

Rosenbluth wins Maxwell Prize

Marshall N. Rosenbluth, professor at the Institute for Advanced Study in Princeton, N.J., has been named the recipient of the 1976 James Clerk Maxwell Prize in Plasma Physics. The Maxwell Prize will be presented to Rosenbluth at the meeting of The American Physical Society Division of Plasma Physics in San Francisco, 15-19 November.

Rosenbluth earned his doctorate at the University of Chicago in 1949 and then took up a teaching position at Stanford University for one year. He was a staff member at Los Alamos Scientific Laboratory until 1956, at which time he joined the General Atomic Laboratories as senior research adviser. Subsequently he received a joint appointment as professor of physics at the University of California, San Diego. In 1967 he accepted his current position at the Institute for Advanced Study; he serves also on the staff of the Plasma Physics Lab and the faculty of Princeton University.

The Maxwell Prize, which is sponsored by the Maxwell Laboratories Inc, includes \$3500 and a certificate. The Prize was established in 1975 to honor contributions to the knowledge of properties of highly ionized gases of natural and laboratory origin. Rosenbluth was cited for his analyses of the behavior of plasma in its various manifestations and his contributions to plasma theory in the areas of stability, transport processes, interaction



ROSENBLUTH

of radiation with plasma, fluctuations and wave phenomena.

Previous awards that Rosenbluth has received are the E. O. Lawrence Award (1964) and the Albert Einstein Award (1967). He is currently serving a four-year term as an American Physical Society councillor-at-large and works as a consultant to NASA and Maxwell Labs.

have been appointed assistant professors; **Paul Erdős**, **Neil R. Fletcher**, **Vasken Hagopian**, **Robert H. Hunt**, **Hans S. Plendl** and **James G. Skofronick** all have been promoted to professor.

Chief scientist at EOCOM Corp (Irvine, California), **Richard E. Gillespie** has been elected vice-president of research.

Formerly of the University of Colorado at Boulder, **Francis E. Cecil** has been appointed assistant professor of physics at the Colorado School of Mines.

At Iowa State University, **Clayton A. Swenson** has been named distinguished professor.

Acting director of the Commerce Department's Office of Telecommunications since June 1972, **John M. Richardson** has been named director.

The appointment of four new assistant professors in the physics department of North Carolina State University at Raleigh has been announced: they are **Jim Kim**, **J. Richard Mowat** (City College of the CUNY), **John S. Risley** (University of Nebraska) and **Dale Sayers**.

The Aumale Prize of the Institut de France has been awarded to **Robert Paulin** of the Institut National des Sciences et Techniques Nucleaires (Saclay, France) by the French Academy of Sciences for his contributions to the physics of low-energy positrons in solids.

Named as assistant professors in the department of physics of Virginia Polytechnic Institute and State University are **J. B. Cammarata** (Stanford University), **S. K. Case** (University of Michigan), **W. J. Dallas** (University of Washington), **A. L. Ritter** (Cornell University) and **R. K. P. Zia** (Southampton University); **Luke Mo** (University of Chicago) has been appointed associate professor.

Among the recipients of the 1976 awards of the French Physical Society are **Jacques Prentki** and **A. Quinzer**. Prentki, who is a professor at the Collège de France and head of the theory division at CERN, received the Prix Robin for work in theoretical physics. The Prix Esclanson was

The Boston University department of physics has announced the appointment of **H. Eugene Stanley** (Massachusetts Institute of Technology) as professor and **Behrend Kolk** (University of Groningen and Rutgers University) as assistant professor.

Guy N. Blair, formerly of the department of astronomy, the University of Texas at Austin, has been appointed astronomer at the Netherlands Foundation for Radio Astronomy, Dwingeloo/Westerbork Observatories, The Netherlands.

Carl Sagan, astronomer at Cornell University, has been named the University's first David C. Duncan Professor of Physical Sciences.

Richard A. Berendzen, dean of American University's College of Arts and Sciences, has been appointed university provost.

David W. Kraft, professor of physics at The Cooper Union, has been appointed visiting professor of operations research at New York University's graduate school of business administration.

At the University of Colorado at Denver, **Clyde S. Zaidins** has been promoted to the rank of professor of physics.

The following changes have been announced by the Florida State University department of physics: **Ronald N. Diamond** (University of Michigan) and **Larry R. Medsker** (University of Pennsylvania)

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given to Quinzer for contributions to experimental physics; he is at the Laboratoire de l'accélérateur linéaire at Orsay.

obituaries

John C. Slater

With the passing of John C. Slater, America lost one of its greatest theoretical physicists; he died 25 July on Sanibel Island, Florida at the age of 75.

Slater entered Harvard University graduate school at the age of 19 and wrote, under Percy W. Bridgman, an experimental PhD thesis on alkali halides at high pressures. Thereafter he studied theory, especially the quantum theory, which at that time was more a challenging puzzle than a well defined discipline. This he learned about in courses given by Edwin C. Kemble.

After earning his PhD in 1923, Slater received a traveling fellowship from Harvard. At the beginning of his fellowship term he came up with the idea that there was a radiation field that guided the light quanta, and this field could be described by associating with the atom a set of virtual oscillators whose frequencies were those given by the Bohr frequency condition instead of those of classical orbital motions. When he reached Copenhagen, Niels Bohr and Hendrik Kramers quickly appreciated the significance of his ideas—the result was the celebrated Bohr-Kramers-Slater paper in which Bohr and Kramers added (against Slater's better judgment) the proposal that the laws of conservation of energy and momentum are only statistically valid. This paper has been worked over and over by historians of science, and the correct portion was generally recognized as that due to Slater. Slater's early work was a leading factor in bringing American theoretical physics high international standing for the first time since J. Willard Gibbs's classic contributions.

After returning to the US in 1924, Slater joined the Harvard faculty. Some of his most striking papers were published in the next few years, as was true of all theoretical physicists of his generation. The advent of quantum mechanics had opened up a whole new research continent in 1926. Particularly noteworthy are his 1931 paper on directed valence and his 1929 article on complex spectra, which developed the method of Slater determinants that circumvented the intricate theory of the permutation group.

When Karl T. Compton became president of the Massachusetts Institute of Technology in 1930, one of his first moves was to bring Slater there to head the physics department, with a mandate to

John F. Clark, formerly director of NASA's Goddard Space Flight Center in Greenbelt, Maryland, has joined RCA's Corporate Engineering staff as director, space applications and technology.



SLATER

strengthen it. Under his chairmanship, the department grew in size and stature to a top rank, both nationally and internationally. One remarkable thing about Slater's career at MIT was how he was still productive in research despite the heavy administrative burden. In fact, he soon assembled a "school" of young theorists who wrote their doctoral theses under his supervision and later became prominent physicists and executives.

In the early 1930's many theorists shifted into nuclear physics. Slater made a reasoned decision that the tide was an excessive one, and he chose to concentrate on solid-state physics, which offered great potential in research and development.

His work during the war was at the MIT Radiation Laboratory and was concerned mainly with magnetrons. He has written, "At the beginning there was no clear understanding of how the magnetron worked . . . Within a few weeks I was able to provide a general theory which laid the basis for most advances in design after that time." When the war ended he was a prime mover in the establishment of MIT's research laboratories for electronics and nuclear science.

In 1951 he was made the first Institute Professor at MIT—a position that relieved him of most of his administrative responsibilities. He focussed his attention on means of calculating the binding energies of atoms and molecules more accurately. In later years he capitalized on the potential provided by the modern