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the

CHEMICAL
RECORD

REG. U. S. PAT. OFF.

SEPTEMBER 1978

VOLUME XXI

SEPTEMBER, 1978

NUMBER 6

MEETING NOTICE
American Chemical Society
Columbus Section

MONDAY, SEPTEMBER 18, 1978
Five Hundred Eighty-first Meeting

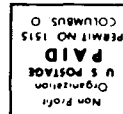
FACULTY CLUB
The Ohio State University
(Park at Ohio Union Parking Ramp. Get ticket stamped at Faculty Club)

6:00 P.M. - Social Hour—Courtesy of Westreco, Inc. of Marysville
6:45 P.M. - Dinner—Buffet [Dinner Attendance is Optional]
8:00 P.M. - Meeting—McPherson Laboratory, Room 100
Speaker - Dr. Edward W. Lawless
Subject - Technology and Social Shock
Cost of Dinner - \$8.00 with advance reservations. Prepayment by check appreciated. College Chemistry Majors at ½ Price.

Advance payment should be sent to Columbus Section ACS, P.O. Box 02181, Columbus, Ohio 43202

Advance Dinner Reservations Required
Dinner Reservation Deadline—THURSDAY NOON, SEPTEMBER 14, 1978

Ashland Employees May Call Ms. Brenda Simmons, 889-3585
BMI and CAS Employees May Call Mrs. Margaret Franks, 421-6940, Ext. 2996
OSU Staff and Others May Call Mrs. Cyndie Shindle, 422-2251



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Columbus Section ACS
Chemical Abstracts Service
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Columbus, Ohio 43210
Address Correction Requested



EDWARD W. LAWLESS

Dr. Lawless is author of the recent book **Technology and Social Shock**, (Rutgers University Press, 616 pp., 1977), a series of case studies of episodes of public alarms over diverse technologies and their societal consequences. He has been at Midwest Research Institute since 1959, where he has managerial and technical responsibility for technology assessment programs. These programs include: forecasts of the technical and economic feasibility and social acceptance of proposed, new or growing technologies (in particular agricultural, industrial, and consumer product chemicals); evaluations of the human health, environmental, economic, social and institutional impacts of the use of these technologies, and analyses of the policy options and regulatory strategies in stimulating or controlling their use.

Dr. Lawless has a diversified background in inorganic, analytical and physical chemistry, and has conducted laboratory studies and prepared extensive reviews on fluorine compounds, energetic oxidizers and high energy fuels.

He is co-author of **Inorganic High Energy Oxidizers; Synthesis, Structure and Properties** (Marcel Dekker, Inc., 304 pp., 1968), and **Production of Boranes and Related Research** (Academic Press, 540 pp., 1967). He has 17 other publications. He is a member of the American Association for the Advancement of Science, the International Society for Technology Assessment, the World Future Society, the American Chemical Society, and Sigma Xi, The Scientific

Research Society of North America. He received the A.B. degree in Chemistry (1953) from Illinois College, and the Ph.D. in Physical Chemistry (1960) from the University of Missouri.

"TECHNOLOGY AND SOCIAL SHOCK"

An amazing succession of alarms and controversies over technology in general—and chemicals in particular, has flooded the nation's mass communications media in recent years. Examples range from Thalidomide, the sleeping pill and tranquilizer that caused birth defects, to the DDT Debate, the Mercury in Tuna Fish Scare, and the current controversies over whether man's SST's and freons will destroy the Earth's protective ozone layer that shields us from damaging ultraviolet radiation. Dr. Lawless' recent book **Technology and Social Shock** presents results of a study of 100 cases of public alarm over technology that illustrates the diverse impacts that technology is making on our lives, our institutions, and our culture. This study tried to identify what characteristics such cases have in common—in terms of origins, developments, and dispositions—and what, if anything, society should do about them. Of particular interest has been the role of the news media in describing these complex technologies to the public, and the resulting social, psychological, economic and political impacts.

NEW PUBLIC AFFAIRS SYMPOSIUM

A recently published ACS public affairs symposium entitled **Energy, Food, Population, and World Interdependence**, sponsored by the ACS Joint Board-Council Committee on Chemistry and Public Affairs, jointly with the Committee on International Activities, is part of a continuing departmental program to stimulate dialogue between ACS members and public figures on issues in which chemistry has relevance to national policy.

Copies of this symposium are available as free ACS service literature from:

American Chemical Society
Special Issues Sales
1155 16th St., N.W.
Washington, D.C. 20036

**TENTATIVE PROGRAM
1978-79
COLUMBUS SECTION**

September 18, 1978

Dr. Edward W. Lawless, Midwest Research Institute—"Technology and Social Shock".

October 16, 1978

Panel discussion on Licensing of Chemists vs. Certification of Chemists vs. Status Quo.

November 13, 1978

Dr. Tom Coyle, National Bureau of Standards—"Laser-Induced Chemistry".

December 11, 1978

Joint meeting with the Electrochemical Society and AIChE.
ECS is the host.

January, 1979

No meeting.

February 12, 1979

Tour speaker on wine with a possible wine tasting party.

March 19, 1979

Columbus Section Award.

April 16, 1979

High School Teacher and College Senior Awards. Speaker to be announced later.

May 7-9, 1979

Regional ACS Meeting in Columbus. Includes presentation of Patterson—Crane Award.

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NOMINATIONS

The following slate of candidates for Columbus Section Offices has been prepared by the Nominating Committee in accordance with the newly adopted Bylaws:

Chairman - Elect:

Rodger Foltz (Battelle)

Ferenc Relle (Ross)

Secretary:

Alan Abel (C.A.S.)

Jerry Boone (Ashland)

Treasurer:

Mike Hoehstetter (Ashland)

Phil Pollick (C.A.S.)

Councilor and Alternate Councilor:

(1979-81)

Bill Hoffman (Denison)

Jerry Jenkins (Otterbein)

Bob Schwerzel (Battelle)

Larry Wilson (Ohio Wesleyan)

Members and Associate Members of the Section may add additional names to the slate by filing with the Secretary of the Section (George L. Gilbert) by October 1 a written petition having the bona fide signatures of not less than five (5) percent of the Members and Associate Members on the current-year rolls of the Section. The current membership of the Section is 1268.

As a result of Columbus Section Bylaw changes, candidates for the offices of Councilor and Alternate Councilor have been merged. The person receiving the highest vote will become Councilor and the person receiving the second highest vote will become Alternate Councilor.

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No. B100P—100 workpages (no duplicates), instructions. Brown waterproof covers. 11x8-1/2. Brown Covers. Price \$55.00/doz. F.O.B. Chicago.

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CHAIRMAN'S MESSAGE

For the first time in my memory we are having a Section meeting in September. Early this year the Executive Committee decided to move the January meetings forward to September, leaving January open. The weather we usually experience in January was the deciding factor, without a doubt. But the change also provides a little better balance to the year, with two four-month "semesters" - September through December and February through May. It should also give the incoming Chairman a little more breathing room. I, as must have been the case for all former Chairmen, found the pre-holiday season fairly hectic in trying to fill committee assignments before the turn of the year.

We will be electing Section officers for 1979 under the new procedures spelled out in the By-laws adopted last year. A major change is that the positions of Councilor and Alternate Councilor are to be filled from a common slate. The candidates who receive respectively the highest and second-highest numbers of votes will be selected for these two positions. There are also some other changes in the details of the nominating and election processes. The important features and the nominations that have been submitted by the Nominating Committee, chaired by Gary Earl, appear elsewhere in this issue.

And a final word about the Regional Meeting that we will host next May. The Organizing Committee, under the General Chairmanship of Frank Croxton, has been actively planning for some time now. A number of Section members have already expressed their interest in helping out in various ways. Many more volunteers will be needed, so let Frank or any of the Section officers know of your willingness to work.

Incidentally, for those who missed last May's dinner meeting, Frank Croxton, who is not only a Past Chairman and Councilor of this Section but a Past National President of Sigma Xi, was recognized as a Fifty-Year Member of the ACS. We're privileged to have Frank as a member of this Section and to have him head the Regional Meeting Committee.

Chuck

INTERPRETATION OF MASS SPECTRA

ACS AUDIO COURSE
Saturday, October 14, 1978
9 A.M. to 4 P.M.

Chemical Abstracts Service
2540 Olentangy River Rd.
Columbus, Ohio

This course is being offered by the Columbus Section of ACS to all interested persons in the area. It is not necessary to be an ACS member to attend, so bring your colleagues along.

The course was prepared by Dr. Don C. De Jough, Professor Titulaire at the University of Montreal. The course includes a discussion of basic theory and instrumentation, detailed analyses of over 30 compounds and the opportunity for the student to identify unknown spectra. High resolution mass spectroscopy, chemical ionization, and field desorption spectrometry are covered.

The fee for the course is \$20.00, which includes the cost of a manual coordinated with the audiotape cassettes. The fee for students is \$10.00. A resource person will be present to discuss the material and answer questions.

The only food services available are vending machine snacks and drinks, so if you want more than that, bring your lunch.

(Registration form on Page 6)

EMPLOYMENT REFERRAL SERVICE

The Columbus Section Professional Relations Committee, Dr. John T. Golden, Chairman, announces establishment of an Employment Referral Service. The service, for ACS members and employers only, is provided at no charge.

Members in search of work may submit one-page resumes, and employers may submit brief job descriptions. These will be examined by our Section's Employment Referral Officer, Dr. James R. Longanbach, who will put parties in touch with one another whenever there appears to be a reasonable match. Requests for confidentiality will be strictly honored; participants should advise the Officer of any special restrictions to be placed on release of information they submit.

To register, contact Dr. James R. Longanbach, c/o Battelle Memorial Institute, 505 King Ave., Columbus OH 43210, phone 424-7959.

VER PLOEG IS SECRETARY OF CTC

Dr. Dan Ver Ploeg of Chemical Abstracts Service, the representative of the Columbus Section to the Columbus Technical Council, is now the Secretary of that organization, having been appointed to fill an unexpired term.

COLUMBUS NOMINATED FOR LARGE SECTION AWARD

Eleven local sections have been chosen by the Local Section Activities Committee as nominees for the annual ACS Awards for Outstanding Performances by a Local Section. In the large section category, the nominees are: Akron, COLUMBUS, Rochester, and St. Louis. The winner will be announced at the ACS National Meeting in Miami Beach in September.

REGISTRATION FORM
INTERPRETATION OF MASS SPECTRA

Enclosed is \$ _____ registration fee for _____

REGISTRATION FORM
INTERPRETATION OF MASS SPECTRA

Enclosed is \$ _____ registration fee for _____ person(s)
(Course fee includes manual. Fee must be paid by Oct. 6. Early registration would be appreciated.)

PLEASE PRINT (List each name separately. Attach additional sheet if necessary).

Name _____

Address (Include zip code) _____

Business or Professional Affiliation _____

Telephone no. (Include area code) _____

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Mr. Jerry Boone
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Dr. Lucile E. Decker
Chemical Abstracts Serv.
P.O. Box 3012
Columbus, Ohio 43210
614/421-6940, ext. 2043

Are you interested in future courses? Please check those which you would like to hear at a later date. (All members of the Section are encouraged to respond. Please include your name and address.)

- Lewis Acid-Base approach to Chemical Reactivity
- Intermediate NMR Spectroscopy
- Applications of Orbital Symmetry
- Electroanalytical Chemistry
- Polymer Synthesis
- Chemical Reaction Mechanisms
- Other Topics _____

Preferred Date(s) _____

COOCHEM

CO-OPERATIVE EVENING PROGRAM IN CHEMISTRY
Capital University - Ohio Dominican College - Otterbein College

First Term—1977-1978

COOPHYSICS 19

General Physics I. 6:00-9:00 p.m.
Monday and Wednesday. Begins September 6 concludes
December 20.
Ohio Dominican College, St. Albert Hall.
Mr. Kenneth Fromm, Instructor

COOCHEMISTRY 8

General Chemistry I. 6:00-8:00 p.m. Monday
6:00-10:00 p.m. Wednesday
Begins September 5 and concludes December 11.
Capital University, Science Hall Room 320.
G. Clark Dehne, Instructor

COOCHEMISTRY 18*

Organic Chemistry I. 6:00-9:00 p.m. Tuesday
6:00-10:00 p.m. Thursday
Begins September 14 and concludes December 19.
Otterbein College, Science Building Room 141.
J. A. Jenkins, Instructor

*Minimum of ten students needed to be enrolled for course to be offered

Tuition per course — \$320.00

To register for a course, contact Dr. P. R. Ogle, Program Coordinator, Otterbein College, Westerville, Ohio 43081 - Phone: 614-890-3000 Ext. 666 prior to September 8.

Capital University, Ohio Dominican College and Otterbein College believe in equality of opportunity and do not discriminate against any person on the basis of race, sex, ancestry, national origin, age, physical handicap or religion.

EXECUTIVE COMMITTEE MEETING
Wednesday, May 10, 1978

Voting members present: Barbara M. Abler, Phyllis Brusky, Bill Culbertson, Joyce Healy, Rex Ogle, Mary E. Scanlan, George Gilbert, Ted Kuwana, Gene Mezey, Charles Moulton

Non-voting members present: Robert E. Merritt, H. Dale Hannan, Kurt Loening, Philip J. Pollick, Dan Ver Ploeg

I. Minutes: The meeting was called to order at 4:30 P.M. by Chairman Moulton, and the minutes of the April 12th, 1978 meeting were approved.

II. Reports:

A. The treasurer's report was distributed and accepted with the revision that \$7250 was to be added under "other income".

B. Other:

1. The chairman noted that he had sent the congratulatory letter to Dr. Melvin Newman and received a response from Dr. Newman to this letter.
 - The chairman also noted that he had sent a letter to Sister Mary Andrew Matesich who has just been named president of Ohio Dominican College.
 - A request has been sent to the Program Development Fund concerning support of the May meeting which concerns the Toxic Substances Control Act to be held at Battelle Memorial Institute in Columbus.
 - Note was made from an announcement from the College of Engineering concerning short courses in computer programming to be offered in the fall.
 - The Program Committee will be meeting Wednesday, May 17th at 4 PM and will welcome suggestions. The meeting will take place at Battelle Memorial Institute. Any committee member should be contacted if you have comments or suggestions.

2. Dan Ver Ploeg reported on the nomination for the Columbus Technical Council Board. He further noted that 59 schools attended the recent banquet sponsored by the Columbus Technical Council and supported by its members.
 - Discussion was held concerning the request of the Columbus Technical Council for mailing lists from its local organizations which will be used in part to survey salary data for distribution. This request was forwarded to the Professional Relations Committee for their recommendations. Dan noted that the CTC is considering its relationship with the Center of Science and Industry which has been relatively limited in the past.
 - Note was made of the possible topic "Retirement" for the seminar to be held next year, and that a seminar entitled **Standardization Basics** is being tentatively planned for some time in October or November.

III Old Business

- A. **Treasurer's term.** Discussion was held concerning the current situation and its finan-

cial impact beginning in January of 1979. The situation is such that the present treasurer will complete her term Dec. 31, 1978, while the new treasurer-elect would assume duties beginning January 1, 1979 for 18 months. Although no vote was taken, it was agreed that this condition should prevail and that when that person is being sought for the position of treasurer by the Nomination Committee, this information would be conveyed to that individual.

B. **Award support.** The chairman has discussed with Ashland Chemical representatives the funding of the Columbus Section award and was informed that at the present time there is no problem in continuing support. This commitment will be formalized in the near future when arrangements are completed at Ashland Chemical.

C. **Technician Affiliates.** Phyllis Brusky reported on the plan to contact technicians in the Columbus area to offer our encouragement if they wish to form a Technician Affiliates group. Concern was expressed that this activity on the part of Columbus Section not be viewed as an attempt to organize a Technicians' Union. It was further suggested in discussion that a free subscription to the **Chemical Record** be made available for interested technicians.

IV. New Business

A. Discussion was held concerning the pattern of award meetings in that a meeting now occurs in each of the months of March, April and May. The question of whether to shift one of these activities was discussed but no action was deemed necessary.

B. **Columbus Technical Council Awards.** Dan Ver Ploeg reported that the Technical Person of the Year Award was given to an information scientist from Battelle Memorial Institute. Additionally, high school students awards were made at the recent banquet.

- Discussion was held concerning the possibility of the ACS Columbus Section sponsoring papers to be submitted by high school students through the Columbus Technical Council which would award prizes. Funding for this activity would be supported by the Columbus Section. No action was taken at the present time, but this idea would be presented to the Awards Committee of the Columbus Section.

C. **Regional Meetings.** Note was made of the combined Regional Meeting to be held at Indianapolis on May 24, 5 & 6 and that Frank Croxton will attend it as the Columbus Section representative at the Executive Committee Meeting. It was further noted that there will be a local Section Officers meeting on Thursday, May 25 in conjunction with this meeting.

(Continued on Page 10)

SYMPOSIUM ON THE PHYSICAL CHEMISTRY OF MILK PROTEINS
IN TRIBUTE TO PROFESSOR QUENTIN VAN WINKLE
ON THE OCCASION OF HIS RETIREMENT

October 13-14, 1978: The Ohio State University

Sponsored by The Departments of Chemistry and
Food Science and Nutrition

For further information and registration forms contact:

Professor T. Kristoffersen
Department of Food Science and Nutrition
The Ohio State University
2121 Fyffee Road
Columbus, Ohio 43210

1978 FALL INSTITUTE IN SCIENCE AND TECHNOLOGY
OCTOBER 16 - NOVEMBER 3, 1978
STATE UNIVERSITY OF NEW YORK

OCTOBER 16 - 20 — "SCANNING ELECTRON MICROSCOPY AND X-RAY MICROANALYSIS: THEORY AND PRACTICE IN MATERIALS SCIENCE, BIOLOGY AND MEDICINE"
Course Advisor—Dr. Oliver C. Wells, IBM Thomas J. Watson Research Center, Yorktown Heights, New York.

OCTOBER 25 - 27 — "FUNDAMENTALS OF ADHESION: THEORY, PRACTICE AND APPLICATIONS"
Course Advisor—Dr. K. L. Mittal, IBM Corporation, East Fishkill, New York.

NOVEMBER 1 - 3 — "POLYMER-POLYMER COMPOSITES: BLENDS, GRAFTS AND BLOCKS"
Course Advisor—Dr. Roger S. Porter, Professor and Co-Director, Materials Research Laboratory, University of Massachusetts, Amherst, Mass.

FOR FURTHER INFORMATION, CONTACT:

Dr. Angelos V. Patsis
Chairman, Department of Chemistry
State University of New York, at New Paltz
New Paltz, New York 12562—(914) 257-2175

FREE ENTERPRISE

The ACS Committee on Chemistry and Public Affairs and the ACS Division of Industrial and Engineering Chemistry will sponsor a symposium on "Concerns of Developing Chemical Businesses" at the ACS National Meeting in Miami Beach, Florida. The Symposium will take place on Tuesday, September 12, 1978, 9 AM till noon and 2-5 PM in Hotel Fontainebleau. Ken Greenlee of Chemsampco, Inc. will chair the morning session, and E. Fike of Fike Chemicals, Inc. will chair the afternoon session.

We urge the members who own or work for small chemical businesses to attend the Symposium since it will concern the most vital problems of today's small chemical businesses. The program is:

- 9 a.m. **The Importance and Opportunities of Small Business** - Albert Shapero, Ohio State University
- 10 a.m. Panel Discussion on Living with Governmental Regulations
- 10:10:30 Main Speaker - Don A. Lang, S.O.C.M.A.
- 10:15:00 Panelist Elmer A. Fike, Fike Chemicals, Inc.
- 11:00:00 Panelist Cynthia Kelley, U.S. Environmental Protection Agency
- 11:10:00 Panelist Phillip Landis, Mobil R & D Co., chairman of ACS Committee on Chemical Safety
- 11:20:00 To noon - Discussion, questions, and answers
- 2 p.m. **Toxicity Testing on a Small Budget** - T. E. Murchison, Dawson Research Corp.
- 2:50 p.m. **Product Liability for New Chemicals** - Logan J. Wilson, Fike Metal Products Corp.

The CHEMICAL RECORD, official newsletter of the Columbus Section of the American Chemical Society, is published monthly, September through May, except January. Opinions expressed by the editors or our contributors do not necessarily reflect the official positions of the Columbus Section.

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Columbus, Ohio 43210

Editor's Telephone: 421-6940 Ext. 2923

3:40 p.m. **Information Resources for Small or All Chemical Businesses**, Kenneth E. Jackson, Chemical Data Center, Inc.

4:30 p.m. **ACS Division of Small Businesses - Who Needs It?**

If you wish to attend, consult the August 7, 1978 issue of **Chemical and Engineering News** for details of how to register for the meeting. If you read this message at a time too late to register, call the National ACS Office in Washington, D.C., (202) 872-4600, or Alexandra Melnyk at 421-6940, Ext. 2097 for information. You may register for one day only at a lower fee.

Alexandra C. Melnyk
Alternate Councillor

(Continued from Page 8)

2. Columbus, 1987. It has been suggested by Frank Croxton that since this will be the year of the Patterson-Crane Award that it would be advantageous to invite the Regional Meeting to be held in Columbus in 1987. This action was moved by Gene Mezey, seconded by Rex Ogle and carried.

V. Next meeting is scheduled for August 7, 1978 at 4:30 PM in Room 3A at Chemical Abstracts.

Meeting adjourned at 6:05 PM.

Respectfully submitted,
George L. Gilbert

STAFF

Editor—Robert E. Merritt
Associate Editor—Shirley E. Lindner
Business Manager—Alan W. Abel
Circulation Manager—Joy E. Merritt

GOVERNMENT FIGURES SHOW SHARP INCREASE IN USE OF SAFETY CAPS AND DRAMATIC DROP IN CHILDREN'S POISONING DEATHS

The use of safety caps and closures has apparently made a dramatic impact on accidental poisonings among children, according to the latest government data.

Child-resistant closures on drugs and other hazardous products increased by 200 per cent over a three year period, according to preliminary 1977 figures released by the U.S. Census Department.

Coincidental with this increase in safety cap use, the U.S. Consumer Product Safety Commission (CPSC) reported a decrease of 47 percent in the number of accidental poisoning deaths among children age five and under. The decrease in children's deaths is marked from 1972 when the CPSC required child-resistant caps on containers of children's aspirin.

Total safety caps shipped in 1977 equalled 1.8 billion units, an increase of 1.3 billion since 1974 when the CPSC made safety caps mandatory on all oral prescription drugs. In 1972, the number of safety closures in use could be counted in the thousands.

While the great majority of safety closures are found on prescription vials and aspirins, numerous other products are now protectively packaged—products like furniture polish, drain cleaner and turpentine have been added to the list—contributing to the dramatic increase in safety cap usage.

"The decrease in the number of deaths among children coincidental with the application of safety caps is in itself a testament to their value," reports John B. Carroll, Vice President. Closures, Glass Packaging Institute, the industry association which has been following the success of these closures in reducing accidental deaths. During National Poison Prevention Week, celebrated this past March, it was reported that:

- Accidental aspirin poisonings have declined 63 per cent.
- Accidental ingestions of methyl alcohol products (such as windshield cleaner) dropped by 83.3 per cent.

—Ingestion of controlled drugs such as amphetamines have declined 34.9 per cent.

In line with the rapid growth in safety closures used in many types of hazardous products, the Environmental Protection Agency is now working on a revised promulgation of regulations to cover the wide variety of pesticide products used in the home. A preliminary regulation was published a year ago for consideration and it is expected that a final form will be forthcoming at the end of the summer.

"However," Mr. Carroll added, "although we are making progress in poisoning prevention, a significant number of ingestions remain as a cause for concern. What is needed is a nationwide overview of what potentially dangerous poisons continue to be accessible to children in our society."

Aware that some adults find that the caps take an extra effort to remove, the closure industry and the CPSC have been engaged in educational campaigns to teach adults how to use the caps effectively. Three simple guidelines for adult consumers are:

1. Carefully note the directions printed on each cap; not all caps are alike.
2. Follow directions slowly to remove the cap.
3. Be certain to replace each safety cap properly to re-establish its child-resistant properties.

Mr. Carroll noted that an essential question adult consumers should ask in relation to child-resistant closures is "Isn't it worth a little extra effort to save the life of a child?"

JOULLIE TO SPEAK TO AWISCO

Dr. Madeleine M. Joullie, recipient of the Garvan Medal in 1978, will be in Columbus on Tuesday, October 24 to speak at the monthly meeting of the Association for Women in Science of Central Ohio. Everyone is welcome. Please contact Barbara Abler at CAS (421-6940 Ext. 2098), Elizabeth Gross at OSU (422-9480), or Eleanor Helper at Battelle (424-6529) for further information.