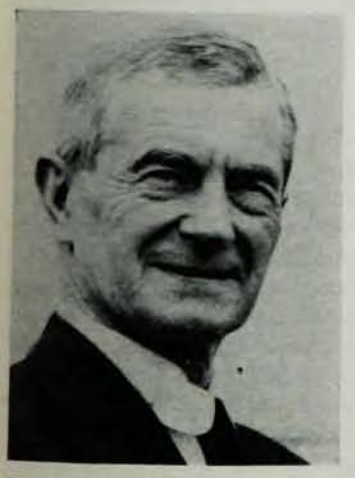
interactions should satisfy unitary symmetry, implying that the various particles and resonances should appear in supermultiplets of the same spin and parity. The theory predicted an octet of spin-one mesons, which play a part in strong interactions analogous to that of the photon in electrodynamics. Such mesons have since been found.

A member of the American Physical Society and fellow of the Royal Society, Dr. Salam was honored in 1962 with the Maxwell Medal of the Institute of Physics and Physical Society.

The Royal Society awarded its Copley Medal to Sydney Chapman for his many contributions in the field of geophysics. A former head of the Special Committee for the International Geophysical Year, Dr. Chapman has also served as president of several international organizations in solar-terrestrial physics. In research, he has won recognition for his work on the kinetic theory of gases and his studies of solar and lunar geomagnetic variations and solar and lunar tides. Dr. Chapman also originated the concept of the idealized "Chapman layer" model of an ionospheric layer, and with Ferraro, developed theories of the morphology of magnetic storms under the impact of clouds of solar ions. Recently, he has advanced, with Akasofu, a new theory of the formation and changes of auroral forms.

Born in Eccles, Lancashire, England, in 1888, he was educated at the Universities of Manchester and Cambridge, and later taught at Cambridge, Manchester, Oxford, and the Imperial College of Science and Technology. Today ("in retirement"), he holds posts at the National Center for Atmospheric Research in Boulder, Colo., and the Universities of Alaska, Minnesota, and Michigan. His numerous honors include the Royal Medal of the Royal Society, the Gold Medal of the Royal Astronomical Society, and the Bowie Medal of the American Geophysical Union.



Sydney Chapman

Melvin Calvin

Melvin Calvin of the University of California received the Royal Society's Davy Medal. The award specifically cited his contributions to the study of photosynthesis, in which he used radiocarbon as a tracer to follow carbon dioxide through the series of reactions that result in the production of carbohydrates.

Born in St. Paul, Minn., Dr. Calvin received his PhD in chemistry in 1935 from the University of Minnesota and later studied with M. Polanyi at the University of Manchester. He joined the faculty of the University of California at Berkeley in 1937, and has served as director of the bioorganic chemistry group in the Radiation Laboratory since 1946, and as professor of chemistry since 1947. The recipient of numerous other awards, he won the Nobel Prize in chemistry in 1961.

Quantum Electronics Council

An intersociety Joint Council on Quantum Electronics has been established, charged with the responsibility of coordinating and organizing general meetings in the field and of representing its sponsoring organizations in international activities. Cooperating in the new organization are the American Institute of Physics, the American Physical Society, the Optical Society of America, the Institute of Electrical and Electronics Engineers, and the IEEE Groups on Electron Devices and on Microwave Theory and Techniques.

As one of its first tasks, the Council will organize the Fourth International Quantum Electronics Conference, which will be held later this year. In addition to continuing the tradition of these conferences, which were formerly sponsored by the Office of Naval Research, the JCQE intends to promote intersociety cooperation in quantum electronics and to advise sponsoring societies on specialized aspects of the field where additional technical meetings or publications are needed.

The membership of the Joint Council includes Peter Franken and C. H. Townes, representing the American Institute of Physics; James P. Gordon and Benjamin Lax, representing the American Physical Society; G. H. Dieke and Arthur Schawlow, for the Optical Society of America; Hubert Heffner and William W. Mumford, for the Institute of Electrical and Electronics Engineers; Eugene I. Gordon and Robert A. Kaplan, for the Electron Devices Group of the IEEE; and Frank R. Arams and Anthony E. Siegman, for the Microwave Theory and Techniques Group of the IEEE. Professor Heffner is chairman of the Joint Council and Dr. Arams is its secretary.

Research Corporation Award

At a dinner held in New York on January 28, William M. Fairbank, professor of physics at Stanford University, received the $10 000 Research Corporation Award for 1964. He was recognized for his contributions in low-temperature physics and especially for his discovery of flux quantization in superconductors.

In 1961, Professor Fairbank and Bascom Deaver discovered that an electric current flowing through a ring