

SOCIETIES AND AWARDS

Davisson-Germer award

During the April meeting of the American Physical Society, the APS Division of Electron and Atomic Physics awarded the first Davisson-Germer Prize to George J. Schulz of Westinghouse Research Laboratories.

The prize honors the late Clinton J. Davisson and Lester H. Germer, pioneers in electron diffraction. Bell Laboratories sponsors the prize



SCHULZ

of \$2500, which will be given biennially for contributions in electron and atomic physics.

Schulz used monoenergetic-electron-beam techniques to study excitation functions, negative-ion formation and vibrational excitation of various atoms and molecules. The large cross section and the structure of the vibrational excitation that he observed in nitrogen molecules could be explained only by postulating the existence of compound states similar to those invoked in nuclear reactions. These compound states (bound states) consist of a molecule and an extra electron and have lifetimes of about 10^{-14} sec. Schulz discovered that such states also occur in electron-atom collisions, and in 1963 found a resonance in the elastic-scattering cross section of helium at 19.3 eV, confirming the existence of a compound state for electrons at that energy. Subsequent evidence that compound states exist in many atoms

and molecules revived interest in electronic collision processes from experimental and theoretical viewpoints.

Other work by Schulz includes development of the "trapped-electron method" for studying inelastic processes in atoms and molecules; electrons that lose nearly all their energy in inelastic collisions, as they do just above the threshold of excitation, end up in an electrostatic potential well that traps them, preventing them from reaching the beam collector. He has also developed an ionization gauge for measuring pressures up to 1 torr.

Schulz, a native of Czechoslovakia, came to the United States in 1947 and received his doctorate from MIT in 1954. He has since been advisory physicist for Westinghouse, and is a fellow of the American Physical Society.

Lawrence awards

The Atomic Energy Commission has named five scientists to receive the 1966 Ernest Orlando Lawrence Memorial Award. Each scientist will be given a medal, a citation and \$5000 for recent meritorious contributions to atomic energy. The recipients are:

Harold M. Agnew of Los Alamos Scientific Laboratory for his contributions to weapons development and his work with the armed services to assure maximum safety and effectiveness of atomic weapons systems.

Ernest C. Anderson, also of Los Alamos, for his contributions to nuclear medicine, biological research, and archeological dating. In addition his work in liquid-scintillation counting made possible early neutrino experiments and the liquid-scintillator whole-body counter.

Murray Gell-Mann of California Institute of Technology for his work in elementary-particle theory and for the stimulus he has provided experimental and theoretical work in physics.

John R. Huizenga of Argonne National Laboratory for his research in elucidating nuclear fission processes,

especially in the study of spontaneous fission.

Paul R. Vanstrum of Union Carbide Corp. for his work in isotopic separation processes for uranium and development of the zonal-gradient liquid centrifuge for biological uses.

Optical Society honors

During the OSA fiftieth anniversary meeting in Washington, D.C., the society presented its Mees Medal to Bengt Edlén of Lund, Sweden and its first David Richardson Medal to David Richardson of Bausch & Lomb.

Edlén was honored for his pioneer work over 35 years on light emitted by vapors of highly ionized atoms. Such vapors are found surrounding various stars and nebulae. In his work, Edlén developed novel techniques and new theories that have enabled astronomers to measure the composition and temperature of distant objects.

The David Richardson Medal was established by a gift from Howard Cary of the Applied Physics Corp., in honor of Richardson's contributions to diffraction gratings. Richardson is generally acknowledged as the optical scientist most responsible for development of processes that have made such gratings universally available. In awarding the first Richardson Medal to its namesake, the Optical Society announced that it will bestow future awards annually for distinguished achievement in applied optics.

High-polymer officers

The American Physical Society Division of High-Polymer Physics has elected Elio Passaglia of the National Bureau of Standards as its chairman for the 1966-67 term. The division also elected John D. Hoffman of Bethesda, Md., as vice-chairman and W. James Lyons of Textile Research Institute as secretary-treasurer. Additionally, Phillip H. Geil of Case Institute of Technology was elected, and Lyons re-elected to the executive committee of the division. □