

Vetlesen Prize awarded to Fowler

William A. Fowler, Institute Professor of Physics at the California Institute of Technology, has been awarded Columbia University's Vetlesen Prize for 1972. The Prize, consisting of \$25 000 and a gold medal, is given for outstanding scientific achievements that contribute to "a clearer understanding of the earth, its history or its relation to the universe."

During the 1960's, when there was no adequate understanding of the age of the universe, Fowler's work encouraged acceptance of ages as long as 10 to 20 billion years. He demonstrated that terrestrial uranium and thorium isotope ratios could be understood in terms consistent with a process of creation going back several billion years before the earth was formed. Studies of lunar samples have since shown uranium/thorium isotope ratios consistent with terrestrial samples, tending to confirm Fowler's deduction that these quantities are probably constant throughout the solar system.

Most of Fowler's other scientific contributions have involved similar applications of nuclear physics to astrophysics and geophysics. According to the Vetlesen Prize jury, "almost all of our quantitative information about the basic nuclear processes that enter into



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stellar energy generation and element synthesis is due to Fowler or to work directly instigated by him."

Fowler received his PhD from the California Institute of Technology in 1936 and has remained there throughout his career. In 1946 he was made professor and in 1970, Institute Professor of Physics.

of new and important weapon design concepts, and his role in the engineering and testing of weapons for our nuclear stockpile."

Wainwright has been with the Laboratory since 1954, when he completed his doctorate at the University of Notre Dame. His Award was for "fundamental and original contributions to the theory of design and outputs of nuclear explosives, for the original development of computational methods for the calculation of statistical physics phenomena, and for many innovative advances in the study of transport and hydrodynamics phenomena."

The other recipients of the Award are Louis Baker Jr, a chemical engineer at Argonne National Laboratory; James R. Weir Jr, assistant section chief of the metals and ceramics division at Oak Ridge National Laborato-

ry, and Sheldon Wolff, professor of cytogenetics at the University of California, San Francisco.

Davies to become new editor for *Nature*

David Davies, a geophysicist, will take over as editor of *Nature* on 20 August. Presently group leader of the seismic discrimination group at MIT Lincoln Laboratory, Davies will succeed John Maddox, who plans to continue his career in journalism and publishing.

Working as senior assistant in research in the department of geodesy and geophysics at Cambridge University, where he completed his PhD in 1965, Davies participated in several scientific cruises involved with a study of the earth's crust and upper-mantle structure. During this period he developed a lasting interest in the establishment of more adequate theoretical explanations for the data recorded in explosion seismology. Continuing this interest, he served as Rapporteur to the Seismic Study Group of the Stockholm International Peace Research Institute from April through July 1968 and intermittently thereafter. Since that time SIPRI reports have gone a long way toward establishing agreement upon the scope and limitations of seismology in policing test bans. Davies's work at Lincoln Laboratory, which involves the application of large arrays to the seismic discrimination problem, represents a continuation of his interest in the residual problems of test-ban seismology.

Davies is an editor of the Royal Astronomical Society's *Geophysical Journal*, which has doubled in size since he set up its American office in 1970. He has also been a geophysics correspondent for *Nature* for several years.

Geophysical union honors three members

The American Geophysical Union recently presented awards to three of its members. They are Victor Vacquier, George P. Woollard and Roy Allan Freeze.

Vacquier, professor of geophysics at the Scripps Institution of Oceanography of the University of California, San Diego, was given the John Adam Flem-

E. O. Lawrence Awards go to two physicists

Two physicists are among the five scientists recently named by the Atomic Energy Commission as recipients of the Ernest Orlando Lawrence Memorial Award for 1973. They are Seymour Sack and Thomas E. Wainwright, both of Lawrence Livermore Laboratory. The Award consists of a gold medal, a citation and \$5000.

After completing his PhD at Yale University in 1954, Sack went to Livermore, where he works in the field of nuclear weapons technology. Upon receiving his Award, Sack was cited for "his innovative contributions to the theory of nuclear weapons, his development of computer codes fundamental to the design of modern nuclear weapons, his leadership in the development