Optical Society awards to MacAdam, Le Grand and Welsh

WELSH

MACADAM

LE GRAND

Three distinguished optics researchers have received awards from the Optical Society of America. David L. MacAdam, senior research associate in physics at the research laboratories of the Eastman Kodak Company, Yves Le Grand, director of the National Museum of Natural History in Paris and professor at its laboratory of physics applied to biology and Harry L. Welsh, physics professor at the University of Toronto, were honored at the society's Houston meeting during October.

The OSA presented its highest award, the Frederic Ives Medal, to MacAdam "in recognition of his pioneering research and many world-renowned publications in the science of color, his lifelong devotion to optics, and his distinguished service to the OSA." MacAdam earned his doctorate from the Massachusetts Institute of Technology in 1936 and joined Kodak as a research physicist in colorimetry. He has made substantial contributions in the fields of colorimetry, color photography, color television, camouflage detection and color standardization. In 1963 MacAdam served as president of the OSA and he has been editor of its journal since 1964.

Le Grand received the Edgar D. Tillyer Award, which is presented biennially for work in visual science. He graduated as an engineer from the Polytechnic School of Paris in 1928, where he studied under Charles Fabry. In 1935 he joined the National Museum of Natural History, where he has conducted most of his research and teaching. His major accomplishments have been in photometry and physiological optics. Le Grand's numerous publications include a three-volume work on physiological optics that has become a standard text in the field.

The William F. Meggers Award went to Welsh for his achievements in molecular spectroscopy and intermolecular forces. Welsh earned his doctorate in 1936 at the University of Toronto and was instrumental in developing the high-intensity, low-pressure mercury-arc "Toronto Lamp" and the multiple-mirror Raman tube. They were vital to his studies of collision-induced infrared absorption in homonuclear molecules and of infrared and Raman spectra of liquid and solid hydrogen.

Mayo Hersey wins medal for tribology research

Mayo Dyer Hersey, professor of engineering at Brown University, has received the 1974 Gold Medal of the British foundation, Tribology Trust. The award is presented annually to an engineer in recognition of contributions to the study of friction in machines. The scientific attache of the British Embassy travelled to Rhode Island to present the award to Hersey in honor of his tribology research, which spans more than 60 years.

Hersey earned his AB from Colorado College in 1907 and in 1910, his SB in mechanical engineering from the Massachusetts Institute of Technology and his AB in physics and mathematics from Olivet College. His experiments at Harvard under Percy W. Bridgman on oil viscosity at high pressures helped to launch his lifelong career in mechanical-friction research. He has been a visiting professor of engineering at Brown University since 1957.

Bjurstedt receives Guggenheim award

The International Academy of Astronautics has presented its 1974 Daniel and Florence Guggenheim International Astronautics Award to Hilding A. Bjurstedt, head of the department of aviation medicine at the Karolinska Institutet in Stockholm, Sweden. The annual award, accompanied by a stipend of $1000, recognizes outstanding contributions to space exploration and research resulting from work done during the preceding five years.

Bjurstedt, head of aviation medicine since 1946, has been studying the physiological effects of stresses such as long-term acceleration and atmospheric pressure and composition changes. Most significant are circulatory and respiratory-control mechanisms and their adaptation to altered environments; development of instrumentation and electronic data processing are also part of the research conducted under his direction.

NASA honors Judge for Jupiter studies

Darrell Judge, associate professor of physics at the University of Southern California, has been awarded NASA's Medal for Exceptional Scientific Achievement for his contributions to the Pioneer 10 space mission.

Judge was principal investigator in a Pioneer 10 experiment measuring ultraviolet radiation in interplanetary space and near Jupiter. Under a $750 000 grant from NASA, he and Robert Carlson invented a photometer used in the experiment, which yielded information about the composition of Jupiter's at-

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mosphere; Judge reported it to be approximately 15% helium, 84% hydrogen and one per cent methane, ammonia and other molecules.

Judge received his PhD in 1965 from USC, where he has taught for nine years.

Hla Shwe, chairman of the physics department at East Stroudsburg State College, Pa., has been appointed dean of the faculty of science.

Frits Zernike, formerly on the staff of the Perkin-Elmer Corp, has joined Philips Laboratories as a senior scientist in electrooptics and thin-film technology.

William C. H. Joiner has been appointed head of the physics department at the University of Cincinnati.

The Institute of Electrical and Electronics Engineers has named **Herbert A. Schulke,** Jr general manager effective 1 January 1975. Schulke, a Major General in the US Army, will leave his current post as director of communication electronics in the Organization of the Joint Chiefs of Staff to become IEEE's senior permanent administrator.

Edward Gibson, science pilot on the 84-day Skylab 4 mission, is leaving NASA to join the Aerospace Corporation of Los Angeles as a senior staff scientist. He will specialize in interpreting solar data gathered during the 171 days of manned Skylab operation.

Joining Pennsylvania State University as assistant professors of physics are **Milton W. Cole** and **Karnig O. Mikaelian,** University Park campus, **James R. Klein,** Worthington-Scranton campus, and **Ruth C. Hollinger,** Altoona campus.

obituaries

Bernard Serin

Bernard Serin died on 18 June in Cheadle Hulme, England at the age of 52. After 26 years at Rutgers University, he was finishing his first year in a new position at the University of Manchester.

A native of New York City, Serin was a PhD student of L. I. Schiff at the University of Pennsylvania and then a postdoctoral fellow for one year at New York University. He came to Rutgers in 1947 to start a program of experimental physics that was to earn him international renown. By 1950 he and his collaborators had observed the isotope effect that demonstrated the essential role of the electron–phonon interaction in superconductivity and thus provided the experimental foundation of the Fröhlich–Bardeen and ultimately the Bardeen–Cooper–Schreiffer theories, for which its authors were awarded the Nobel Prize in Physics. His subsequent work in superconductivity was equally incisive and valuable for theoretical developments. His work on magnetic properties, dilute alloys, magnetic and thermal properties of type-II superconductors and fluctuations made fundamental contributions at stages when the theoretical situation was still murky. He had many other interests, as illustrated by his work on rare-gas solids and transport properties of normal metals.

SERIN

Serin's experiments had, in concept as well as in manner of execution, an unusual directness, an essential simplicity that came from a deep understanding of the underlying processes and principles. He gave to his work the craftsman's attention to detail. His excellence was internationally recognized and he was the author of "Experimental Superconductivity" for the *Handbuch der Physik.*

The significance of Serin's research was a reflection and product of his grace and style as a person and as a physicist. His spirit and humanity were perhaps the most effective influences on the growth of the Rutgers physics department in all areas of research and teaching. His manner and judgement made him the most respected member of the department. When there were prob-