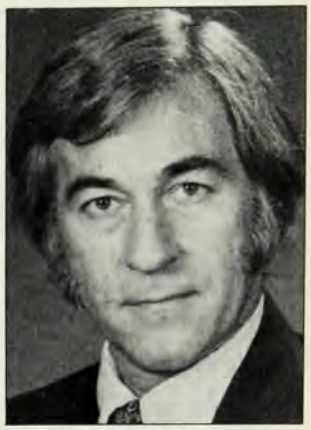
we hear that

Sorokin, Crawford, Madden win Optical Society awards

The Optical Society of America will present awards to three outstanding optical scientists at its annual meeting in October. The 1978 R.W. Wood Prize will be presented to Peter P. Sorokin; the 1978 Ellis R. Lippincott Award will be presented to Bryce L. Crawford, Jr; and the 1978 William F. Meggers Award will be presented to Robert P. Madden.

CRAWFORD

SOROKIN



MADDEN

The Wood Prize is awarded to Sorokin for his contribution to the development and application of tunable lasers, exemplified by his discovery and demonstration of the first organic dye laser. After completing graduate studies in applied physics at Harvard University, he joined the IBM Thomas J. Watson Research Center as a staff physicist in 1957. He currently holds the position of IBM Fellow. Sorokin's contributions to quantum optics are numerous and include discovery of the second and third solid-state lasers and invention of the passive laser Q-switch. In 1966, he discovered stimulated emission from an organic dye, pumped by a giant-pulse ruby laser. The wide tunability of dye lasers has opened new fields of research in both chemistry and physics. Sorokin's prize consists of a cash award of $1000 and a scroll.

Bryce L. Crawford, recipient of the Lippincott Award, is cited for his many contributions to the field of experimental and theoretical vibrational spectroscopy during a career that has spanned more than fifty years. He has done significant work in molecular dynamics in liquids, vibrational intensities and simultaneous transitions in gases and in the theoretical treatment of normal coordinates. Crawford, professor of physical chemistry at the University of Minnesota, received his education at Stanford University. After having taught at Stanford, Harvard and Yale Universities, he joined the faculty of the University of Minnesota in 1940. The Lippincott Award is a joint award of the Optical Society of America, the Coblentz Society and Society for Applied Spectroscopy. The award has been presented annually since 1976 to an individual who has made significant contributions to vibrational spectroscopy.

The Meggers Award is being presented to Robert P. Madden for his pioneering experiments that demonstrated the effective use of synchrotron radiation as a source for extreme ultraviolet spectroscopy, and for ultraviolet spectroscopy of the inert gases, including the study of inner-shell excitation and auto-ionizing states. Madden received the bachelor's degree in physics from the University of Rochester and doctoral degree from Johns Hopkins University. From 1958 to 1961 he was a physicist with the US Army Engineering Research and Development Laboratories. In 1961 he joined the National Bureau of Standards, where he is principal scientist of the ultraviolet physics group. Established by the Optical Society in 1970, the annual Meggers Award recognizes work in spectroscopy.

The awards will be presented at the annual meeting of the Optical Society of America to be held 31 October through 3 November in San Francisco, California. Other awards to be presented at the meeting include the Frederic Ives Medal to Harold H. Hopkins, the Adolph Lomb Medal to Eli Yablonovitch, the David Richardson Medal to Thomas J. Johnson and the Edgar D. Tillyer Award to Gerald Westheimer (see PHYSICS TODAY, April 1978, page 67).

American Nuclear Society honors three

The American Nuclear Society presented three awards at a ceremony during the Society's annual meeting on 20 June. The society selected Kent F. Hansen, a professor in the nuclear engineering department of MIT, to receive the 1978 Arthur Holly Compton Award for outstanding contributions to education in the fields of nuclear science and engineering. Aubrey J. Wagner was presented with the Walter H. Zinn Award for outstanding contributions to the advancement of nuclear power. The third recipient, Chih H. Wang, director of the Nuclear Research Center, Oregon State University, won the Award for Distinguished Service.

Hansen, who received $1000 in addition to the award, was cited for having stressed in his teaching, "a sound understanding of nuclear fundamentals." The citation goes on to say, "His research efforts reflect this basic philosophy and are at the forefront of nuclear technology. He has also been outstanding in communicating the principles and safety of nuclear power to the public."

Hansen received his BS in physics from MIT in 1953 and completed his PhD in nuclear engineering there in 1958. In 1960 he was appointed the first Ford Postdoctoral Fellow in Nuclear Engineering at MIT. He was appointed assistant professor of nuclear engineering in 1961, an associate professor in 1965 and a professor in 1969.

His teaching activities have concentrated in the area of reactor mathematics and computation, reactor theory and reactor physics. He is co-author of *Numerical Methods of Reactor Analysis*, which is now used as a standard text at many campuses in courses on computa-

tional methods in nuclear engineering.

Wagner, the Zinn Award winner, recently retired as Chairman of the Board of Directors, Tennessee Valley Authority after serving two terms in that capacity. He is currently a member of the Executive Committee of the Electric Utilities Advisory Committee to the Federal Energy Administration, and of the Board of Directors of the US National Committee, World Energy Conference.

Wang received his award, "In recognition of his vision and initiative and implementation of the first nuclear team from the US to the People's Republic of China in April, 1978." A delegation of scientists and engineers from the American Nuclear Society visited China for three weeks and took part in numerous informal exchanges of technical information with scientists in the People's Republic. Wang has been a member of the Board of Directors of the Society since 1972.

Acoustical society presents biennial award to Bass

The 1978 Biennial Award of the Acoustical Society of America was presented in May to Henry E. Bass of the University of Mississippi for his "theoretical and experimental reoearch on the effects of molecular relaxation on sound propagation in multicomponent gases."

The Biennial Award is presented in the spring of even-numbered years to an active member of the Acoustical Society who is under 35 years of age and has contributed significantly to the science of acoustics.

Working with Hans Bauer in 1971 Bass extended Bauer's matrix formalism to vibrational relaxation in multicomponent mixtures. He used this theory to solve the problem of the frequency and humidity dependence of sound absorption in the atmosphere and also to obtain transition rates from laser fluorescence and from laser–laser double-resonance experiments. With these rates he was able to predict the amplification of sound upon passing through a gas with a nonequilibrium distribution of excited states.

Bass has made significant contributions in predicting transition rates from classical trajectory calculations. As a visiting staff member at Los Alamos Scientific Laboratory, he and Don Thompson used this method to calculate energy transfer rates in diatomic–diatomic molecular collisions.

Bass received his BS in 1965 and a PhD in physics in 1971 from Oklahoma State University. He is currently associate professor of physics at the University of Mississippi.

BASS

Banks wins Royal Society's ionospheric physics prize

The Council of the Royal Society awarded the 1978 Appleton Prize for Ionospheric Physics to P.M. Banks, head of the department of physics at Utah State University, for his theoretical and observational studies of the plasma flow between the ionosphere and the magnetosphere.

Within this field, Banks's contributions include analyses of the thermal plasma flow between the F2 layer and the magnetosphere and the influence of collisional heating of hydrogen and helium ions in the topside ionosphere. He has also studied the form of the electric field near the auroral zone, based on incoherent-scatter measurements, and the effects of the electric field in chemical reactions between oxygen, nitrogen and nitric oxide ions in the ionosphere. He is probably best known for his exploitation of the incoherent-scatter radar system at Chatanika in Alaska, the joint US/Canadian facility for the development of which the third Appleton Prize was awarded in 1975 to J.V. Evans.

Banks previously worked at the Office of Naval Research, Washington, D.C., at the Institut d'Aeronomie Spatiale de Beligique and the University of California. He was educated at Stanford University and the Unversity of Maryland, and received his doctorate from Pennsylvania State University in 1965.

The Appleton Prize is awarded triennially at the sessions of the General Assembly of the International Union of Radio Science.

European societies honor Vinen and Walther

The British Institute of Physics recently announced the winners of two awards it administers in conjunction with other European physical societies. William Vinen is the recipient of the 1978 Holweck Medal and Prize of the IOP and the French Physical Society, and Herbert Walther is to receive the 1978 Max Born Medal and Prize of the IOP and the German Physical Society.

Vinen, Poynting Professor of Physics at the University of Birmingham and a Fellow of the Royal Society, has worked extensively on superfluidity. During the early years of his career, at Cambridge, he studied the propagation of second sound in rotating superfluid helium and in 1961 discovered the quantum of circulation of helium at 1.3 K. Since 1962 he has been at Birmingham, where he and his colleagues have been studying light scattering from liquid helium and ultrasonic attenuation in the superconducting mixed state.

Walther, professor of experimental physics at the University of Munich, is described in the Max Born Medal citation as "an internationally recognized leader in the field of high-resolution spectroscopy with variable frequency lasers." After earning his first degree and doctorate at Heidelberg he held positions at the Universities of Hanover, Bonn and, from 1971, Cologne. Here he and his colleagues developed several methods for stabilizing continuously operating dye lasers with unprecedentedly narrow bandwidths, and they used these lasers to attack a range of problems previously examined by high-frequency spectroscopy. Walther left Cologne for his present position in Munich in 1975.

Stephen Harris receives Sarnoff Award from IEEE

Stephen E. Harris, professor of electrical engineering at Stanford University, received the David Sarnoff Award of the Institute of Electrical and Electronics Engineers in June. Earlier this year, the IEEE bestowed the Nikola Tesla Award to Charles H. Holley.

The Sarnoff award, sponsored by the RCA Corporation, recognizes an outstanding contribution in the field of electronics. It consists of a gold medal, a bronze replica, a certificate and $1000.

The award citation reads, "for scientific discoveries and device inventions in the field of lasers, quantum electronics, and nonlinear optics."

Harris received a BS in electrical engineering from Rensselaer Polytechnic Institute in 1959. After a year at Bell Telephone Laboratories, he attended Stanford University where he received an MS in 1961 and a PhD in 1963, both in electrical engineering.

Since 1963 he has been on the faculty of Stanford University. His research work has been in the fields of lasers, quantum electronics, nonlinear optics and acousto-optics. His present interests are in the areas of selective laser-induced inelastic