

Stephens wins Acoustical Society Gold Medal

Raymond W. B. Stephens has been named the recipient of the 1977 Gold Medal of the Acoustical Society of America. The Gold Medal, which is the highest honor of the Society, is presented in the spring of odd-numbered years. Stephens was cited for his contributions to the advancement of acoustics, both in his own country of England and in many others, "as a physics teacher and experimentalist; as an author and editor; as a founder and leader of acoustical societies, and above all as a research supervisor who has taught and inspired a generation of acoustics students..."

Born in England, Stephens earned his doctorate at Imperial College in 1934. He had received his first appointment at Imperial College several years earlier, in 1929, when he became a demonstrator in the physics department. This was the first in a series of positions he held there over a period of 45 years, which culminated in his appointment as reader in acoustics in 1959. Following his retirement in 1970, he retained a post as re-

search fellow at Chelsea College.

Among his many contributions to the field of acoustics, Stephens was the leader of the Acoustics Research Group (Imperial and Chelsea Colleges), which was organized in the late 1940's. In addition to students, many professors and scientists from abroad visited the Acoustics Research Group to do original research under Stephens's supervision. Stephens was also a founding member and officer of the acoustics group of the (British) Physical Society, the British Acoustical Society and the Institute of Acoustics.

His research interests include experimental work in sound propagation in liquid metals and anisotropic solids, finite-amplitude waves in liquids, gases and solids, the optic-acoustic effect, ultrasonic attenuation at low temperatures and acoustic emission in stressed materials. As an editor and author, Stephens has contributed to scientific literature in six books and more than 50 journal articles—his latest volume is *Sound: Dictionary in Eight Languages*. He has been honored



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with awards of professional scientific societies in England and France and holds honorary memberships in several acoustical societies.

APS Forum award honors Primack and von Hippel

The American Physical Society's Forum on Physics and Society has chosen Joel Primack and Frank von Hippel as the co-recipients of its Award for Promoting Public Understanding of the Relation of Physics to Society. The award was presented at the spring meeting of the APS in Washington, D.C., where Primack and von Hippel were cited "for their book, *Advice and Dissent* (published in 1974 by Basic Books, New York), which is a detailed examination of the recent interactions of the scientific community with groups responsible for Federal policy on scientific and technological issues."

Primack is assistant professor of physics at the University of California, Santa Cruz. He earned his doctorate at Stanford University in 1970 and then took up a post as junior fellow of physics at Harvard University. In 1973 he joined the faculty of the University of California, Santa Cruz. In addition to his interest in national technology policy, Primack's

specialities include nuclear structure, plasma kinetic theory, astrophysics and high-energy theoretical physics, especially weak interactions and field theory.

A PhD from Oxford University (1962), von Hippel now works as a research scientist at the Princeton University Center for Environmental Studies. During his career he has worked at the University of Chicago, Cornell and Stanford Universities and Argonne National Laboratory; von Hippel also worked as a consultant on nuclear-energy policy to the Office of Technology Assessment in 1975. His research interests concern energy policy in general.

Vacuum Society presents Welch Award to Holland

The American Vacuum Society has presented its annual Medard W. Welch Award to Leslie Holland, who is head of the Unit for Plasma Materials Processing at the University of Sussex. The award consists of a gold medal, \$1000 and a

citation that noted his distinguished contributions to vacuum technology and thin-film and surface sciences.

Holland first came into contact with high-vacuum technology in 1938 when he worked at a laboratory developing large-screen television. During World War II he was engaged in aircraft instrument design and high-vacuum process systems. In 1944 he joined Edwards High Vacuum Ltd, where he remained until 1973. There he was responsible for applied research and engineering design in numerous aspects of the vacuum field—Holland also organized a laboratory for research on vacuum deposition technology. He held concurrent positions first at Brunel University and then at the University of Sussex, where he was appointed Whitworth Fellow in 1974. At Sussex he conducted research on surface reactions and ion-impact effects occurring in low-pressure plasmas.

Holland is now serving as the president-elect of the International Union for Vacuum Science, Techniques and Applications.

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we hear that

Terry Kammash, a nuclear engineer at the University of Michigan, has been named the Stephen S. Attwood Professor of Engineering.

The College of William and Mary physics department has announced the appointment of **David C. Montgomery** (University of Iowa) as professor of physics and the promotion of **Edward A. Remler** to the rank of professor.

At the Chicago State University department of physical sciences, **Harvey S. Leff** has been promoted to the rank of professor of physics.

The new director of the Center for Materials Science and Engineering at the Massachusetts Institute of Technology is **Mildred S. Dresselhaus**; she has been the Abby Rockefeller Mauzé Professor of Electrical Engineering at MIT since 1973.

Stanley Lichtman, formerly of the University of Michigan school of public health,

has joined the office of radiation programs of the Environmental Protection Agency (Washington, D.C.) as an environmental scientist.

At the Phillips Petroleum Co, Bartlesville, Oklahoma, **Charles F. Cook** has been recently promoted to director, petroleum and petrochemicals, research and development.

Recent appointments in the Boston University department of physics include **Rama Bansil**, **William Klein** and **Kenneth J. Rothschild**, all as assistant professors.

Frank S. Levin has been promoted to the rank of professor in the department of physics at Brown University, Providence, R.I.

The following changes have been announced by the departments of astronomy and astrophysics at the Enrico Fermi Institute and the College of the University of Chicago: **W. David Arnett**, formerly of the University of Illinois, has been appointed professor and **David N. Schramm** has been promoted to professor.

obituaries

Julian Miller

Julian Miller, professor of chemistry at Columbia University, died on 14 December 1976 at the age of 54.

Miller was one of the world's leading nuclear chemists. Born in Berkeley, he received his undergraduate education there and went on to do his graduate work at the California Institute of Technology. When his thesis adviser, Richard Dodson, moved to Columbia University, Miller went with him and he received his PhD from Columbia in 1949. His thesis research in hot-atom chemistry was characterized by a style that became the hallmark of his entire scientific career: a combination of penetrating theoretical analysis with experiments that were carefully designed to test the assumptions of the theoretical model. His treatment of the slowing down of energetic atoms produced in nuclear processes was largely responsible for bringing some rigor into what had been the highly empirical field of hot-atom chemistry.

Upon receiving his doctorate, Miller became a member of the Columbia chemistry faculty and he spent his entire scientific career there, advancing through the ranks to become a full professor in 1960. From 1970 to 1973 he served as chairman of the department. He was deeply attached to the university and devoted to teaching as well as research. Among students he was admired as an outstanding teacher; among colleagues



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and university administrators his wise counsel was highly valued.

Since 1950 Miller's research interests were principally focussed on the mechanisms of nuclear reactions. He made important contributions, both experimental and theoretical, to the understanding of spallation reactions—he played a primary role in the development of models and calculations for both the intranuclear cascade and evaporation phases of these reactions. In the early 1950's he called attention to the dominant role played by phase-space effects in the