

to underwater archaeological exploration." Edgerton's famous photograph of a crown-shaped splashing milk drop, which he took in 1938 to dramatize the potential uses of the high-speed electronic flash, now hangs in the Museum of Modern Art in New York. In the 1930s, Edgerton's strobe was adapted for night reconnaissance, permitting round-the-clock aerial surveillance of enemy forces. Later, Edgerton and his colleagues developed stroboscopic equipment to photograph nuclear weapons tests.

The National Academy of Engineering has also honored Simon Ramo with its first annual Arthur M. Bueche Award for statesmanship in science and technology. Bueche, who was General Electric Company's senior vice president for corporate technology before his death, was a recognized spokesman for the technical community on matters such as energy policy and industrial innovation. Ramo, who was presented with the Bueche award last November, is a director of TRW Inc. (originally known by its Founders' names, Thompson-Ramo-Wooldridge). He did pioneering work in microwaves and guided-missile technology, and he served as chief scientist for the nation's intercontinental ballistic missile program from 1954 to 1958. He was chairman of the President's Committee on Science and Technology under President Ford and co-chairman of the Transition Task Force on Science and Technology for President Reagan.

National Academy of Sciences elects 60 new members

The National Academy of Sciences has elected 60 new members in recognition of their distinguished and continuing achievements in original research. Among these are the following whose work is in physics or related fields: Ira B. Bernstein, applied science, Yale University; William F. Brinkman, director, physical research laboratory, AT&T Bell Laboratories; Marshall H. Cohen, astronomy, California Institute of Technology; Stirling Colgate, Los Alamos National Laboratory; Roger F. Dashen, physics, The Institute for Advanced Study; Michael H. Freedman, mathematics, University of California, San Diego; James G. Glimm, Courant Institute of Mathematical Sciences, New York University; William A. Goddard III, chemistry and applied physics, California Institute of Technology; John L. Hall, Joint Institute for Laboratory Astrophysics, National Bureau of Standards and University of Colorado; Nick Holonyak Jr, electrical engineering, University of Illinois at Urbana; Elliott H. Lieb, mathematics and physics, Princeton University; William

W. Mullins, applied sciences, Carnegie-Mellon University; Jack E. Oliver, geology, Cornell; Murray Rosenblatt, mathematics, University of California, San Diego; Charles V. Shank, head, quantum physics and electronics research department, AT&T Bell Laboratories; Frank H. Stillinger Jr, AT&T Bell Laboratories; Edward C. Stone, physics and chemistry, California Institute of Technology; Karl K. Turekian, geology and geophysics, Yale University; and Ray J. Weymann, astronomy, Steward Observatory, University of Arizona.

Among the 14 foreign scientists also elected are David Robert Bates, physics and mathematical sciences, Queen's University of Belfast, and Gerard 't Hooft, theoretical physics, University of Utrecht, Netherlands. These elections bring the total number of American members to 1428, and the total number of foreign members to 224.

New prize for materials research established in Holland

The Foundation for Fundamental Research on Matter (FOM) in the Netherlands has established a prize in honor of Jacob Kistemaker, the recently retired director of the FOM Institute for Atomic and Molecular Physics. The award—which includes a cash prize of Dfl 25 000 (about \$9000)—honors research in physics that may lead to a technological innovation or practical applications.

The first Kistemaker prize has been awarded to W. Werner, of the Institute of Applied Physics in Delft. His work on diffraction gratings has seen applications in astronomy (for example, on IRAS), in energy research (tokamak diagnostics, for example) as well as in other practical applications of spectroscopy.

Hans Michael Mark to head University of Texas system

The University of Texas System Board of Regents has named Hans Michael Mark, a nuclear physicist and Deputy Administrator of NASA, as the new Chancellor of the university system, effective 1 September 1984.

Mark was born in Mannheim, Germany, on 17 June 1929. He obtained an AB in physics from the University of California at Berkeley in 1951 and a PhD in physics from the Massachusetts Institute of Technology in 1954. He has held academic appointments at Boston University, the Massachusetts Institute of Technology, and the University of California at Berkeley, where

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he also served as chairman of the nuclear engineering department from 1964-69. He has been a consulting professor of engineering at Stanford University since 1973.

From 1969-77, Mark was director of the NASA-Ames Research Center in Moffett Field, California, which provided NASA with supporting research in fundamental aerodynamics, life sciences, airborne science and applications and other fields. He was a member of the President's Advisory Group on Science and Technology in 1975-76, and served as Undersecretary of the US Air Force from 1977 until 1979, when President Carter named him Secretary of the Air Force. In 1981, President Reagan appointed him as Deputy Administrator of NASA, from which post he has now resigned to assume his new duties at the University of Texas.

Mark succeeds E. Don Walker, who had headed the UT system since 1978; Walker resigned the post to accept a position as the executive director of the Hermann Hospital Estate in Houston.

Gravity Research Foundation announces winning essayists

The Gravity Research Foundation has announced the winners of its 1984 awards for essays on gravitation. Lawrence M. Krauss of Harvard University was awarded \$1500 for his paper *Dark Matter and Inflation*, in which he demonstrates that dark matter consisting of stable weakly interacting particles is incompatible with the minimal predictions of inflation, based on present observation of galaxy clustering and assuming galaxies are good tracers of mass in the universe. The second award, \$500, went to Leonard Parker and David J. Toms, both of the University of Wisconsin-Milwaukee, for their joint paper "Gravity and grand unified theories." Clifford M. Will of Washington University, St. Louis, was awarded \$200 for "A new class of ideal clocks." John F. Donoghue, Barry R. Holstein and R. W. Robinett, all of the University of Massachusetts, received \$150 for "The principle of equivalence at finite temperature." And T. Padmanabhan received \$100 for "Planck length is the lower bound to all physical length scales."

Gregory Aminoff Medal to David Harker

The Swedish Royal Academy of Sciences has awarded the Gregory Aminoff Medal in Gold to David Harker in recognition of his fundamental contributions to the development of methods