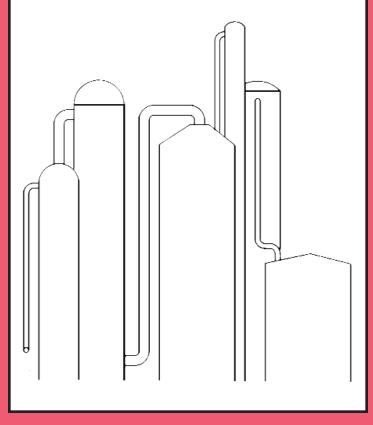


JUNE 2010 Vol. 91 • No. 6 ISSN0019-6924

49th Regional Buyer's Guide

See pages 26 - 35.



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June Calendar

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Thursday, June 3, 2010

Chemical Marketing & Economics Group *See page 10.*

Thursday, June 3, 2010 Long Island Subsection See page 10.

Friday, June 4, 2010 NY Board of Directors See page 10.

The Indicator is posted to the web on the 15th of the previous month at www.TheIndicator.org

NORTH JERSEY SECTION

Thursday, June 3, 2010

Careers in Transition See page 14.

Friday, June 4, 2010 ChemTAG See page 14.

Saturday, June 19, 2010 Leadership Development Course See pages 15-16.

Deadline for items to be included in the September 2010 issue of The Indicator is July 15, 2010.



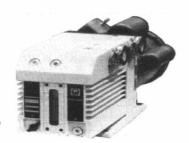
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THIS MONTH IN CHEMICAL HISTORY

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

In this column I continue my discussion of the 1910 volume of "Annual Reports on the Progress of Chemistry" issued by the Chemical Society of London.

Continuing with organic chemistry reported by Cecil H. Desch and Arthur Lapworth, by far the longest section of the reports, important advances in the chemistry of chlorophyll and haematin, the non-protein containing fragment of oxyhemoglobin. Haematin contains ferric iron and also four substituted pyrrole nuclei. Chlorophyll contains magnesium and otherwise seems to resemble haematin closely. It is a tricarboxylic acid. The metal in both compounds is not present as a salt, but seems to be present in a complex form linked to the pyrrole nuclei.

A number of polypeptides have been prepared by E. Fischer and his colleagues including glycylaspartyldiglycine. Many new dipeptides of serine similar to some found in natural proteins have also been synthesized.

Advances in analytical chemistry are reported by Arthur Robert Ling. Novel equipment includes techniques for isolating a few milligrams of precipitates; simple and efficient fractionating columns including vacuum distillation; and improved Kipp's and Soxhelet apparatus. (A personal note; at high school my chemistry laboratory in the late1940s contained a Kipp's apparatus for the generation of hydrogen sulfide for use in the qualitative analysis of metal ions by groups.)

Novel physical analytical methods included spectrometric estimation of potassium in the presence of sodium; conductivity methods applied to precipitation reactions; and new intense flame sources for polarimetry. A useful addition to forensic methods improves the Marsh-Berzelius estimation of small quantities of arsenic.

Phelps shows that the accuracy of the Royal Mint in assaying gold bullion is remarkable; the error for the mean of 20 assays does not exceed 0.001 percent. Electrochemical methods for determining metals have been improved by the use of rotating electrodes and applied to alloys including those of copper, antimony, tin, and lead. Other metals studied by this technique include silver, cadmium and bismuth. I note with interest that the use of organic electrolytes in estimating cadmium has been developed by the Misses M.E.Holmes and M.V.Dover.

"The comparatively recent introduction of cocoanut oil and of palm kernel oil as materials for the manufacture of margarine renders it important that the methods of detecting and estimating these in presence of other fats should be made as precise as possible". A number of such methods are reported including solubilities of silver or magnesium salts of the fatty acids; fractional distillations; and viscometry which can detect the presence of amounts of margarine greater than 10% in mixtures with butter. Perhaps unscrupulous dairies or grocers were adulterating butter with the less expensive margarine!

The reporter for physiological chemistry was W.D. Halliburton M.D.,F.R.S. He mourns the loss of two great pioneers of the field: Pfluger of Bonn; and Sidney Ringer of Ringer's solution fame. He regrets also the shortage of younger workers in the field: "... physiology does not pay... the stipends considered sufficient by Universities and similar institutions ... are so parsimonious ...". There is much new work on metabolism including those of nuclein and purines. The physiology of respiration has seen major advances including the establishment of the "mechanical" view that oxygen enters and carbon dioxide leaves the blood according to the laws of diffusion. The vexing topic of the chemistry of cancer (yes, even as early as 1910) does not indicate the likelihood of rapid early advances: "...the bacteriologists and parasitologists have had a long and fruitless innings ... chemistry will play a part in the ultimate solution of the cancer mystery".

Radioactivity has as its reporter no less than Frederick Soddy, associate of Rutherford and a Nobel Laureate to be. A standard for radioactivity was needed and Madame Curie is preparing a standard tube containing a known mass (about 20 mg) of radium chloride, to be kept in Paris, and to serve as the international standard. The new unit for radiation, called the curie, is the quantity of "emanation" in equilibrium with one gram of radium. The methods used for determining the number of particles emitted by radioactive sources include the electrometer; scintillations; and exposure of photographic plates. The Geiger counter is yet to come.

Helium is now unambiguously determined to be a product of many radioactive decays (alpha particles); transmutation is no longer a forbidden word! There is essentially no variation in the rate of radioactive change with temperature.

In a commentary on the heroic work of the Curies it has been established that in 10 tons of Joachimsthal pitchblemde only 0.26g of radium is present. And, in a final comment presaging the use of the term isotope, coined by Soddy: "Chemical homogeneity is no longer a guarantee that any supposed element is not a mixture of several of different atomic weights, or that any atomic weight is not merely a mean number."

JUNE HISTORICAL EVENTS IN CHEMISTRY

By Leopold May, The Catholic University of America, Washington, DC

June 1, 1936

The paper "Electric Moments of Molecules in Liquids" by Lars Onsager, published in the *Journal of the American Chemical Society* (1936, 58, 1486-1493), was received on this day.

June 3, 1873

Otto Loewi, who was born on this date, was a researcher on chemical transmission of nerve cells. He shared the Nobel Prize in Physiology or Medicine (1936) with Henry H. Dale for their discoveries relating to chemical transmission of nerve impulses.

June 5, 1760

Two hundred and fifty years ago, Johan Gadolin was born on this date. In 1794, he discovered yttrium (Y, 39).

June 7, 1896

Robert Sanderson Milliken, who was a researcher in molecular orbital and electronic structure of molecules, was born on this date. In 1966, he received the Nobel Prize in Chemistry for his fundamental work concerning chemical bonds and the electronic structure of molecules by the molecular orbital method.

June 10, 1848

Johann C. W. F. Tiemann, elucidated the structure of the interrelated terpenes, the Reimer-Tiemann reaction in 1876 and the Tiemann rearrangement of amide oxides in1891. He was born on this day.

June 12, 1890

Wallace R. Brode, authority on chemical spectroscopy, was born. He served as president of ACS.

June15, 1885

One hundred and twenty-five years ago on this date, Auer von Welsbach announced separation of didymium into Nd and Pr.

June 16, 1880

Otto Eisenschiml devised means to determine whether vegetable oils were contaminated with fish oils. He was an American Civil War historian and was born on this date.

June 18, 1918

Twenty-five years ago in1985, Jerome Karle, who developed methods for determination of crystal structures with x-rays; shared the Nobel Prize in Chemistry with Herbert A. Hauptman for their outstanding achievements in the development of direct methods for the determination of crystal structures. He was born on this date.

June 19, 1910

One hundred years ago on this date, Paul J. Flory was born. He was a researcher in physical chemistry of macromolecules and in 1974, was awarded the Nobel Prize in Chemistry for his fundamental achievements, both theoretical and experimental, in the physical chemistry of the macromolecules.

June 22, 1899

Fritz A. Lipmann, who discovered coenzyme A and the central role of ATP in metabolism, was born on this date. He received the Nobel Prize in Physiology or Medicine in 1953 for his discovery of co-enzyme A and its importance for intermediary metabolism.

June 24, 1835

Johannes Wislicenus who proposed geometric isomers and synthesized acetoacetic esters, was born on this day.

June 26, 1756

Two hundred and fifty years ago, Jean A. C. Chaptal was born. He introduced the name 'nitrogen' and studied viticulture and dyeing.

June 28, 1927

F. Sherwood Rowland, a researcher in atmospheric chemistry, was born on this day. He shared the Nobel Prize in Chemistry in 1995 with Paul J. Crutzen and Mario J. Molina for their work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone.

June 29, 1787

Nils G. Sefstrom, one of the discoverers of vanadium (V, 23) in 1830, was born on this day.

Additional historical events can be found at Dr. May's website,

http://faculty.cua.edu/may/Chemistrycalendar.htm or This Week in Chemical History on the ACS website, http://www.acs.org/whatischemistry.

NEW JERSEY AND TV. MORE THAN THE SOPRANOS

May of 2010 marked the 75th anniversary of commercial television broadcasting by the Radio Corporation of America (RCA) from a transmitter on top of the Empire State Building in New York City.

The summer of 2010 will also mark 75th anniversary of basic technology behind cable television. The Coaxial Cable was originally invented in the early 1930s as a means of increasing the number of telephone calls that could be sent over a single wire. Radio engineers at RCA quickly realized that the technology would make it possible to transmit television broadcasts between a central programming facility and local broadcast towers.

Engineers were excited about the new cable because without shielding, transmissions along a cable were subject to interference. This limited the amount of information that could transmitted and prevented conventional telephone lines from being used to carry television signals. The invention of the coaxial cable, to use the modern terminology, increased the broadband to the point where a network was practical.

Television was still in its infancy in 1935 when the first long distance coaxial cable connected the television Studios at Radio City and the transmitter on top of the Empire State Building in New York City with Philadelphia. The cable was developed by Bell Laboratories for the Radio Corporation of America who would use it on an experimental basis. There were no plans to use the cable for routine broadcasting.

(Radio City was located at Rockefeller Center and should not be confused with the Radio City Music Hall that is actually located about a block north. Rockefeller Center was the head-quarters of the National Broadcasting Corporation and most TV viewers today know it as 30 Rock.)

Broadcasting became a big business during 1920s as radio moved from being used primarily for military purposes and international telegraphy to a medium for news and entertainment. The first transatlantic voice messages were sent by the Marconi Corporation in 1919 between Canada and Ireland. Regular radiotelephone service from New York to London would be available in a few months according to the company. Meanwhile, a Navy radio transmitter located in New Brunswick, New Jersey, and operated by the Marconi Corporation successfully made a one-way voice transmission to the military transport ship George Washington en route to Brest, France. In April of 1919 President Wilson traveled to France aboard the George Washington whose radio equipment was modified to allowed two-way voice communications between the ship and Washington.

Developments like these excited the civilian population with the same enthusiasm that the current generation shows for the internet. In fact, the question of pirated music arose as early as January of 1922 when the federal government ordered amateur operators to stop broadcasting music because doing so violated the exclusive transmission rights granted to stations within certain cities. It was also claimed that the amateur transmissions were causing interference with commercial stations. News content was also being pirated. The Associated Press called on broadcasters to stop reading wire service stories over the airways. Many radio stations resisted this call and eventually the wire services came to be a vital part of the broadcast news media.

Regular music broadcasts began in several US cities in the fall of 1921. Network radio was launched a few years later. NBC began their network service in November of 1926 and the Columbia Broadcast System (CBS) followed about a year later in September of 1927. By 1935 about two thirds of the nation's homes had radios. By this time, however, television had already been in development for several decades.

An analog television works on a simple principle, a beam of electrons is directed at a phosphorescent screen. Where the most electrons strike, the screen glows brightest. The challenge had always been to find a way to direct the electron beam so that the bright spots appear where they are supposed to appear. This is achieved by a process called scanning. The beam is first directed at the upper corner of the screen. If spot in that corner is supposed to be bright, a large number of electrons are sent to the spot. While the phosphorescent screen is still glowing, the beam moves to the adjacent spot on the screen and the process is repeated. The electron beam is swept, or scanned, horizontally over the screen. At the end

NEW JERSEY AND TV

(continued from page 7)

of the horizontal row, the beam is dropped down to the next row and process is repeated. In the time it took to read this paragraph the screen would be swept side to side, row by row, several hundred times.

The first method of scanning the screen was to use a rotating disk with a series of holes that would sweep past the electron beam. The holes were positioned so that as the flow of electrons increased or decreased, the spot on the screen they were supposed to be striking was exposed by one of the holes in the disk.

This was the system employed by a number of early television inventors. The first attempt was pioneered in 1884 by Paul Nipkow in Berlin, Germany. The idea was sound but the photodetectors at the time were too limited. An Englishman named John L. Baird later developed a spinning disk mechanical scanning system. By 1929, the British Broadcasting Company made some experimental broadcasts using 30 rows across the screen. The update rate was a mere twelve and a half times per second. The resulting images were neither sharp nor flicker-free because the update rate was too slow.

However it was the invention of a system of magnets to direct the electron beam by the American Philo Taylor Farnsworth that made an all-electronic television possible. Farnsworth's picture tube and timing circuit were patented by 1929. One of Farnsworth's rivals, Vladimir Kosma Zworykin, had invented a camera he called the "iconoscope." In this system an image was scanned to convert it into a series of analog signals. It was the first practical television camera and a version of it was also patented by Farnsworth.

RCA hired Zworykin to develop a television system. Much of the research and development work on the system would be carried out in RCA's Camden, New Jersey facility. The company patented an improved version of Farnsworth's original picture tube in 1931. RCA now had all the pieces necessary for a commercial television system. Its first experimental transmitter was placed on top of the 1,300-foot-tall Empire State Building. The first studios were installed on the 88th floor. The tests were successful and by 1935 RCA president, David Sarnoff, announced that regular broadcasts would be available to the public.

During the early 1930s about several theaters nationwide were fitted with television projectors. A theater in the Lincoln Park section of Jersey City had equipment installed by Jenkins Radiovisor Company.

Under the leadership of Mayor Frank Hague and the Chamber of Commerce, Jersey City was poised to take advantage of the new technology. About fifty television sets were set up in radio shops and other places throughout the city. The city's television project was launched in April of 1930 with a broadcast by Mayor Hague. The pictures were broadcast by stations W2XCR and W2XCD while the sound was transmitted on radio stations WRNY and WHOM. Jersey City's Chamber of Commerce sponsored what was called "Television Week" with a series of broadcasts from the stage of the theater at Lincoln Park. The broadcasts would run from 7 to 10 pm during the week of April 7 to 12, 1930. The Jenkins Radiovisor Company provided the broadcasting equipment and the receiving sets.

The Jenkins Radiovisor Company was founded by Charles Francis Jenkins, a prolific inventor with more than 400 patents covering a wide range of fields including automotive and aviation components.

Patents on motion picture technologies lead Jenkins into television research. Jenkins demonstrated his own version of a scanning disk television shortly after Baird's initial demonstration and by July of 1928 was making regular broadcasts from a station near Washington DC. In October of 1929 De Forest Radio bought out the Jenkins Television Corporation. Shortly afterwards, an engineer for the DeForest Radio Company named Allen B. Dumont, requested a construction permit for a television station in Passaic, New Jersey, using 20,000 watts power and operating on 2,0002,100 kilocycles. The Jenkins Radiovisors were among the first televisions designed for ease of use as opposed to being high tech kits for the home electronics hobbyist. (The parallels to the early personal computers are striking.) The Jenkins sets were also among the first intended for the home market.

Jenkins broadcasts were made from Washington DC and New Jersey. The picture quality was poor, the prices of the Radiovisors were high, programming choices were limited, and

during the Great Depression sales of the sets declined. With all-electric television on the horizon, sales were unlikely to recover and by March of 1932 the assets of the company were sold to RCA.

Allen B. DuMont was a graduate of Rensselaer Polytechnical Institute and afterwards went to work for Westinghouse, rising to the position of supervisor in the vacuum tube production unit. He went to work for Dr. Lee DeForest of the DeForest Radio Company but struck out on his own to explore television. Working in his basement, DuMont founded his own company to manufacture cathode ray tubes in 1931. The company moved to a new plant at 2 Main Avenue, Passaic in 1938. The company also announced in 1938 that they would construct an experimental television transmitter. If successful the new transmitter would broadcast films made by Paramount Pictures. The movie company had acquired a stake in the DuMont Television about six months earlier.

As the DuMont company continued to grow, another manufacturing facility was established in Clifton on Shafto Street at Scholes Avenue in 1948. The company also acquired at this time the former Wright Aeronautical plant in East Paterson. This move gave the company 500,000 square feet of manufacturing space on a 58-acre site. About 4,000 persons were expected to be employed by the company once the new plants were operational.

DuMont was a successful producer of televisions and television components. His sets were noted for their high quality, but DuMont continued to devote resources to broadcasting. In 1941 the company licensed a New York television station. It was the third broadcast transmitter on Manhattan Island. But the broadcast operations expanded too fast and the company was forced to use profits from television set manufacturing to keep up their cash flow. The firm never really recovered from the stress. DuMont had trouble financing popular shows and whenever the company succeeded in creating one, it was usually bought up by NBC or CBS. Concerned stockholders forced DuMont to spin off its broadcasting operations in 1955. Oscilloscope and cathode-ray tube manufacturing were sold to Fairchild in 1960.

The early television manufacturers operated without industry-wide standards. In 1938, RCA pushed the Radio Manufacturers Association (RMA) to adopt its television system (441 lines) as the industry standard. The Federal Communications Commission conducted hearings on the proposal in 1940, but RCA and NBC had already been using the format for its broadcasts from New York City. Critics of the proposed standards insisted that 441 lines did not provide sufficient visual resolution. Both DuMont Laboratories and Philco Radio and Television joined their voices to the opposition. The RMA formed its own National Television System Committee. The committee eventually adopted a 525 line, 60 fields per second standard that was approved in 1941 by the FCC.

Less than two weeks after the adoption of the new standards, the RCA had a network of repair stations that would update sets for the new system. About 100 conversions a day were performed and the company announced that about three more weeks were needed to finish converting the remaining 1,500 sets. The DuMont company was producing 50 new sets a day that were compatible with the new standards.

At the time it was estimated that there were 4,500 home television sets in the greater New York area, another 600 sets were installed in various public places. The total audience was an estimated 90,000 viewers.

The stage was now set for the explosive growth of television as both a business and (sometimes) an art form. During the postwar years the medium would grow into the vast cultural wasteland we know and love today. Readers of *The Indicator* will know of course that the Public Broadcasting System can trace its origins back to 1953 when the FCC reserved 250 broadcast channels for educational programming. By the end of the 1960s there were 175 educational broadcasters which formed the nucleus of the current PBS system.

Readers of *The Indicator* will naturally all be familiar with Nova, Masterpiece Theater, History Detectives, and the PBS Newshour. They may not admit however to familiarity with American Idol, The Simpsons, or (gasp!) The Jersey Shore. Go ahead and enjoy, we won't tell anyone.

Kevin Olsen Montclair State University Olsenk@Mail.Montclair.Edu

New York Meetings

www.newyorkacs.org

ACS NEW YORK SECTION MEETINGS FOR 2010

The Board of Directors Meetings for 2010

are:

Friday, June 4

Friday, September 10 Friday, November 19

The regular Board Meetings will be held at St. John's University, 8000 Utopia Parkway, Jamaica, NY, in the Library's Writing Center. They are open meetings and all are welcome.

For more information, please visit the New York Section website at http://www.NewYorkACS.org.



LONG ISLAND SUBSECTION

21st Long Island-ACS High School Awards

Awards will be presented to students receiving the highest mark in chemistry from Suffolk, Nassau and Queens high schools. Dinner for each nominee and a guest is followed by an Awards ceremony at which each nominee is presented with a plaque by the Chair of the Long Island Subsection. A guest speaker will present on a timely scientific topic.

To submit nominations and for detailed information, visit the HS Awards page of the LI-ACS website at http://www.newyorkacs.org/islandawards.html.

Date: Thursday, June 3, 2010

Time: 6:00 PM

Place: SUNY Old Westbury

Student Union Multipurpose Room

CHEMICAL MARKETING & ECONOMICS GROUP

Chemical Economics Outlook: From Wellhead to Consumer

Speaker: A. Tison Keel Director, CMAI

Date: Thursday, June 3, 2010
Times: Cocktails 11:30 AM
Luncheon 12 poon

Presentation 1:15 PM
Place: Club Quarters

40 West 45th Street New York, NY

Cost: \$55 for Members; \$65 for Guests.

EARLY-BIRD RATES: \$45 for Members (and \$55 for Guests) who reserve by **Monday, May 31**, 4 PM

To Reserve: Please reserve early to be eligible for the discount price. We now accept all major credit cards via PayPal ("Reserve Now" link on www.nyacs-cme.org), or call Vista Marketing at (917) 684-1659, or via E-mail to cmegroup@mac.com

Next Meeting: Thursday, September 9, 2010



EMPLOYMENT AND PROFESSIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

The Employment and Professional Relations Committee maintains a roster of candidates who are ACS members seeking a position in the New York metropolitan area. If you have job openings and would like qualified candidates to contact you, please send a brief job description and educational/experience background required to hessytaft@hotmail.com.

Candidates from our roster who meet the requirements you describe will be asked to contact you.

Learn more about the New York Section at www.NewYorkACS.org

2010 WILLIAM H. NICHOLS MEDAL AWARD

The 2010 William H. Nichols Medal Award was presented to Professor Tobin J. Marks of Northwestern University, by the ACS New York Section, at the Crowne Plaza Hotel, White Plains, NY on Friday March 5, 2010. This was the 104th Nichols Medal to be presented for distinguished research in chemistry. The gold medal was accompanied by a bronze replica and \$5000.

Professor Marks' medal citation read "For Pioneering Research in Catalysis and Soft Matter Electronics."

The William H. Nichols Distinguished Symposium was titled "New Materials For Function: The Stuff That Dreams Are Made Of" and featured lectures by Prof. Charles M. Lieber (Harvard University), Prof. Mark A. Ratner (Northwestern University), Dr. David L. Stern (ExxonMobil), and Prof. Galen D. Stucky (University of California-Santa Barbara) and Medalist, Prof Marks. This gala event was capped off with Prof. Tobin J. Marks' Award Lecture and the William H. Nichols Medal Award Dinner.

The New York Section was honored to have as guests, Professor Joseph Francisco (ACS President), Mr. David Nichols of the Nichols Foundation and his son, Mr. Charles Nichols. At the award proceedings, Mr. Frank R. Romano, ACS New York Section Chair, presented the History of the Nichols Medal; Professor Francisco offered greetings and congratulations from the American Chemical Society; and Dr. Stern introduced his friend and colleague Dr. Marks to the dinner guests. Prof. Marks was accompanied by his wife, Dr. Indrani Mukharji. Chair Frank Romano presented the Nichols Award. Through the support of the Nichols Foundation, a large number of students and faculty from local colleges and universities were able to enjoy the Nichols events.

The Nichols Medal Award was established in 1902 by Dr. William H. Nichols to honor a chemical scientist for outstanding original research and was first awarded in 1903. Dr. Nichols, a charter member of the American Chemical Society and its president in 1918 and 1919, maintained a deep commitment to research and development and to the importance of supporting science education and students of chemistry. Since its inception, through an endowment fund, the New York Section administers the award. It has been perpetuated by the generosity of Dr. Nichols, his family and the Nichols Foundation, Inc. The William H. Nichols Medal is the first award in chemistry of the American Chemical Society.

(More pictures on pages 12 and 13)



Mr. Frank Romano had the honor of presenting the William H. Nichols Medal Award for 2010 to Dr. Tobin Marks. (Photos courtesy of Marilyn Jespersen)



Dr. Joseph Francisco, 2010 President of the American Chemical Society, brought good wishes and congratulations to Dr. Marks from National ACS.

2010 WILLIAM H. NICHOLS MEDAL AWARD

(continued from page 11)



A formal picture with the Medalist. From the left: Dr. Charles Lieber (speaker), Dr. David Stern (speaker and introducer), Mr. David Nichols (Nichols Foundation), Medalist Dr. Tobin Marks, Dr. Joseph Francisco (ACS President). Dr. Galen Stucky (speaker) and Dr. Mark Ratner (speaker).



Dr. Hiroko Karan, 2010 Chairelect of the ACS New York Section and Symposium organizer, welcomed over 250 guests and introduced the five speakers.



Medalist Dr. Tobin Marks and Mr. David Nichols enjoyed good conversation while seated on the dais during the award dinner.



Dr. David Stern, a Symposium speaker, introduced Dr. Marks to the audience as a dear friend and colleague.



Dr. Galen Stucky, one of five Symposium speakers, presented a talk on the Synthesis and Use of 3-d Heterostructured Materials.



After the symposium, the speakers and the NY ACS chair and chair-elect posed for a photo together and celebrated an excellent symposium. From the left: Dr. Hiroko Karan (Chair-elect), Dr. Galen Stucky, Dr. David Stern, Medalist Dr. Tobin Marks, Dr. Charles Lieber; Dr. Mark Ratner and Chair Mr. Frank Romano.

Mr. Frank Romano (NY ACS Chair), Dr. Indrani Mukharji (wife of Dr. Marks), Dr. Tobin Marks and Dr. Hiroko Karan (NY ACS Chairelect).





From left: Mrs.
Kathryn Romano,
Chair Romano, Mr.
David Nichols of
the Nichols
Foundation, and
Dr. Joseph
Francisco, 2010
ACS President
who brought greetings and congratulations from
National ACS.

Dr. Marks graciously met with students and autographed their programs. Here he is with the faculty and students from Queensborough Community College – CUNY.



North Jersey Meetings

http://www.njacs.org

NORTH JERSEY EXECUTIVE COMMITTEE MEETING

There will be no North Jersey Executive Committee Meeting in June.



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 search

The next meeting for the Careers In Transition Group will be held **Thursday**, **June 3, 2010**, 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.

ChemTAG

Corrosion and Degradation of Building Materials

Speaker: Prof. George Scherer

The talk will run about 45 minutes followed by a walking tour around campus that will take about an hour and a half. We have permission to use the Bowen Hall parking garage. Bring a few dollars for snacks at the talk. Those who are interested can join together to walk downtown for dinner afterwards

The rain date is Friday June 11. Contact Cheryl Litman at clitman@gmail.com if you would like a campus map and directions forwarded to you.

Date: Friday, June 4, 2010

Time: 4:30 PM

Place: Princeton University

Bowen Auditorium Princeton, NJ

Learn more about the North Jersey Section at www.NJACS.org

SIRIRISI

our editor by calling and saying you appreciate the quality and content of our newsletter. Our editor works hard to maintain a publication of interest to our membership. Oh, and by the way, you could also give credit to our advertisers who financially support us.



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CHEMISTRY OLYMPIAD 2010

The search for the best chemistry student at the high school level in North Jersey for the National Chemistry Olympiad 2010 began on March 26. On that day, 202 high school students took a two-hour mutiple-choice test leading to 15 who had high grades. This group of excellent chemistry students, their teachers and schools are listed below:

teachers and schools	s are listed below.
Student Utsarga Sikder	Teacher/High School Theresa Farinella South Brunswick
Varum Prabakar	Theresa Farinella South Brunswick
Seth Ranasinghe	Tim Burnett South Brunswick
Jenny Shih	Sandra Osgood Morristown
Steven Flynn	Michael Amendola Watchung Hills Regional
Michae Ma	Michael Amendola Watchung Hills Regional
Elmer Tan	Paul Sekuler JP Stevens
Vincent Li	Colleen Riley Parsippany
Zach Lustbader	Theresa Loboda Livingston
Alex Nie	Theresa Loboda Livingston
Phillip Ai	Paul Kimmel East Brunswick
Matt Elkins	Paul Kimmel East Brunswick
Yi Gu	David Ostfeld Bergen County Academies
Ryan Lee	David Osteld Bergen County Academies
Peter Santos	Theresa Wertheimer

The above students were asked to take a group of tests, two written and one laboratory on April 24 at FDU (College of Florham). From the latter, the national office of ACS will determine the top 20 chemistry students in the United States. After a two-week study camp, a team of the top four will be chosen to compete in the International Chemistry Olympiad, hosted in Tokyo, Japan, on July 18-25, 2010.

Randolph

ACS LEADERSHIP DEVELOPMENT COURSE

Developing Communication Strategies

Sponsored by the North Jersey Section

Developing Communication Strategies is an interactive course that introduces you to executive level communications. Specifically, it helps you address five main issues related to communicating outside the Society:

- Identifying strategic external stakeholder groups and understanding their main interests.
- Communication strategies for handling key situations, including announcing good news, handling bad news, and influencing key stakeholders or other interest groups.
- Communicating with interest groups outside the U.S.
- Communication strategies when working with the media
- Legal issues, concerns and guidelines for communications, especially written and email communications.

As a participant, you will work on real communication situations and gain guidance to ensure highly critical and visible communications are conducted effectively.

As a result of the course you will be able to:

- Provide others with a clear sense of direction and purpose
- Skillfully communicate new insights and unique understanding of issues or problems.
- Keep others informed about important information, thereby helping them to keep projects on track or report on new endeavors accurately.
- Communicate in an interesting and compelling manner.

Developing Communication Strategies is vital not only to your success but the success of ACS. As a senior leader you are a key representative, which requires you have the skills to communicate effectively outside the Society, under pressure, in high visible situations and do it at the level of the professional standards of ACS.

Who Should Attend This Course?

This course is designed for advanced leaders in the Society. The Developing Communication Strategies course is for those members in leadership roles who are expected to (continued on page 16)

ACS LEADERSHIP DEVELOPMENT COURSE

(continued from page 15)

represent ACS in outside activities. We encourage those who are currently leading or who are planning to lead a new committee or project to attend this course. This course will also be useful for those who use these high level communication skills in their profession. The skills will prove invaluable to you and ACS.

Date: Saturday, June 19, 2010

Times: 1:00 - 5:00 PM

Place: Fairleigh Dickinson University

College at Florham

Room: Hartman Lounge (Mansion)

285 Madison Ave Madison NJ

Cost: Free to ACS Members; \$15 for

non-ACS members

Enrollment is limited. For more information on registration, and links to directions please visit contact jacqueline.a.erickson@gsk.com or visit http://www.njacs.org and look for the link to the course information.



NoJ ACS 2010 ELECTIONS

The nominating Committee of the North Jersey ACS Section is pleased to present the slate of candidates listed below in alphabetical order by category for election to offices to begin in 2011.

Ballots will be distributed to members in the fall.

Candidates for Councilor

Anita Brandolini
Jeannette Brown
Bettyann Howson
Kelly George
Landon Greene
Les McQuire
Mariann Neverovitch
Ambarish Singh
Bill Suits

Candidates for Chair-Elect

Amber Charlebois Landon Greene

Candidate for Secretary

Bettyann Howson

Candidate for Treasurer

Jackie Erickson

62ND ANNUAL RESEARCH COUNCIL

On Friday April 23, 2010 the Sixty-Second Annual Research Conference of the Intercollegiate Council of the American Chemical Society Student Affiliate Chapters, North Jersev Section organized by Dr. Adam Cassano was held at Drew University in Madison, NJ. Eleven undergraduate students from five different universities were hosted by the Drew University Chemical Society as they presented their research for an audience of students and faculty from the North Jersey area. The three judges, William Leong (Celgene), Boli Zhou (BZ Plating Process) and Bill Suits (ACS) had a very difficult job as they judged the student presentations and selected the top three presenters.

First Place and the Jean Asell Duranna Award was given to Mr. Greg Pirrone from Fairleigh Dickinson University and mentored by Dr. Amber Flynn Charlebois, for his presentation, "Synthesis of Stercobilin and its Deuterated Isotopomer: ESI and MS/MS of a Potential Autism Biomarker."

Ms. Chynna Broxton from The College of Saint Elizabeth was given the second place award for her presentation, "Progress Toward a Three-way Nucleic Acid: Switch for Human Alpha Thrombin," from her REU at Syracuse University under the direction of Dr. Janet Berthel and Dr. Phillip Borer.

And the third place award went to Ms. Laurie A. Woodill for her presentation, "Heterogeneous Reactions of Surface-Adsorbed Catechol with Nitrogen Dioxide: Substrate Effects for Tropospheric Aerosol Surrogates." Laurie is from Drew University and was mentored by Dr. Ryan Hinrichs.

The award certificates will be formally presented to the winning student presenters at the North Jersey Section's Annual Awards Dinner scheduled for Tuesday May 18, 2010 in Lenfell Hall at Fairleigh Dickinson University.



Research Conference winners: Laurie Woodill, Chynna Broxton and Gregory Pirrone.

(Photo courtesy of Amber Charlebois)

METRO WOMEN CHEMISTS COMMITTEE

The Gift of Mentoring

By Sarah Carberry MWCC Public Relations Representative

The NJACS Metro Women's Chemist Committee held a joint meeting with the Central Jersey AWIS chapter on April 8th at Fairleigh-Dickinson Campus in Madison, NJ. Approximately 40 women attended the meeting which revolved around the" Gift of Mentoring" and began with dinner and networking. The guest speaker was Dr. Sherrie Pietranico-Cole who is currently a Research Leader and Chemistry Project Leader in Discovery Chemistry at Roche. She spoke about the many mentors that had changed her lives and how she has mentored others during her career. She spoke about growing up in Harlem and the journey she took from her humble roots to the Douglass College then to the University of Pennsylvania where she became the first African-American woman to complete a Ph.D. in chemistry. A

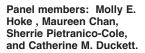
panel of four successful mentors then spoke of their experiences and took questions from the group. The panel included the guest speaker Dr. Sherrie Pietranico-Cole along with Dr. Molly E. Hoke, Dr. Catherine M. Duckett, and Mrs. Maureen Chan. The panel shared their views and strategies for mentoring students and peers as well as how to seek out a mentor during the different stages of life.

The evening concluded with the ACS MWCC presenting the first annual MWCC Mentoring Award to Ms. Jeanette Brown. Ms. Brown has been a mentor to countless men and women throughout her life, including the guest speaker of the evening Dr. Pietranico-Cole. She is a 50-year member of the ACS and has won numerous awards and grants; the most recent was a Heritage Foundation grant for the initial research for the book she is writing about the history of African American Women Chemists. She is truly a wonderful role model and certainly deserving of the inaugural MWCC Mentoring Award.

Sarah Carberry)



Co-chair Kelly George, MWCC **Mentoring Awardee Jeannette** Brown, Guest Speaker Sherrie Pietranico-Cole, and Co-chair Amber Charlebois.



ACS National Meeting



Burk Wagner (Dow Chemical, retired) presenting a talk on the Leo Hendrik Baekeland Award. This award, presented by the North Jersey Section every other year since 1945, honors Baekeland, the inventor of Baekelite, and recognize US based chemists under 40.

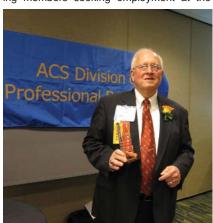
HENRY HILL AWARD PRESENTED TO WILLIAM H. SUITS

The American Chemical Society Division of Professional Relations presented their Henry Hill Award to William (Bill) Suits on Tuesday, March 23, 2010 during the national ACS meeting in San Francisco. The award is given each to honor an ACS member who has served the profession of chemistry "... in the area of professional relations in a unique and distinguished manner" (DPR bylaws).

Bill Suits was nominated for his continued aid to members on both a national and local manner. He is a national ACS Career Counselor spending considerable time guiding members seeking employment at the

ACS National Meeting Clearing House. In New Jersey, he is well known by many members for his always cheerfully given assistance. For the last ten years he has been one of the main drivers of the Careers in Transition workshop to aid chemists and chemical engineers. He has worked extensively with many unemployed members to improve their job prospects. Finally, he actively seeks out job opportunities for members and is a frequent presence at many topical group meetings where he shares this knowledge.

Project SEED profits from Bill's support every year and he enthusiastically finds inexpensive computers as prizes for students. Aidsfree Africa also profits from Bill's professional skills as he uses his professional skills in this worthy project.



Bill Suits, 2010 Henry Hill Awardee.



Valerie Kuck, ACS Director at Large, congratulating Bill Suits on reception of the Henry Hill Award.



Bill Suits and North Jersey Friends.



Bettyann Howson, North Jersey Secretary, presenting Section congratulations to Bill Suits.

> (Photos courtesy of Maureen Chan)



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SUMMARY OF GOVERNANCE ACTIONS/REPORTS

AMERICAN CHEMICAL SOCIETY 239th ACS NATIONAL MEETING SAN FRANCISCO, CA MARCH 21-25, 2010

ACTIONS OF THE COUNCIL

Election Results

· The Committee on Nominations and Elections presented to the Council the following nominees for selection as candidates for President-Elect, 2011: Luis A. Echegoyen, John P. Fackler, Jr., and Bassam Z. Shakhashiri. A fourth candidate withdrew on February 3 for personal reasons. At that time, the Committee on Nominations and Elections voted to continue the search for a replacement nominee based on the ranking previously developed by the Committee. Committee action specified that if no replacement nominee was found by March 12, 2010, then the original nominee list and biographical data, without the nominee who withdrew, would be sent to the Council. As no nominee was identified, three nominees were presented.

By electronic ballot, the Council selected Luis A. Echegoyen and Bassam Z. Shakhashiri as candidates for 2011 President-Elect. These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Flection.

· The Committee on Nominations and Elections announced the results of the election to select candidates from the list of nominees to represent District II and District IV on the Board of Directors for the term 2011-2013. Nominees for District II included: George M. Bodner, Andrew D. Jorgensen, V. Michael Mautino, and Joseph R. Peterson. Nominees for District IV included John W. Finley, Larry K. Krannich, Will E. Lynch, and Ingrid By mail ballot, the Councilors from these districts selected George M. Bodner and Joseph R. Peterson as District II candidates; and Larry K. Krannich and Will E. Lynch as District IV candidates. Ballots will be mailed on or before October 10 to all members in District II and District IV for election of a Director from each District.

Candidates for Directors-at-Large

 The Committee on Nominations and Elections announced the selection of the following candidates for Directors-at-Large for a 2011-2013 term: Janan M. Hayes, Robert L. Lichter, Kathleen M. Schulz, and Kent J. Voorhees. The election of two Directors-at-Large will be conducted in the fall. Ballots will be mailed to the Council on or before October 10.

Petitions to Amend the Constitution and Bylaws

(For Action)

The Council received three amendments to the ACS Constitution and Bylaws for action: The Petition on Admissions Committee, the Petition on Candidate Selection by Member Petition, and the Petition on Election Timelines 2009.

The Council VOTED to approve the Petition on Admissions Committee. This petition removes the Admission Committee from the Bylaws and transfers its functions to the Council Committee on Membership Affairs.

After considerable debate, a motion to approve the Petition on Candidate Selection by Member Petition FAILED. The Petition on Candidate Selection by Member Petition would have amended the Constitution to emphasize that candidates selected by a petition process from members will have no further screening.

The Council also thoroughly debated the merits of the Petition on Election Timelines 2009. The motion to approve this petition FAILED. The Petition on Election Timelines 2009 would have shortened certain national election timelines.

The Board of Directors will vote within 90 days on whether to ratify the Petition on Admissions Committee.

(For Consideration)

· The Council received three petitions for consideration: The Petition on International Chemical Sciences Chapters. Petition on President-Elect Eligibility, and Petition on Recorded Votes. The Petition on International Chemical Sciences Chapters provides for travel funds for either the Chair or Chair-Elect of International Chemical Sciences Chapters to attend governance meetings at twice the amount allotted for a Councilor. The Petition on President-Elect Eligibility requires that nominees or candidates for President-Elect come from an academic background every other election, and that only those from non-academic backgrounds would be eligible in the alternate years. The Petition on Recorded Votes provides for additional voting methods, e.g., clickers that have been recently used at Council meetings, when conducting recorded votes. Action is expected on these petitions at the fall Council meeting.

The Society's Finances

 The Council and Board of Directors learned that the Society's total 2009 revenue (\$460 million) was up +1% from 2008. but fell short of the 2009 approved budget by \$19.5 million or 4.1%. Fortunately, the revenue shortfall was fully anticipated in early 2009. Therefore, contingency planning actions and cost containment initiatives were implemented across the Society, resulting in expense savings totaling \$22.5 million. Significant reductions were realized in salaries and fringe benefits, and in discretionary accounts such as travel, training, and professional services. As a result, the Society's Net Return from Operations was \$13.7 million, or \$3.0 million greater than anticipated in the 2009 Approved Budget.

Unrestricted Net Assets rebounded in 2009 to approximately \$124 million, from a previous \$60 million at the end of 2008. The significant increase can be attributed to the favorable operating results, investment gains, and a net reduction in the Society's post-retirement benefit plan liabilities. The Society ended the year in compliance with four of the five Board-established financial guidelines. The Fund Balance Ratio Guideline, which measures the adequacy of the Society's unrestricted net assets, was not met. The financial outlook for 2010 is better, and ACS management expects the Society to meet the 2010 approved budget.

2011 Member Dues

 The Council VOTED to set the member dues for 2011 at the fully escalated rate of \$146. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.

Local Section Allotment Calculator

 The Council VOTED to continue for three years the current formula for determining allotments to local sections.

Member Statistics

 At the close of 2009, Society membership totaled 161,783 compared to 154,024 for year-end 2008. The number of new membership applications received last year was the highest ever. The 2009 number also reflects the transition of 6,658 former Student Affiliates to the new student member category in June 2009 and the recruitment of 6,341 new student member undergraduates.

Attendance Report

 As of March 24, 2010, the ACS spring national meeting had attracted 18,076 registrants as follows: Regular attendees, 9,715; Students, 5,705; Exhibitors, 1,219; Exposition only, 923; and Guests, 514.

ACTIONS OF THE BOARD OF DIRECTORS

Committee Actions

The Board received reports from its Executive Committee, Committee on Grants and Awards (G&A), and Committee on Planning.

The Executive Committee closely examined its role and that of the Planning Committee, and concluded that both committees add value and are important to the overall work of the Board of Directors.

The Committee on Grants and Awards presented the Board with a screened list of nominees for the 2011 Priestley Medal, the Volunteer Service Award, and the Parsons Award. The Board agreed to review the screened list and announce the winners of these three awards after its June meeting.

The Board's Committee on Planning met with the Board in executive session. At that point, the Board Chair announced that the Board of Directors had VOTED to grant full voting rights on the Planning Committee to the chairs of the Committees on Local Section Activities and Divisional Activities. (CPC & B&F already vote.) The committee and the Board then discussed the results of an external environmental scan and offered suggestions that could be used to refine the Society's Strategic Plan for 2011 and Beyond. The committee and the Board also reviewed the committee's role and considered some modifications to its charge and to its frequency of meetings.

Presidential Task Force on Diversity Reports

The Board received a report from the President's Task Force on Diversity Reports. The task force was charged with assessing the recommendations from the diversity workshop reports in the context of current efforts and committees of the Society, and developing a road map for the implementation of the recommendations. The task force also urged that the ACS move into a leader-

(continued on page 22)

SUMMARY OF GOVERNANCE ACTIONS/REPORTS

(continued from page 21)

ship role in promoting the education, professional development, and inclusion and equity of present and future generations of chemical professionals that reflect the diversity of America. The Presidential succession and the full Board VOTED to refer the task force report to the Board Standing Committee on Professional and Member Relations for prioritization, assignment of accountability, and development of implementation timelines, and discharged the task force with sincere thanks for its excellent work

The Executive Director/CEO Report

The Executive Director/CEO, along with several of her direct reports, updated the Board on the activities of Chemical Abstracts Service, the Publications Division, and the Society's General Counsel. As a follow-up, the Board VOTED to approve a new appointment and three reappointments of journal editors.

On the recommendation of the ACS Governing Board for Publishing, the Board VOTED to accept a recommendation to authorize an additional member position on the Governing Board whenever additional expertise or perspective would help it execute its duties.

Compensation of Society Staff

On the recommendation of the Committee on Executive Compensation, the Board VOTED to approve several actions relative to compensation for the Society's Executive staff. The compensation of the Society's executive staff receives regular review from the Board.

Other Society Issues

The Board was briefed by its working group monitoring 2010 Board Logistical Training. This plan, which currently includes four broad topic areas, is designed to enhance overall Board effectiveness. The Board also received reports from several international guests representing the following scientific societies: Brazilian Chemical Society, the Chemical Society for Canada, the European Association for Chemical and Molecular Sciences (EuCheMS), the Royal Society of Chemistry (RSC), and the International Union of Pure and Applied Chemistry (IUPAC).

SPECIAL BENEFITS FOR UNEMPLOYED MEMBERS

In this tough economy, it's important that ACS members fully realize how the support of the ACS community can help them during difficult times. As an ACS leader, you can play an important role in getting this message out to members at the local section and division levels.

The message

ACS is here for you! If you're a member in good standing and you lose your job, you can apply for unemployed member status. You can retain your membership at no charge, stay connected to your professional ACS network, and tap into a host of programs and services that will help you get back in the workforce.

Benefits for unemployed members

Benefits designed to help members during their period of unemployment include free registration at ACS national meetings; special discounts on ACS/Harvard courses, ProSpectives, and Short Courses; and ACS Careers services such as mentoring, résumé review, and job search strategies. Also, members get access to the ACS Salary Comparator, a valuable tool when negotiating for a new position. For a complete list, go to www.acs.org/unemployed.

Information on the dues waiver

Unemployed members are encouraged to contact ACS customer service at service@acs.org, 800-333-9511, or 614-447-3671 to apply for Unemployed Member Status.

Call for Nominations

EDWARD J. MERRILL AWARD FOR OUTSTANDING HIGH SCHOOL CHEMISTRY TEACHER FOR 2011

Now is the time to begin thinking about nominations for the Edward J. Merrill Award, North Jersey Section, for Outstanding High School Chemistry Teacher for the year 2011.

Go to the web site, **njacs.org** under education and obtain your preliminary nomination form and guidelines. The full packet takes time to do a good job!

We all know an outstanding high school chemistry teacher. Perhaps one from your

town, your son's or daughter's teacher or just one that you have heard about or worked with at some point. The award carries \$500 for the teacher, \$500 in supplies for the teacher's classroom and a plaque to display at home or in the classroom.

Any questions or help needed contact George Gross, njmoxie1@verizon.net.

Others

ASSOCIATION OF CONSULTING CHEMISTS & CHEMICAL ENGINEERS

What We Can Learn from DSC

Speaker: Dr. Michael M. Blumenthal Libra Technical Center, LLC

Differential Scanning Calorimetry is a simple technique of thermal analysis. The many uses of DSC include determining melting points, boiling points, phase and glass transitions, purity, and heat capacity. The range of temperatures normally covered are from about -80 to +725C. Many industries use DSC information for research, testing, and quality and process control. A variety of applications will be presented, and discussion welcomed.

Dr. Mike Blumenthal recently received his 50th year pin from the ACS which he joined at age 17. His industrial research background was in physical and analytical chemistry, and process engineering development of lipids and specialty chemicals, food, and packaging. He has operated the Libra Labs affiliated companies for 30 years including an international consulting practice, and was one of the first in the world to design and commercialize scientific and management software suites for personal computers. He is unflagging in his thirst for new knowledge and projects. Mike's latest interest is in three-dimensional printing which largely depends on the thermal, sensory, and rheological properties of specialty materials, process equipment, and computer control.

Date: Thursday, June 24, 2010

Place: Snuffy's Restaurant Park & Mountain Ave. (Route 22 East) Scotch Plains, NJ

Times: Networking/Cash Bar 6:00 PM

Dinner 6:30 PM Presentation 7:30 PM Cost: \$35 ACC&CE Members \$45 Non-members

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



TRISTATE CHINESE AMERICAN CHEMICAL SOCIETY

Opportunities for Chemistry in a New Decade: Impact on and Around Us

The Tristate CACS symposium traditionally features keynote speeches and networking opportunities. Senior executives renowned scientists from the major chemical, consumer and pharmaceutical companies in the Tristate area are invited to give keynote presentations. It is noted that the president of American Chemical Society, Dr. Joseph S. Francisco, will give a keynote speech at the incoming symposium. In addition, the symposium will continue to have an all-day Vendor Exhibition to go along with the presentations. Interested vendors are welcomed to promote their brands or products at the symposium. Detailed agenda of the symposium will be available soon at http://tristatecacs.org

The Tristate CACS is an organization of professionals and students in chemistry, chemical engineering, and related fields. It has about 1000 active members based in CT, NY, NJ, PA, and DE. In recent years the Tristate CACS symposia attracted 200 to 300 members and non-member attendees each time and have seen steady growth in attendance. The organizers are confident that the audience size will continue to grow this year.

Date: Saturday, June 26, 2010
Times: 8:00 AM to 4:00 PM
Place: Busch Campus Center
Rutgers University
Piscataway, NJ

To inquire about Tristate CACS or 2010 Symposium, please contact Dr. Fangbiao Li (President Elect 2011, fanbiaoli@hotmail.com) or Dr. Duxi Zhang (President 2010, duxi.cacs@gmail.com). For Vendor Exhibition information, please contact Dr. Wendy Zhong (Vendor Coordinator, wendy.zhong@spcorp.com).

Press Releases

FDA 483 Letters Response Guide Now Available

"How to Avoid and Respond to Public FDA Criticisms-Form 483 Letters-for Temperature, Humidity and Controlled Environments" is now available from Veriteg, a leader in FDA-compliant environmental monitoring, alarming, reporting and temperature/humidity technology (http://www.veriteg.com/fda_response.htm). The 10-step Guide is designed to help the wide range of pharmaceutical processors, blood and tissue banks, clinical laboratories, medical device manufacturers, research hospitals, and other GxP facilities who may receive public criticism warning letters respond quickly and appropriately within the permitted 15-day window. Proper FDA 483 letter response is critical to both help in reputation repair and for real remediation actions to assure a quality process and patient safety.

FDA 483 letters are expected to increase this year, reflecting the FDA's recent staff expansion and rewrite of the FDA 483 Letter rules to narrow response time to the new 15-day window.

To obtain a copy of the Guide fill out the request form at http://www.veriteq.com/fda_response.htm or contact: Janice Bennett, Veriteq Marketing Manager, 800-683-8374.



NCPA Offers Alternatives to Combating Meth Labs Problem Examined in Senate Hearing

ALEXANDRIA, Va. (April 13, 2010) - In an effort to reduce the use of pseudoephedrine in the production of illicit methamphetamine, the U.S. Congress is considering legislation to change the status of pseudoephedrine-containing products from over-the-counter (OTC) to prescription. Oregon has made such a switch and Mississippi will require prescriptions starting July 1.

Today, the U.S. Senate Caucus on International Narcotics Control held a hearing with Chair Dianne Feinstein (D-CA) and Co-Chair Charles Grassley (R-IA) to examine the ramifications of a federal solution

and receive input from relevant affected parties in dealing with this issue. In response, the National Community Pharmacists Association (NCPA) issued a statement expressing its opposition to the potential federal remedy by explaining, "Making pseudoephedrine a prescription product will have the detrimental effect of unreasonably burdening patients who rely on their local community pharmacists to provide timely access to beneficial OTC medications, including the counseling services that allow patients to make the right decision on which therapy will best suit their symptoms."

However, NCPA, recognizing the serious concerns from local, state and federal politicians and law enforcement officials, included an alternative approach:

"As an alternative to prescription status, efforts that allow for electronic tracking of OTC medications containing pseudoephedrine have been adopted in several states to fight illicit meth production while maintaining access to these products.

"When considering expansion of electronic tracking systems, it is imperative to realize the fact that approximately 35% of independent pharmacies do not have point-of-sale capabilities to log sales transactions and would have to utilize the Internet instead. This approach is oftentimes not conducive to pharmacy workflow and OTC sales.

"In addition, as over-limit sales are denied at point of purchase of the pseudoephedrine product, community pharmacists and their staff are placed in a potentially dangerous situation of having to deny sale of the product. Even though opportunities may exist to override the transaction, this still puts the burden of determining whether a potential criminal can obtain pseudoephedrine on the pharmacist. Simply stated, community pharmacists should not be put in the position to serve as OTC drug police.

"Lastly, consideration must be given to the cost of implementation of an electronic tracking system on pharmacy operations. We expect the manufacturers would bear the full short- and long-term cost of developing, maintaining, updating and installing the systems in pharmacies. This has to be a long term commitment, and cannot be an unfunded mandate on community pharmacies."

Chem TAG Corner

From: Roseanne McCarthy

Ocean Township High School

Edited by: George R. Gross, retired

Union High School

Tasty Models

Use available confections to teach atomic theories.

Applications: atomic theory models history of chemistry

Theory: Each of the atomic theorists used models to identify the atom by using concrete examples to describe their model. By using items that are familiar and readily seen by the students, you too will be able to exemplify these historic models with some degree of familiarity and concrete examples.

Each confection illustrates a different historic model.

Materials: sour balls, chocolate chip cookies, tootsie pops, gob stoppers, Ferrero Rocher chocolates

Safety Precautions: Observe standard demonstrator safety. Remember that foods, once in the lab, are not to be consumed. If you wish to share with students, do this demo in a cafeteria or other non-science room.

Preparation: Obtain the above materials.

Demonstration:

 $\underline{\text{Dalton}}\text{--}\text{the solid sphere model--a sour ball}$

Dalton said the atom was a solid mass just as a sour ball is solid throughout.

<u>Thomson</u>—Plum Pudding Model—the chocolate chip cookie

Thomson described the atom with negatively charged particles scattered throughout. Our students are not familiar with "plum pudding" but they are all familiar with chocolate chip cookies.

Rutherford—Nuclear atom—tootsie roll pop

Rutherford determined that the atom was mostly empty space with a dense center.

The tootsie roll has a candy shell with a tootsie roll at the center (use your imagination).

<u>Bohr</u>—Solar system model—gob stopper or some "jaw breakers"

Bohr placed electrons in energy levels that were identified with specific area outside the nucleus. Gob stoppers change colors as the outside dissolves. Each layer is a different color.

Heisenberg/Schrödinger—probability theory—electron cloud—Ferrero Rocher chocolates. These candies have a hard center (hazelnut) with small pieces of hazelnuts in chocolate surrounding the nut. The probability theory has electrons scattered outside the nucleus. The electrons are in a predictable space outside the nucleus but no exact location can be identified.

Outcomes: Students will have concrete models upon which to ponder and base their knowledge of historic atomic models.

Disposal: Students may consume the items, but only in a non-science setting. See safety section above. Items used for demonstration are dirty and may be disposed of in the trash.



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