnology; tissue/cell engineering, biosensors, and drug delivery, etc. No prior polymer expertise required. Prof. Liang

EXPERIMENTAL MICROBIOLOGY — Ch 678 (Wed.)

Methods in quantitative microbiology; growth kinetics and optimization; genetic methods; human infection microorganisms; industrial technologies.
Prereq. — Cell Biology and/or Biochemistry. Prof. Panikov

And Also:

Instrumental Analysis Laboratory — Ch 561 (Wed.)
Physiology — Ch 583 (Thurs.)
Advanced Organic Chemistry I — Ch 640 (Mon.)
Chemistry of Natural Products — Ch 646 (Thurs.)
Spectra & Structure Determination — Ch 650 (Tues.)
Computer Methods in Chemistry — Ch 664 (Fri.)
Biochemistry II — Ch 681 (Mon.)
Molecular Genetics — Ch 687 (Tues.)

For Application: Graduate School (201) 216-5234
For Information: Department (201) 216-5528

Education



NEW YORK UNIVERSITY DEPARTMENT OF CHEMISTRY FALL 2005 COLLOQUIUM SERIES

- September 16** **Pete Dedon**, Massachusetts Institute of Technology
Host: Geacintov *Chemical Insights into Endogenous DNA Damage Caused by Inflammation and Purine Metabolism*
- September 23** **Vern Schramm**, Albert Einstein College of Medicine
Host: Chang *Enzymatic transition states; Cancer, Malaria and Quorum Sensing*
- September 30** **Al Meyers**, Colorado State University
Host: Canary *Chiral Oxazolines-Their Legacy in Asymmetric C-C Bond Forming Reactions*
- October 14** **Steven Boxer**, Stanford University
H: Kirshenbaum *Patterned Bilayers and Tethered Vesicles: Soft Nanoscience*
- October 21** **F.D. Lewis**, Northwestern University
Host: Schuster *DNA Photonics*
- October 28** **James T. Stivers**, Johns Hopkins School of Medicine
Host: Schelvis *The Expanding Universe: New Chemical Approaches to Target Uracil Metabolism and Disease*
- November 4** **Matt Augustine**, University of California at Davis
Host: Jerschow *TBA*
- November 11** **Ivan Huc**, Institut Europeen de Chemie et Biologie (IECB)
Host: Arora *Folding, Dynamics and Assembly of Biomimetic Helical Nanoarchitectures*
- November 18** **Hans Schelvis**, New York University
Host: Geacintov *New Insights From Spectroscopy Into the Mechanisms of DNA Repair by Photolyase and Antibiotic Resistance in M. tuberculosis*
- December 2** **Alanna Schepartz**, Yale University
Host: Arora *Natural and Nonnatural Miniature Proteins*
- December 9** **George D. Rose**, Johns Hopkins University
H: Kallenbach *Reassessing the Protein Folding Reaction, U \leftrightarrow N*

Seminars will be held on Fridays at 3:30 p.m. in room 1003 Silver Center.
31 Washington Place, between Greene Street and Washington Square East.
Reception to follow.

100 Washington Square East, New York, NY 10003-6688 (212) 998-8400