



THE

CHESAPEAKE CHEMIST

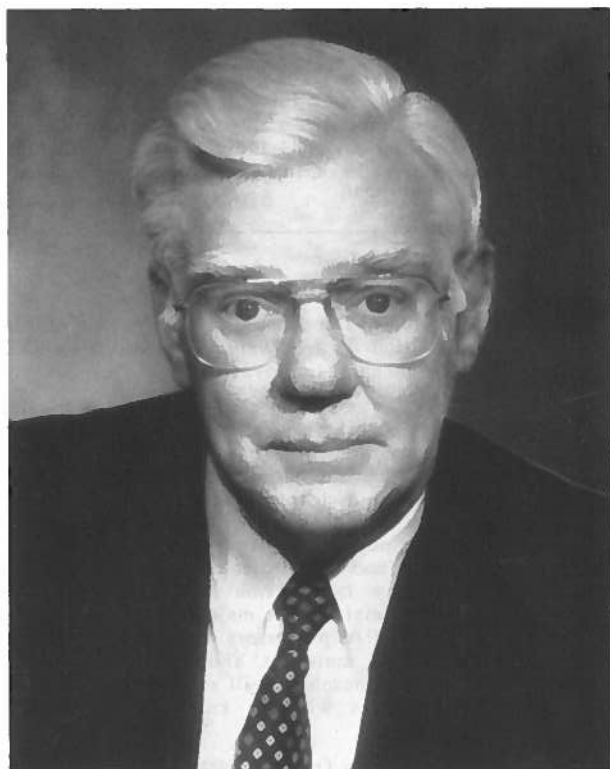
MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. XLVII

OCTOBER, 1991

NUMBER 7

W. R. GRACE & CO. AWARD



ROBERT D. KENNEDY

W.R. GRACE & CO. AWARD

Scientific advancements never occur in a vacuum. Each new discovery is placed upon a foundation established by previous research. There are numerous awards for outstanding achievements in chemical research and for excellence in teaching; however, few awards recognize the contributions of leaders who generate, provide or create the support necessary to conduct significant research.

The W.R. Grace & Co. Award, jointly sponsored by W.R. Grace & Co. and the Maryland Section, was created to recognize individuals whose achievements, stimulation, and/or support have permitted others to make significant scientific discoveries. Although the award was conceived principally for non-chemists, someone with a baccalaureate degree in a scientific field is not automatically excluded from consideration; however, achievements in the laboratory or the classroom are not the basis for selection.

Both the Nobel laureate and the undergraduate research student rely on substantial support from a variety of sources and individuals. Government organizations, private industry, and charitable foundations provide funding for salaries and equipment. Editorial boards produce journals to document and distribute the results of research that provide the basis for new ideas and concepts. Engineers transform physical concepts into new equipment that expands the range of scientific measurement and permits revolutionary experiments that had been previously impossible. Supervisors create a professional atmosphere that stimulates constructive ideas and leads to fruitful interactions. Executives define corporate policy to coincide with changing public opinion and goals and thereby enhance professional esteem.

The Maryland Section presents several awards each year. The Remsen Award is presented for exceptional career achievements in chemistry. In contrast to the Remsen Award, which is open to anyone with international stature, the Maryland Chemist Award is limited to those whose careers have been principally within the geographical boundaries of the Maryland Section. The Maryland Service Award is presented to a member of the section for outstanding service to the section itself rather than for teaching, research, etc. Student awards recognize academic and other achievements by outstanding chemistry students in each of the colleges and universities in the section. Thus, the creation of the W.R. Grace & Co. Award completes the Maryland Section awards program by recognizing distinguished individuals who are not eligible for the other awards but whose contributions have, in fact, made the traditional awards possible.

ACID RAIN

The American Chemical Society (ACS) Department of Government Relations and Science Policy has released the third edition of *Acid Rain*, an information pamphlet developed by the ACS Committee on Environmental Improvement.

Before the past decade, "acid rain" was a term used only by environmental scientists to describe their relatively unnoticed work in measuring the constituents of precipitation and the resulting effects on the environment. Today the public perceives acid rain as an environmental threat, one that has brought differing opinions from the scientific community. Through recent research, a clearer understanding has emerged about (1) the process by which oxides of sulfur and nitrogen are transformed in the atmosphere into acids, (2) the transportation of air pollutants over long distances, and (3) the process by which acid rain enters watersheds and constitutes acidification which affects fish and other aquatic organisms. This new information is useful but not definitive in all respects; an element of ambiguity remains. The major uncertainties associated with acid rain include the interaction of it and its precursors with other air pollutants; the effects of acid deposition on trees and soil, materials, and human health; and the degree to which control of emissions to the atmosphere will reduce acid deposition. This eight-page information pamphlet describes what is known and not known about this environmental issue.

Single copies of *Acid Rain* are available free of charge (up to 10 for non-profit groups) from the ACS Department of Government Relations and Science Policy, 1155 Sixteenth Street, N.W., Washington, D.C. 20036. Please include a self-addressed mailing label. For multiple copies, please call (202) 872-8725.



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ROBERT D. KENNEDY

As Chairman and Chief Executive Officer of Union Carbide, Robert D. Kennedy has led far-reaching initiatives dealing with technology, environmental management, education and community outreach. His leadership has impacted positively his corporation, his industry and the community at large.

He has made Technology Leadership a corporate core value, creating an environment which fosters imagination, vision and creativity.

He has helped instill the same sense of excellence within the chemical industry. As chairman of the board of the Chemical Manufacturers Association, he played a leadership role in the adoption of Responsible Care, an initiative which has set the industry on a course of continuously improving health, safety and environmental performance standards. As one of the early architects of the initiative, Mr. Kennedy guided the initiative to its overwhelming approval by the association. After ensuring the successful adoption of Responsible Care by the U.S. chemical industry, Mr. Kennedy is once again leading the way to make Responsible Care a global effort.

Mr. Kennedy created a corporate task force to study education, resulting in a report, "Uneducated Uncompetitive USA," which became the basis for his active role nationally in education. He is co-chairing with Secretary Watkins a national coalition directed at improving math/science education and increasing the number of persons pursuing careers in these fields. The coalition was announced by President Bush last February.

In 1988, Mr. Kennedy was presented with the Honorary Fellow Award from the American Institute of Chemists. In May 1991, he received the International Palladium Medal of the Societe de Chimie Industrielle for his international contributions to the chemical industry.

Mr. Kennedy is a member of the Business Council and a member of the Business Roundtable, for which he chairs the Connecticut CEO Educational Task Force.

He is a past member of the Board of Governors of the International School in Geneva, Switzerland; a member of the Board of Trustees of Aspen Institute; a moderator of the Aspen Institute Programs on Humanistic Studies and the Corporation in Contemporary Society and chairman of the Board of Trustees of the Hampton School. In September, 1990, Mr. Kennedy became chairman of INROADS, Inc., an organization which identifies outstanding minority students and introduces them to the business world. He was also vice-chairman of INROADS.

Mr. Kennedy joined Union Carbide in 1955 at the Edgewater Research Laboratory of the National Carbon Division. He held various positions in that division for 20 years, including the management of the European Carbon business from Geneva, Switzerland. He returned to New York as president of the Linde Division in 1977. Mr. Kennedy was elected a senior vice-president of the corporation in 1981 and an executive vice-president in 1982. In 1985, he became president and chief operating officer of Union Carbide's Chemicals and Plastics business group and was elected to the corporation's Board of Directors. In 1986, he was elected president and chief executive officer and in December of the same year he was elected chairman.

Mr. Kennedy is an alumnus of Cornell University where he received his B.S. degree in mechanical engineering in 1955.

THE CHEMICAL INDUSTRY AT A CROSSROAD

The chemical industry is at a crossroad. The industry's ability to solve environmental and safety problems -- and to regain the public's confidence -- will be vital to its success over the next decade and beyond. As it works to achieve its vision of a better environment, along with all its other technological requirements, the industry will be handicapped by a crisis in education: Not enough of the nation's young people are being educated with the math and science and reasoning abilities that America needs to stay competitive. Radical systemic changes are necessary in America's education system. Business people must take action to encourage education reform.

OCTOBER MEETING

DATE:

Tuesday, October 22, 1991

PLACE:

Martin's West
6817 Dogwood Road
Baltimore, Maryland

PROGRAM:

8:30 p.m.

THE W.R. GRACE & CO. AWARD

Mr. Robert D. Kennedy
Chairman and CEO
Union Carbide Corporation

"The Chemical Industry at
a Crossroad"

COCKTAILS AND DINNER:

Social Hour 6:30 p.m.
Dinner 7:30 p.m.

Dinner price \$25.00

French Onion Soup, Chicken Cordon
Bleu, Dessert, Wine & Beer

Dinner reservations should be
made by mailing checks, payable
to Maryland Section of ACS, to

Dr. Stephen M. Gregory
College of Notre Dame
4701 North Charles Street
Baltimore, MD 21210

by October 15, or by calling
(301) 532-5714, where an
answering machine is available.

DIRECTIONS:

Martin's West is located on Belmont Avenue just west of the Baltimore Beltway and north of Security Boulevard. From the beltway take exit 17 to Security Boulevard west. Belmont Avenue intersects Security at a traffic light immediately east of Koons Ford. Go north on Belmont, past the Holiday Inn, to Martin's West on the left.

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EAS is sponsored by the New York and North Jersey Sections of the American Chemical Society; the Delaware Valley, New England, and New York Sections of the Society for Applied Spectroscopy; the American Microchemical Society; and the New York Microscopical Society.

The Johns Hopkins University

1991 Fall Chemistry Colloquium Schedule

Remsen 221, Tuesdays, 4:15 p.m.

For more information contact Rosalie Elder (301)338-7432

October 8	Raul Fainchtein The Johns Hopkins University Applied Physics Laboratory	Scanning Tunneling Microscopy of Organic Conductors and Super Conductors
October 15	David Gutman Catholic University	Kinetics, Dynamics and Thermochemistry of Alkyl-Radical Reactions with Hydrogen Halides
October 29	Kenneth Janda University of Pittsburgh	Molecular Dynamics: from diatomic molecules, through small clusters, to molecules chemisorbed on metal surfaces.
November 12	Peter Privalov The Johns Hopkins University Biology Department	Microcalorimetry in Studying Biological Macromolecules

SPECIAL SEMINARS - 1991

October 3, 1991 - Remsen 1 - 5:30 PM
Baker Nobel Lecture

Professor E. J. Corey
Department of Chemistry
Harvard University

Title: "Recent Studies of Biologically Important Compounds"

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October 21, 1991 - Remsen 221 - 4:15 PM

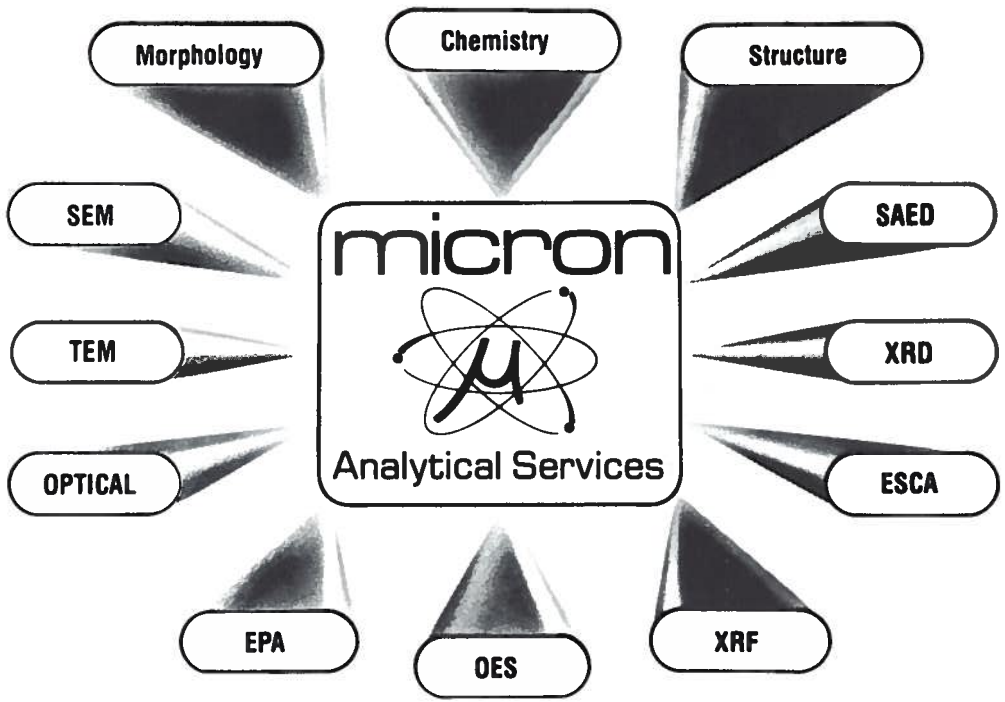
Professor Akio Murai
Department of Chemistry
Hokkaido University
(Sapporo, Japan)

Title: "Biosynthesis of Phytoalexins and Marine Natural Products"
"Chemistry of Hydrogen Peroxide"

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