

AWARDS

National Medal of Science

Charles S. Draper, Julian Schwinger, and Harold C. Urey are among eleven scientists who have been selected by President Johnson to receive the 1964 National Medal of Science. Established by the 86th Congress, the medal is awarded on the basis of recommendations from the President's Committee on the National Medal of Science to persons who have made outstanding contributions in the physical, biological, mathematical, or engineering sciences.

Dr. Draper, who is head of the Department of Aeronautics and Astro-



Charles S. Draper



Julian Schwinger



Harold C. Urey

nautics at the Massachusetts Institute of Technology, was cited "for innumerable imaginative engineering achievements which met urgent national needs of instrumentation, control, and guidance in aeronautics and astronautics."

Dr. Schwinger was honored "for profound work on the fundamental problems of quantum field theory, and for many brilliant contributions to and lucid expositions of nuclear physics and electrodynamics." He has served since 1947 as professor of physics at Harvard University.

Dr. Urey, who has been professor-at-large at the University of California since 1958, was cited "for outstanding contributions to our understanding of

the origin and evolution of the solar system and the origin of life on earth and for pioneering work in the application of isotopes to the determination of the temperatures of ancient oceans."

APS-Hughes Prize

Melvin Schwartz of Columbia University has received the 1964 American Physical Society Prize, sponsored by the Hughes Aircraft Company. The \$2500 award, which was presented by APS President Robert F. Bacher on December 22 during the Society's 1964 winter meeting in the west, honored Dr. Schwartz for his "experimental studies of weak interactions and in

particular for the use of high-energy neutrinos." In 1962, Dr. Schwartz, together with L. M. Lederman, J. Steinberger, J. M. Gaillard, G. Danby, K. Goulianos, and N. Mistry, performed an experiment at Brookhaven National Laboratory which demonstrated the existence of two kinds of neutrinos, one associated with electrons and the other with muons. The experiment was subsequently reported in *Physical Review Letters*, Vol. 9, No. 1, July 1, 1962.

A native of New York City, Dr. Schwartz earned his doctorate at Columbia in 1958 while serving as an associate physicist at Brookhaven National Laboratory. In that same year, he was appointed an assistant professor of physics at Columbia. He became associate professor in 1960 and full professor in 1963.

The American Physical Society Prize is awarded approximately every two years "for an outstanding contribution or contributions to the science of physics published, in a single paper or more than one paper, in a journal or journals of the American Institute of Physics; the contribution or contributions must have been made before the prize winner reached his 33rd birthday." Previous recipients have been Donald Glazer (1959), George Feher (1960), and Geoffrey Chew (1962).



Melvin Schwartz