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Three physicists win Warren Award for EXAFS work

The American Crystallographic Association has honored three solid-state physicists, Farrel W. Lytle, Dale E. Sayers and Edward A. Stern, with the Bertram Eugene Warren Diffraction Physics Award. The trio were recognized for their development of extended x-ray absorption fine structure (EXAFS) spectroscopy, a method useful for the investigation of atomic structure. EXAFS spectroscopy depends upon the interference that occurs between photoelectric waves radiated when an atom absorbs an x-ray photon and those same waves backscattered off adjacent atoms.

The Warren Award is given every three years to recognize "an important recent contribution to the physics of solids or liquids using x-ray, neutron, or electron diffraction techniques." The award itself consists of a certificate and a \$1000 prize.

Lytle has been president of EXAFS Co. since 1974. He received bachelor's and master's degrees (1956 and 1958) from the University of Nevada. From 1960 to 1974 he served as senior basic research scientist for Boeing Scientific Research Laboratories. Lytle's research interests include x-ray astronomy, radiation chemistry,



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cryogenics, and EXAFS studies of catalysts and amorphous materials.

Professor of physics at the University of Washington, Stern has done work on the electronic structure of metals and alloys, magnetism, and the atomic structure of amorphous and biological matter. Stern earned bachelor's and doctoral degrees (1951 and 1955) from Caltech. He remained at Caltech for two years as a research fellow and then went to the University of Maryland. He joined the Washington faculty in 1966.

Sayers took his present position as se-

nior research associate in physics at the University of Washington in 1974. He has specialized in the application of the EXAFS technique to the investigation of the structures of amorphous materials, biological systems and catalysts. Sayers was granted a bachelor's degree from the University of California, Berkeley (1966), master's and doctoral degrees from the University of Washington (1968 and 1971). He spent a year with the Boeing Aerospace Co. as a research engineer in physics before returning to the University of Washington.

Fluid Dynamics Division of APS gives Lin new prize

A new award, the Fluid Dynamics Prize, was presented recently to Chia Chiao Lin, Institute Professor of Mathematics at MIT. Sponsored by the Office of Naval Research and established by the Fluid Dynamics Division of The American Physical Society, the prize was given to Lin at the November division meeting in West Lafayette, Indiana.

He was cited "for his outstanding and long continued investigations in the theory of fluid motions, culminating in an expansion of the horizons of that subject to embrace the outmost reaches of the universe." The citation refers to both Lin's earlier research on hydrodynamic stability, turbulence and the mechanism of transition, and his later development of the density wave theory of galactic spirals.

Lin was born in Fukien, China; he took his BSc from the National Tsing Hua University in 1937. Four years later the University of Toronto granted him an MA and in 1944 Lin earned a PhD in aeronautics from Caltech. Following two years on the faculty of Brown University, Lin went to MIT and has remained there since.

Townes receives Bohr Gold Medal

Recently, Nobel laureate Charles H. Townes was presented the Niels Bohr International Gold Medal by Prince Henrik of Denmark. He was selected by Dansk Ingeniørforening for his role in the invention of the maser and the laser. Townes is presently affiliated with the University of California, Berkeley as University Professor of Physics and is

engaged in astrophysics research.

The Bohr Medal has been awarded once every three years since 1955 when Niels Bohr himself received it on his 70th birthday. Though originally established to honor "scientists or engineers whose work has greatly contributed to the peaceful use of atomic energy," the eligibility criteria have been modified recently.

Townes graduated from Furman University in 1935, earning a BS in physics and a BA in modern languages. In 1937 he completed his master's degree requirements at Caltech and received a PhD from the same institution two years later. Townes was a staff member of Bell Telephone Laboratories for the next eight years. He then went to Columbia University where he was a member of the physics faculty until 1961. At that time he joined MIT as a professor, later attaining the position of Institute Professor