

Clayton and Feher win Biological Physics Prize

The American Physical Society presented the Biological Physics Prize to Roderick K. Clayton and George Feher. This award, given for the first time this year, will be offered annually to honor distinguished achievement in biological physics, and is sponsored by donations from Spectra Physics and Boehringer-Mannheim.

This year's winners will share the \$3000 prize that accompanies the award. Clayton and Feher received separate plaques, citing each of them "For his many contributions to the understanding of the physics of photosynthesis; specifically, for his role in the pioneering of the concept of reaction centers in photosynthetic bacteria, their isolation, their spectroscopy and their structural characterization."

Roderick K. Clayton, now professor of biology and biophysics at Cornell University, received his PhD in physics and biology from the California Institute of Technology in 1951. He spent a year at Stanford University, and then taught physics at the US Naval Post

Graduate School from 1952 to 1957. After serving a year as National Science Foundation Fellow, he came to Oak Ridge National Laboratory as a senior biophysicist in 1958. He taught microbiology at the Dartmouth College Medical School from 1962 to 1963, and served as senior research investigator at the Charles F. Kettering Research Laboratory from 1963 until joining the faculty at Cornell in 1966.

George Feher is currently a professor of solid state physics and biophysics at the University of California in San Diego. He obtained his PhD in physics from the University of California in 1954. He then worked as a research physicist for Bell Labs from 1954 until 1960. During his career at the University of California, San Diego, he has taught as a visiting professor at Columbia University, the Massachusetts Institute of Technology and the Israel Institute of Technology. His research interests have been in solid state physics, paramagnetic resonance and photosynthesis.



FEHER



CLAYTON

Crystallographers elect Karle

The International Union of Crystallography elected Jerome Karle, chief scientist at the Laboratory for the Structure of Matter at the Naval Research Laboratory, to be its next president. Karle will serve a three-year term that began 25 August, 1981 and succeeds Norio Kato of Japan.

The IUC was founded in 1948, largely as a result of the efforts and cooperation of Paul Peter Ewald, Sir Lawrence Bragg and Max von Laue. It has grown to include 33 countries and to offer its members a variety of services, including publishing *Acta Crystallographica* and the *Journal of Applied Crystallography*, and sponsoring workshops and symposia.

After receiving his MS and PhD from the University of Michigan in 1943, Karle joined the Manhattan Project and then became part of the US Navy



KARLE

Project in Michigan. He continued his research career with the Navy, joining the NRL in 1967 as chief scientist. His work for the crystallographic community includes serving as treasurer, vice

president and president of the American Crystallographic Association and researching the structure of atoms, molecules, glasses, crystals and solid surfaces.

in brief

Barry Raleigh, who was coordinator of the earthquake prediction program of the United States Geologic Survey in California, has been named to succeed Neil D. Opdyke as director of Columbia University's Lamont-Doherty Geological Observatory.

Warren K. Sinclair has become the first full-time president of the National Council on Radiation Protection and Measurements. Previously, Sinclair had divided his time between his position as Associate Laboratory Director for Biomedical and Environmental Research at Argonne National Laboratory and serving as president of NCRP.

Sir Nevill Francis Mott, a Nobel Prize winner in Physics for his work on non-crystalline conductors, has been awarded an honorary membership by the Society of Photographic Scientists and Engineers.

Edwin E. Salpeter has become director of Cornell University's Center for Radiophysics and Space Research. **Thomas Gold**, director since 1959, will continue his research on the derivation of hydrocarbons in the Earth as John L. Wetherill Professor Astronomy at Cornell. **Peter J. Gierasch**, professor of astronomy at Cornell, has been named associate director of the Center.

David Harker, Research Scientist Emeritus at the Medical Foundation of Buffalo, was accorded the Honorary Degree of Doctor of Science from the State University of New York, the first time in the State University's history that such an honor has been given. Harker, a distinguished researcher in crystallography, was cited for his "long and outstanding career in science."

Richard Athnes, formerly professor in the College of Earth and Mineral Sciences at Pennsylvania State University in University Park, has been appointed director of the Atmospheric Analysis and Prediction Division of the National Center for Atmospheric Research in Boulder.

The National Academy of Engineering has chosen **Jacob P. Den Hartog**, professor of mechanical engineering emeritus at the Massachusetts Institute of Technology, to receive the Academy's Engineering Founders Award. Hartog, known for his contributions to the science of mechanical vibration and shock, was recognized for "outstanding accomplishments in developing the theory and advancing the art of vibrational effects in mechanical design, extensive government and industrial contributions, and inspired teaching of two generations of engineers."



OLSON

measurement. In the late 1930s, Olson presented 30 lectures at Columbia University, which led to the first edition of his *Elements of Acoustical Engineering* (1940) and its subsequent editions up to 1957. These publications not only expanded the material of his earlier books but also devoted much attention to phonograph recording and reproducing systems, audio and video magnetic-tape recorders and sound-on-film recording. These books dealt also with speech and music, communication of information, underwater sound and ultrasonics. Olson seemed most proud of his books on *Dynamical Analogies*, which were translated into many languages and did much to introduce acoustics into the curricula of mechanical engineering departments in universities everywhere. Books Olson published in later years included *Musical Engineering*, *Physics and Engineering* and *Modern Sound Reproduction*.

Certainly Olson's laboratory's contributions to videotape recording should receive special mention. In the early 1950s he organized a team of engineers to develop a TV recorder. In May 1956, the newly completed machine was moved to the NBC studios in New York and was used for the world's first broadcast of a tape-recorded color program through the complete broadcast-studio chain on special magnetic tape provided by the 3-M company.

Olson's accomplishments have not gone unnoticed by his peers. Among the many honors he received were the Gold Medal of the Acoustical Society of America (1981), and its first Silver Medal (1974). He was that Society's president in 1953-1954 and was president of the Audio Engineering Society in 1959. He will long be remembered by his colleagues and by members of the audio and acoustical professions for his books and many innovative contributions.

LEO L. BERANEK
Winchester, Massachusetts

obituaries

Harry F. Olson

Harry F. Olson was "Mr. Acoustics" at the RCA Laboratories from 1928, when he received his PhD from the University of Iowa, until his retirement in 1967. From the time of his first paper, published in the first volume of the *Journal of the Acoustical Society of America*, Olson concentrated his research and development efforts on microphones, loudspeakers and sound-and-video-reproducing equipment. The advent of sound motion pictures in the early 1930s gave Olson the money and staff to engage in pioneering developments of these instruments. In 1931, his Model 44 high-fidelity ribbon microphone became the movie industry's standard because of its flat response over a wide frequency range and its

directivity. In 1932, the RCA double-voice-coil dynamic (direct radiator) loudspeaker led the march toward today's world of hi-fi equipment.

On almost the same day in 1938, Olson and Benjamin Bauer invented the low-cost, unidirectional, single-element cardioid microphone that is so widely used today. In later years the RCA laboratories under his direction developed higher-order gradient microphones, noise-canceling microphones, miniature and unobtrusive microphones and many types of loudspeakers.

Olson wrote ten books and about 135 scientific papers and held over 100 patents. His first book, *Applied Acoustics* (1934), written jointly with F. Massa, contained every fact known about acoustic transducers and their use and