

## 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. Tyler 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 re-

spiratory-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-