

process for controlling the composition of a gas phase from a liquid solution having components of widely differing volatilities. Recently he developed the getter-sputtering technique for preparation of pure thin metallic films.

A professor at the California Institute of Technology, Duwez was honored for his achievements in metallurgy, especially the "gun technique" for the rapid cooling of molten metals.

His other research of the structure of materials includes speed of deformation, plastic flow, x-ray diffraction, sintering, powder metallurgy, crystal structure, effects of temperature and materials for supersonic aircraft.

Karl Berger received the Levy Medal for his paper "Novel Observations on Lightning Discharges: Results of Research on Mount San Salvatore," published in June 1967 in the *Journal of the Franklin Institute*.

Keivin Burns Teaching Award Given by Spectroscopy Society

The Spectroscopy Society of Pittsburgh has created the Keivin Burns Citation for excellence in elementary- and secondary-school science teaching. Burns taught at Allegheny Observatory and the University of Pittsburgh from 1920 until his death in 1958. He introduced spectrochemical analysis into the US and obtained the first infrared photographs from airplanes during the first world war. At the observatory he was concerned with precise measurements of wavelengths of light from the sun. The award consists of a scroll and an honorarium of \$100.

Montana State Creates Arthur Johnson Award

The physics department of Montana State University has established the Arthur J. M. Johnson award. The award is to be presented annually to the senior physics major who has demonstrated the greatest accomplishment in physics. The first recipient was John B. Kolesar.

The award honors A. J. M. Johnson who is retiring from physics after 38 years at the university, where he also served as head of the department. Friends and former students are financially supporting the award in remembrance of Johnson's teaching excellence. Through the years, Johnson

has maintained close contact with every student who has graduated from the department. The award is an individually engraved sterling silver medallion in the likeness of the man it honors, Johnson.

S of R Honors Ericksen With Bingham Medal

Jerald L. Ericksen will receive this month the Bingham Medal from the Society of Rheology. He is a professor in the mechanics department of Johns Hopkins University.

Ericksen is known for his theoretical work in continuum mechanics. He advanced the idea of specifying all deformations possible for materials of a certain class of constitutive equations, which is basic to the rational measurement of material properties. In further development, he showed that rectilinear flow through noncircular tubes was possible for only special fluids and therefore that nonrectilinear flow can usually be expected for non-Newtonian fluids.

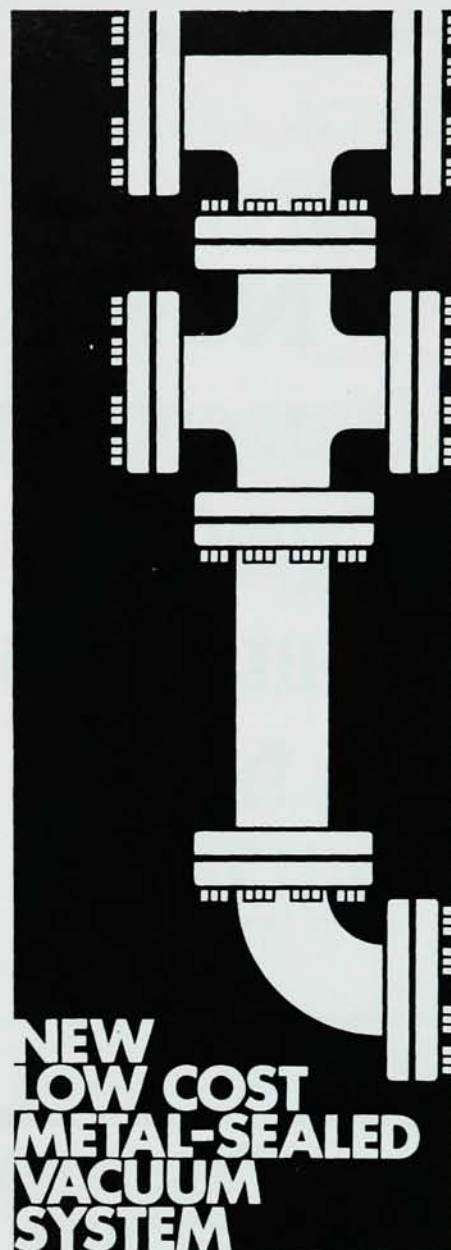
By studying surfaces of discontinuity of mechanical parameters, Ericksen also prompted the study of propagation of waves in nonlinear materials. Recently, he has been developing a rational approach to the mechanical theory of liquid crystals through his concept of anisotropic fluids.

Given annually, the award honors significant contributions to rheology and is named for Eugene Cook Bingham, who was responsible for coining the term rheology and establishing the society.

Karl Jansky Lectureship Given to J. S. Shklovsky

The National Radio Astronomy Observatory gave the third Karl G. Jansky Lectureship to J. S. Shklovsky, professor at the Sternberg Astronomical Institute, Moscow. He is known for his theory of supernova remnants, first recognition that the synchrotron mechanism is responsible for radio radiation from extragalactic radio sources and theories of cosmic rays and x-ray sources. Shklovsky made the prediction, later confirmed observationally, that the supernova remnant Cassiopeia A would decrease in intensity by a few per cent per year.

The lectureship was established by the trustees of Associated Universities, Inc., which operates the observatory, and was first awarded in 1966. It is



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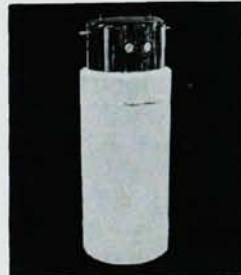
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named for the man who first detected radio waves from the Milky Way in 1931.

Wayne W. Scanlon Receives Navy Achievement Award

The Navy award for Distinguished Achievement in Science was given to Wayne W. Scanlon of the Naval Ordnance Laboratory, Silver Spring, Md. It recognizes his 18 years of research into the properties of the lead chalcogenides semiconductors.

Scanlon was the first to achieve accurate measurements of lead sulfide properties in the high-temperature intrinsic region; determine the true energy gaps in lead sulfide, lead selenide and lead telluride and their alloys; prepare lead sulfide with controllable

properties; produce an effective lead telluride detector; and relate lifetime in lead sulfide to dislocation density.

The award consists of a medal, lapel pin and \$5000. Scanlon is presently chief of the applied-physics department at the laboratory, a fellow of the American Physical Society and a member of the American Association for the Advancement of Science.

Raphael Levine Receives Quantum Molecular Award

Raphael D. Levine received the award of the International Academy of Quantum Molecular Science for his research in the quantum mechanics of molecular rate processes. It is presented annually to a young scientist doing research in quantum molecular science. Levine is jointly with Ohio State and Hebrew University in Jerusalem.

Carl Adams, Former Chairman at Louisville

Carl E. Adams, head of the physics department at the University of Louisville, died on 22 Oct. at the age of 52. He was also chairman of the natural sciences division from 1959 until 1965 when he was appointed physics chairman. Adams wrote a number of papers on his research in physical acoustics and ultrasonics and on the history and teaching of physics.

Born in Boston, he spent his boyhood in Detroit and received a BS degree from the University of Michigan in 1937 and a MS degree in 1938. In 1939 Adams joined the faculty at the University of Louisville, where he served as instructor and assistant professor until 1947, when he resumed graduate study in physics at Brown University. He received a PhD from Brown in 1949 and rejoined the faculty at the University of Louisville. In 1956-57, he was a Carnegie visiting fellow in General Education at Harvard.

Adams contributed many book reviews to the *Journal of the Acoustical Society* and the *American Journal of Physics*. He held membership in the American Association of Physics Teachers, the Kentucky Association of Physics Teachers, the Acoustical Society of America, the Southeastern Section of the American Physical Society and the Midwest Section of the History of Science Society.

H. C. Hayes Was Pioneer In Underwater Acoustics

Harvey C. Hayes, pioneer in the development of underwater acoustics, died recently at the age of 89. He retired in 1947 as superintendent of the sound division of the Naval Research Laboratory in Washington.

Prior to the second world war, Hayes and his colleagues were developing active sonar and improving passive sonar for surface ships and submarines. They developed the tunable sonar used in the war. Hayes, at the end of the war, was working on a new sonar for surface ships and on exploiting helicopters and blimps as sonar platforms.

Hayes received the Distinguished Civilian Service Award from the Navy in 1945 and the Pioneer's Award of the Acoustical Society of America in 1959.

Alexander McLay Dies; Professor at McMaster

Alexander B. McLay, professor of physics at McMaster University, Ontario, died recently. He was the author of several papers on absorption spectra of metal vapors, analysis of spectra, hyperfine structure and nuclear spin. McLay was a member of the Optical Society of America and a fellow of the American Physical Society, the Royal Society of Canada and also of the Canadian Association of Physicists. □

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