

JACQUELINE A. ERICKSON
2005 CHAIR
ACS NORTH JERSEY SECTION

STEVENS

Institute of Technology

Chemistry and Chemical Biology Department
Hoboken, NJ 07030

SPRING SEMESTER EVENING GRADUATE COURSES Classes 6:15-8:45 PM • Semester Begins January 18, 2005

MEDICINAL CHEMISTRY — Ch 685 (Mon.)

Modern aspects of drug discovery, enzyme inhibition and receptor antagonism; pharmacokinetics; structure activity relationship; recent case studies.

Prereq. — Organic Chemistry

Prof. A.K. Ganguly, formerly Sr. V.P., Schering-Plough

GREEN CHEMISTRY FOR SYNTHESIS — Ch 740 (Tues.)

Unconventional energy efficient technology, redesigning traditional reactions and well established large scale procedures, microwave techniques, solvent free reactions, water-based reaction media, etc. Prof. A. Bose

PRINCIPLES OF PROTEOMICS — Ch 781 (Thurs.) *New*

Bioanalytical methods used to study expression, interaction, modification and function of proteins; microarray technologies and their applications.

Prereq. — Biochemistry, Modern Biology Prof. N. Kumbaraci

Also offered:

Advanced Physical Chemistry — Ch 520 (Mon.)

Advanced Inorganic Chemistry — Ch 610 (Fri.)

Advanced Organic Chemistry II — CH 641 (Tues.)

Advanced Instrumental Analysis — Ch 660 (Weds.)

Thermodynamics & Kinetics — Ch 620 (Tues.)

Macromolecules in Modern Technology — Ch 672 (Thurs.)

Biochemistry I — Ch 580 (Weds.)

Biophysical Chemistry — Ch 582 (Thurs.)

Computational Biology — Ch 668 (Mon.)

Immunology — Ch 686 (Tues.)

For Application: Graduate School (201) 216-5234

For Information: Department (201) 216-5528

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-SB1-01, Madison, NJ 07940
973-443-8783

e-mail: stephen_waller@fdi.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 Index	.....26
Call for Nominations	.....18
Career Opportunities	.....26
Education	.....2, 19, 21, 28
New York Meetings	.....13-15
New York Section-Wide Conference	.....14
Nichols Medal Symposium	.....16
North Jersey Chair's Message	.....5
North Jersey Meetings	.....6-11
Others	.....18-22
Professional/Product Directory	.....23-26

EDITORIAL DEADLINES

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



Come Visit

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.

January Calendar

NEW YORK SECTION

Friday, January 7, 2005

High School Teachers Topical Group
See page 13.

Thursday, January 13, 2005

Chemical Marketing & Economics Group
See page 13.

Saturday, January 22, 2005

NY Section-Wide Conference
See page 14.

Tuesday, January 25, 2005

Biochemical Topical Group
See page 15.

NORTH JERSEY SECTION

Thursday, January 6, 2005

Careers in Transition
See page 6.

Monday, January 10, 2005

Teacher Affiliates Executive Committee
See page 6.

Tuesday, January 11, 2005

Chem Central
See page 6.

Wednesday, January 12, 2005

NoJ Chromatography Group
See page 7.

Tuesday, January 18, 2005

ChemTAG
See page 7.

Thursday, January 20, 2005

NJ Group of Small Chemical Businesses
See page 7.

Saturday, January 22, 2005

Teacher Affiliates - A.P. Chem
See page 8.

Monday, January 24, 2005

NoJ Executive Committee
See page 6.

Monday, January 31, 2005

Mass Spectrometry Discussion Group
See page 8.

Deadline for items to be
included in the
March 2005 issue of
The Indicator
is January 14, 2005.

NORTH JERSEY SECTION CHAIR'S MESSAGE

I would like to extend my greetings to all the members of the North Jersey Section of the ACS. I am honored to have this opportunity to serve you as chair of the largest local section of the ACS, with almost 7000 members.

The year ahead is going to be an exciting one for the section, as we are sponsoring the Middle Atlantic Regional Meeting "Chemistry at the Crossroads of Science" at Rutgers University, which will be held May 22-25, 2005. This meeting will be a highlight of our section's events this year, and is sure to be a success. MARM will feature world class technical programming and symposia tailored to the interests of the Mid Atlantic Region. There will be posters, vendor exhibits, career programs, and special events during the meeting. Also, one day will be devoted to Science Education and Careers, and will feature programming for students, parents and teachers. In addition, some of our committees such as the MetroWomen Chemists Committee and the Younger Chemists Committee will have programming and special events. I hope that many of you will attend or participate in this regional meeting.

In addition to MARM, our many topical groups and committees, including the Mass Spectrometry Discussion Group, the Chromatography Group, the Organic Topical Group, Teacher Affiliates, Younger Chemists, etc. will continue their programming throughout the year. Our Careers In Transition Committee will continue their monthly meetings, in order to help our members with their career needs. We will also continue our public outreach activities such as Project SEED, National Chemistry Week, and the Chemistry Olympiad.

Without the many dedicated volunteers who commit their time and energy, these activities would not occur, and I would like to thank all those who volunteer during the year. However, we need more member support and volunteers for these activities, and I would like to encourage you all to get involved in the section. In addition, as the needs of our members change, along with the changes in local industries, we will need to plan new activities and programs. I hope that you will send me your ideas and suggestions for the section.

I look forward to leading the section in 2005. I wish you all a Happy New Year and best wishes for 2005.

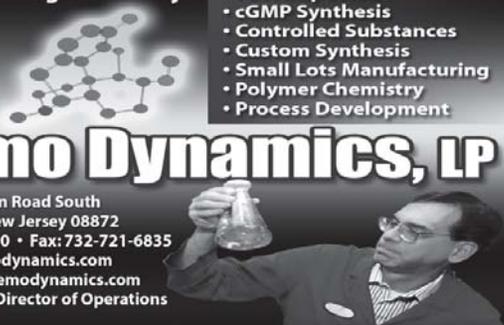
Jacqueline Erickson
2005 Chair, North Jersey Section ACS

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



BIOTECHNOLOGY

PULVERIZING & BLENDING

PRESSING & PELLETIZING

FUSION

XRF ACCESSORIES

Make Your Sample Preparation Problems Disappear.

SPEX CertiPrep has provided spectroscopists with durable, reliable and economical sample preparation equipment for 50 years. Products available include: Grinders, Mills, Presses, Dies, XRF Accessories, Fusion/Flux Equipment and Cryogenic Grinders.

1-800-522-7739
203 Norcross Avenue, Metuchen, NJ, USA 08840
Phone 732-549-7144 • Fax 732-603-9647
http://www.spexcsp.com
sampleprep@spexcsp.com

SPEX CertiPrep



North Jersey Meetings

<http://www.njacs.org>

EXECUTIVE COMMITTEE AND SECTION MEETING

All ACS members are welcome to attend.

Date: Monday, January 24, 2005

Time: 5:30 PM

Place: Fairleigh Dickinson University
Rice Lounge, New Academic Bldg.
Madison, NJ

Cost: Dinner \$10.00 (Pizza and Soda)

For reservations, call (732) 463-7271 or email jppenna@aol.com and state your wish to make reservations for the ACS Dinner before Wednesday, January 19, 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, January 6, 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.

TEACHER AFFILIATES

Executive Committee Meeting

Date: Monday, January 10, 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



CHEM CENTRAL MEETING

Date: Tuesday, January 11, 2005

Time: 4:00 PM

Place: West Windsor/ Plainsboro South High School
346 Clarksville Road
Princeton Junction, NJ

Contact: Karen Shannon at karen.shannon@WW-P.org

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)

(1810 Borman Dr • Saint Louis, Missouri 63146
314.320.2691 (office) • 314.992.2834 (fax)
www.gatewaychemical.com • rjkaufman@aol.com



NORTH JERSEY CHROMATOGRAPHY GROUP

Retention Mechanisms in Reversed-Phase Chromatography: Utilization and Control of Secondary Interactions

Speaker: David Bell
Pennsylvania State University
and Supleco

The majority of high-performance liquid chromatographic (HPLC) analyses are performed using octadecylsilane (C18) stationary phases. When C18 phases do not provide the retention or selectivity required for a given analysis, the analyst may choose to use an alternative stationary phase chemistry. Although there has been much research aimed at fundamental understanding of retention mechanisms on alkyl phases, less is known about stationary phases with polar functional groups. To best select and utilize the various stationary phase chemistries available, it is paramount to understand the molecular interactions that impart retention and selectivity differences. In recent years, polar-embedded and fluorinated stationary phases have become popular alternatives to C18 packings. The polar columns, however, are commonly employed without a firm understanding of interactions that contribute to retention and selectivity.

Date: Wednesday, January 12, 2005

Times: Dinner: 6:30 PM

Seminar: 7:30 PM

Place: Somerset Marriott

Cost: \$30.00 for Dinner
(\$15.00 for Students).

To register online, go to www.njacs.org/chroma.html. Open seating for those not attending dinner.



ChemTAG MEETING

Date: Tuesday, January 18, 2005

Time: 4:00 PM

Place: Watchung Hills High School
108 Stirling Road
Warren, NJ 07059

Contact: Vicky Hubner at vhubinger@whrhs.org

THE NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

Emergency Preparedness at a Chemical Manufacturing Site – Steps toward Process Safety for the Small Chemical Company

Speaker: Mike Yarnell
OSHA Compliance Assistant
Avenel Area Office
Member, OSHA Chemical
Specialized Response Team

There is vast amount of information resident at the OSHA area office that can help a manufacturer, in particular a small chemical manufacturer, take steps to protect employees and facility from a chemical disaster. Here is your chance to get a valuable overview of protective and preventive practices you can implement now, and pitfalls to avoid, to help guarantee continued operation in case of an emergency. The presentation will include an overview of the Incident Command System as well as information on OSHA's role in case of emergency.

The presentation nicely complements the presentation at our September meeting by Greg Thompson, Amerada Hess, on how a manufacturer of chemical products can develop a basic security plan for the vulnerable areas of a facility, and what resources are available to management for implementation. It also takes up where Kris Hoffman, the local OSHA Compliance Officer for our region, left off last January with his excellent profile of the technical and compliance resources available electronically from OSHA.

In addition to being trained to Process Safety Management, Level 1, Mike Yarnell is a member of the 10 person Chemical Specialized Response Team, set up under Homeland Security, which functions as the nationwide response to chemical disasters and terrorist attacks. As a Compliance Officer, his function is to provide manufacturers, and other business owners, the benefit of extensive technical expertise and field investigation experience by implementing outreach programs for the business community. He has many years' experience in Industrial Hygiene, including being a Regional Industrial Hygienist, which makes the organizational assistance and development of partnerships and alliances with industry that he implements all the more valuable.

(continued on page 8)

THE NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

(continued from page 7)

Date: Thursday, January 20, 2005
Times: Networking - Cash Bar 5:30 PM
 Dinner - Attendee Introductions 6:30 PM
 Presentation 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: \$45 for members of NJGSCB
 \$55 for non-members
 In advance or at the door.

For map and directions, see www.NJChemBus.org

All Reservations must be in advance either at Web Site: www.NJChemBus.org or call Rhoda Kriesel at 973-509-3290.

Reserve by January 17, 2005. Please reserve early. Cancel 48 hours in advance or be invoiced.

Payment: Make your check payable to, and mail payment to: NJ Group of Small Chemical Businesses, P.O. Box 423, Summit, NJ 07902.



TEACHER AFFILIATES

The Teacher Affiliates of the North Jersey Section, Inc. of the American Chemical Society will be presenting a full day workshop specifically geared to give teachers the tools they need to teach AP Chemistry.

The workshop will focus upon the following aspects of teaching AP Chemistry:

- + AP Textbooks, resources and websites for teaching AP Chemistry
- + Advice from an A.P. Chemistry Grader
- + Scheduling of Content
- + Chemical Reactions
- + Equilibrium Problems and Hands-on Equilibrium Activities
- + Hands-on Lab Experiments and the Required Lab Exam Question

Date: Saturday, January 22, 2005
Times: 8:00 AM - 2:30 PM
Place: Chatham High School
 255 Lafayette Avenue
 Chatham, NJ

To register for this event or for more information, contact: Brenda Rosenau, Somerville High School, 222 Davenport Street, Somerville, NJ 08876, (908) 218-4108, email: bkrosenau@aol.com



MASS SPECTROMETRY DISCUSSION GROUP

Symposium: "Accurate Mass Measurement of Natural Products, Peptides, Proteins and Biomarkers"

Sponsored by: Bruker Daltonics Inc.

Program

Combining the Versatility and Power of FTMS for the Investigation of Complex Biomolecular Problems

Speaker: Dr. Paul Spei
 Bruker Daltonics Inc.
 Billerica, MA

Accurate Mass Measurement: Taking Full Analytical Advantage of Nature's Isotopic Complexity

Speaker: Professor Alan G. Marshall
 Center for Interdisciplinary Magnetic Resonance
 National High Magnetic Field Lab
 Tallahassee, FL
 Department of Chemistry
 Florida State University
 Tallahassee, FL

Application of FTICR-MS to Natural Product Structure Determination

Speaker: Dr. Xidong Feng
 Wyeth Research
 Pearl River, NY

Date: Monday, January 31, 2005
Times: Display of Bruker Instrumentation 5:30 - 9:30 PM
 Social/Hors d'Oeuvres 5:30 PM
 Dinner 6:15 PM
 Seminar 7:00 PM
Place: Somerset Marriott Hotel
 Somerset, NJ
Cost: None

Registration: Must register online at www.njacs.org/ms.html

For additional information, please visit our webpage at www.njacs.org/ms.html

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!

The next Chem Essentials Workshop is on "Stoichiometry."

Date: Friday, February 11, 2005
Place: Somerville High School

Contact Patti Duncan at PDuncan@hpregonal.org or go to <http://www.njacs.org/teacher.html> for more details and a registration form.



RESULTS OF 2004 FALL BALLOT FOR THE NORTH JERSEY SECTION, ACS

Chair-Elect 2005	
Stephen Waller	430
Marko Susla	189
Secretary 2005-2007	
Bettyann Howson	407
William Metz	208
Treasurer 2005-2007	
Dorit Noether	553
Councilors for 2005-2007	
Les McQuire	367
Jeannette Brown	321
Anita Brandolini	298
George Heinze	276
Kathryn Uhrich	272
Alternate Councilors 2005-2007	
Bettyann Howson	238
William Leong	231
Christine Vilardi	230
Mal Sturchio	230
Marko Susla	197



**QUANTITATIVE
ELEMENTAL
ANALYSIS**

Quality
Turnaround
Price

QTI Solutions For the
Next Millennium

- Just 24 hours for routine CHN, S, X and 3-5 days for inorganic elements and trace-level analysis
- Method development, validation and stability

P.O. Box 470
Salem Industrial Park, Bldg 5
Whitehouse, NJ 08888

Tel: 908-534-4445
Fax: 908-534-1054

E-mail: info@qtionline.com
Web Site: www.qtionline.com

**SCENES FROM THE NORTH JERSEY SECTION —
NATIONAL CHEMISTRY WEEK**



Organic
Topical
Group,
September
2004
Meeting.



Lawrence J.
Williams (speaker)
with Jay Tagat
(Chair).



SEED
Students at
September
2004
Meeting.

**MORE SCENES FROM THE NORTH JERSEY SECTION —
NATIONAL CHEMISTRY WEEK**



Small Chemical
Business,
September
2004.

**SCENES FROM BENCH TOP TO PILOT PLANT SYMPOSIUM —
OCTOBER 28, 2004 — MADISON HOTEL, MORRISTOWN, NJ**



(L to R): Ann Gelormini (OTG), Stuart Mickel (Novartis, Basel), Robert Cain (Hoffmann-La Roche, Boulder, CO), David Kronenthal (BMS, New Brunswick, NJ), Ulf Dolling (Merck, Rahway, NJ), Michael Miller (OTG), Ramakanth Sarabu (OTG), Jake Song (OTG), Jay Tagat (OTG), and Jianshe Kong (OTG).



B2P Symposium
Speakers: Drs.
Stuart Mickel
(Novartis, Basel),
Robert Cain
(Roche Boulder,
CO), David
Kronenthal (BMS,
New Brunswick,
NJ), and Ulf
Dolling (Merck,
Rahway, NJ).

MARM 2005

The 37th Middle Atlantic Regional Meeting (MARM 2005), hosted by the North Jersey Section, will be held at Rutgers University, Busch Campus, Piscataway, NJ, May 22-25, 2005. The theme of the meeting is "Chemistry at the Crossroads of Science" and will feature the most popular technical programming combined with the best features of a National ACS meeting tailored to the needs and interests of area scientists. Abstract submissions are sought from undergraduate and graduate students, and from professional industrial and academic chemists in all areas of chemistry.

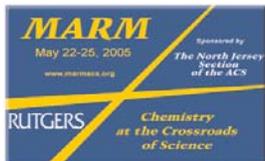
The meeting will feature invited speakers at major symposia including "Bench to Pilot Plant", "Visions in Chemistry" (sponsored by Aventis), "Environmental & Green Chemistry", "Pharmaceutical Profiling", "Protein Family-Targeted Medicinal Chemistry- The Practice of Medicinal Chemistry in the Age of Chemogenomics", "Advances in Organic Chemistry", "Organometallic Catalysis", "Novel Instrumentation and Applications of Mass Spectrometry in ADME Studies", "Functional Proteomics and Cell Signaling", "Biomarkers: Quantification, PK/PD Correlation and Bioanalytical Issues", "Applications of LC-MS in Drug Discovery/Development", "Solid State and Materials Chemistry", "Nanoscience and Technology and Solid State & Materials Chemistry/Surface Chemistry", "Materials Chemistry/Inorganic & Organic Polymers" and "ADMET at the Crossroads of Drug Discovery". There will also be a special symposium, sponsored by the Organic Chemistry Division, honoring a Cope Scholar Awardee. Several chemical engineering mini-courses will also be offered by ACS & AIChE. The Waksman Antibiotic Drug Discovery Process will receive an ACS National Landmark Award for developing the cure for TB and many other infectious diseases. The Waksman National Chemical Landmark Symposium will mix history with modern antibiotic discoveries. The Regional

Innovation awards will also feature a related symposium.

Sunday, May 22, 2005, designated "Science Education and Career Day," will celebrate the 100th anniversary of the New Jersey Science Teachers Association. High-school students, their parents and their teachers from throughout the region are encouraged to attend. Events will include chemistry and physics demonstrations, showings of the IMAX film "Volcanoes of the Deep" with commentary by the science advisor for the film, student and industrial panels to discuss college and career opportunities in several areas, symposia in several disciplines centered about the theme "100 Years Then and Now," workshops for teachers, poster presentations and lunch with a scientist. The program will provide unique opportunities for students, teachers, and scientists from diverse disciplines to mix with each other in an informal, informative atmosphere.

In addition to technical symposia there will be a number of special events including an awards banquet on Wednesday evening where 50-year members will be honored along with the winners of a number of ACS regional awards. Special lunches will be held for Senior Chemists and the Women Chemists Committees. There will also be a "Roving Feast" Monday & Tuesday evenings, May 23rd & 24th, in conjunction with special programming, vendor exhibits and posters. Student Affiliates will have a full program for sharing their research, outreach programs, eminent scientist lecture and life in their chapter.

The online abstract program and advance registration opens November 16th. Abstracts will be accepted until March 15th. Submit online through the MARM 2005 website at www.marmacs.org, and visit the website for periodic program updates. For more information, please contact the Technical Program Co-Chairs, Les McQuire at leslie.mcquire@pharma.novartis.com or Joseph Potenza at jpotenza@rutchem.rutgers.edu.



**Abstracts & Registration
presently being accepted.**

New York Meetings

www.newyorkacs.org

HIGH SCHOOL TEACHERS TOPICAL GROUP

Science Materials for Science Teachers

Speaker: Doreen Bader
Research Scientist/
Environmental Educator
NYC Department of
Environmental Protection

Date: Friday, January 7, 2005
Time: Social and Dinner 5:45 PM
Place: Caffè Pane e Cioccolato
10 Waverly Place at Mercer St.
(southwest corner)
New York, NY
**(You eat, you pay, cash only,
no credit cards)**
Time: Meeting 7:15 PM
Place: New York University
Silver Center Room 207
32 Waverly Place (southeast
corner Washington Square 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: 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.



CHEMICAL MARKETING & ECONOMICS (CM&E) GROUP

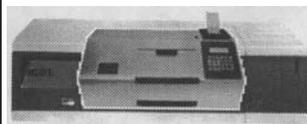
Outlook for the U.S. and World Petrochemical Industry

Speaker: Andrew Swanson
Vice President
Nexant/Chem Systems, Inc.
White Plains, NY

Date: Thursday, January 13, 2005
Times: Cocktails 11:30 AM
Luncheon 12 noon
Presentation 1:15 PM
Place: The Chemists' Club
40 West 45th Street
New York City
Cost: \$35 discount price for Members
who reserve by **Tuesday,
January 11, 2005** (12 noon).
\$50 for Guests and Members
(at the door without reservations)

To reserve: Please reserve early to be eligible for discount price. Call Probe Economics at (914) 923-4505, or via e-mail to: cmegroup@yahoo.com. To pay online (via PayPal), go to the CM&E Website: <http://home.nyc.rr.com/chemmarkecon/>

Rudolph DigiPol-781, the new Automatic Polarimeter Small in size, Big on performance



Little Giant!

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

2005 SECTION-WIDE CONFERENCE

Date: Saturday, January 22, 2005

Place: Fordham University, Flom Auditorium, Walsh Library
441 East Fordham Road, Bronx, NY

Cost: Free to all

We hope you can join us!

9:30 AM Arrival and Refreshments - Welcome to the ACS, New York Section's 2005 Section-wide Conference and to Fordham University.

9:50 AM Greetings from the 2005 Chair of the ACS New York Section.

James W. Canary

10:00 AM Award Presentations:

Service Plaque and Pin to the 2004 NY Section Chair Vijaya Korlipara

New York Section Outstanding Service Award for 2004 Robert H. Beer

Nichols Foundation Chemistry Teacher Award for 2004 Richard Goodman

Salutes to Excellence Award Jean Delfiner

High School Teachers Topical Group

Salutes to Excellence Award Joan A. Laredo-Liddell

High School Teachers Topical Group

Salutes to Excellence Award New York Academy of Sciences

10:30 AM Report of the 2005 Elections Nominating Committee. Jill K. Rehmann
(Presentation of Candidates)

10:45 AM Keynote Address

11:45 AM Coffee Break (Enjoy the Poster Presentations of our Project SEED Students)

12:00 AM ACS, New York Section Committee Planning Sessions for 2005.

Break out into committee groups to share ideas for future activities. All attendees are welcome to join in the discussions of the various committees.

Educational Activities (Chemical Education, Continuing Education, Graduate Student Posters, High School Olympiad, National Chemistry Week, Nichols Foundation Teacher Award, Project SEED, Public Outreach, Student Affiliate)

Chair: Sr. Mary L. Maier

Member Affairs (Awards, Employment and Professional Relations, NYACS History, Indicator, Membership, Minority Affairs, Outstanding Service Award)

Chair: Ralph Stephani

Program Review (Subsection and Topical Discussion Group Chairs)

Chair: Anne T. O'Brien

Public Affairs (Academe and Industrial Relations, Community Relations and Publicity, Congressional Science Counselors, Environmental Chemistry, Fund Raising, Information Technology, Speakers Bureau)

Chair: Frank R. Romano

12:45 PM Reports from the Chairs of the Committee Planning Sessions.

1:00 PM Conclusion of the Meeting. Join with colleagues for lunch at a local restaurant.

To inquire about the Section-wide Conference, please call the New York Section Office at 516-883-7510 or e-mail Marilyn Jespersen, Office Administrator, at: njesper1@optonline.net

Directions and parking information are on the NY Section website:

<http://www.newyorkacs.org>

Scientists, teachers and students of all levels are invited to participate.

BIOCHEMICAL TOPICAL GROUP — JOINT MEETING WITH THE NYAS BIOCHEMICAL PHARMA- COLOGY DISCUSSION GROUP

Emerging New Approaches to Anti-Angiogenic Therapies For Treating Cancer

Organizers: Marla Weetall, Ph.D.
PTC Therapeutics and

Kenneth LaMontagne, Ph.D.
Johnson & Johnson PRD

The presence of capillaries in tumors and the process of tumor angiogenesis had been noted as early as the 1860s. But it was not until 1971, that Judah Folkman stated in the New England Journal of Medicine that tumors are angiogenesis-dependent.

Importantly, he recognized the potential for therapeutic intervention. Recent clinical trials have proven the validity of that statement and indicate that anti-angiogenic therapy will be a mainstay of cancer treatment –

a fourth arm with surgery, radiation, and chemotherapy.

The purpose of this symposium is to discuss emerging new data that enables scientists to better utilize and to better identify angiogenic therapies for treating cancer.

Date: Tuesday, January 25, 2005

Time: 1:00 – 5:35 PM

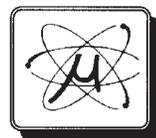
**Place: New York Academy of Sciences
Main Hall
2 East 63rd Street (between
Fifth and Madison Avenues)
New York, NY**

Space is limited. Reserve a seat on-line at <http://www.nyas.org/events> or telephone 212.838.0230 x 322.

NYAS Members and BPDG Affiliates may attend BPDG meetings free of charge.

Non-members may attend for a fee of \$20 per event; Student Non-members for \$10.

To become a Member of the Academy, visit <http://www.nyas.org/landing.html>



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

WILLIAM H. NICHOLS MEDAL — DISTINGUISHED SYMPOSIUM AND AWARD BANQUET

Symposium: SHINING LIGHT ON CHEMICAL PROCESSES

Award Recipient: Professor Richard N. Zare
Marguerite Blake Wilbur Professor in Natural Science
Stanford University, Stanford, California



Date: Friday, April 1, 2005
Time: 1:00 PM Registration, 1:30 PM – 5:30 PM Symposium
5:45 PM Reception, 6:45 PM Award Dinner
Place: Crowne Plaza Hotel, White Plains, NY

PROGRAM

1:30 PM	Welcome	Professor James W. Canary 2005 Chair, ACS, New York Section New York University
1:35 PM	Opening of the Distinguished Symposium	Professor Jill K. Rehmann 2005 Chair-elect ACS, New York Section St. Joseph's College
1:45 PM	Molecular Perspectives of Water through Nanomatrix Spectroscopy	Professor Mark A. Johnson Professor of Chemistry Yale University
2:30 PM	Time Resolved Solvent Rearrangement Dynamics	Professor W. Carl Lineberger E.U. Condon Distinguished Professor University of Colorado
3:15 PM	Coffee Break	
3:45 PM	Chemistry at Reaction Thresholds	Professor John I. Brauman J.G. Jackson-C.J. Wood Professor of Chemistry Stanford University
4:30 PM	Reaction Dynamics: Seeing the Light	Professor Richard N. Zare NICHOLS MEDALIST
5:45 PM	Social Hour	
6:45 PM	William H. Nichols Medal Award Dinner	

More information regarding the Symposium is available on the New York Section's website at <http://www.newyorkacs.org>

Tickets may be reserved using the following form:

RESERVATION FORM

2005 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & MEDAL AWARD BANQUET
in honor of Professor Richard N. Zare, Stanford University

Return to: ACS, New York Section, c/o Dr. Neil D. Jespersen, Department of Chemistry,
St. John's University, 8000 Utopia Parkway, Jamaica, NY 11439 • (516) 883-7510

Please reserve _____ places for symposium & banquet at \$85/person ACS member
_____ places for symposium & banquet at \$95/person Non-member
_____ places for banquet at \$75/person
_____ places for symposium at \$30/person, ACS member; \$40 non-member
(Student or unemployed at \$10/person)

(For table reservations of 8 or more, use the ACS member \$85/person rate for combination tickets.)

Reserve a table in the name of _____

Names of guests are:

Indicate number in your group who choose:

Chicken _____ Prime Rib _____ Fish _____

Mail Tickets to:

Name: _____

Address: _____

RESERVATION DEADLINE — March 18, 2005

Please make checks payable to: ACS, NEW YORK SECTION Check for \$ _____ enclosed.

HUDSON-BERGEN CHEMICAL SOCIETY

The Hudson-Bergen Chemical Society hosted an excellent meeting on October 22 at

Fairleigh Dickinson University, which was attended by over 50 students and members. The talk, "Microbes Survive, Technologists Connive, and Companies Thrive" was given by Dr. Arnold L. Demain of Drew University.



(Back row, left to right) Professor Mihaela Leonida of FDU, who organized the program, and Dr. Arnold L. Demain of Drew University, speaker, with some of Professor Leonida's FDU students.

Dr. Irving J. Borowitz; Dr. Arnold L. Demain, speaker; Carol Sutherland, teacher; and Dr. Tristan Williams, Post-Doc in Chemical Engineering, University of Delaware and resident of Australia.
(Photos courtesy of Dr. Grace B. Borowitz)





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.

BRING ON THE TOUGH PROBLEMS.

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



Call for Nominations

WESTCHESTER CHEMICAL SOCIETY

Distinguished Scientist Award - 2005

The Westchester Chemical Society is seeking nominations for its Distinguished Scientist Award - 2005. Any scientist who lives or works in Westchester is eligible for this award.

Please submit a detailed resume by **January 31, 2005** to Joan Laredo-Liddell, 391 Palmer Road, Yonkers, NY 10701-5239.



NORTH JERSEY SECTION LIFETIME ACHIEVEMENT AWARD

The biennial Award, consisting of a plaque and \$1,000 prize, funded by the Novartis Pharmaceutical Company, honors an industrial researcher, chemist, or chemical engineer, fifty years old or older, resident or working for a minimum of fifteen years within the geographical borders of the Section, for his/her brilliance and intellectual leadership qualities, generously shared with others and not yet recognized by any major scientific award, to ensure that the achievements are fully recognized as contributing factors of progress, for the benefit of all.

The Award will be presented at the general meeting of the Section in May 2005.

Submit nominations and seconding letters, before **February 2, 2005**, to F. Dammont, P.O. Box 20453, Newark, NJ 07101. For more information, please call (973) 482-5744.

Others

EIGHTEENTH ANNUAL SYMPOSIUM OF THE CENTER FOR STUDY OF GENE STRUCTURE & FUNCTION

Chemical Biology: Intervention in Cells Using Chemical Principles

Sponsored by the Research Centers in Minority Institutions Program of the National Center for Research Resources, The National Institutes of Health and the New York Academy of Sciences.

Date: Friday, January 14, 2005

Time: 9:00 AM - 6:00 PM

Place: Hunter College
City University of New York
68th Street at Lexington Avenue
West Building, Room 714 HW
New York, NY

Symposium website: <http://genecenter.hunter.cuny.edu/symposium2005>

Admission is free. Register online at the symposium website.

Morning Session

Greeting

Opening remarks

Chemical Genetics (Keynote Address)

Stuart L. Schreiber, Ph.D.
Harvard University

Engineering Biosynthetic Pathways for Natural Products to Generate Novel Antitumor Derivatives

Jose A. Salas, Ph.D.
University of Oviedo, Spain

Genomic Screening of Natural Products

Akira Kawamura, Ph.D.
Hunter College, The City University of New York

Afternoon Session

Biomedical Chemistry of Tropical Small Molecules with Life-Altering Activities

Eloy Rodriguez, Ph.D.
Cornell University

Better Pharmaceuticals through Biophysical Chemistry

Carmichael C. Roberts, Ph.D.
Surface Logix, Inc., Boston

Activity-Based Protein Profiling: Chemical Strategies for Functional Proteomics

Benjamin C. Cravatt, Ph.D.
The Scripps Research Institute

Stem Cell Scenarios: Bone Marrow to Brain and Brawn

Helen M. Blau, Ph.D.
Stanford University Medical Center

Poster Session: "The New York World of Chemical Biology"

Submit poster abstracts online at the Symposium website. Awards for 3 best posters.

NEW JERSEY INSTITUTE OF TECHNOLOGY DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE SEMINAR ANNOUNCEMENT

Co-sponsored by the Middle Atlantic Computational Chemists Society

Computational Tools for Accelerating Drug Discovery

By: William J. Welsh
Norman H. Edelman Professor
in Bioinformatics
Department of Pharmacology
Robert Wood Johnson Medical School
University of Medicine & Dentistry
of New Jersey (UMDNJ)
Director, The UMDNJ Informatics
Institute

Date: Wednesday, January 26, 2005

Time: Pizza, Soda and Networking
6:00 PM
Seminar 7:00 PM

(continued on page 20)

Education



Polytechnic
UNIVERSITY
CELEBRATING 150 YEARS IN BROOKLYN



ePoly

**Online courses in Applied Chemistry
Polytechnic University delivers 150 years
of science and technology excellence**

Register for online courses for the Spring 2005 Semester
Created with your busy schedule in mind, these online courses combine the quality of traditional graduate study with the ultimate flexibility of state-of-the-art online learning. Taught by Polytechnic University's renowned faculty, ePoly offers a supportive, high-quality learning experience designed to help working adults remain competitive and advance in their careers. Earn reputable, recognized, and relevant graduate credits from the convenience of your home computer.

CM850-INET -- Liquid Chromatography (3-credits)
CM750-INET -- Chemistry of Colloids (3-credits)

These graduate level courses can help you apply chemical theory to real life applications you would see on the job. They can help advance your knowledge and experience beyond the BS level and then equip you to handle the demands of a changing industrial environment.

**Register today at <http://epoly.poly.edu/programs/ccbe>
Email us at epoly@poly.edu**



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.



NJIT SEMINAR

(continued from page 19)

Place: Guttenberg Information
Technology Center, Room 3720
(Bldg #13, NJIT campus map)
Cost: Food Cost: \$5 per person

Contact Carol Venanzi by **January 18, 2005.**

Driving Directions to NJIT: <http://www.njit.edu/about/visiting/driving.php>

Parking has been reserved for "MACCS visitors" in the NJIT Parking Deck (Bldg #19)

Public Transportation: http://www.njit.edu/about/visiting/public_trans.php

NJIT Campus Map: <http://www.njit.edu/campustour/>

For MACCS-related questions, contact: Donna Bassolino-Klimas, donna@stone.congenomics.com

For NJIT-related questions, contact: Carol Venanzi, venanzi@adm.njit.edu



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

EARLY INVESTIGATIONS OF METHANE

By Kevin Olsen, Montclair State University

During a November evening in 1783, a large open boat carried a group of men out onto a mill pond near the town of Rocky Hill, New Jersey. Once in the center of the pond, a man in each end of the boat lit a strip of paper and held it a few inches above the water's surface while the others took long poles and began stirring up the mud on the pond's bottom. A few minutes later, bubbles of methane rose through the water, caught fire, and for a brief moment flames spread out over the pond.

Thomas Paine did not record what George Washington said when the strip of burning cartridge paper in his hand set fire to the millpond's surface, just as well perhaps, since it probably was not suited to a respectable magazine like *The Indicator*. Besides, Paine was busy on the other end of the boat, holding his own piece of burning paper.

A genial disagreement the night before brought Washington, Paine, and a group of officers out to the millpond. But within a few years, the subject of "impure" and "inflammable air" was of serious concern.

Benjamin Franklin first heard of marsh gas while journeying across New Jersey in 1764. He was skeptical at first. Later by happy coincidence, Franklin was calling on a friend who had just returned from setting marsh gas on fire. He explained that by poking holes in the bottom of a muddy pond with his walking stick, gas would be released, which was then set on fire with a candle flame. To prove his story, he showed Franklin the singed ruffles on the clothing he was wearing.

A year later the Royal Society received a letter from Dr. Samuel Finley, fifth president of Princeton University or as it was then known, the College of New Jersey. Finley recounted how a man employed a local mill discovered that the marsh gas could be set on fire and how he repeated the experiment. The Royal Society read the letter but did not print it in their Transactions. According to Franklin, it

was considered "too strange to be true."

Franklin himself was a loss to explain the phenomena. He speculated that volatile oils from pine trees might somehow be transported to the bottom of the pond. But if that were the case, what did transport the oil and why couldn't it be smelled either on the surface or in the sediments?

Franklin seems to have forgotten the matter until 1774 when he met with Joseph Priestley while in London. Priestley was intrigued by the phenomena and invited Franklin to contribute a letter for inclusion in his book *Experiments and Observations on Different Kinds of Airs*.

By the 1790's the causes of Yellow Fever were being hotly debated by physicians. They knew that people living closer to the water were generally more susceptible to the disease but its exact cause was unknown. We know now that increased trade with the Caribbean in the first years after the Revolution brought the disease to the port cities. At the time, whether the disease originated in North America or the Caribbean was also debated.

With remembrances of his boat trip with Washington on the Rocky Hill mill pond, Thomas Paine joined the debate. In 1806 he published, *The Cause of Yellow Fever and the Means of Preventing it in Places Not Yet Infected With It*. Addressing his essay to the Board of Health in America, Paine argued that since the disease was non-communicable, it was unlikely to have been transported from the Caribbean.

Paine went on to suggest that the "impure effluvia" found in river bottom mud was the cause of Yellow Fever. This mud contained great quantities of "impure" and "inflammable air" which could be released by disturbing the sediments. It was known at the time that this material was a hydrocarbon or as it was known at the time "carbureted hydrogen gas."

He argued that new wharf construction in the seaports released huge amounts of combustible matter in the river bottoms. Paine's solution to the Yellow Fever outbreaks was to cease using dredged sediments as fill and construct all new wharfs from stone arches. Arches would allow

(continued on page 22)

Education

2-DAY COURSE

in Newark, New Jersey

Practical Phase Transfer Catalysis

February 15-16, 2005

for pharmaceutical chemists
& industrial organic chemists

agenda, registration & logistics
www.phasetransfer.com/courses.htm

or call Marc Halpern at 856-222-1146



PTC Organics Inc.

The Industrial
Phase-Transfer Catalysis Experts

* PTC Consulting * PTC Training *
* PTC Contract Research *

FREE
PTC Technology & Info Center

EARLY INVESTIGATIONS OF METHANE

(continued from page 21)

the tides to flush the river bottoms clean and so remove the cause of the fever.

Thomas Jefferson praised Paine's essay as "one of the most sensible performances on that disease that had come under his observation."

Yellow Fever of course remained a serious threat to human health for many more decades.

The crucial turning point in the centuries long battle against Yellow Fever would create one of New Jersey's most admired heroines. Clara Maass (1876 - 1901) was the daughter of German immigrants and an 1895 graduate of the Newark German Hospital School of Nursing. A civilian nurse for the US Army, she spent the Spanish-American War at hospitals in Florida, Georgia, and Cuba. Maass was serving at the Army's First Reserve Hospital in Manila when she became interested in Yellow Fever.

In the 1890's, it was still believed that Yellow Fever was caused by poor sanitation. Under Chief Army Sanitary Officer William Gorgas, the city of Havana underwent a major cleaning in an effort to eradicate the disease. When this failed, Gorgas proposed that inoculation might better protect the public. Meanwhile, an increasingly desperate American government appointed a Yellow Fever Commission chaired by Major Walter Reed.

Maass traveled to the Las Animas Hospital in Havana to join Gorgas's staff.

By 1900 it was understood that Yellow Fever was carried by mosquitoes but it was still thought that inoculation would prove an effective defense. To test this theory, Maass agreed to be bitten by an infected mosquito in order to develop immunity. Her subsequent case of Yellow Fever was considered too mild for an effective demonstration. She volunteered to be bitten again and this time, the fever was fatal. Clara Maass was only twenty-five years old.

Walter Reed later credited Maass's death with demonstrating to both physicians and the public that eradicating mosquitoes was the most effective means of combating Yellow Fever. The Newark German hospital was renamed the Clara Maass Memorial Hospital in 1918 and continues to honor memory as the Clara Maass Medical Center.

Methane has long been recognized as a biomass fuel. Today about 10,000 homes in northern New Jersey are supplied with natural gas generated in the Hackensack Meadowlands landfills.

During the 1950's and 1960's Swamp Gas was frequently proposed to explain away sightings of UFO's. Whether this is the explanation of the many UFO's seen in the New Jersey remains a mystery.



SHOW – Sample Handling Operation Wizard

Error minimizer, stress reliever, productivity enhancer.

- Computer guiding system for manual sample handling
- 24, 48, 96, and 384-well plates, discrete vials
- A fraction of the cost of liquid handlers

Contact for demo!

- ❖ Parallel synthesis
- ❖ Cherry-picking
- ❖ Plate reformatting
- ❖ Data recording



LabAdvance, LLC, Livingston, NJ. Tel: 858.603.5043
www.LabAdvance.com, info@LabAdvance.com

Professional/Product Directory

NMR SERVICE & ANALYSIS

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



NUMARE SPECTRALAB INC
10 Summit Avenue, Unit 6,
Berkeley Heights, NJ, 07922
Telephone (908) 665-0066
<http://www.eclipse.net/~numare/>

Polymer Problems?

Complete Polymer Deformulation
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



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 St., Metuchen, NJ 08840 FAX (732) 321-5203

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

ISO 9001
Certified



(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 Mil-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

SCHWARZKOPF

Microanalytical Laboratory

Elemental & Trace Analysis
Organics, Inorganics
Organometallics
Metals by AA & Graphitic Furnace
Functional Grps. - Mol. Wt.
Calorimetry
Total S. F. Halogens TOX
Concg Testing Custom Analysis
56-19 37th Ave. Woodside, N.Y. 11377
(718) 429-6248
Schwarzkopfmicro@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 - 1/4 inch sqs. on right pages
100 - 10 sqs. per inch on left pages.
B200P --- 208 1/4 inch sqs. on right and left pages
B200PH - 208 horizontally lined right and left pages.
Books have instruction and TOC's. Page size 11 x 8 1/2.
Hard extension brown cloth covers. Pages open flat.
\$14.50 EACH, FOB Chicago
CUSTOM MADE BOOKS TO ORDER
Scientific Bindery Productions
2612-18 W. Nelson, Chicago, IL 60618
Phone: 773-267-1129 Fax: 773-267-1218
www.scientificbindery68yrs.com

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

HUFFMAN LABORATORIES, INC.
Quality Analytical Services Since 1936
Phone: (303) 278-4455
FAX: (303) 278-7012
chemistry@huffmanlabs.com
www.huffmanlabs.com

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

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

POLYMER PROCESSING INSTITUTE

- The Right Choice for Plastics R & D
- 20 years of process and product improvements
- Formulation, rheology, characterization

Call (973) 642-4582 or
Visit our site: www.polymers-ppi.org

NMR Service 500MHz

*Mass
*Elemental Analysis
NuMega Resonance Labs
Tel: (858) 793-6057

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.

INVESTMENT MANAGEMENT
For Individuals & Retirement Plans
Call 201-767-1050 • 888-795-6684
Erich Sokolower
Registered Investment Advisor Since 1980
(Member ACS: GA Tech, CHE; Columbia, MS)
Replex INVESTMENT MANAGEMENT CO., INC.
550 Durie Avenue, Closter, New Jersey 07624
email: replexinvestments@cs.com

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 Jct., NJ 08852
732-355-9111, info@primera-corp.com

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



CHEM-IS-TRY, Inc.

Fine Chemicals Custom Synthesis

Address: 240 MLK Blvd., Newark, NJ 07102
Tel: 973-596-1999; Fax: 973-596-0999; Toll Free: 877-CHEM-123
Email: sales@chem-is-try.com Website: www.chem-is-try.com

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 sup-ports our many activities.

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



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

VACUUM PUMP PROBLEMS?

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

Eastern Scientific
easternsci@aol.com 781-337-2501

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.

GALBRAITH LABORATORIES, INC.

Contract Analytical Services Laboratory for over 60 Years

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

Toll Free 877-440-8797 • www.galbraith.com

j.s.t Japanese translations of scientific articles and patents by fully bilingual Japanese-American PhD. Over 20 years experience. English-Japanese translations available.

R.N. Arison
88 Century Lane, Watchung, NJ 07069-6008
908-757-6812 ritsuarison@earthlink.net

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

Career Opportunities

RECRUITING ?

The Indicator readership is New York/North 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

Pelican Analytics

*Answers you can count on...
data you can trust.*

- ▶ Custom & routine metals analysis
- ▶ Method development & validation
- ▶ Precious metal & catalyst assays

Tel: 732-274-2600 info@PelicanAnalytics.com

*A Peaceful, Healthy,
Prosperous and
Happy New Year
from Your Friends
at The Indicator.*

Ad Index

ANALYTICAL	
Astec	25
Atlantic Analytical Laboratory, Inc.	23
Case Consulting Labs., Inc.	25
Chem-IS-TRY, Inc.	25
Chemir Analytical Services	23
Chemo Dynamics, L.P.	4
Desert Analytics Laboratory	20
DuPont Analytical Solutions	18
Galbraith Laboratories	25
Gateway Chemical Technology	6
Goldstein Associates	24
Huffman Laboratories, Inc.	24
Impact Analytical, Div. of m.M.I.	17
ISSI Laboratories, Inc.	25
J.S.T.	25
Jordi FLP	23
Metuchen Analytical, Inc.	23
Micron Inc.	15
NetChem, Inc.	25
New Jersey Institute of Technology	23
Numare Spectralab Inc.	23
NuMega Resonance Labs.	24
Pelican Analytics	26
Polymer Processing Institute	24
Primera Analytical Solutions Corp.	24
Quantitative Technologies Inc.	9
Robertson Microlit Labs	27
Schwarzkopf Microanalytical	24
Spectral Data Services	25
Spex Certi Prep. Inc.	5
Tyger Scientific Inc.	24
EDUCATION	
New York University	28
Polytechnic University	19
PTC Organics Inc.	21
Stevens Institute	2
EQUIPMENT	
Eastern Scientific Co.	25
LabAdvance	22
Mass Vac, Inc.	27
Rudolph Instruments	13
GENERAL	
ACS-NY/NoJ Sections	24
ACS-NY/NoJ Sections	25
Repex & Co. Inc.	24
Scientific Bindery	24
RECRUITMENT	
ACS-NY/NoJ Sections	26

Where speed and accuracy are elemental



Robertson Microlit Laboratories

- Elemental CHN Analysis
- 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

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

Education



NEW YORK UNIVERSITY DEPARTMENT OF CHEMISTRY SPRING 2005 COLLOQUIUM SERIES

- January 21** **Professor Hank Kung**, University of Pennsylvania
Host: Chang *Probes for Detecting Amyloid Plaques in the Brain*
- January 28** **Professor Vijay Pande**, Stanford University
H: Tuckerman *Folding@Home: Can 100,000 CPUs Break Fundamental Barriers in Biomolecular Simulation?*
- February 4** **Professor Thomas E. Mallouk**, Pennsylvania State University
Host: Walters *New Chemical Approaches to Remediation of Contaminants in Soil and Groundwater*
- February 11** **Professor Robert L. Baldwin**, Stanford University
H: Kallenbach *Role of Peptide Solvation in the Energetics of Protein Folding*
- February 18** **Professor Yitzhak Tor**, University of California at San Diego
Host: Arora *Adventures with Nucleic Acids: Targeting RNA with Small Molecules and Decorating DNA with Emissive Nucleotides*
- March 4** **Professor Brad Smith**, Notre Dame University
Host: Canary *Chemical Agents that Influence or Sense Biomebrane Structure/Function*
- March 11** **Professor David Tirrell**, California Institute of Technology
H: Kirshenbaum *Non-Canonical Amino Acids in Protein Chemistry*
- March 25** **Professor Ron Fox**, Georgia Institute of Technology
H: Vologodskii *Rectified Brownian Motion in Sub-Cellular Biology*
- April 7/8*** **Professor Al Meyers**, Colorado State University
Host: Canary *Chiral Oxazolines -- Their Legacy in Asymmetric Synthesis*
- April 15** **Professor David Schuster**, New York University
Photoinduced Electron Transfer in Porphyrin-Fullerene Hybrids: Dyads, Rotaxanes, Catenanes and Molecular Wires
- April 20**** **Professor Anna Mapp**, University of Michigan
Host: Arora *TBA*
- April 29** *Structure Determination of Membrane Proteins by NMR Spectroscopy*
Host: Jerschow

Colloquia will be held on Fridays at 3:30 p.m. (unless otherwise noted) in Room 1003 Silver Center.
Reception to follow.

*Check our website for the latest developments www.nyu.edu/pages/chemistry

** Wednesday at a time TBA

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