

APS awards annual prizes in nuclear and surface physics

At its Spring Meeting in Washington, D.C. The American Physical Society will bestow two prizes for work in nuclear physics and surface physics.

Stuart T. Butler and G. Raymond Satchler have been chosen to receive the Tom W. Bonner Prize in Nuclear Physics "for their discovery that direct nuclear reactions can be used to determine angular momenta of discrete nuclear states and for their systematic exploitation of this discovery permitting the determination of spins, parities and quantitative properties of nuclear wave functions." The Davisson-Germer Prize will go to Walter Kohn and Norton Lang "for their contributions to the understanding of the inhomogeneous interacting electron gas and of its application to electronic phenomena at surfaces."

Butler, a native of Australia, studied at the University of Birmingham (England) and earned his PhD there in 1951. For several years he worked for Cornell University's Laboratory of Nuclear Studies and then returned to Australia in 1953 as senior research fellow at the Australian National University. In 1954 he joined the faculty of the University of Sydney, where he is now a professor in the department of theoretical physics.

Butler is a frequent visitor to the US. A nuclear physicist with a primary interest in nuclear reactions, Butler has written numerous educational books, texts and scientific works for laymen.

The co-winner of the Bonner Prize is Satchler, a physicist at the Oak Ridge



BUTLER



SATCHLER



KOHN



LANG

National Laboratory. Satchler is a native of England—he received his doctorate from Oxford University in 1955. During the period 1951–56, he worked at Oxford University's Clarendon Laboratory. He took up his post at Oak Ridge in 1956, having held a concurrent position in the intervening years; he was a University of Michigan research associate. Satchler's primary research interests are nuclear structure and reactions.

Kohn, co-winner of the Davisson-Germer Prize, is a professor of physics at the University of California, San Diego. He earned his PhD at Harvard University in 1948, at which time he joined the faculty. He left in 1950 to work for the Carnegie Institute of Technology's department of physics, where he remained for ten years. He accepted his current position at University of California, San Diego in 1960 and served as chairman of the physics department 1961–63. During his career, Kohn has been a Guggenheim Fellow (1963), a visiting professor at the

Hebrew University, Jerusalem (1970) and a Battelle distinguished visiting professor at the University of Washington (1974). Kohn was the recipient of the 1961 Oliver E. Buckley Solid State Physics Prize and conducts research in the theory of solids and collision theory.

Lang, who will share the Davisson-Germer Prize with Kohn, is a staff member of the IBM Thomas J. Watson Research Center, Yorktown Heights, N.Y. He studied at Harvard University, receiving his PhD in 1968. From 1967 to 1969 he worked as an assistant research physicist at the University of California, San Diego. Lang has been affiliated with the IBM Watson Research Center since 1969. His research interests are theoretical solid-state physics and theory of the electron gas.

The Bonner Prize, which is sponsored by the friends of Tom W. Bonner, consists of \$1000 and a citation. The Davisson-Germer Prize of \$2500 is donated by Bell Laboratories.

Marconi fellowship presented to Shawlow

Arthur L. Schawlow, professor of physics at Stanford University, has been awarded the third Marconi International Fellowship of \$25 000. The Fellowship is administered by the Aspen Institute for Humanistic Studies through its program in Science, Technology and Humanism.

Schawlow is known for his work on lasers—in 1958, he and Charles H. Townes published the first paper describing "optical masers," which are now known as lasers. He has been a member of the faculty at Stanford University since 1961 and served as chairman of the physics

department there, from 1966 to 1970.

The Marconi Fellowship is presented annually for work in communications sciences and technologies that is characterized by a commitment to human betterment.

Institute of Physics gives annual awards

The (British) Institute of Physics has announced the winners of its 1977 annual awards.

Sir Alan Cottrell, master of Jesus College, Cambridge, has received the Guthrie Medal and Prize for "his many contribu-

tions to the science of metals."

The Maxwell Medal and Prize has been presented to E. Jakeman of the Royal Radar and Signals Establishment at Malvern, Worcestershire. Jakeman was cited for his contributions to the statistical theory of optical fields.

The Duddell Medal and Prize, for contributions to the understanding of crystal anisotropy and other single-crystal properties of substituted ferri-magnetic substances, has been given to Ronald F. Pearson. Pearson is leader of the magnetism group at Mullard Research Laboratories.

Sir James Menter, principal of Queen Mary College, London, has been awarded

we hear that

the Glazebrook Medal and Prize for contributions to industrial research.

The Charles Chree Medal and Prize has been awarded jointly to Frederick J. Vine and Drummond H. Matthews for their contributions to the concepts of sea-floor spreading, continental drift and plate tectonics. Vine, a geophysicist, is a professor in the University of East Anglia school of environmental sciences. Matthews, who is also a geophysicist, holds a position as reader in marine geology at Cambridge University.

Edward J. Wenham, vice-principal of Worcester College of Higher Education, has been presented the Bragg Medal and Prize for contributions to physics teaching through teacher training and curriculum development.

The Thomas Young Medal and Prize was won by R. Clark Jones of Polaroid Corp (Cambridge, Mass.) for contributions to the theory of optics.

John Clarke, professor of physics at the University of California, Berkeley, has been awarded the Charles Vernon Boys' Prize. He was cited for his development of a device known as the "SLUG," which measures extremely small voltages, and for the application of this technique to a wide variety of physical problems.

At Montana State University, **George F. Tuthill** (Massachusetts Institute of Technology) has been appointed assistant professor of physics.

Formerly of Bell Laboratories, **Roger W. Pryor** has joined Pitney Bowes (Stamford, Conn.) as senior physicist in the mailing-systems division.

Aaron Lewis, a biophysicist who is applying laser technology to biological research, has been appointed associate professor of applied physics at Cornell University.

Becton Professor of Engineering and Applied Science and professor of physics at Yale University, **Werner P. Wolf** has been appointed chairman of the department of engineering and applied science.

The new assistant to the vice-provost for academic administration at the University of Minnesota, Duluth is **David H. Garber**, who for two years has been a consultant in the physical sciences and energy systems and served as adviser to the National Academy of Sciences on the role of nuclear power in the context of alternative energy systems.

Theodore Maiman has joined TRW Electronics (Los Angeles, Calif.) as assistant for advanced technology. Maiman, inventor of the ruby laser, is the founder of Konrad Corp and Maiman Associates, and is a co-founder of Laser Video Inc.

Richard L. Garwin, fellow of the IBM Thomas J. Watson Research Center (Yorktown Heights, N.Y.), has been appointed a fellow of Los Alamos Scientific Laboratory.

Formerly head of the radiation division of the Naval Surface Weapons Center (Silver Spring, Md.), **Lemmuel L. Hill** has been appointed head of the research and technology department.

obituary

Hermann Träuble

Hermann Träuble, Wissenschaftliches Mitglied (scientific associate) of the Max-Planck-Gesellschaft and director of the Institute for Biophysical Chemistry in Göttingen, died suddenly 3 July 1976 at the age of 44.

Träuble studied physics at the University of Stuttgart. Under the supervision of Ulrich Dehlinger and Alfred Seeger, he wrote a PhD thesis on magnetization and hysteresis in ferromagnetic single crystals. For this work he received the 1966 Masing Prize of the Deutsche Gesellschaft für Metallkunde. His doctoral thesis revealed a combination of great experimental skill and theoretical talent—characteristics that marked his subsequent scientific work.

In 1963 Träuble joined the Max-Planck-Institut für Metallforschung in Stuttgart where he became interested in the properties of type-II superconductors. He spent some time on theoretical studies and then convinced me that it would be a challenging problem to make the flux-line lattice in type-II superconductors accessible to direct observation. Having spent about 18 months on experimental details, we achieved our goal and were awarded the 1967 Physics Prize of the Göttingen Academy of Science.

At that time Träuble began to feel that he had devoted enough time to metal physics. The open questions in biophysics, however, he felt would be a challenge to his abilities. Träuble left Stuttgart and went to Manfred Eigen in Göttingen for a new start at the Max Planck Institute for Biophysical Chemistry. He spent about two years in Göttingen and in US laboratories in order to learn experimental techniques and to find out about the frontiers of the new field. The structure and function of lipid membranes became a special interest to him, because here he could apply many ideas from solid-state physics with which he was familiar.

In his professional career Träuble used every opportunity to collaborate with other scientists. In Erich Sackmann he found a partner with experience in electron-spin resonance methods with which they were able to investigate the lateral diffusion and "precipitation" of lipid molecules within membranes. Together with Hans Jörg Eibl, who synthesized lipid molecules of given properties,



TRÄUBLE

Träuble investigated the phase transitions and hysteretic effects of model membranes.

For his part in the investigation of membranes, the Faculty of Human Medicine of the University of Giessen awarded Träuble the Ludwig Schunk Prize (1972) and later the German Bunsen Society for Physical Chemistry honored him with the Bodenstein Award (1975).

His research group in Göttingen consisted of about a dozen co-workers. They and his other friends will remember Träuble as a charming entertainer with a broad interest in arts and music. As a student Träuble spent his holidays studying the architecture of Gothic cathedrals in France and England. Once he told me that he had played with the idea of studying architecture. We, his colleagues and friends, consider it a fortunate turn of events that he decided to study physics.

UWE ESSMANN
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Carl H. Westcott

Carl H. Westcott, retired research officer of Atomic Energy of Canada Ltd, died 11 January at the age of 64.

Born in England, Westcott received his PhD from Cambridge University in 1936 for his studies of the slowing of neutrons in various media. He served for one year,