

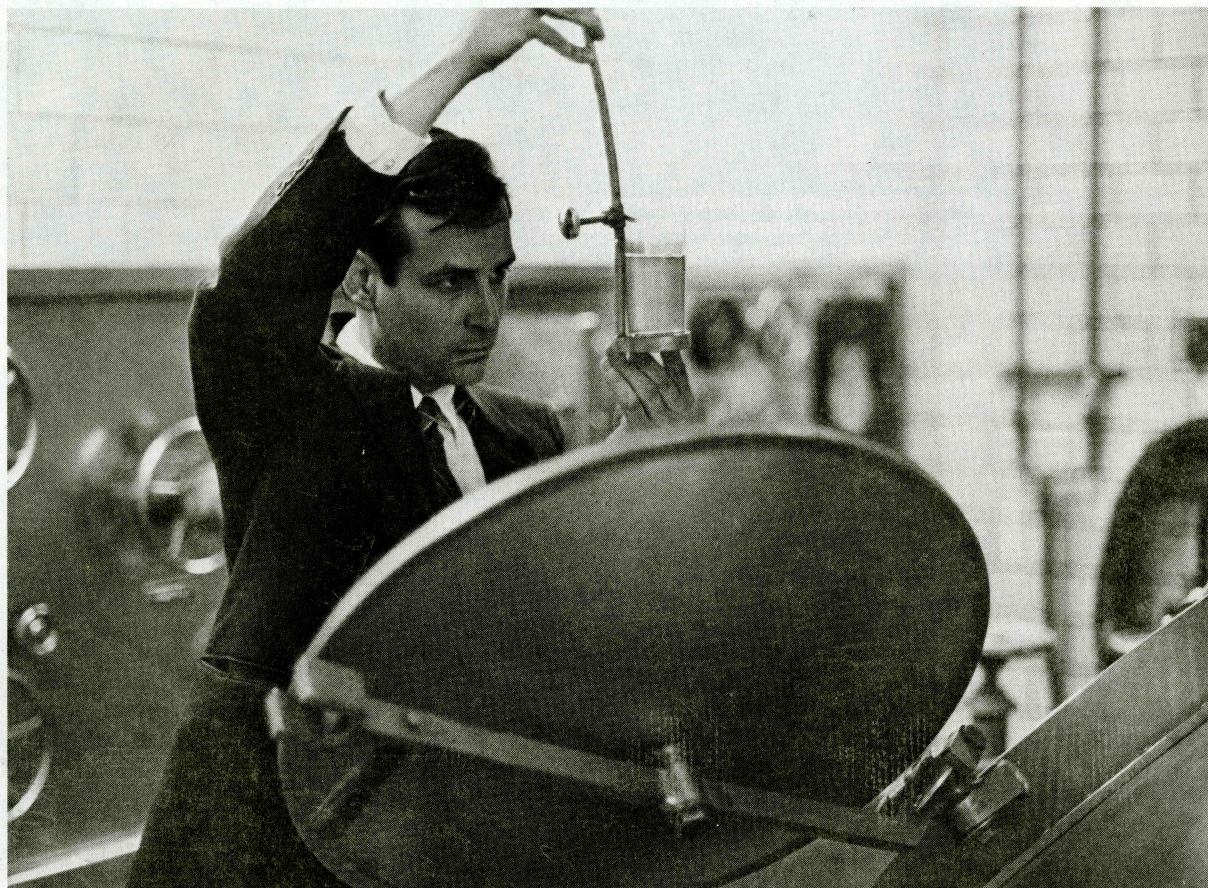
JANUARY 1986

the nucleus



VOL. LXV, No. 4

OF THE NORTHEASTERN SECTION OF THE AMERICAN CHEMICAL SOCIETY



NEW TOPICAL GROUP: BEER AND WINE MAKERS

James Koch

Maker of Samuel Adams Beer: *see page 5*

JANUARY SECTION MEETING: *see page 5*

Ivan N. Mefford (NIH)

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the nucleus

Dedicated to the Memory of James Flack Norris

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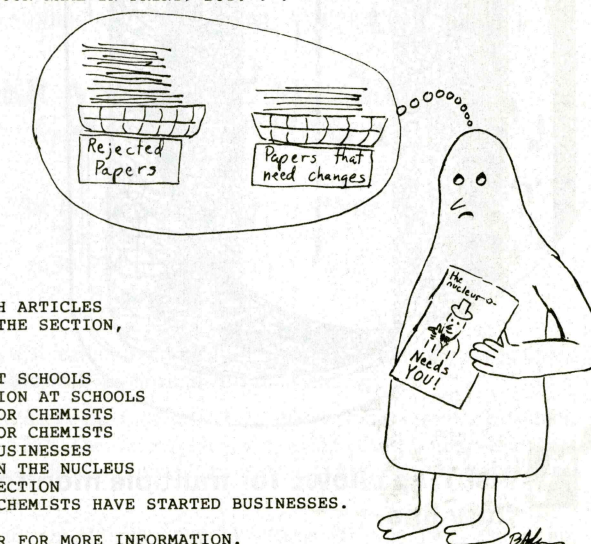
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Cover photo: James Koch testing wort clarity (wort is unfermented beer).

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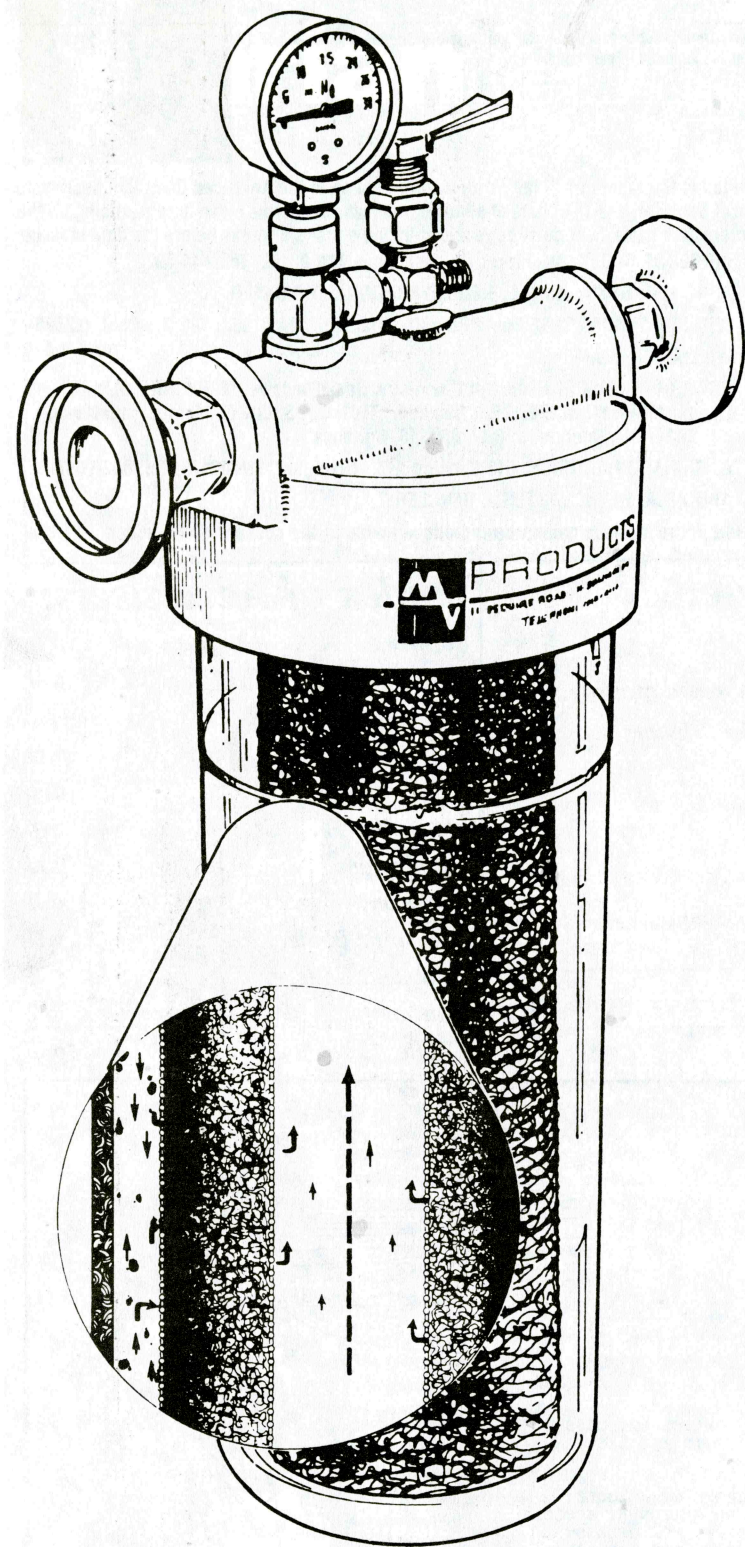


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- *AND, HOW AND WHY CHEMISTS HAVE STARTED BUSINESSES.

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JANUARY MEETINGS

THE SIX HUNDRED AND EIGHTY EIGHTH MEETING OF THE NORTHEASTERN SECTION OF THE AMERICAN CHEMICAL SOCIETY

Thursday, January 9, 1986
 Boston College
 307 Higgins Hall
 Chestnut Hill, Massachusetts

5:30 pm Social Hour: Faculty Dining Room
 6:30 pm Dinner: Faculty Dining Room
 8:00 pm Lecture: Higgins Hall

IVAN N. MEFFORD
 National Institutes of Health

1. The use of Microbore HPLC with Electrochemical Detection for Determination of Biogenic Amines such as Neurotransmitters
2. The Separation of Anions Using Reverse Phase and Ion Exchange Mechanisms.

Dinner Prices: Members: \$13, Students: \$5, Non-members: \$15. Dinner Reservations: No later than January 3, 1986. Please call Mrs. Fineman at 965-5245. Reservations not cancelled at least 24 hours in advance will be billed for the dinner price. Refreshments will be served after the speech.

Ivan N. Mefford Biographical Sketch

Ivan N. Mefford is currently Chief of the NIH unit on Clinical Neurochemistry. He holds a B.S. in Chemistry from Kentucky State University in 1974. In 1978 he received his Ph.D. with Ralph Adams. The next three years were spent at Stanford University Medical Center as a Research Associate. In the fall of 1982 he was appointed Assistant Professor of Chemistry at Boston College where he continued his research on the detection of neurotransmitters and brain chemistry. This year he was appointed Chief of the Neurochemistry Section on Clinical Psychopharmacology at NIH.

ABSTRACT

The combination of microbore HPLC with electrochemical detection is capable of detecting extremely small concentrations of neurotransmitters in cerebrospinal fluid. This method has been shown to detect concentrations lower than 10^{-15} g/L. The speaker also hopes to be able to talk about his most recent efforts in detecting anions by combining reverse HPLC with ion pairing.

February Meeting Thursday February 13, 1986

Dr. Angelo Lamola will talk on "Bilirubin: Photochemistry, photophysics, photobiology, photomedicine. The talk will be at MIT.

New Deadlines

Because of various problems we have encountered recently with our mailings, it has become necessary to move up the date for submission of material for the Nucleus. The editor requests that material be submitted according to the following schedule:

Issue	Material due by
March	January 20
April	February 20
May	April 17

THE NORTHEASTERN SECTION OF THE AMERICAN CHEMICAL SOCIETY

BEER AND WINE MAKERS' GROUP MEETING

The First Meeting Will Take Place
 Tuesday, January 14, 1986
 6:30 PM in the Faculty Center
 Brandeis University

The dinner meeting will feature a talk by James Koch, the man who is bringing brewing back to Boston with his Samuel Adams beer.

Dinner reservations must be made by January 9, 1986 with Mrs. Janice Fineman, telephone (617) 965-5245. The dinner price will be \$13 per person for members and non-members alike. Reservations not cancelled 24 hours in advance must be billed at the dinner price.

This group is open to non-ACS members as well as ACS members and all are welcome.

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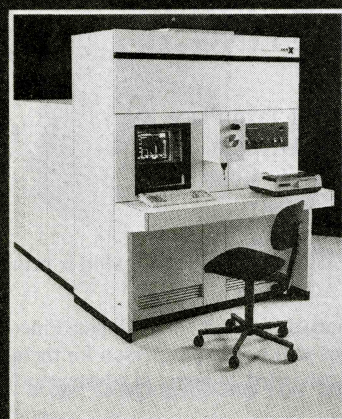
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The 1985 JAMES FLACK NORRIS AWARD

For Outstanding Achievement in the Teaching of Chemistry
Ceremonies at Wellesley College, November 7, 1985

Photo credits: Ethan Simon



Dr. Alfred Viola, Chairman of the 1985 Norris Award Committee, Dr. Derek Davenport, award recipient, and Dr. Myron Simon, Chairman, NESACS.



Dr. John W. Moore, Eastern Michigan University, who introduced the award recipient, with Mrs. Moore and Dr. Davenport.



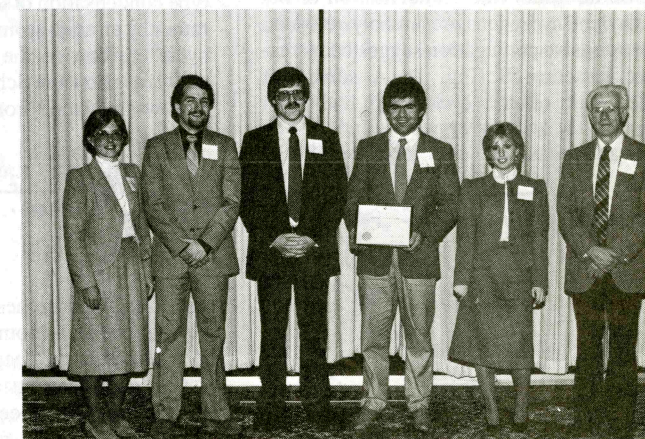
Mrs. Mary Ann Taylor; Dr. Lloyd Taylor, Chairman-elect, NESACS; Dr. Martin Idelson.



The new ACS Student Affiliate Chapter at Rivier College received its charter. Left to right: Terry Cushing, Michelle Fontaine, Dr. William Theroth, Julie LaPointe, Dr. David Burgess, Janis Gregoire.



Dr. Phyllis A. Brauner, Councilor and Co-Chair of the Continuing Education Committee, NESACS, shares a joke with Mrs. Rose Simon.



The new ACS Student Affiliate Chapter at St. Anselms College also received its charter. Left to right: Kathleen Brunke, faculty advisor, Joseph LaBarre, Fred Stewart, Donna Ritchie, Roy Upham.

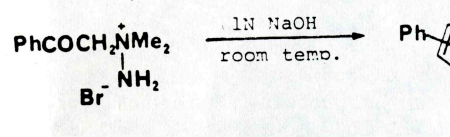
1985 NORRIS SUMMER SCHOLARS REPORTS - I

Unexpected Cyclizations to Pyrazoles and Imidazoles

by David Scarpetti*

Department of Chemistry, U. Mass. at Boston, Harbor Campus

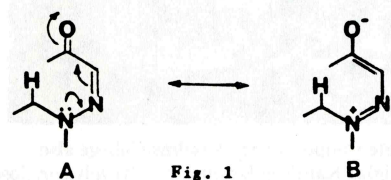
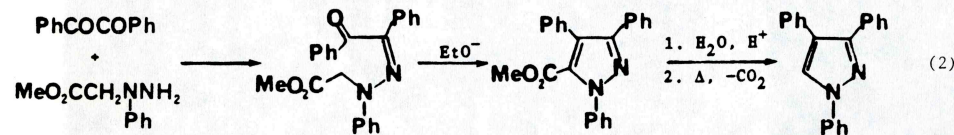
One of the many products of the reaction of 1,1-dimethyl-1-phenacylhydrazinium bromide with aqueous alkali was established to be a benzoyl phenyl 1-methylpyrazole¹ (4) (Eq. 1). As a result of the oversight of the one reported isomer of 4 during a literature search, coupled with the fact that this compound seemed to be



the only one described, the synthesis and characterization of all six benzoyl phenyl 1-methylpyrazoles (4) was undertaken. As part of the aforementioned investigation, the synthesis and characterization of 5-benzoyl-4-phenyl-1-methylpyrazole (4d) turned out to be a major difficulty which led to the research project tackled under the aegis of the James Flack Norris Scholarship this past Summer and early this Fall.

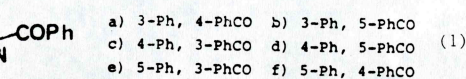
Although electrophilic substitution allows the introduction of certain functional groups to the 4-position of the pyrazole ring², the synthesis of moderately complex pyrazoles is not a routine matter and usually requires several steps. These difficulties make any general pyrazole synthesis a premium commodity.

Several years ago, a Russian group^{3a} reported the formation of a compound claimed to be 3,4-diphenyl-1-methylpyrazole from the cyclodehydration of the monodimethylhydrazone of benzil; a related description of pyrazole syntheses was described by two Italian groups^{4,5} via the cyclization of some α-ketohydrazones to the corresponding pyrazoles (e.g. Eq. 2). These cyclizations, which seemed particularly well-suited to our needs, apparently were predicated on an "aldol-like" condensation of the N-methylene hydrogens presumably activated by the extensive conjugation suggested by resonance structure B (Fig. 1). A somewhat different but related cyclization had been

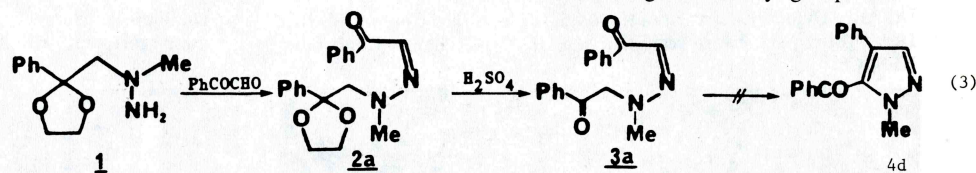


described much earlier in the literature by von Auwers and Mauss⁷ who reported the formation of 4-benzoyl-1,5-diphenylpyrazole by the treatment of 1-benzoyl-1-phenylhydrazone of benzoylacetaldehyde with ethanolic alkali.

The well known instability of α-hydrazinoketones⁸ coupled with the necessity to have

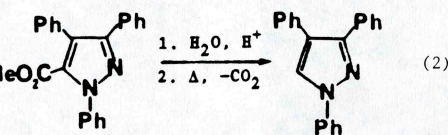


the N-methyl substituent of 4d already in place, led to the synthesis of 2a as outlined by Eq. 3. The ketal hydrazone (1) obtained by alkylation of methylhydrazine with phenacyl bromide ethylene ketal, was condensed with



phenyl-glyoxal to yield the required hydrazone (2a). Treatment of 2a with 75% sulfuric acid led not only to deketalization but to a product which initially appeared to be the desired 5-benzoyl-4-phenyl-1-methylpyrazole. However, this product turned out to be identical to 3-benzoyl-4-phenyl-1-methylpyrazole (4c, Ar = C₆H₅), obtained by three different routes; unequivocal confirmation was provided by an X-ray crystal structure determination¹. The fact that 4c and not 4d was the product of reaction 3 suggests that the benzoyl group attached to the imino carbon becomes the substituent benzoyl group of the pyrazole and that the cyclization of 2 (or 3) is proceeding not via an "aldol" type condensation of the methylene group but rather by an acid-promoted attack of the "aldehydic" carbon of the ketal carbon (or carbonyl) as shown in Scheme 1. Support for this path was adduced from the cyclization of the

occurring during the cyclization. A possible rationalization may be depicted as shown in Scheme 2.¹²



Thus, an investigation was undertaken in an attempt to extend the scope of this cyclization beyond the specific substituents indicated in Scheme 1 and to perhaps develop this reaction as a novel and useful route to pyrazoles—and even possibly to related heterocyclic systems such as isoxazoles and isothiazoles as shown in Scheme 3.

So far, we have successfully used this strategy for the cyclization of the 1-phenacyl ethylene-ketal-1-methylhydrazone of benzaldehyde (8a) with aluminum chloride and obtained the corresponding 3,4-diphenyl-1-methylpyrazole (9) in 31% yield (Eq. 4). Interestingly, a second compound was isolated as a significant by-product (14%) from this reaction and was tentatively assigned the structure of 1-methyl-2,4-diphenylimidazole (10), on the basis of its spectra and mp. which corresponds to that reported in the literature.¹³ A possible rationalization for the formation of the imidazole under these conditions is depicted in Scheme 4. The ketal hydrazone (8) could be "deketalized" by the Lewis Acid resulting in the putative intermediate ketohydrazone 11a whose anticipated instability was alluded to earlier. Tautomerization to the enol form (11b) followed by fragmentation would lead to benzaldimine and

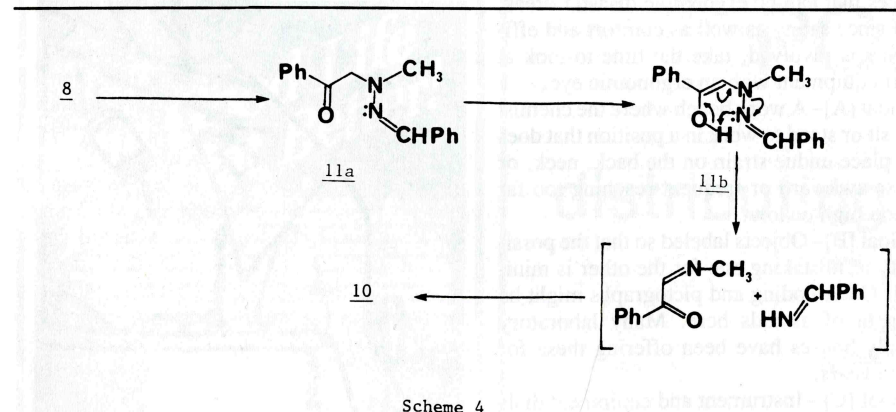
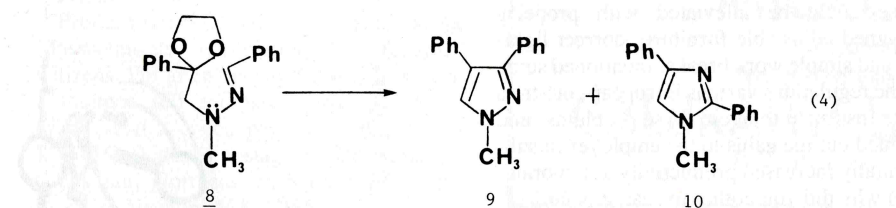
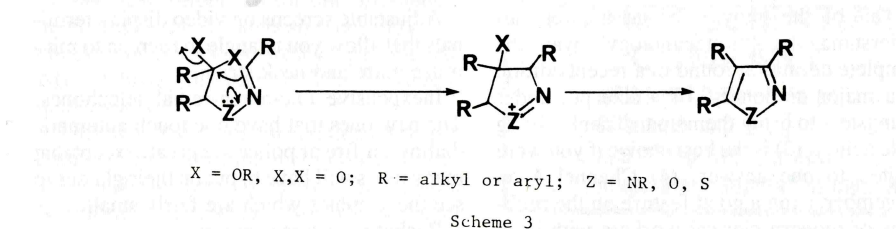
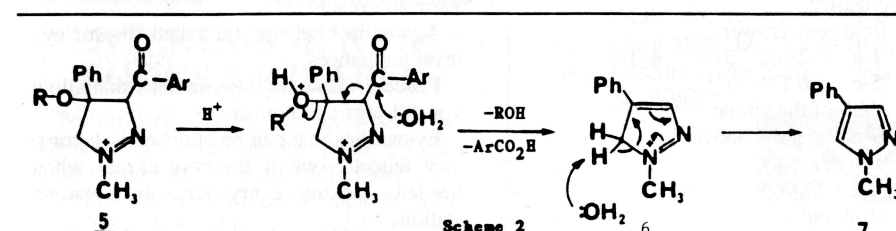
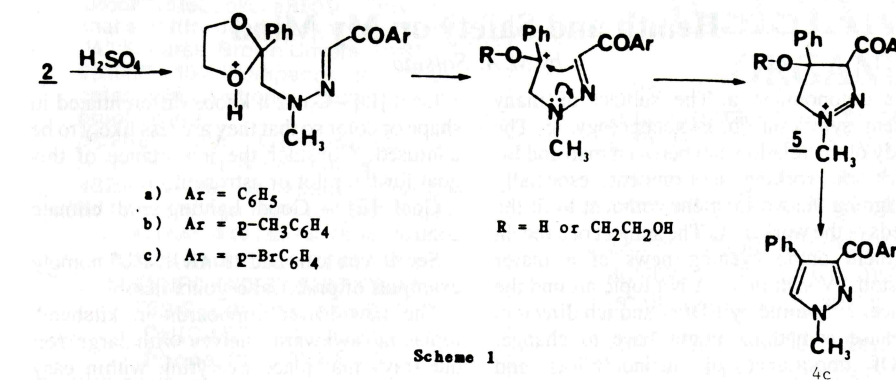
scope and utility of the potential pyrazole synthesis. An unanticipated and exciting bonus may be the utilization of the "side-reaction," by suitable structural changes and experimental modifications, as a potential imidazole synthesis.

Work is continuing in several areas such as confirmation of the structure of 10 by authentic synthesis and further extension of the

N-methylphenylglyoxaldimine. Recombination of these two imines should indeed produce the observed imidazole 10.

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NORRIS SUMMER SCHOLARS
continued from p. 8



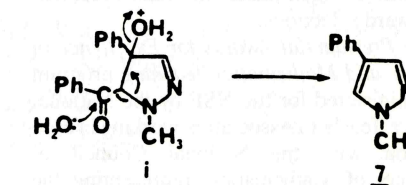
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- * A portion of this work has been accepted for publication in Tetrahedron Letters and will appear in the near future.
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b) "Advances in Pyrazole Chemistry" in "Advances in Hetero-cyclic Chemistry," A.R. Katritzky, Ed., Academic Press, New York, N.Y., 1966, Vol. 6, Ch. 5.
c) A.N.N. Kost, "The Chemistry of Heterocyclic Compounds," A. Weissberger, Ed., Interscience Publishers, New York, N.Y., 1967, Vol. 22.
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 - A. Alemagna, T. Bacchetti and S. Rossi, Gazz. Chim. Ital., 93, 748 (1963).
 - The "acidity" of the N-methylene hydrogens would evidently be enhanced greatly by being further activated by a carbonyl group in the examples described by both Italian groups.
 - K. von Auwers and H. Mauss, J. prakt. Chem., [2], 117, 311 (1927).
 - a) M. Busch and W. Foerst, ibid., 119, 287 (1928).
b) M. Koga and J.-P. Anselme, Chem. Comm., 53 (1973).
 - It is interesting to note that while the product of the Russian workers (ref. 3a) has been shown to be an imidazole (ref. 3b), the work of Alemagna *et al.* (ref. 5) seems to indeed have proceeded through an "aldol-like" condensation to give the pyrazoles.
 - L.I. Smith and W.B. Pings, J. Org. Chem., 2, 23 (1937).
 - The yields of 6 and 7 are nearly quantitative.
 - Similar mechanism could be written from the putative pyrazoline (i) derived from the "aldol-type" cyclization.



David J. Olney Honored for Excellence

The White House has announced the selection of 104 teachers throughout the United States to receive the *Presidential Awards for Excellence in Science and Mathematics Teaching*. Teachers were selected on the basis of classroom performance, student progress, and professional endeavors.

From every state, the District of Columbia, and Puerto Rico, an outstanding science teacher and an outstanding mathematics teacher have been selected as recipients of this coveted Award. David J. Olney of Lexington High School was the science teacher selected from Massachusetts.

In addition to the Presidential citation and a 4-day, expense-paid trip to Washington, D.C., the Presidential Awardees receive \$5,000 grants from the National Science Foundation (NSF) for their schools which can be spent over 2 years to supplement current science and mathematics programs. Private sector contributors interested in supporting science and mathematics education for all students also offer a number of generous gifts. These prizes include personal computers, software, books, journal subscriptions, laboratory equipment, and the like.

Begun in 1983, the Presidential Awards program is designed to identify outstanding junior high and secondary school science and mathematics teachers who can serve as models for their colleagues. The program is also designed to provide increased status and rewards for demonstrated professionalism so that high quality individuals will be encouraged to enter and to remain in teaching.

Eligible teachers have 5 or more years teaching experience and spend at least half-time teaching science or mathematics in a public or private school in grades seven to twelve. Teachers may be nominated by colleagues, administrators, students, or parents of students. Winning teachers are judged on their effectiveness in the classroom, their impact on students, and their professional goals and activities.

The Presidential Awards selection procedure begins at the state level with a committee composed of teachers, other educators, and previous Presidential awardees. Twenty-four educators and researchers in science and mathematics make up the National Selection Committee which makes the final Presidential Award selections.

The *Presidential Awards for Excellence in Science and Mathematics Teaching* program is administered for the NSF by the National Science Teachers Association working in conjunction with the National Council of Teachers of Mathematics, representing the mathematics community on state level nomination and selection procedures, and, in science, with the Council of State Science

continued on p. 15

ERGONOMICS Health and Safety on My Mind

by M.A. Solstad

Is ergonomics: a. The subject of many recent symposia. b. Biotechnology. c. The study of the relationship between man and his work, or working environment, especially designing the working environment to fit the needs of the worker. d. The subject of a recent segment on the evening news of a major Boston TV station. e. A hot topic around the office. f. Ignored by EDO's and lab directors because something might have to change. g. Of importance of airline pilots and astronauts??

Circle your answer

- 1-a 2-b 3-c 4-d
5-e 6-f 7-g
8-all of the above
9-none of the above
10-a & c only
11-e & f only
12-all but b
13-who cares!

The answer: (12)-"all but b," but if you put (8)-"all of the above" for an answer, it's understandable; "Biotechnology" was the complete definition found in a recent edition of a major dictionary, of a size put under youngsters to bring them up to Thanksgiving table height. (3) is the best choice if you were limited to one answer. (4) Channel 4 on November 1 ran a good feature on the problems of modern clerical workers with back aches and eye tiredness. They showed ways these could be alleviated with properly designed adjustable furniture, correct lighting and simple work breaks, mentioned some of the regulations various European countries have instituted to avoid these problems, and pointed out the gains to the employer in substantially increased productivity and morale. (13) why did you bother to read this far?

A laboratory is among the many work-places that can be ergonomic disaster areas, and since safety as well as comfort and efficiency is involved, take the time to look at your equipment with an ergonomic eye.

Goal [A]-A work bench where the chemist can sit or stand to work in a position that does not place undue strain on the back, neck, or cause awkward or frequent reaching too far or too high or low.

Goal [B]-Objects labeled so that the possibility of mistaking one for the other is minimal. Color coding and pictographs might be thought of as aids here. Many laboratory supply houses have been offering these for some years.

Goal [C]-Instrument and equipment dials and scales that are clear, sharp, unambiguous and readable from eye level. While a chemist must match his eye to a meniscus in a buret or pipet, there's no reason he should have to stoop down to make out the legends on a pair of dials, when they could be angled for better viewing.

Goal [D]-Control knobs differentiated in shape or color so that they are less likely to be confused. Consider the importance of this goal for the pilot or astronaut.

Goal [E] - Good lighting and climate control.

See if you can add to my list of homely examples of practical ergonomics.

The new lower cupboards in kitchens, replacing awkward shelves with large roll out trays that place everything within easy view and reach.

Again, in kitchens, the trend toward eye level appliances.

Faucets with a high goose neck that allow you fill jugs and bottles.

Eyewashes that can be attached to laboratory faucets, out of the way except when needed, making every sink an eyewash station.

Office furniture in adjustable heights, and on casters, matched by adjustable chairs.

Adjustable screens on video display terminals that allow you to angle the screen to minimize glare and neck strain.

Inexpensive one-touch-redial telephones. The new ones that have one touch automatic dialing for fire or police are great, except that many users will have to put on their glasses to see the graphics which are fairly small.

Ratchet type screwdrivers.

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This year there are two editions available both of which cover the metropolitan Boston area and western suburbs. The Boston North/West also includes North Shore establishments while the Boston South/West covers the South Shore.

Profits from book sales are donated to the Massachusetts Association for Retarded Citizens. For an informational brochure send a stamped self addressed envelope and to order, send a check payable to B.E.A. for \$26.00 (includes \$1 postage) to: Dr. Wallace J. Gleekman, Northeastern Section ACS, P.O. Box 126, Newton, MA 02165.

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CHEMICAL INSTRUMENTATION FOR PROFESSIONALS

by Zvi Szafran

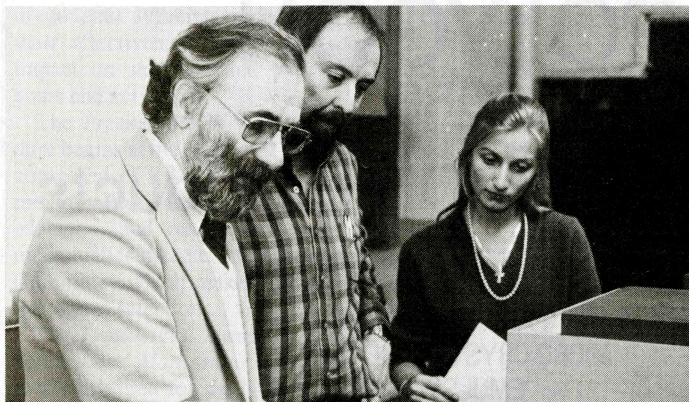
There has always been concern in the chemical community for ways to keep the skills of chemists in the workplace current with new advances in technology. This is particularly crucial in the area of instrumental analysis. Twenty five to thirty years ago, the average B.S. level chemist never used instrumentation more complex than a pH meter and what now could be considered a "model T" UV-VIS spectrophotometer. Many industrial chemists received their basic chemical training during that period. Since then, an avalanche of new, sophisticated chemical instrumentation has come on line. Further, many of today's graduates do not receive broad instrumental training. In some cases, techniques which could be useful in an analytical laboratory have not been adopted, due to the lack of familiarity the working chemist has with these alternate methods of analysis.

The chemistry department of Merrimack College (North Andover, MA) has always fostered close ties with local chemical industries. From discussions with industrial colleagues, it became apparent that there was a critical need for updating in the area of chemical instrumentation. One solution to the problem which was tried was the offering of the regular undergraduate Instrumental Analysis course during the five week summer session. This solution was not satisfactory, as the course was too theoretical in nature, and the hours were not appropriate to those working full time. Students from industry indicated to us that a course with its major emphasis on "hands on" training taught outside of normal working hours would best fit their needs.

At the same time, the chemistry faculty at Merrimack had a few needs of their own. Specifically, they desired the most up to date chemical instrumentation to be available for their own students. Merrimack is a small, private college with limited funds for this purpose. To address both these considerations, Drs. Davis, Pike and Szafran approached the Bay State Skills Corporation for funding a professional development course.

The Bay State Skills Corporation (BSSC) is a semi-governmental agency whose major purpose is to fund activities which would increase the job skills of persons working in industry in Massachusetts. The Merrimack professors put a proposal together, but then they discovered that the deadline for grant proposals to BSSC was in only two days. The proposal was hand delivered thirty minutes before the deadline. Then one remaining problem was discovered: BSSC only grants matching funds for proposals, the other half being required to be donated by industry. Was it possible to raise the \$23,000 in matching contributions in only two weeks?

Since the proposal was in the area of chemical instrumentation, the three professors approached instrumentally oriented companies. IBM



Dr. David Davis with students Norm Cormier (Greater Lawrence Sewer District) and Karen Holiday (Northeast Solvents).

Instruments donated two used WP-80 multinuclear NMR spectrometers. DuPont donated a Perkin Elmer 727 IR Spectrophotometer. Bruker Instruments donated three slots in their NMR users program, and Allied Analytical Systems donated their instructors and applications laboratory to be used in the program. This more than matched the requested amount. Later, the Aldrich Chemical Company donated the

use of the Nicolet/Aldrich FTIR computer search program.

The course was then developed with the assistance of Dr. Anne Arsenault, director of special programs in the Continuing Education division of Merrimack College. Due to the generous assistance of BSSC, the sponsoring industrial concerns, and the cooperation of the Reverend John E. Deegan, O.S.A., president of the college, the course could be offered for only \$200 per semester for each candidate. Response from the industrial community confirmed the need for such a program—the course's enrollment limit was quickly reached.

The course, Chemical Instrumentation for Professionals, is a 15-week program which meets on Tuesday evenings from 5:30 to 8:30 PM. Enrollment was limited so as to provide the maximum amount of hands on experience for each individual participant with the instruments. To further the small class size concept, the class was split into three groups, one to meet with each of the faculty members on a specific topic. The topics were NMR and IR spectroscopy (taught by Professor Z. Szafran), GC and HPLC (taught by Professor J.D. Davis) and polarography and AA (taught by Professor R.M. Pike). Each section consists of about three hours introductory lecture, so that the instruments are not merely "black boxes," with the remainder of the time (approximately 9 hours per set of topics) devoted to experimentation. Separate sections (three hours each) are also being given on Selective Ion Electrode techniques, flow injection analysis (given by Michael Gardell of Control Equipment Corporation) and Inductively Coupled Plasma techniques (given by John Sotera of Allied Analytical Systems).

To date, participant response to the course has been gratifying. The course appears to fit a genuine industry need, and is on a level appropriate to the participants' skills and needs. The program has been a success for all concerned.

The course will be offered a second and final time through the auspices of BSSC in the spring semester, starting January 28 and ending May 13, Tuesday evenings from 5:30-8:30 PM. The cost is again \$200. Enrollment is still strictly limited, so interested parties should contact either Dr. Szafran at 683-7111 x381 or Dr. Anne Arsenault at 683-7111 x324 as soon as possible. If demand is sufficient, the course may again be offered at some future date.

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HISTORICAL NOTES

Our guest columnist this month is Emeritus Professor Arno Heyn of Boston University, where he continues in part-time work as director of laboratory work for freshman chemistry majors. He is a native of Breslau, Germany, where his father was a pharmaceutical chemist. He received the Ph.D. in analytical chemistry in 1944 under Hobart H. Willard at Michigan. After employment at Sun Oil he came to Boston University in 1947. Arno has been active in the affairs of the Northeastern Section for over 30 years. He has served on numerous committees and was Chairman of the section in 1968. In the national ACS he was secretary of the Membership Affairs Committee (1970-1972; 1974-1979). He served on the Constitution and Bylaws Committee (1980-1985) (Chairman 1983-1985) and recently was elected a member of the ACS Council Policy Committee.

E.R.A.

Does anyone recall the first NERM meeting in 1968? Since it was the first Northeast Regional Meeting, and the Northeastern Section was the host section, the organizing committee, headed by the late Larry Powell tried its best to run a successful meeting with special attention to details. At the Statler (the headquarters hotel where the meetings were held) a constantly refilled coffee urn poured forth rivers of coffee to all thirsty comers (later we figured the cost at about \$1.50 per cup at 1968 prices!), a gala banquet at the Stat-

ler which the President-Elect of the ACS, Wallace Brode, also attended and, as the crowning social event, a champagne reception at the Isabella Stewart Gardner Museum, which was specially opened for the occasion. A chamber group from the Boston Symphony had been hired to play on the balcony overlooking the central courtyard. Champagne and sandwiches were to be served in the large music room and the rest of the museum was to be open for those who wished to wander through the collection.

That year I was Chairman of the Section, and when my wife and I drove up at 8 p.m. toward the museum on the Fenway we saw no lights. I had the horrible feeling. Did I make a mistake, and is this the wrong night? We parked and walked to the front door where we encountered a guard with a flashlight and the news that Boston Edison was working in the next street and the power was off "for a while." Only a couple of emergency lights were on and, obviously, the public could not be admitted to the upper floors because of the lack of illumination and security considerations.

For those of you who haven't been in the Gardner Museum, it was built by the somewhat eccentric Isabella Stewart Gardner, with painstaking attention to detail. It is a Venetian palace with a large central courtyard. Because of our cooler climate, it is roofed over with a glass roof. The plantings in this courtyard are famous for their beauty and meticulous maintenance. Surrounding this courtyard is a cloister-like arched gallery. This was the only

area open to the assembled NERMers and was lighted by a few candles and the two emergency lights. The chamber group had assembled on the balcony, but without lights they could not read their music and had to play from memory. To while away the time, during our wait for the return of the lights, they played chamber music which floated through the almost dark courtyard—a very appropriate setting for the Mozart serenade and other eighteenth-century chamber music. When, after an hour, the power was still off, the caterer brought the champagne downstairs and started serving to the gathered multitude. By this time it was 9:30 and several of us were debating whether we should call it a night. I noticed the President-elect of the ACS getting his coat from the coat-room. He had had enough and thought the whole thing was a disgrace. I was amused by his inability to feel the charm of the event. The throw-back into the quieter, more courtly, and—yes—darker days of two or three hundred years ago which, by accident, we had experienced like a dream of days gone by.

Just as we were about to announce the closing of the event the lights came back on and the reception proceeded as planned, but the magic had disappeared—in fact, I hardly remember the remainder of the evening, which, I suppose, involved a walk through the museum and refreshments in the music room.

Arno Heyn
Boston University

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BOARD OF DIRECTORS MEETING

Northeastern Section, ACS

November 14, 1985

The November 14, 1985 meeting of the Board of Directors of the Northeastern Section of the ACS, was called to order at 4:45 pm in Room 1, Harvard Faculty Club. The following members of the Board were present: Bette Bridges, Michaeline Chen, Donald Ciappenelli, Adrienne Day, Lawrence Duffy, Esther Garber, Wallace Gleekman, G. Richard Handrick, James Hendrickson, Arno Heyn, David Howell, James Kaufman, Truman Light, Janet Perkins, James Piper, Arthur Reis, Donald Rickter, Myron Simon, MaryAnn Solstad, Robert Stolow and Valerie Wilcox.

Treasurer's Report—The Treasurer started his report by passing out the forms to fill out for the 1986 Budget requests. In going over the regular Treasurer's report, J. Piper mentioned that more of the money due was being asked for from the Trustees. (This will compensate for the overage in present deficit which was about \$400 more than had been estimated in the budget.)

Trustees—In response to a comment by E. Garber, J. Perkins described how the interest on investments of the Trusts varied from 5 to 13% with an average of about 8.5%.

Summer Scholarships—A message was transmitted from J. Billo that he would like to see the amount available for each scholar be changed back to \$1800.00.

Speakers Bureau—D. Howell reported that copies of the new Speaker's Bureau booklet were made available at the James Flack Norris award meeting, November 7. Later in the Board meeting M. Solstad distributed copies of the booklets to those board members who desired them.

Safety—the Audiovisual List of Safety Materials has been enlarged by 6 more tapes. This list is being printed in the NUCLEUS. The date for "Chemistry in the Workplace" is May 15, 1986. It will be held at Curry College in Milton, MA. Invitations to attend will go out the first of 1986. J. Kaufman, the Committee Chair, brought the board's attention to the "Time" article on Hazardous Wastes. Mention was made of the special program to be held at Framingham State College, Dec. 7. The Office of Toxic Substances has now brought out a warning about nitrobenzene toxicity. Several comments were made by Board members about the long standing knowledge of this toxicity. Nevertheless, several of us recalled laboratory experiments in which large amounts of nitrobenzene were used or prepared back when we were undergraduates.

D. Ciapenelli brought up the fact that there is a proposed piece of state legislation that

will greatly handicap carrying on chemical operations both in the universities and in our local industries. M. Simon has discussed some of the legislation with the Safety Group at Polaroid. The Safety Committee of the Section will monitor the progress of this legislation and review its impact on all of us as time proceeds. J. Perkins suggested that the Mass. Engineers Council might be helpful in monitoring this proposal. They have a Science Policy Committee which has been responsible for holding some hazardous waste workshops in the past. E. Hopkins was suggested as a member of the Board who might be able to serve as the Board's representative to be on the appropriate Engineer's Council committee. Other members of our Board will also serve as monitors. J. Perkins pointed out that it is important to educate legislators that chemists and chemical engineers are trained to handle chemicals correctly that might indeed be handled poorly by the general public. The question was raised to the board, "who can best represent us to the legislators, who has the presence (or clout) necessary to influence them?" It was suggested that some mention of the proposal made by the legislators be in the January issue of the NUCLEUS.

J. Kaufman mentioned that in his talk with high school faculty, many of them had no concept of what was hazardous or of how to proceed in getting rid of hazards.

Public Relations—E. Garber expressed the Committee's desire to get ready press releases etc. publicizing the G. Esselen Award. R. Handrick reported that \$100,000 for the Trust Fund would be in government bonds and probably should be at hand. When more information is ready announcements of the details will be made available to the Public Relations Committee and the NUCLEUS. The first award will be made in February 1986.

Program Committee—The Program Committee had taken the responsibility last month for seeing that pictures were taken for coverage of all the activities at the James Flack Norris Award dinner. This was done by Ethan Simon, who took many good pictures which are now ready for publication in the NUCLEUS, in C&E News, in the Lafayette, IN newspaper and the Upsilanti, MI newspaper, and wherever else might seem appropriate.

Norris Award Committee—There was no report from the Norris Award Committee. M. Simon introduced some matters concerning the Norris Award and its presentation which he wished to share with the members of the Board. He stated that he had already sent

these comments to the Committee.

1. Inclusion of biographical comments on J.F. Norris was urged.
2. M. Simon favored inclusion of more candidates who were experienced in graduate education.
3. M. Simon suggested that a local person give the biography of the awardee.

In connection with number 1, T. Light mentioned that Joseph Bornstein (BC) has a J.F. Norris speech that he had given a few years ago.

Membership—L. Duffy mentioned that a Thermal Discussion group had applied to become affiliated with the Northeastern Section. A discussion ensued concerning the requirement for such affiliation. T. Light mentioned that there are some requirements in the Constitution and Bylaws for the establishment of such topical groups (affinity groups). The appropriate sections from the C&B will be made available to L. Duffy, as Chairman of the Membership Committee, and to those members of the Board who are interested. (Bylaws VII/VIII)

Topical Groups—Affinity Groups—Affinity Groups (see above discussion and Hospitality below)

Hospitality—Two meetings are planned in January. One of them is a special meeting arranged for this time to start off the new Beer and Winemakers' Affinity Group. They will meet January 14 at Brandeis in the Faculty Center. James Koch will talk on "Samuel Adams Beer." It is estimated that the cost of the meal, etc. will be \$300 for a minimum of thirty people. This should be taken into consideration in setting the price of this special event.

In addition to the above, the regular Section meeting will be held at Boston College on Thursday, January 9, 1986.

W. Gleekman mentioned that the deadline for the High School Chemistry Teacher Award will be January 15. Those who wish to nominate someone or just find out more information about the award should contact Betty Rock at Wellesley College.

Constitution & Bylaws—T. Light referred back to W. Foye's suggestions for modification of the Constitution & Bylaws in order to accommodate the Esselen Award. The "ultimate heir of the Northeastern Funds" clause was discussed again. T. Light asked that written comments be made to him about the proposed changes to the C&B.

Chemical Education Committee—High School—B. Bridges reported for the high school branch of the committee. She dis-

continued on page 15

Northeast Regional Meeting XVI

June 22-25, 1986

State University of New York at Binghamton

ANNOUNCEMENT AND CALL FOR PAPERS

The Binghamton Section of the American Chemical Society invites you to present your work in the general sessions and symposia of the XVI Northeast Regional Meeting, June 22-25, 1986, at the State University of New York at Binghamton.

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BOARD MINUTES

continued from page 14

cussed the time constraints we have in holding the Ashdown High School Exam and getting the results to National for the Olympiad in time. Reservation of a certain number of spaces can be made before the contest winners are known. Students who have won a prize in a previous year will be allowed to repeat the Chemistry Examination on a "no-prize" basis in order to qualify for the Olympiad.

M. Simon announced a new award being sponsored by the insurance company which does business with National ACS. The sum of \$6000 is being distributed into \$1000 for each ACS region to be awarded to a meritorious undergraduate chemistry student.

Board of Publications—D. Rickter submitted a written report summarizing the Board of Publications' activities. He made some sug-

gestions for the new Board to consider when it takes over at the beginning of the year.

New Business—E. Garber brought up the question of dues payments for retired people. It was pointed out that payment of local dues is voluntary at all times, and so this gives relief where necessary. However, the Directory is not given to those not paying local dues. In connection with participation in local section affinity groups, it was pointed out that payment of local dues is necessary for members of the groups who are not national members of the ACS. W. Gensler has consented to chair the Retired Chemists Affinity Group.

A vote was taken for the location of the next board meeting and the results were: Harvard 12; M.I.T. 6. The meeting was adjourned at 6:08 pm.

Respectfully submitted,
David M. Howell
Secretary

Mary Good wins ACS presidential election

Members of the American Chemical Society have elected Mary L. Good as 1986 president-elect. A familiar figure in ACS governance activities, Good served on the ACS Board of Directors from 1972 to 1980 and was its chairman in 1978 and 1980. She is president of Signal Research Center in Des Plaines, Illinois, a unit of Allied-Signal. As winner of the election, Good will serve as ACS president in 1987 and member of the board 1986-88. She is the second woman to be elected ACS president; Anna J. Harrison, 1978 president, was the first.

Mail ballots counted last week at ACS headquarters show that Good received 18,369 votes—a little more than half the valid votes cast. Placing a distant second in the three-way race was petition candidate Gordon L. Nelson, with 10,400 votes. Nelson is professor and chairman of the department of polymer science at the University of Southern Mississippi, Hattiesburg. And placing third was W. Lincoln Hawkins, a materials engineering consultant in Montclair, N.J., with 6609 votes.

In a three-way race for Region I director, William E. McEwen was elected to his first term as director with 2382 votes. Petition candidate Harry L. Lindsay received 1796 votes, and Jack P. Gilbert received 954. The vote totals for McEwen and Lindsay include second-chance votes for them indicated on first-choice ballots for Gilbert. ACS by-laws call for such a procedure when in a three-way race no candidate receives a majority of the first-choice votes.

OLNEY

continued from page 10

Supervisors, in coordination with the American Association of Physics Teachers, American Chemical Society, National Association of Biology Teachers, and the National Association of Geology Teachers. The National Academy of Sciences and the American Association for the Advancement of Science also assist in the project.

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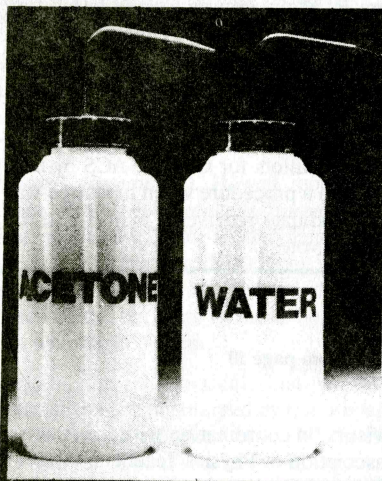
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