

Richard Post wins APS plasma physics prize

Richard F. Post of the University of California's Lawrence Livermore Laboratory is the 1978 recipient of the American Physical Society's James Clerk Maxwell Prize for Plasma Physics. Post was cited "for many original contributions to both fundamental plasma physics and the design of fusion reactors. In particular for his unswerving dedication to all aspects of the study of magnetic mirror plasma confinement."

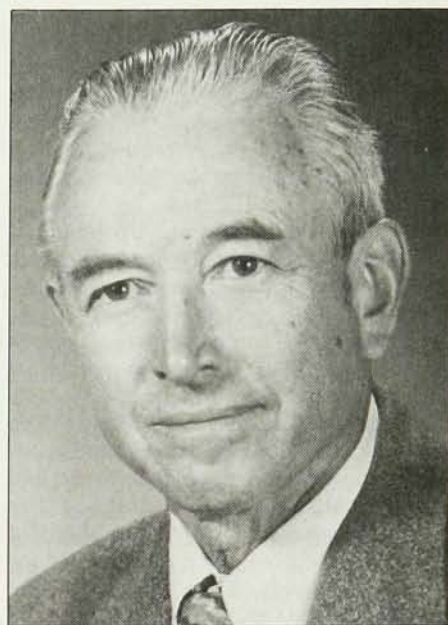
Post received a BA degree in 1940 from Pomona College and a PhD in 1950 from Stanford University. He served as a physicist at the Naval Research Laboratory from 1942 to 1946 and then as a research associate at Stanford until 1951. He started in 1951 as a research group leader doing controlled thermonuclear research at Livermore. In 1974 he was made deputy associate director for magnetic fusion energy. He also has been professor-in-residence at the University of California, Davis at Livermore, since 1963.

Post's major research has been in magnetic confinement for controlled fu-

sion; he is considered one of the founders of the mirror fusion program. As one of the first to understand the fundamental questions of fusion energetics, he has emphasized the importance of neutral-beam heating as an independent energy source. Although not the discoverer, he helped the technology needed to develop high-current beams as we know them today.

Honors previously bestowed on Post include the US Navy's Meritorious Civilian Service Award in 1945, the US Energy Research and Development Administration's Distinguished Associate Award in 1977 and the American Nuclear Society, Controlled Nuclear Fusion Division's Outstanding Achievement Award in 1978.

The Maxwell prize, awarded annually since 1975, is sponsored by Maxwell Laboratories Incorporated, a San Diego-based firm involved in the application of new technologies to major research and government programs. The award, which includes a prize of \$3500, was established to recognize "outstanding contributions



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to the advancement and diffusion of knowledge of properties of highly ionized gases of natural and laboratory origin."

Kaminsky to present first Muller Lecture

The W. E. Muller Lectureship for 1978 has been awarded by the Laboratory for Surface Studies at the University of Wisconsin, Milwaukee to Manfred Kaminsky, senior scientist and director of the surface science center of the controlled thermonuclear fusion reaction program at Argonne National Laboratory.

This new lectureship will be awarded annually to a scientist with "outstanding achievements in surface studies." The recipient of the award will teach a course in surface science during the eight-week summer session at Wisconsin and will cooperate in research projects of faculty members of the Laboratory for Surface Studies. Kaminsky will teach a course on "Surface Effects in Controlled Thermonuclear Fusion Devices."

Kaminsky received his PhD from the University of Rostok, Germany, in physics in 1957 and came to the US, joining Ar-

gonne as a research associate in 1958. He assumed his present post in 1974. He is author of *Atomic and Ionic Impact Phenomena on Metal Surfaces*, which he wrote in Germany in 1965.

Franklin Institute honors three physicists

Frank H. Stillinger, head of the chemical-physics research department at Bell Laboratories in Murray Hill, New Jersey, William Klemperer, professor of chemistry at Harvard University, and Simon Ramo, a director of TRW Inc., are among the recipients of Franklin Institute medals.

Stillinger won the 1978 Elliott Cresson Medal. He was cited for his development of a model for water molecules that proved water is composed of a disorderly, but not totally random, network of molecules. The model has been used for various meteorological, chemical, pharmaceutical and solar-energy projects.

Stillinger received his BS from the University of Rochester and PhD in chemistry from Yale University (1958). In 1959, after a year of postdoctoral work at Yale, he joined Bell Labs.

Klemperer won the John Price Wetherill Medal for the development of molecular-beam techniques for understanding molecular structure. His theoretical and experimental innovations have made contributions in the fields of biochemistry, petroleum refining and atmospheric pollution. Klemperer received his AB from Harvard (1950) and his PhD from the University of California at Berkeley (1954). He returned to Harvard in 1954 as a chemistry instructor and was promoted to assistant, associate and, finally, to full professor of chemistry in 1965.

Ramo received the Delmer S. Fahrney Medal for outstanding leadership of major scientific and technological projects of national and international importance. Ramo is a cofounder of Ramo-Woolbridge Corporation, which merged with

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Thompson Products in 1958 to form TRW. He received a PhD from Caltech in 1936 and is considered an expert in microwaves and guided-missile technology.

The Franklin Institute is a non-profit organization which has been engaged in scientific and technological research and education since 1824.

Carl Sagan receives Washburn Award

Boston's Museum of Science has awarded Cornell University astronomer Carl Sagan its 1978 Bradford Washburn Award. The award, which carries a \$5000 honorarium and a gold medal, is given for outstanding contribution to the public understanding of science.

Sagan is David Duncan Professor of Astronomy and Space Sciences at Cornell, and director of the Laboratory for Planetary Studies. He received his degrees, including a PhD in astronomical astrophysics in 1960, from the University of Chicago. Associated with NASA from its beginnings, he has played a leading role in the Mariner, Viking and Voyager missions to the planets. He has written and lectured extensively and is author of *The Cosmic Connection*, which won the 1974 John W. Campbell Memorial Award for the best science book of the year, and *The Dragons of Eden: Speculations on the Evolution of Human Intelligence*, which won the 1978 Pulitzer Prize for nonfiction.

Sagan is also known for his interest in exobiology, which deals with the existence and detection of extraterrestrial life. In 1971 he was leader of the US delegation to the Conference on Communication with Extraterrestrial Intelligence, organized jointly by the US National Academy of Sciences and the Soviet Union's Academy of Sciences. He had the principal responsibility for placing the first interstellar messages aboard the first US spacecraft to leave the solar system.

Chemical society to honor Raymond Davis

The American Chemical Society has named Raymond Davis Jr, senior chemist at Brookhaven National Laboratory, winner of the 1979 Award for Nuclear Applications in Chemistry. The \$2000 award is sponsored by G.D. Searle & Co. and was established in 1953 "to recognize, encourage and stimulate isotopic applications in the field of chemistry."

The prize is being given to Davis for his "pioneering study of neutrinos . . . and his major accomplishment in measuring the flux of neutrinos from the sun." He is further cited for "his unique contributions

to our knowledge about the way the sun produces energy, about particle fluxes of the solar wind, and about solar flares."

Davis began experiments in the 1960's to measure the nuclear energy cycle in the Sun (see PHYSICS TODAY, page 19, December 1978). It is believed that the thermonuclear reactions and accompanying radioactivity decay in the solar interior produce neutrinos which escape from the Sun into space, providing a means of studying solar energy production. Using a very low-background counting technique, Davis measured the number of neutrinos that reach the Earth in order to test the existing theory of solar energy generation. He showed that the flux of energetic neutrinos from the Sun is just a small fraction of that predicted by theory, thus casting considerable doubt on existing models.

Davis received a BS in 1937 and an MS in 1940 from the University of Maryland. He received a PhD in physical chemistry from Yale University before joining the Air Force in 1942. In 1946 Davis accepted a position at the Mound Laboratories in Dayton, Ohio, and in 1948 joined the staff of the Brookhaven National Laboratory as an associate chemist. He was named chemist in 1953 and senior chemist in 1964. Davis will receive the award at the ACS/Chemical Society of Japan Chemical Congress in Honolulu next April.

Chandrasekhar delivers Jansky Lecture

Subrahmanyan Chandrasekhar, Morton D. Hull Distinguished Service Professor at the University of Chicago, delivered the 1978 Jansky Lecture of the National Radio Astronomy Observatory 8 November at the University of Virginia. The Jansky Lectureship, first awarded in 1966, is named in honor of Karl G. Jansky, who first detected radio waves from the Milky Way in 1931. Chandrasekhar's talk was entitled "General Relativity in Astronomy at Einstein's Centennial." Chandrasekhar received his PhD from Cambridge University in 1933. In 1936 he came to the Yerkes Observatory of the University of Chicago, and has remained affiliated with the observatory ever since. From 1952 to 1971 he served as managing editor of *The Astrophysical Journal*.

Morton S. Roberts became director of the National Radio Astronomy Observatory 1 October, succeeding **David S. Heeschen** who served in the position since 1962.

Donald Krahn, of Ohio State University, was named assistant professor of physics at Southwestern Oklahoma State University, Weatherford.

Volker Soergel has been appointed direc-

torate member for experimental physics at CERN. The lab also named **Michael Crowley-Milling** as directorate member for accelerator programs and **Giorgio Brianti** to fill Crowley-Milling's prior position of leader of the Super Proton Synchrotron division. The new directorate member for staff policy and staff planning is **Gunther Ullmann**.

Joseph S. Heyman of NASA's Langley Research Center and **James G. Miller** and **Lawrence J. Busse**, both of Washington University's Laboratory for Ultrasonics, won an IR-100 award from Industrial Research magazine for developing one of the 100 most significant new technological products of 1978, an acoustic transducer. This is Heyman's third IR-100 award.

Marx Brook has become director of the Research and Development Division at New Mexico Institute of Mining and Technology. Brook was formerly chairman of the physics department there.

Ronald C. Davidson, former assistant director for applied plasma physics at the Department of Energy, has been appointed director of the MIT Plasma Fusion Center. He succeeds **Lawrence Lidsky**, who has held the post on an acting basis since last May, when **Albert G. Hill** retired after directing development of the Center.

David Finkelstein, former University Dean of Natural Sciences and Mathematics at Yeshiva University, became professor and Dean of the School of Physics at Georgia Institute of Technology on 1 January.

The following people have recently accepted appointments in the department of physics of the University of California, Berkeley: **Steven Chu** (assistant professor), formerly an NSF postdoctoral fellow; **Edgar Knobloch** (assistant professor), formerly a junior fellow at Harvard University; **Richard A. Muller** (associate professor), formerly of the Space Sciences Laboratory and the Lawrence Berkeley Laboratory; **Peter Y. Yu** (associate professor), formerly of the IBM Watson Research Center.

Robert R. Wilson, former director of the Fermi National Accelerator Laboratory has been named the first Peter B. Ritzman Professor in The College at The University of Chicago.

Edwin L. Goldwasser, former deputy director of the Fermi National Accelerator Laboratory, became the new vice-chancellor for research and dean of the Graduate College at the University of Illinois at Urbana-Champaign, effective 1 September.

The German Physical Society presented its annual prize for young physicists to