



Double Bond

The Newsletter of the Western New York Section of the American Chemical Society

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2012 UNDERGRADUATE RESEARCH SYMPOSIUM

The Western New York section of the American Chemical Society will sponsor its 2012 Undergraduate Research Symposium this spring! This event is being hosted by the Canisius College Department of Chemistry and Biochemistry. Everyone interested is welcome to this event! See the link below for registration information.

Student researchers are invited to present a poster or a 15-minute talk at the symposium. Please register for the event, and send in a simple abstract form available at:

wny.sites.acs.org/undergradsymposium.htm

This year's symposium will feature a keynote address by Prof. Todd D. Krause, of the University of Rochester. There will also be valuable prizes for the best student presentations.

There will be a fee of \$5.00 collected at the door for symposium registration, and this will include lunch. Plenty of free parking will be available. For directions and other details, please see the website, or contact the 2012 Symposium Chair:

Dr. Timothy Gregg
greggt@canisius.edu
(716) 888-2259

THE 2012 SCHOELLKOPF MEDAL

Nominations for the 2012 Schoellkopf Award will be accepted through May 1, 2012

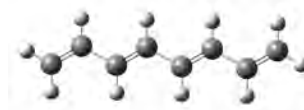
The Jacob F. Schoellkopf Medal is the oldest award of the American Chemical Society given by a local section. The purpose of the award is to recognize a person who has fostered the objectives or activities of the American Chemical Society. The medalist's contribution might be a discovery pertaining to chemistry, or an invention of a plan, process, or device, useful, valuable, or significant in the theory or practice of chemistry, or distinguished service to the Western New York Section. The nominee's work must have been performed in Western New York.

Please consider nominating one of your colleagues for this prestigious award. Any nominations received after the May 1st deadline date will be considered for next year's award. Nominations should include a letter stating the candidate's contributions and a recent CV of the candidate. Additional letters (at least 2) supporting the nomination are an important factor in awardee selection.

This year's Schoellkopf committee chair is Dr. Valerie Frerichs. For further information you may contact the chair directly at (716) 645-4135 or zuccari@buffalo.edu.

Please email all nominating documentation for the 2012 Schoellkopf Award (as Adobe PDF files) to:

Dr. Mary O'Sullivan
Secretary, WNY Section ACS
osulliv1@canisius.edu



70 YEARS AGO IN THE DOUBLE BOND

*The following excerpts appeared in the
February, 1942 Double Bond*

INDUSTRIAL TOXICOLOGY

Abstracted by Graham Hill

At the first meeting this year of the Western New York Section of the American Chemical Society, held Tuesday evening, January 20, 1942, in Hotel Niagara, Niagara Falls, John H. Foulger, Director of the Haskell Laboratory of Industrial Toxicology, Wilmington, Delaware, spoke on "Industrial Toxicology".

The importance of this subject cannot be overstressed during the coming months, stated Dr. Foulger to open a lecture which was of extreme importance to all industrialists, and also of general interest to the public. He stated further that history repeats itself only when we fail to learn. In 1914 Germany excelled in organic chemistry, especially in explosives, but they lacked the toxicological information necessary for the safe manufacture of organic chemicals of a toxic nature. Today the United States is the leader in both fields, although the industrial knowledge far exceeds the toxicological knowledge. The health of the industrial worker is as important as the soldier; for during the last war England had to recall men badly needed at the front to work in the industrial plants producing war materials.

The knowledge of toxicology must be collected and a program formulated to conserve health in preference to treating ill health. In formulating the program for the Haskell Laboratory, the general plan was based on accepting two axiomatic facts. First that there isn't any chemical that cannot be safely manufactured with the application of common sense, and secondly medicine in industry should be preventive as well as curative.

A scientific approach to the problem should be based on measureable values. Blood pressure is a measureable value as is the enlargement of the blood vessels, which can be measured by the frequency of the heart sounds. This information gathered from an examination of a new employee will further enable the examiner to tell what will happen if the man is exposed to a harmful chemical.

Exposure to a low concentration of a harmful chemical in general acts as a stimulant, but if the concentration is increased the reaction is reversed and the individual becomes depressed.

There are five stages of reactions on exposure to all harmful chemicals and diseases. In this study only animals and in some cases men, were used whose true normal blood pressure was known, after many tests. The first stage of exposure to a chemical produces no change from normal. In the second stage a man's condition on Friday is below his normal on Monday morning. In the third stage he is below normal on Monday evening, but is fully recovered and normal on Tuesday morning. In the fourth stage the personal is normal on Monday morning, below normal on Monday evening, and below normal on

Tuesday morning. In the fifth and final stage the workman is no longer normal on Monday morning, and even a week-end rest is not sufficient for him to fully recover. In this stage he is much more susceptible to accidents, and yet to the physician he is perfectly normal. His productivity may be cut thirty percent, which could mean that only 42,000 of the President's requested 60,000 planes would be produced this year.

The American Medical Association stated recently that there isn't any proof that vitamins make people more resistant to diseases and chemicals. This statement was repudiated by the speaker who stated that he has proof to the contrary. He also stated that more than the normal intake of vitamins is necessary for an individual who is exposed to a harmful chemical.

An automobile driver who is taking or has recently taken sulfanilamide or one of its derivatives is a potential accident victim due to this drug's action on the body, so much so that an exhaust leak which has never troubled any of the other passengers, may render the person who is taking drugs completely unconscious. It isn't so bad if that person isn't driving.

The speaker concluded this most interesting lecture by stating that we must get behind a general health program in industry and outside industry.

Dr. Foulger volunteered to answer questions which brought out some more interesting points about industrial health.

One of the first questions was the harm of smoking, and the speaker admitted it hadn't killed him yet, but too much smoking causes fatigue, in fact any thing in excess is harmful.

Again the speaker stressed the point that all individuals are not alike, and one individual may collapse during his first exposure where others have worked for a reasonable length of time with very little difficulty.

Rubber gloves are not as safe as frequently washed cotton gloves. The speaker asked if the rate of diffusion of various chemicals through rubber gloves was known. They are generally worn until they are worn out. Four or more pairs of cotton gloves replaced every time they are soiled are much safer than rubber gloves.

The final question concerned absorption through the skin which Dr. Foulger believes is a very important path through which chemicals reach the body. In one plant where he visited the women in one room were handling cordite and in a short time every one refused to work in the one department. It was light, airy, and well ventilated, but they complained of very severe headaches. Dr. Foulger advised the manager to allow ten minutes every hour to thoroughly wash their hands and to provide a mild soap. Three weeks later everyone wanted to work in that department.

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