AWARDS

NAS Awards

The National Academy of Sciences, on the occasion of its 100th annual meeting in Washington, D. C., presented its Henry Draper Medal to Richard Tousey of the Naval Research Laboratory and its Carty Medal to Maurice Ewing, director of Columbia University's Lamont Geological Observatory.

The Draper Medal, which is given for investigations in astronomical physics, was awarded to Dr. Tousey in recognition of his achievements in solar spectroscopy. He was cited in particular for his leadership in carrying out a series of high-altitude probes, beginning in 1946 with the use of captured German rockets, which provided the first detailed record of the sun's radiations in the far-ultraviolet region of the spectrum. In addition to his studies of the solar spectrum, the Academy noted, Dr. Tousey has also contributed importantly to understanding in the fields of vision and atmospheric optics through his work during World War II on visual acuity, dark adaptation, vision through telescopes, night myopia, spherical aberration of the eye, and, later, on the atmospheric attenuation of light and the brightness of the sky.

Draper Medalist Richard Tousey

Carty Medalist Maurice Ewing

A native of Somerville, Mass., Dr. Tousey graduated from Tufts College in 1928 and received his PhD from Harvard in 1933. His doctoral research (under Theodore Lyman) concerned spectroscopy in the extreme ultraviolet, providing a background for his subsequent studies of the solar ultraviolet spectrum. After eight years of teaching physics (at Harvard and at Tufts), he joined the staff of the Optics Division at NRL. He is now head of the Rocket Spectroscopy Branch of the Laboratory's Atmosphere and Astrophysics Division. Dr. Tousey also guides NRL's program of research on the visibility of earth satellites, and he was a member of the Science Program Committee of Project Vanguard. A fellow of the American Physical Society and the Optical Society of America, he was honored by the OSA in 1960, when he was named to receive the Ives Medal. He is also a member of the American Astronomical Society.

The Academy's Carty Medal, which is awarded for noteworthy and distinguished accomplishment in any field of science coming within the scope of the NAS charter, was presented to Dr. Ewing in recognition of "his leading role as an interpreter of the earth's structure and of the million-year epoch before recent geological history known as the Pleistocene Period". He was also cited for having achieved the first seismic measurements in the open sea and for having found, in 1949, that the earth's mantle lies only about seven miles below sea level, compared to distances of approximately thirty miles under land—a discovery basic to the concept of Project Mohole for drilling a hole through the crust to the mantle from a platform at sea.

Born in Lockney, Tex., Dr. Ewing studied at Rice Institute, where he received his doctorate in physics in 1931. Before joining the faculty of Columbia University in 1943 as associate professor of geology, he held academic posts at the University of Pittsburgh and Lehigh University. He was named a full professor at Columbia in 1947 and Higgins Professor of Geology in 1959. He has served as director of the Lamont Observatory since 1949. A fellow of the American Physical Society, Dr. Ewing is a past president of the American Geophysical Union and of the Seismological Society of America.

The election of 34 new members was also announced by the Academy in April. They include William M. Fairbank of Stanford University, Marvin L. Goldberger of Princeton University, Clyde A. Hutchison, Jr., of the

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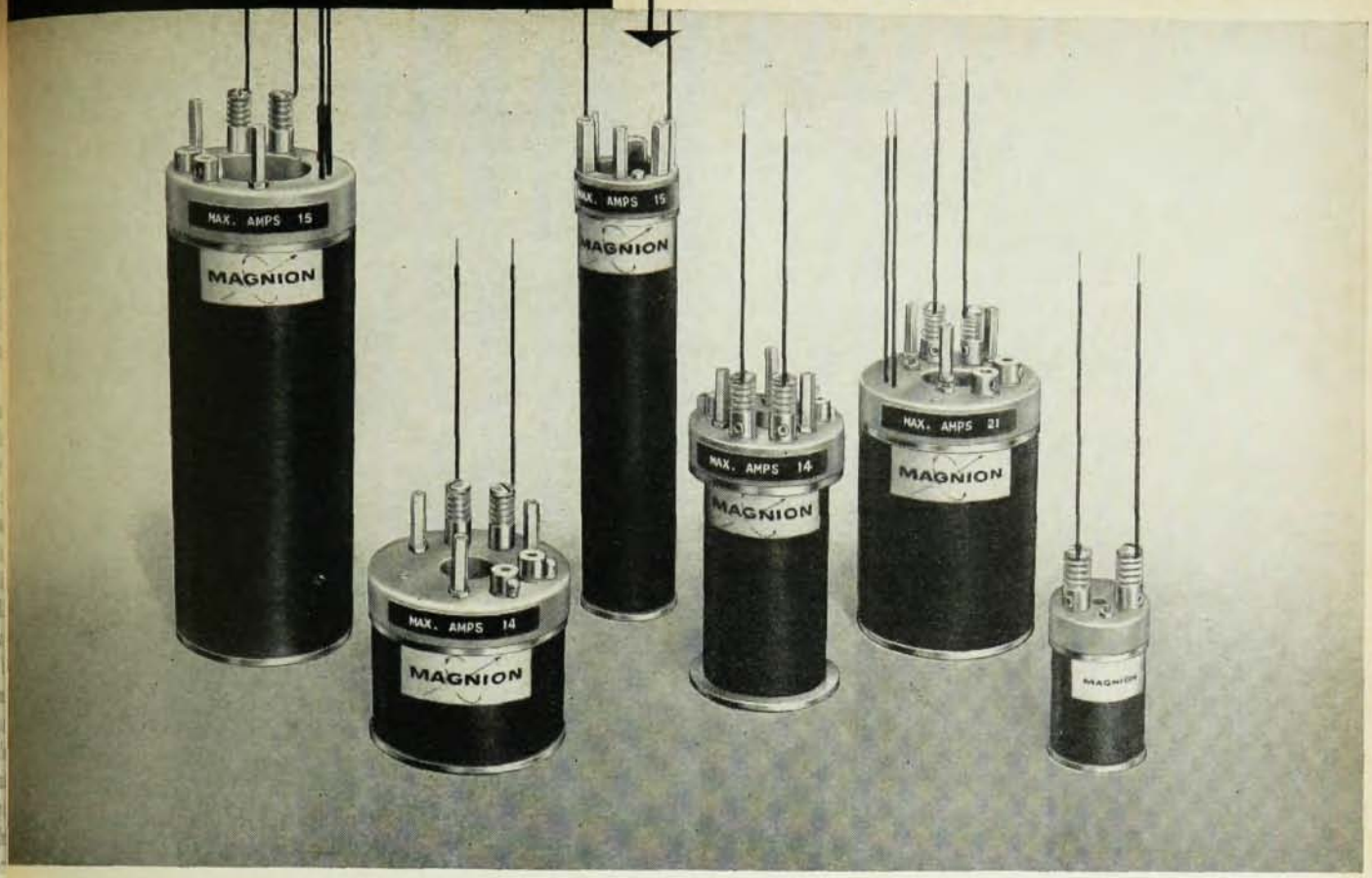

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Liquid Helium Working Volume	53 KG	1 1/16"	6"	Experiments in Cyclotron resonance of ions in liquid helium and adiabatic demagnetization.
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University of Chicago, Leon Knopoff of the California Institute of Technology, Isadore Perlman of the University of California at Berkeley, Emanuel R. Piore of the IBM Corporation, Allan R. Sandage of Mt. Wilson and Palomar Observatories, and Gian-Carlo Wick of Brookhaven National Laboratory.

Heineman Prize

During the banquet of the American Physical Society's spring meeting in Washington, D. C., the 1963 Dannie Heineman Prize for mathematical physics was presented to Keith A. Brueckner, professor of physics and dean of the School of Science and Engineering at the University of California at San Diego. Dr. Brueckner was cited in particular for his "contributions to the theory of elementary particles, nuclei, and condensed matter, and especially for his courage and persistence in deriving the properties of nuclear matter from nucleon-nucleon interactions".

A native of Minneapolis, he earned his doctorate in physics at the University of California at Berkeley in 1950 and spent the following year at the Institute for Advanced Study at Princeton. He joined the faculty of Indiana University in 1951 as an assistant professor of physics, was advanced to the rank of associate professor in 1954, spent a year at Brookhaven National Laboratory as a physicist, and accepted an appointment as professor of physics at the University of Pennsylvania in 1956. Dr. Brueckner went to the University of California in 1959 as head of the Physics Department at the University's newly established San Diego campus; he was named dean of the School of Science and Engineering in 1962. A consultant to the Atomic Energy Commission and the National Aeronautics and Space Administration, Dr. Brueckner recently spent a year and a half in Washington as vice president and director of research of the Institute for Defense Analysis while on leave from his academic post. He is a fellow of the Physical Society and a former associate editor of *The Physical Review*.

Keith A. Brueckner

The $2500 prize was endowed in 1959 by the Heineman Foundation for Research, Educational, Charitable, and Scientific Purposes, Inc., and is presented under the auspices of the American Institute of Physics and the American Physical Society to encourage research and to recognize outstanding contributions to the published literature in mathematical physics. The endowment fund is administered by the Institute and the prize is awarded to an individual selected by a committee of the Society. Previous recipients of the Heineman Prize include Murray Gell-Mann, Aage Bohr, Marvin L. Goldberger, and Léon Van Hove.

Lawrence Awards

The Ernest Orlando Lawrence Memorial Awards for 1963, given by the Atomic Energy Commission for recent meritorious contributions in the field of atomic energy, were presented to five scientists at a ceremony held on April 25 at the National Academy of Sciences building in Washington, D. C. Those receiving the $5000 awards were Herbert J. C. Kouts of Brookhaven National Laboratory "for the development of new experimental techniques in reactor physics and their application to a better understanding of theoretical models of chain-reacting systems", L. James Rainwater of Columbia University "for contributions to nuclear physics including the experimental determination of many important neutron cross-sections and our understanding of complex nuclei", Louis Rosen of Los Alamos Scientific Laboratory "for the development of new experimental techniques and their application to a better understanding of the nucleus as well as to the diagnosis of weapon behavior", James M. Taub, also of Los Alamos, "for contributions to the metallurgy of uranium and other special nuclear materials including the development of ingenious methods for fabricating materials into special shapes with tight dimensional tolerances", and Cornelius A. Tobias of the University of California at Berkeley "for contributions to the understanding of basic radiobiology of cells including his studies of the biological effects of heavy high-energy particles".

The award, authorized under the 1954 Atomic Energy Act as a memorial to the late E. O. Lawrence of the University of California, is made "to not more than five recipients in any one year in the amount of not less than $5000 each and not more than a total of $25 000. It is presented in the spring of the year to men and women not more than 45 years of age who are citizens of the United States and who have made recent, especially meritorious contributions to the development, use, or control of atomic energy in areas of all sciences related to atomic energy, including medicine and engineering". The Lawrence Award complements the Commission's Enrico Fermi Award, which authorizes a cash grant of $50 000, has no limit as to age or citizenship of the recipient and may be presented for especially meritorious contributions to the development, use, or control of atomic energy at any time in the past.