

C. Phenomenological Categories

V-event:

phenomenon which can be interpreted as the decay in flight of K -meson or V -particle. Subdivisions: V^0 -event; decay of a neutral particle; $V^\pm$ -event, decay of a charged particle.

S-event:

phenomenon which can be interpreted as the decay at rest of a charged K -particle or V -particle.

Jeffries Committee Upholds NBS

AD-X2 Declared to be Without Merit

The eleven-man independent committee of scientists to evaluate procedures used in testing the battery additive AD-X2, appointed earlier this year by the National Academy of Sciences at the request of the Secretary of Commerce, has reported unequivocally that the tests conducted by the National Bureau of Standards were "excellent" and that "the relevant data now available to the committee on the effects of AD-X2 are adequate to support the position of the Bureau of Standards that the material is without merit". The committee, which was headed by Zay Jeffries, retired vice-president of General Electric Company, recommended that no further tests of the additive be conducted in view of the "very considerable reliability" of the conclusion that AD-X2 has no beneficial action on battery performance or longevity. The committee's report was released on November 13th together with a statement by Secretary of Commerce Sinclair Weeks, who is quoted as saying that the committee's evaluation "is an assurance to the public and a source of satisfaction to me and to the Bureau". Mr. Weeks added that he would do all in his power "to aid the Bureau in maintaining this high level of scientific service to the nation". AD-X2 manufacturer Jesse M. Ritchie is quoted as having declared the report to be a "whitewash", written "for the most part" by the Bureau itself, and "an insult to the intelligence of Secretary Weeks, my customers, and the American public". The committee's 34-page report, it might be noted, was amplified by two volumes of appendices giving data from the various tests of the product, including the several exhaustive tests performed by NBS.

123 NSF Awards Announced

In Physical and Biological Sciences

The first group of awards for the support of basic scientific research and related matters for the fiscal year 1954 by the National Science Foundation consists of 123 grants totalling \$1 332 000. Over 525 such awards involving nearly \$5 million have now been made since the start of the program in 1950. In addition to the direct support of research these grants also cover meetings and conferences, scientific information exchange, and travel by American scientists to international scientific meetings. Awards for research in physics and

biophysics in the latest series were made as follows: University of California (C. Kittel), "Interaction of Fundamental Particles with Solid State Systems"; Case Institute of Technology (L. L. Foldy and M. J. Klein), "Theoretical Research in Nuclear and Solid State Physics"; University of Connecticut (C. A. Reynolds), "Hydrodynamics of Liquid Helium II"; Duke University (L. W. Nordheim and E. Greuling), "Theory of Nuclear Shell Study"; University of Illinois (D. W. Kerst), "Photoproduction of Pi-Mesons"; Kent State University (A. A. Silvidi), "Continuous Cloud Chambers"; Marquette University (A. G. Barkow), "Elementary Particle Reactions in Photographic Emulsions"; Michigan State College (E. A. Hiedemann), "Light Diffraction and Ultrasonic Waves"; University of Nebraska (D. C. Moore), "Half-Life of Positrons in Condensed Matter"; New York University (A. Beiser), "Sensitivity Time in Nuclear Emulsions"; University of Oklahoma (J. R. Nielsen), "Vibrational Spectra of Compounds in Different States of Aggregation"; University of Puerto Rico (A. Cobas), "Zenith Angle Variation of Cosmic Rays"; Purdue Research Foundation (F. J. Belinfante), "Elementary Particles and Field Theory"; Rice Institute (C. F. Squire), "Studies in Solid State Physics"; Southwestern University at Memphis (D. E. Matthews), "Critical Energy for Secondary Electron Research"; U. S. Embassy, London, England (R. W. G. Wyckoff, science attaché), "Electron Microscopic Study of the Structure of Biological Tissues"; University of Pittsburgh (M. A. Lauffer), "Biophysical Studies on Plant Viruses"; and Yale University (E. C. Pollard and F. Hutchinson), "X-Ray Studies of Viruses".

The following awards are among those granted in other sciences: University of Chicago (W. A. Hiltner), "Interstellar Polarization"; University of Chicago (G. P. Kuiper), "Physical and Statistical Study of the Asteroids"; Harvard University (H. Shapley), "The Stellar Corona Surrounding our Discoidal Galactic System"; Northwestern University (K. A. Strand), "Photographic Observation of Double Stars"; Yale University (D. Brouwer), "Systems of Fundamental Catalogues from Observations of Selected Minor Planets"; University of Chicago (H. C. Urey), "Isotopic Abundances Relating to Geochemical Research"; Georgia Institute of Technology (W. T. Ziegler), "Studies of Compounds for Superconductivity"; and Pennsylvania State College (A. H. Waynick), "Detecting Solar and Upper Atmosphere Phenomena by Long-Wave Radio Methods".

Among the conferences that received NSF support are: The American Academy of Arts and Sciences, "Conference on the Validation of Scientific Theories"; Carnegie Institution of Washington, "Conference on Radio Astronomy"; University of Chicago, "Conference on Nuclear Processes in Geological Settings". One physicist, L. W. Alvarez of the University of California at Berkeley, received a grant to enable his attendance at the Symposia on Nuclear Physics, Geophysics, and Astrophysics to be held next January in Canberra by the Australian-New Zealand Association for the Advancement of Science.