

# we hear that

## Bloembergen, Shimoda, Franken and Ewald win OSA awards

The Optical Society of America has selected its four medalists for 1979. Nicolaas Bloembergen, Rumford Professor of Physics at Harvard University, won the Frederic Ives Medal; Koichi Shimoda, professor of physics at the University of Tokyo, won the C.E.K. Mees Medal; Peter Franken, director of the optical sciences center of the University of Arizona, is the recipient of the R. W. Wood Prize, and the David Richardson Medal will be presented to William P. Ewald of the Eastman Kodak Company.

The Ives Medal will be presented to Bloembergen in recognition of his "achievement in establishing the theoretical framework of nonlinear optics, his sustained innovative contributions to the exploration of all aspects in the field of nonlinear optical phenomena and his successes in the role of teacher and interpreter of science."

Born in Dordrecht, The Netherlands, Bloembergen earned a PhD in physics in 1948 at the University of Leiden. He came to the US in 1948 and joined the faculty at Harvard, where he has remained to the present.

The Ives Medal was established in 1929 and is the highest award of the Optical Society. It consists of a silver medal and scroll and recognizes overall distinction in optics.

The Mees Medal has been awarded to Shimoda in recognition of his contribution to quantum optics and double resonance spectroscopy and "for his generous contributions to international cooperation in physics through conference organization and publication guidance."

Shimoda received both bachelor's and doctoral degrees from the University of Tokyo. He has been a member of the faculty at Tokyo since 1948, and professor of physics since 1959. He is also director of the microwave and laser spectroscopy laboratory of the Institute of Physical and Chemical Research at Wako-sho.

The Mees Medal, established in 1961, is presented biennially to a recipient "who exemplifies the thought that optics transcends all boundaries—interdisciplinary and international alike." The award consists of a medal and a scroll.

The Wood Prize was established in 1975 to recognize an outstanding discovery, achievement, or invention in the field of optics. The prize consists of a cash



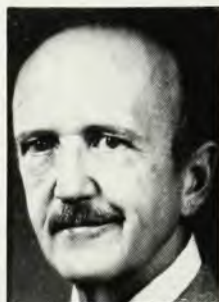
BLOEMBERGEN



FRANKEN



SHIMODA



EWALD

award of \$1000 and a scroll, and is supported by a five-year grant from the Xerox Corporation.

Franken won this year's Wood Prize "for his pioneering experimental discoveries of optical second harmonic generation, optical mixing, and optical rectification." According to the Society, "These studies revolutionized modern optics by stimulating the development of what is now the subject of nonlinear optics with all its vast ramifications."

Franken received bachelor's, master's and doctoral degrees in physics from Columbia University. He did postdoctoral work at Stanford University and joined the physics department at the University of Michigan in 1956, where he remained until accepting his current position in 1973. He was president of the OSA in 1977.

The Richardson Medal was established in 1978 to honor individuals for distinguished contributions to applied optics.

Ewald, this year's winner, is cited for his numerous contributions to applied optics, particularly to the fields of projection and stereoscopy, as well as his "inspired service as a teacher and consultant both within the Eastman Kodak Company and to the optics community in general."

Ewald is a 1953 graduate of the Institute of Optics at the University of Rochester and has been with Kodak since 1946. He currently holds the position of senior supervising development engineer. Ewald holds patents in such varied areas as autofocus projectors, optical range-finders and optical fabrication. Among his more unusual contributions are construction of a telekaleidoscope lens now widely used in the television industry and development of an underwater movie camera that was strapped to a porpoise.

All of the 1979 Medalists will receive their awards at the 1979 annual meeting of the OSA in Rochester, New York, 9-12 October.

The Société d'Encouragement au Progrès Medal of Honor was recently presented to **Maurice M. Shapiro** of the Naval Research Laboratory. NRL established the Chair of Cosmic-Ray Physics in 1966 for Shapiro.

**Nicolaas Bloembergen**, recipient of the Frederic Ives Medal of the Optical Society of America (see above story), has also won the Lorentz Medal of the Royal Dutch Academy of Sciences. Bloembergen is the twelfth recipient of the gold medal, which was established in 1925 and is the highest honor in physics The Netherlands can bestow. It is presented once every four years.

**George W. Swenson Jr** will take over the department of electrical engineering at the University of Illinois at Urbana-Champaign from the retiring head, **Edward C. Jordan** next August.

**James L. Merz** is now a professor of electrical engineering at the University of California in Santa Barbara after 12 years with Bell Laboratories in Murray Hill, New Jersey.

**James M. Lafferty**, manager of the Power Electronics Laboratory at the General Electric Research and Development Center, Schenectady, New York, has been named an honorary life member of the



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## we hear that

American Vacuum Society. He is the twelfth person to receive this honor in the 25-year history of AVS.

Margaret Law is now Registrar of the Faculty of Arts and Sciences at Harvard

University. She was a lecturer and senior research associate in physics there.

E. Kevin Cornell, a staff member on the Senate Committee on Environment and Public Works, has been appointed deputy executive director for operations of the Nuclear Regulatory Commission.

## obituaries

### Ralph A. Sawyer

Ralph Alanson Sawyer, physicist and science administrator, died 6 December at the age of 83. A native of New Hampshire and a graduate of Dartmouth College, he received his PhD from the University of Chicago in 1919. After a period of service as an ensign in the Navy he joined the University of Michigan, in whose service he continued, except for temporary leaves, until he retired in 1964. Sawyer had two principal talents and an outstanding career in each: one as a research physicist and teacher, the other as an administrator of science and education. Space will permit the recounting of only the highlights.

Sawyer's period of intensive research ran from the time he worked for his PhD until the time World War II began, when he turned his energies to the service of the US Navy. Early in that period (1926) he won a Guggenheim Fellowship, which enabled him to study with, and collaborate with, the eminent spectroscopist Friedrich Paschen at the University of Berlin. By the time the war came along he had published well over 50 papers, mainly in the area of vacuum ultraviolet spectroscopy. Not only had he measured and analyzed many new spectra, but he had developed apparatus that had been widely adopted. He had advanced the art of using hollow-cathode light sources, and had introduced changes in the vacuum spectrometer to make it capable of recording spectra in rapid succession. In the mid 1930's he, with a colleague, H. B. Vincent, had carried the technique of rapid quantitative spectrochemical analysis to the point where a technician could make "on-line" determinations of the composition of samples of the metal in a steel mill at the rate of one every six minutes, thereby making possible adjustments in a batch of steel while it was still in process. The technique was also applied in the bio-medical field, notably in the detection of traces of heavy metals in human blood and urine. Sawyer brought together the existing techniques of spectroscopy, many of which he had developed, in a book *Experimental Spectroscopy* which he first published in 1945 and which was widely used for a long time. In recognition of his pioneering



SAWYER

work in the field he received the prestigious Frederic Ives Medal of the Optical Society of America, and the Award of The Society for Applied Spectroscopy.

The practical knowledge of the kind that Sawyer possessed was in great demand at the onset of the war. He soon found himself directing the Armor and Projectile Laboratory at the Navy Proving Ground at Dahlgren, Virginia, and then in charge of all the technical work there. After the war (1946) Sawyer was given an assignment of an awesome nature: he was made scientific director of the atomic bomb tests at Bikini Atoll, with a scientific staff numbering more than 500 under his charge.

Sawyer's talents for administration did not go unnoticed at home: while he was still in Bikini he was appointed Dean of the Graduate School at Michigan. More appointments followed. In addition he was made director of the Michigan Memorial Phoenix Project (a project "for the peaceful uses of atomic energy"), and later (1959) was made Vice President for Research, a newly created post at Michigan. The period in which Sawyer was Dean and Vice-President was that of the new and rapidly expanding Federal support of university research. He devoted a great share of his time to developing that participation at his university. His efforts