

**HISTORY OF THE
KALAMAZOO SECTION
OF THE AMERICAN
CHEMICAL SOCIETY**

1942-1981

1942-1967

Hugh V. Anderson

John T. Correll

Robert H. Levin

1968-1981

R. Bruce Moffett

K_2O_2 was a product of the first scientific experiment in the valley. Sometime before 1795, the Potawatomi Indians had a local Section meeting in the vicinity of Inman's. There an experiment was conducted involving steam distillation. The object was to ascertain if one of the braves could run to a bend in the river and back ere the pot boiled. He failed. As a result, the vicinity gained a name, Kih-Kalamazoo (K_2O_2) - "The place where water boils in the pot."

Science and technical activities have been contributing to the development of the area ever since. Among the earliest promotions was an iron works which was organized and a furnace built in 1847. Shortly after that the first paper mills were established. About one hundred years later, around 1930, a Kalamazoo Chamber of Commerce report listed one hundred different manufacturing enterprises in the valley, and increasing numbers of men trained in chemistry and related disciplines were attracted to Kalamazoo by this industrial growth. Several were members of national professional organizations such as the American Chemical Society. It was only natural that as they became acquainted they sought to gather as a group to talk "shop". Thus, in the 1920's under the guidance of Professor Lemuel Smith, Head of the Department of Chemistry, Kalamazoo College, an informal association of men in the area interested in science existed for such a purpose. Over a period of ten years, meetings were held at Kalamazoo College, Western Michigan State Normal School, Central High School, A. M. Todd Company, Kalamazoo Paper Company, The Upjohn Company, Sutherland Paper Company, and other places. In time, these meetings featuring local talent approached exhaustion and interest waned.

However, more and more scientists were continuing to locate in the area, thirty-four of whom in 1939 were affiliated with the nationally organized American Chemical Society. There began to be

agitation for the formation of a local Section of that Society in order to take advantage of the "tour lectures" made available to local groups. Towards this end Mr. George R. Laure, then employed by The Upjohn Company, carried on correspondence with Charles L. Parsons, then Secretary of the American Chemical Society, to work out the details.

Because of some uncertainties, including the start of World War II, organizational efforts moved slowly. However, in September 1942, at a meeting of the American Chemical Society Council, at Buffalo, New York, a new Section was chartered, comprising Allegan, Kalamazoo, Van Buren, Kent, and Ottawa counties, with headquarters in Kalamazoo, Michigan. At the suggestion of Dr. Parsons, it was called the Kalamazoo Section. It was appropriate that the Section's name should be a heritage from the first scientific investigators in the valley!

Charter Members

Kalamazoo Section

AMERICAN CHEMICAL SOCIETY

Dr. Hans P. Anderson	Dr. H. G. Kolloff
Dr. William H. Bradley	Mr. Walter Martin Kurtz
Dr. Clyde T. Caldwell	Mr. George R. Laure
Dr. Albert P. Centolella	Dr. Nathan Levin
Dr. Purnendu N. Chakravarty	Dr. Robert H. Levin
Mr. Fred L. Chappell, Jr.	Dr. Harry F. Meier
Dr. Hal B. Coats	Dr. Curtis E. Meyer
Dr. John T. Correll	Dr. Alan H. Nathan
Mr. G. F. Des Autels	Dr. Gerald Osborn
Dr. Patrick H. Dougherty	Dr. Gerald Reed
Dr. Samuel H. Eppstein	Mr. Lemuel F. Smith
Mr. D. Robert Erickson	Mr. L. Bayard Spaulding
Dr. John S. Evans	Dr. Allen B. Stowe
Dr. Jared H. Ford	Dr. Leon E. Tenenbaum
Mr. William Galler	Mr. Clement D. Vellaire

Dr. Frederick W. Heyl	Dr. Arne N. Wick
Dr. George E. Honeywell	Mr. Edwin C. Wise
Dr. H. Jensen	Dr. Eugene H. Woodruff
Mr. Dale Wixson Johnson	Dr. Mitchell F. Zienty

The Kalamazoo Section of the American Chemical Society held an organizational meeting September 24, 1942, and elected the following officers:

Chairman	Mr. G. R. Laure, The Upjohn Company
Chairman Elect	Prof. Gerald Osborn, Western Michigan College of Education
Secretary	Dr. H. B. Coats, The Upjohn Company
Treasurer	Dr. Al Centolella, The Upjohn Company
Councilor	Prof. Lemuel Smith Kalamazoo College

"The meeting was attended by thirty-six members and the lively interest shown by those present bodes well for the future."

At the same time that the Kalamazoo Section was incorporated, a growing dissatisfaction with the policy of the National Society was becoming apparent among the rank and file members. At that time, the functions of the Council of the American Chemical Society were purely advisory. Attendance at Council meetings had shrunk to less than fifty out of over three hundred members. Actually the Society was largely governed from the Secretary's office. A committee on Local Councilor Representation was formed in 1944 to deal with the problems of Council and Local Section disinterest. Meanwhile members

of the newly formed Kalamazoo Section had decided that the government of the National Society should be brought up to date and proposed that the Society should have a completely revised Constitution. This proposal, which came to be known as the Kalamazoo Amendment, was presented in the News Edition of the American Chemical Society in 1945.¹ A little later that same year, the Committee on Local Councilor Representation made a recommendation that the Council should be cut to a fraction of its former size and its functions should be further limited.

During 1946 the News Edition carried many pages of debate concerning the Kalamazoo Amendment. The opposition included some who felt that the Amendment was simply an expression of ingratitude to those who had spent years working for the Society, and they were understandably bitter. Of interest are articles by C. L. Parsons (anti)² and by Saul R. Buc (pro)³, and several letters^{4,5}. Through the efforts of the Councilors from the Kalamazoo Section, with help from other Local Sections, the Amendment was placed on the agenda of the Council during the Atlantic City meeting in April 1947. A ten-member Committee on Revision of the American Chemical Society Constitution was appointed, with E. C. Britton of Midland as Chairman, and R. H. Levin of Kalamazoo as Secretary, and a survey to gather opinion from Society members concerning a new Constitution was authorized. At the two-day Council meeting the following Fall, the new Constitution and Bylaws, primarily the work of volunteers, were adopted.⁶ Prompt but thorough performance in this big job set a new tone in the Society.

In essence, the new Constitution placed policy determination more directly in the hands of the rank-and-file members, working through the Council. Better avenues of communication were provided which resulted in a more efficient Council.

As it stems so directly from Kalamazoo Section action, our Section can take pride in the National American Chemical Society Constitution. This new Constitution has functioned as an adaptable and flexible charter instrument for American chemists. It has also served to demonstrate that a small but dedicated group of people can with reason and diligence exert a major impact on a large national organization.

The early 1950's seemed to be a time of tranquility for the Kalamazoo Section. Perhaps the most serious problem the section faced in those days was that of meeting attendance. In spite of the willingness of many eminent chemists to "go on tour," the two week, nine lecture tour of the Michigan-Toledo-Northern Indiana area was felt by many to be beyond the call of duty. Also, the monthly meetings rarely attracted an attendance of more than 15% of the membership, a welcome which may have discouraged some of the distinguished speakers hardy enough to have ventured on the tour.

In 1954 a group of members from the Grand Rapids and Holland areas proposed that the counties of Kent and Ottawa withdraw from the Kalamazoo Section and together with the counties of Muskegon and Newaygo, form a new section to be known as the Western Michigan section. After a poll of our members who lived in Kent and Ottawa counties showed that a majority favored such a change, we supported the proposal. In September 1955, the Council of the ACS chartered the new section.

In the middle 1950's as the flow of students produced by the "G. I. Bill of Rights" was ebbing and as the industrial demand for chemists was increasing, one heard increasing talk of the need for interesting children in their teens in careers in chemistry. The members of the Kalamazoo Section showed ambivalent feelings about this question; on the one hand enjoying the higher salaries resulting in part from a shortage of chemists in a free market,

and on the other hand recognizing that research in chemistry generated the need for additional chemists to exploit the new knowledge gained, some members felt that the Kalamazoo Section should actively recruit high school students to careers in chemistry while others felt we should exert our efforts to restrict students entering chemistry to those who showed evidence of a real aptitude. As one looks back, it is apparent that a middle course was taken. An Education Affairs Committee has actively functioned since this time. While at first it had only limited success in working with the local high school chemistry teachers, the Kalamazoo Science Seminars grew out of the efforts by one of its chairmen, Dr. Edwin F. Whiting, and this has helped the careers of many of our more gifted young people.

In 1956 the Section decided to assess dues of \$2.00 per year to support programs of wider scope. At first the attempt was resisted by members who feared that the money would be used to propagandize high school students about careers in chemistry. This fear was gradually overcome as new programs appeared. The assessment of dues was continued through 1970 (with the exception of 1966) by which time increased member allotments from national ACS made dues unnecessary. However, dues were reinstated in 1981 to help finance the Distinguished Scientist Award (see below).

One of the most successful undertakings of the section was the annual symposium started in 1956 and continued through 1975 (see appendix II).

Early in 1958 the American Chemical Society announced plans to raise \$1.5 million to construct a new ACS headquarters in Washington D. C. The Kalamazoo Section was given a quota of \$5,000 as its share of this effort. As the Building Fund Committee made individual contact during the Spring of 1958 seeking con-

tributions, they found a substantial segment of the membership who expressed strong feelings of dissatisfaction with the operation of the American Chemical Society. The unhappiness stemmed from members' feelings that the society was not run for their benefit and was too deeply engaged outside its proper area of encouraging the dissemination of chemical information. The refusal of these unhappy members to contribute to the undertaking resulted in the section reaching only 70% of its quota. The National Chairman of the drive, Dr. C. S. Marvel, asked Dr. R. S. Schreiber to use his influence to encourage raising the additional \$1500. The local Building Fund Committee made a second canvass; and, armed with the promise of the Executive Committee of the Kalamazoo Section that member complaints would be taken to the ACS Council, they were able to secure sufficient additional contributions to surpass the Section's quota. By the time the drive was complete, 81% of the Section's members had made a contribution, a record exceeded by few local sections in the society.

The promise made to the membership by the Executive Committee to see that their criticisms of the society reached the Council was the start of the second effort by the Kalamazoo Section to change the operation of the ACS management. A committee was appointed in the summer of 1958 to study the problem and recommend a solution. This committee, which came to be known as the Watchdog Committee, went about its task with dispatch, and by October, 1958, had a draft proposal to be submitted to the Council. It called for the Council and the Board of Directors to provide background information to the members on problems faced by these groups, and to provide a forum in which the members' views could be heard. This proposal was approved by the Section's members in the spring of 1959 and forwarded to the Council and to the Executive Secretary's office.

The Council and several of its committees considered the "Kalamazoo Resolutions" and in late 1959 and 1960 several of our suggestions were acted upon.

The editor of C&EN gave more space to background articles on issues which were before the Council or the Board. The minutes of the meetings of these groups were published in full. A Member Relations Committee of Council was formed and six to ten of the Council committees began scheduling open meetings of their committees at national meetings. These reforms in ACS operation continue to this time.

Again, in the early 1960's the Kalamazoo Section was able to influence National office policy. Several suggestions of our Scientific Information Committee for improving the Society's Fundamental Journals met with a "stone wall" from the editors and the Council Publications Committee. A Letter to the Editor of C&E News was rejected on the technicality that it came from a committee rather than an individual. At this time it was learned that the Philadelphia Section was having similar trouble with its suggestions for improving Chemical Abstracts. After much discussion, including a visit of Richard L. Kenyon to Kalamazoo, a compromise was reached. The Philadelphia suggestions were published, our suggestions were partly implemented, and a mechanism was set up for publication of future suggestions from local sections.

As a footnote to the Section's interest in more representative operation of the ACS, our experience in the early 1960's is instructive. It was apparent that effective representation for a small local section at the national level depended on choosing a councilor who would devote a large part of his time to the job and then re-electing him for three or more consecutive terms. In 1959 the Section's Executive Committee got Dr. R. H. Levin, who had been active in the reform movements initiated by our Section, to agree to serve as councilor for several consecutive terms. The Executive Committee then persuaded the membership of the advantages of electing Dr. Levin as councilor in 1960. Dr. Levin was elected and served on the Council Committee on Constitution

and Bylaws. He was an unsuccessful candidate in 1961 for the Council Committee on Nominations and Elections. In 1964 he was proposed for re-election as councilor by the Executive Committee, who campaigned for him. Evidently our membership felt the Executive Committee was exceeding its proper role and chose Dr. K. D. Kaufman instead. Fortunately for our influence at the national level, the members re-elected Dr. Kaufman repeatedly until 1971. Since then Dr. R. E. Harmon has been chosen as councilor; since 1978, when our Section membership passed the 500 mark, Dr. D. W. Cooke has served as our second councilor (see Appendix I).

The increasing pace of the section's activities in the late 1950s can be seen in the frequency of meetings of the Executive Committee. Starting in 1957 monthly meetings came to be the rule, and in 1959 the practice of including committee chairman in these meetings was begun.

In 1960 the Kalamazoo Section learned that it had won the Local Section Member Relations Award given by the national ACS.

The 1960's saw the start of many successful programs. In 1966 the practice of issuing a News Letter to the members in addition to the usual meeting announcements was started. The importance of this publication became so great that in 1980 it was decided it ought to have a more distinctive name: suggestions were sought from the membership, and the "winning name" was KALCHEMIST NEWS.

In order to help its members and other chemists with their continuing education, our Section has sponsored ACS Short Courses from time to time. These have been given in 1968, 1969, 1973, 1980 and 1981. All have been successful.

In 1967 the national ACS decided to coordinate regional meetings, and a tentative map was published in C&EN dividing the country into meeting regions.

OFFICERS OF THE KALAMAZOO SECTION

<u>YEAR</u>	<u>CHAIRMAN</u>	<u>CHAIRMAN-ELECT</u>	<u>SECRETARY</u>	<u>TREASURER</u>
1942-43	George R. Laure	Gerald Osborn	(Hal B. Coats (George R. Laure	(John T. Correll (A. P. Centolella
1943-44	Gerald Osborn	F. L. Chappell, Jr.	John T. Correll	A. P. Centolella
1944-45	F. L. Chappell, Jr.	(Lemuel F. Smith (Harry F. Meier	John T. Correll	A. P. Centolella
1945-46	Harry F. Meier	D. Robert Erickson	John T. Correll	A. P. Centolella
1946-47	D. Robert Erickson	Eugene H. Woodruff	L. G. Knowlton	A. P. Centolella
1947-48	Eugene H. Woodruff	Allen B. Stowe	L. G. Knowlton	(John W. Greiner (Jared H. Ford
1949	Allen B. Stowe	Theodore W. Conger	L. G. Knowlton	Jared H. Ford
1950	Theodore W. Conger	Jack W. Hinman	L. E. Strong	Jared H. Ford
1951	Jack W. Hinman	L. E. Strong	Arnold C. Ott	R. V. Heinzelman
1952	(L. E. Strong (R. V. Heinzelman	(R. V. Heinzelman (L. G. Knowlton	Jared H. Ford	A. Vern McIntosh, Jr.
1953	R. V. Heinzelman	L. G. Knowlton	Lester L. Coleman	Hilda T. Myers
1954	L. G. Knowlton	D. A. Shepherd	Lester L. Coleman	Fred Kagan
1955	D. A. Shepherd	Fred Kagan	Robert H. Reitsema	Robert E. Boehme
1956	Fred Kagan	Robert H. Reitsema	Hilda T. Myers	Peter D. Meister
1957	John B. Wright	Peter D. Meister	David H. Gregg	Gerald Osborn
1958	Peter D. Meister	David H. Gregg	George G. Whitfield	Kurt D. Kaufman
1959	David H. Gregg	Hugh V. Anderson	Mary S. Duggan	Donald C. Iffland
1960	Hugh V. Anderson	Kurt D. Kaufman	Mary S. Duggan	Brian Bannister
1961	Kurt D. Kaufman	George B. Whitfield	Lillian Meyer	Bruce McGarvey
1962	George B. Whitfield	Ross R. Herr	Jerome H. Ludwig	Robert H. Anderson
1963	Ross R. Herr	Robert H. Anderson	Arch B. Spradling	Elizabeth Cerda
1964	Robert H. Anderson	William Schroeder, Jr.	Arch B. Spradling	Byron A. Johnson
1965	Paul F. Wiley	Arch B. Spradling	Byron A. Johnson	Donald J. Brown
1966	Arch B. Spradling	Don C. Iffland	Thomas F. Brodasky	Donald J. Brown
1967	Don C. Iffland	William J. Wechter	Frederic J. Bassett	Leonard Worden
1968	(Don C. Iffland (Brian Bannister	Brian Bannister	Frederick J. Bassett	Paul A. Belter
1969	Brian Bannister	Frederick J. Bassett	Alan H. Nathan	David Duchamp
1970	Frederick J. Bassett	Robert Nagler	Gordon Bundy	David Duchamp
1971	Robert C. Nagler	Robert E. Harmon	Gordon Bundy	David L. Smith
1972	Robert E. Harmon	Dan Lednicer	Pauline Zeleznik	David L. Smith
1973	Dan Lednicer	Robert C. Kelly	Pauline Zeleznik	Gordon Bundy
1974	Robert C. Kelly	Tom Oesterling	Kathleen Walsh	Gordon Bundy
1975	Tom Oesterling	Dean W. Cooke	Kathleen Walsh	Margaret Merritt
1976	Dean W. Cooke	Thomas Hylton	Ruth E. TenBrink	Margaret Merritt
1977	Thomas Hylton	R. Bruce Moffett	Ruth E. TenBrink	Joseph Kanamueller
1978	R. Bruce Moffett	Tom J. Lobl	Fred Antosz	Joseph Kanamueller
1979	Tom J. Lobl	Terry J. Gilbertson	Fred Antosz	Ilse Schletter
1980	Terry J. Gilbertson	Lydia E. M. Hines	F. Lee Shenton	Ilse Schletter
1981	Lydia E. M. Hines	Wade J. Adams	F. Lee Shenton	Harvey N. Myers
1982	Wade J. Adams	Paul S. Satch	Joseph M. Timko	Harvey N. Myers
1983	Paul S. Satch	Rhoda E. R. Craig	Joseph M. Timko	Amy Abe
1984	Rhoda E. R. Craig	Steven J. Nelson	Ronald K. Lustgarten	Amy Abe

This idea sparked interest in our Section, and R. Bruce Moffett was appointed chairman of a Regional Meetings Committee, a post he held until 1977. Since the Kalamazoo Section was just inside the west edge of the Central Region we lent our support to that region in 1968. Because of our geographic proximity to the Great Lakes Region, we were also invited to join them; since the Central Region did not have a meeting in 1969 and our interests seemed more in line with those of the Great Lakes Region, we joined that region for a 1969 meeting and have actively supported it since.

Our Section was invited to sponsor the 7th Great Lakes Regional meeting in 1973. With a hard-working committee (See Appendix III) and with excellent facilities at Western Michigan University this proved to be a very successful undertaking for our Local Section. Plans are now underway to co-sponsor, with the Western Michigan Section (Central Region), a joint Central - Great Lakes Regional Meeting to be held at Kalamazoo in 1984.

Another important meeting partly sponsored by our Section was the 16th National Medicinal Chemistry Symposium held in 1978.

Activities of our Section have by no means been limited to purely scientific matters. In 1965 Lowell D. Zeleznick and Gerald Boyack were our Section's appointed delegates to the Kalamazoo Community Caucus, a body charged with seeking out and supporting competent and public-spirited citizens to run for the School Board. In 1967 Zeleznick was succeeded by Robert Nagler.

For several years our Section had an Environmental Concerns Committee which, among other things, lent assistance to the Kalamazoo City Planning Commission in 1975.

In 1968 a committee on assisting Disadvantaged Persons was appointed and worked with the Kalamazoo Service Corps to find summer jobs for promising science-oriented high school juniors.

In 1981 our section donated two ACS-commissioned Planetarium shows, "Loneliness Factor" and "Spring-time in the Universe", to the Kalamazoo Planetarium.

Since the 1960's one of our most active committees has been the Educational Affairs Committee. In 1967 and 1968 this committee persuaded the Section to sponsor scholarships, through the Kalamazoo Foundation, for outstanding High School students. Since 1973 this Committee has sponsored symposia for high school students and teachers (see Appendix IV) as well as organizing a Spring Awards banquet at which outstanding area high school teachers and/or students are recognized and presented their awards. Furthermore, the teacher selected for the Section award is nominated for the Great Lakes Regional High School Teacher award. Regional award winners are then candidates for the national James B. Conant award. Our awardee in 1974, Douglas J. Harper of Comstock High School, won the Great Lakes Regional Award.

In addition to these major activities our Educational Affairs Committee in cooperation with our Speakers' Bureau has arranged for eminent scientists to visit High Schools and consult with students and teachers, has provided judges for science fairs, has donated Chemistry (SciQuest) magazine to schools, and has helped students and teachers in numerous other ways.

Not unexpectedly, given the preponderance of Upjohn Co. chemists in our Section's membership, by the early 1970's attendance had severely dwindled at the traditional monthly meetings (which featured ACS tour speakers or other highly technical programs). After considerable study a policy was informally adopted to offer fewer meetings, to make them less technical, and

to include subjects of broader scientific orientation. This considerably increased attendance, especially by students and the public. A major step in this direction was the establishment in 1979 of a Distinguished Scientist Lecture Award of \$1000, through the initiating efforts of Paul F. Wiley and Tom J. Lobl. The first awardee was Melvin Calvin, the 1980 awardee was Carl Djerrasi, and in 1981 it was James Van Allen. Not all of the Kalamazoo Section's activities have been exclusively science-oriented. Up to about 1972 the Section had a "Ladies Night" featuring a dinner and a non-technical speaker. In 1972, 1980, and 1981 we had a summer picnic at which families were welcome. In 1974 the Section sponsored a tour of the Cook Nuclear Power Plant. These have all been successful undertakings.

In 1981 a new activity was started - a dinner honoring the retired members. The speaker was Dr. George Scherr, publisher of the Journal of Irreproducible Results. This event was very well received, and future events of this type will be planned.

Since 1942 the Kalamazoo Section of the American Chemical Society has enjoyed steady progress in its size as well as in the quality and diversity of its program. This has been recognized by the National office, which has selected our Section for the national ACS Award for Outstanding Performance by a Medium - Large Local Section, both in 1979 and in 1980.

- 1 J. Am. Chem. Soc., News Ed., 23, 1149 (1945)
- 2 J. Am. Chem. Soc., News Ed., 24, 624 (1946)
- 3 Ibid., 794
- 4 Ibid., 1141
- 5 Ibid., 1596, 1736
- 6 J. Am. Chem. Soc., News Ed., 25, 1595 (1947)

Appendix I

COUNCILORS

<u>Date</u>	
1942-43	L. F. Smith
1944	H. Jensen/Gerritt Van Zyl/Gerald Osborn
1945	Gerald Osborn/Gerritt Van Zyl
1946	R. H. Levin/Gerald Osborn
1947	R. H. Levin/H. F. Meier
1948-50	R. H. Levin
1951-53	Robert H. Reitsema
1952-54	Richard S. Schreiber
1954-56	Gerritt Van Zyl/D. A. Shepherd
1957-59	Fred Kagan/J. Korman (Alternate)
1960-62	R. H. Levin/D. H. Gregg (Alternate)
1963-65	K. D. Kaufman/D. A. Shepherd (Alternate)
1966-68	K. D. Kaufman/H. V. Anderson (Alternate)
1969-71	K. D. Kaufman
1969-70	H. V. Anderson (Alternate)
1971	George B. Whitfield (Alternate)
1971- date	Robert E. Harmon
1972-74	Richard V. Heinzelman (Alternate)
1974-75	Dan Lednicer (Alternate)
1975-78	Paul F. Wiley (Alternate)
1978-date	Dean W. Cooke
1979- date	Lydia E. M. Hines (Alternate)
1984- date	Lydia E. M. Hines

Appendix II

SYMPOSIA SPONSORED BY THE KALAMAZOO SECTION

<u>Year</u>	<u>Subject</u>
1956	Cancer Chemotherapy
1957	Chemical, Pharmacological and Clinical Aspects of Mental disorder
1958	Rocketry and Space Exploration
1959	Population Problems
1960	The Origin of the Universe
1961	The Role of Science in Society
1962	Radiation and Its Effects
1963	Testing of New Drugs
1964	Food, An International Dilemma
1965	Detection of Extraterrestrial Life
1966	Air and Water Pollution
1967	Taming the Number One Killer (Heart Disease)
1968	Organ Transplants
1969	Evolution-Molecules to Man
1971	The World Population Crisis
1973	Nutrition
1974	Folk Medicine
1975	The Garden

Appendix III

7th Great Lakes Regional Meeting

<u>Committee</u>
<u>General Chairman</u> R. Bruce Moffett, The Upjohn Company
<u>Abstracts</u> Gordon L. Bundy, The Upjohn Company
<u>Exhibits</u> Oliver R. Woods, The Upjohn Company Richard L. Kirkpatrick, The Upjohn Company William Bradley Reid, The Upjohn Company
<u>Finance</u> Arch B. Spradling, The Upjohn Company
<u>Ladies Program</u> Lillian H. Meyer, Western Michigan University Mary Jane Iffland, Western Michigan University
<u>Physical Facilities</u> Robert H. Anderson, Western Michigan University
<u>Printing and Mailing</u> Merrill E. Speeter, The Upjohn Company
<u>Public Relations</u> Surendra K. Gupta, Western Michigan University
<u>Registration and Housing</u> Robert E. Harmon, Western Michigan University
<u>Secretary</u> Fred J. Bassett, The Upjohn Company
<u>Section Liaison</u> Robert C. Nagler, Western Michigan University Robert C. Kelly, The Upjohn Company
<u>Short Course</u> Leonard R. Worden, Kalamazoo College
<u>Special Activities</u> Pauline Zeleznik, SSJ. Nazareth College
<u>Teacher Award</u> Joseph M. Kanamueller, Western Michigan University

Technical Program

Richard V. Heinzelman, The Upjohn Company
Daniel Lednicer, The Upjohn Company
Joseph J. Ursprung, The Upjohn Company
Edward C. Olson, The Upjohn Company
Dean W. Cooke, Western Michigan University
Paul E. Holkeboer, Western Michigan University
George G. Lowry, Western Michigan University
Michael E. McCarville, Western Michigan University
Li-Hsieng Li, The Upjohn Company

Appendix IV

Symposia for High School Students and Teachers

<u>Date</u>	<u>Subject</u>
1973	Safety in the Science Laboratory
1974	Innovations and Expectation in High School Science
1975	Demonstrations and Techniques in Teaching the Sciences
1976	Environmental Concerns and Related Careers
1977	Careers in Science
1978	Hazards and Safety in the Laboratory
1979	Science Fair Objectives and Planning
1980	Career Day
1981	Computer Logic, Space Shuttle Projects, and College Chemistry Faculty - High-school Teacher Rap Session