

Acoustical Society honors Klein, Eckart

Elias Klein, an expert in the field of shock and vibration, and Carl Eckart, a theoretical physicist who has devoted much of his career to the study of underwater acoustics and geophysical hydrodynamics, were awarded medals by the Acoustical Society of America last month in Los Angeles. Distinguished Service Citations were presented to Robert W. Young, a former president of ASA (1960-61), and to Betty H. Goodfriend, administrative secretary for the Society.

Klein was awarded the Trent-Crede Medal for his work in the area of shock and vibration. Klein completed his PhD at Yale University in 1921, and in 1927 he joined the staff of the Naval Research Laboratory. His major research efforts at the Laboratory included investigations of the characteristics and applications of piezoelectric crystals, development of techniques for the growth of synthetic rochelle salt and ADP crystals, and his development, in cooperation with the B. F. Goodrich Company, of the so-called "rho-c" rubber, which constituted an important advance in underwater acoustic technology. When the Centralizing Activity for Shock and Vibration was created by the Research and Development Board of the Department of Defense in 1947, Klein was named director, a position he held for the next ten years. It is primarily for his contributions to the collation and coordination of data on shock and vibration during this period that Klein was awarded the Trent-Crede Medal. He retired from NRL in 1959.

Eckart was given the Pioneers of Underwater Acoustics Medal for his development of theoretical foundations for the understanding of the principles of underwater sound and acoustic signal processing. Eckart completed his PhD at Princeton University in 1925, and after three years of postdoctoral study with A. J. Sommerfeld in Munich, he joined the staff of the physics department at the University of Chicago. In 1942 he moved to San Diego to work on the development of sonar systems with the University of California Division of War Research. This move allowed him to bring to the study of underwater acoustics and geophysical hydrodynamics his theoretical training and background in atomic physics and



KLEIN



ECKART

quantum mechanics. During his years there Eckart was particularly concerned with ways of formulating the problems of reverberation and scattering from the sea surface and with the unexplained high absorption exhibited by seawater as opposed to fresh water. After the close of the war Eckart remained in San Diego as director of the UCDWR. During this period the Marine Physical Laboratory was established and Eckart was named the first director. He is presently professor of geophysics at the University of California, San Diego.

Boyle and Smith awarded Stuart Ballentine Medals

Two physicists were awarded Stuart Ballentine Medals by The Franklin Institute last month. Willard S. Boyle and George E. Smith, both affiliated with Bell Laboratories, were honored for their "invention of the charge-coupled device structure, a conceptually simple semiconductor technology with significant application to image sensing, serial memory and signal processing."

Boyle, a native of Canada, received his PhD from McGill University in 1950. He joined Bell Labs in 1953 and is presently executive director of Pennsylvania Laboratories of Bell Laboratories in Allentown, Pennsylvania. Boyle was a co-developer of the first continuously operating ruby laser.

After completing his doctorate at the University of Chicago in 1959, Smith began working for Bell Labs. He is now head of the Unipolar Design Department at the Laboratories in Murray Hill, New Jersey.

AVS Welch Award goes to L. A. Harris

The winner of the American Vacuum Society's fourth Medard W. Welch Award is Lawrence A. Harris, a physicist at the General Electric Research and Development Center in Schenectady, New York. Harris was given the award in recognition of work demonstrating the utility and extreme sensitivity of Auger electron spectroscopy for the identification of elemental composition on surfaces.

Harris completed his doctorate at the Massachusetts Institute of Technology in 1950. He subsequently served as associate professor of electrical engineering at the University of Florida and the University of Minnesota before joining General Electric in 1955. Harris's other research interests include electron-beam dynamics, electron optics and ultrasonic imaging.

At Case Western Reserve University Robert W. Brown, Arnold J. Dahm and David E. Farrell have been promoted to

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we hear that

associate professor in the physics department. **Paul Albats**, formerly a senior research associate at the University, has been appointed assistant professor.

Walter D. Wales has assumed the chairmanship of the physics department at the University of Pennsylvania. **Anthony F. Garito** has been promoted to associate professor in the department.

Formerly head of Boeing's Plasma Physics Laboratory, **James E. Drummond** has accepted a position as director of Plasma Engineering for Maxwell Laboratories, Inc.

The new head of the theoretical division at Los Alamos Scientific Laboratory is **Peter A. Carruthers** of Cornell University. Other newcomers to Los Alamos include **Richard R. Sandoval**, the former commanding officer of the US Army Combat Development Command's Nuclear Agency at Fort Bliss, Texas, who will work for the assistant director for weapon planning; **Paul R. Higbie** of the University of New Hampshire, who has joined the physics division, and **Robert E. London** of the University of Illinois, Urbana-Champaign, who has become a postdoctoral fellow with the theoretical division. **Walter J. Trela** of Haverford College, Haverford, Pennsylvania; **Kenneth F. McKenna** of Pennsylvania State University; **Joseph E. Kemme**, a former employee of Los Alamos, and **Nevel T. Gladd** of Lawrence Livermore Laboratory have joined the energy division.

New staff members in the theoretical design division include **Richard W. Vogel** of Computing and Software, Inc., Slidell, Louisiana; **Ronald C. Kirkpatrick** of the University of Texas, Austin; **Robert L. McCrory Jr** of the Massachusetts Institute of Technology; **Jon M. Wallace** of the University of Maryland, College Park, and **William L. Thompson** of the University of Virginia. **Brian E. Newman** of the University of Southern California, Los Angeles; **Eugene H. Farnum** of Sandia Laboratories, and **Paul B. Weiss** of Lawrence Livermore Laboratory have joined the staff of the laser research and technology division. Formerly with Sandia Laboratories, **George R. Wenz** has joined the health research division.

Simeon A. Friedberg of Carnegie-Mellon University has been named head of the physics department there.

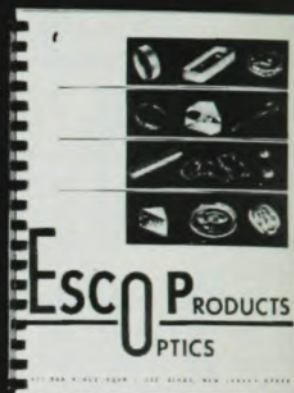
Formerly with the physics and astronomy department at the University of Georgia, **John J. White III** has accepted a position as a senior engineer with the

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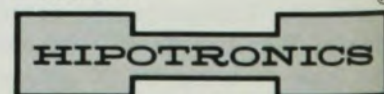
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In the astronomy department at Pennsylvania State University **Peter D. Usher** has been promoted to associate professor.

Tudor W. Johnston, of the University of Houston's physics department, has recently joined the Centre de recherche de l'énergie of the Institut national de la recherche scientifique, Université du Québec.

At New York University **Benjamin Bederson** has been named chairman of the physics department.

The new chairman of the department of physics, engineering and computer science at Loyola College, Baltimore, Maryland, is **F. Xavier Spiegel**, formerly associate professor of engineering at the college.

At the Illinois Institute of Technology **Gerald E. Cohn**, of Pennsylvania State University, has been named an assistant professor of physics. **Joseph F. Baugher** has been promoted to assistant professor.

At Lawrence Berkeley Laboratory, where the physics division was recently reorganized into two divisions, **Robert W. Birge** has been named associate director of physics division I (particle and atomic-physics research groups), and **Edward J. Lofgren** has been named associate director of physics division II (Bevatron group, advanced accelerator research and development group, Bevalac construction and operation program, and controlled thermonuclear research).

Steve Edwards has been named chairman of the physics department at Florida State University.

Frederick C. Gillett, of the University of California, San Diego, has joined Kitt Peak National Observatory as director of the program in infrared astronomy.

Daniele Amati has been named leader of the CERN theory division for a three-year period. He succeeds **Bruno Zumino**, who remains in the division as a senior physicist.

Promotions in the department of physics and astronomy at Louisiana State University, Baton Rouge, include **R. J. W. Henry**, to professor, and **John S. Drilling** and **Paul D. Lee**, to associate professor. **A. R. P. Rau**, from the Tata Institute of Fundamental Research in India, has accepted a position as assistant professor, beginning in January

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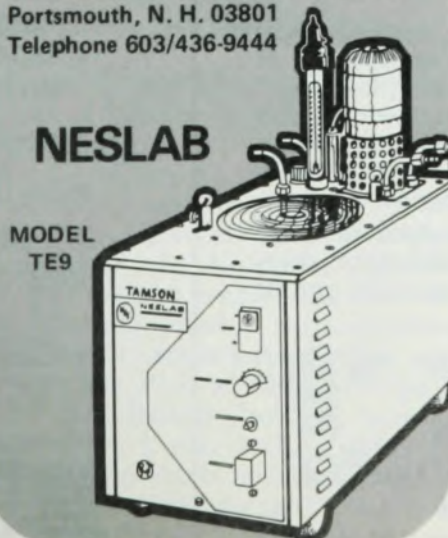
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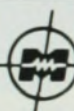
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1974. The newly appointed chairman of the department is **Roy G. Goodrich**.

In the physics department at the University of Maine at Orono **Alton H. Clark** and **Charles E. Tarr** have been promoted to associate professor. **Henry O. Hooper**, formerly professor of physics at Wayne State University, has been appointed chairman of the department.

Brian R. T. Frost, formerly associate director of the materials-science division at Argonne National Laboratory, has been appointed director.

Victor Gilinsky has assumed duties as head of the physical sciences department of The Rand Corporation, where he has worked since 1961.

Kenneth Kosai, of the University of Southern California, Los Angeles, has joined the technical staff of Philips Laboratories, Briarcliff Manor, N. Y.

William S. Goree, **William L. Goodman** and **Victor W. Hesterman**, all formerly with

Develco, Inc, have formed a new company, Superconducting Technology, Inc, Mountainview, California.

The chairman of the department of physics and astronomy of the State University of New York College at Genesco, **Robert L. Sells**, has been promoted to the new rank of distinguished teaching professor. This new rank, which includes a salary increase of \$2500, was created to reward talented teachers in the University system.

William G. Wagner, professor of physics and electrical engineering at the University of Southern California, Los Angeles, has been appointed dean of the division of natural sciences and mathematics.

Charles W. Terrell, the former director of physics research at the Illinois Institute of Technology Research Institute, has been named president of the Indiana Institute of Technology.

A professor of astronomy at the University of Maryland, **Frank J. Kerr**, has been named director of the University's astronomy program.

obituaries

Eugene B. McDermott

Eugene B. McDermott, a co-founder of Texas Instruments, Inc, died on 24 August in Dallas. He was 74 years old.

In 1930 McDermott, a geophysicist, together with J. C. Karcher, founded Geophysical Service, Inc, the predecessor of Texas Instruments. Geophysical Service performed geophysical exploration for oil companies, and the business benefited from McDermott's and Karcher's development of the reflection seismograph, an instrument used to locate probable oil-bearing layers under the earth's surface.

McDermott received a degree in mechanical engineering from Stevens Institute in 1918. Before founding Geophysical Service, Inc, he worked for Geophysical Research Corporation in Houston (1925-30). He was vice-president of Texas Instruments during 1930-39 and president during 1939-49, when he was named chairman of the board.

During his career McDermott served as a trustee of the Texas Research Foundation and Stevens Institute, and as a member of the visiting committee of the physics department at the Massachusetts Institute of Technology and of the psychology department of Harvard University.

Ely E. Bell

Ely E. Bell, professor of physics at Ohio State University, died on 29 June. He was born in 1915.

Bell spent most of his career at Ohio State University. After completing his PhD there in 1947, he remained with the University until the time of his death. During 1952-53 he was a physicist with the Naval Research Laboratory.

Bell's major research interests were in far-infrared spectroscopy.

Marvin J. Schwartz

Marvin J. Schwartz, an assistant professor of physics at the University of Maryland, died on 24 July at the age of 38.

Schwartz, who had been on the faculty of the University since 1971, was a member of the University's plasma-physics research group. His work with the group involved a magnetic-mirror compression experiment. After completing his PhD at the University of California, Berkeley, in 1969, Schwartz worked for a year and a half at the French plasma laboratory in Fontenay-aux-Roses before joining the University of Maryland.

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