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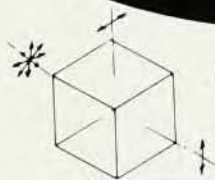
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THIN FILM POLARIZING CUBE

KLC's Thin Film Polarizer Cubes are available in two basic types, Narrow-Band and Broad-Band. The Narrow-Band polarizers are available for most standard laser wavelengths from 350nm to 1315nm with extinction ratio of 1000:1 and $\frac{1}{4}$ wave wavefront deformation over the clear aperture, which is circular and 0.8x the cube edge in diameter. Broad-Band polarizers have an extinction ratio of 100:1 at any wavelength from 400nm to 700nm.

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SIZE	CAT. #	PRICE	CAT. #	PRICE	
12.7mm	TFPC12-(wvl in nm)	\$310	BBPC12-VIS	\$440	
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The major part of Guenther's work has involved high-power lasers. In 1968 he invented laser-triggered switching of high voltages, which is now the most widely used technique for precisely synchronizing events or diagnostics in work involving pulsed lasers. Guenther has also done extensive work on laser-induced damage to optical components; such damage is often a limiting factor on the power output of a laser. Thin-film coatings are, for example, particularly subject to damage, and Guenther's work has helped unravel many of the complex interactions that are involved.

Guenther has also contributed to the use of laser systems through his work on developing standards and terminology and through his efforts in education—at the Air Force Institute of Technology (Wright-Patterson AFB), the University of New Mexico and Texas Tech University.

in brief

Chia-Wei Woo is the 14th president of San Francisco State University. In addition to his administrative duties, he will continue his research on phase transitions and low-temperature physics. He will also remain an adjunct professor of physics at the University of California at San Diego.

Michael J. Monsler has become vice-president for fusion programs at KMS Fusion, Inc., in Ann Arbor, Michigan. He comes to KMS Fusion from Lawrence Livermore National Laboratory.

For research on fluorescence and stimulated emission in glasses, **Marvin J. Weber** (Lawrence Livermore National Lab) has received the George W. Morey Award from the Glass Division of the American Ceramic Society.

Paul Roman, formerly at the State University of New York at Plattsburgh, has become the Dean of the Graduate School at Drexel University, Philadelphia.

Columbia University has named **Herbert Goldstein** as its first Thomas Alva Edison Professor. The new chair, endowed by New York's Consolidated Edison Company, is for a scholar who does research in energy-related fields. Goldstein's research has been on reactor shielding. He is the author of *Fundamental Aspects of Reactor Shielding and Classical Mechanics*.

Edward E. David Jr., president of Exxon Research and Engineering Co., is the 1983 Medalist of the Industrial Research Institute. The medal recognizes

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AUTO PHASE LOCK-IN AMPLIFIER



The Model LI-574A is an easy-to-operate low cost instrument featuring sensitivity of 10 nanovolts full scale, differential or single ended. The unit has dynamic range greater than 80 dB over a wide frequency range of 1 Hz to 100 kHz. Also included are dual phase sensitive detectors for measuring amplitude without phase compensation. Other important features are continuous frequency tracking plus simultaneous vector and analog outputs of amplitude and phase for automatic Bode and Nyquist plotting.

SYNCHRO-TRACK LOCK-IN AMPLIFIER



This precise instrument, the Model LI-575, features the heterodyne technique to eliminate harmonics, and high impedance inputs to permit low noise measurements. It features 100 dB dynamic range and 100 nanovolts full scale sensitivity over the 0.5 Hz to 200 kHz frequency range... without changing boards. The unit also provides an auto correlation mode that locks on to the input signal for synchronization, eliminating the need for a reference signal.

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The Model BX-531 is a microprocessor controlled GPIB compatible instrument offering simple, dual channel operation and high resolution over the 75 ps to 5 ms range triggered at ultra low rates. It features true digital averaging with single and multipoint signal processing as well as baseline sampling for minimum drift. Digital techniques eliminate duty factor limitations, while learning time problems are minimized by multiple samples/trigger.

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outstanding leadership or management of industrial research.

The department of physics at Syracuse University, Syracuse, New York, has added **Demetrios Christodoulou, Rafael Sorkin, Paul Souder and Peter A. Dowben** to its faculty.

Martha Krebs in the first Associate Director for Planning and Development at the Lawrence Berkeley Lab. She comes to the Lab from the staff of the House Subcommittee on Energy Development and Applications.

The American Astronautical Society has presented the John F. Kennedy Astronautics Award to **Carl Sagan**, di-

rector of the laboratory for planetary studies at Cornell. The award recognizes Sagan's contributions to public interest in the nation's space programs through his writings and the tv series "Cosmos."

Richard Soref has joined the Air Force Rome Development Center to work on electro-optical devices. He was formerly on the staff of the Sperry Research Center.

John H. Blanks has joined the Battelle Columbus Laboratories, where he will direct research on chemical-vapor deposition for industrial applications. He comes to Battelle from Alcoa.

obituaries

Joseph E. Mayer

Joseph E. Mayer died on 15 October 1983. He was 79 years old. An internationally recognized scientist, he was one of the founders of statistical mechanics in the US. His work underlies much of our knowledge of the behavior of nonideal gases and liquids, critical phenomena, phase transitions, ionic solutions and transport processes.

He was born 4 February 1904, and attended schools in Montreal and Westmount, Canada, and Hollywood, California. He received his BS degree from the California Institute of Technology in 1924, and was awarded his PhD from the University of California, Berkeley, in 1927 under Gilbert N. Lewis. As a postdoctoral fellow (1927-28) with Lewis he wrote several papers showing how thermodynamics can be derived from Fermi-Dirac, Bose-Einstein, and Boltzmann statistics. He spent the 1929-30 academic year as an International Board Fellow (Rockefeller Foundation) in Göttingen, Germany, with James Franck. Göttingen was at that time an internationally recognized center of the new subject of quantum mechanics, and Mayer's life was affected profoundly by his experiences there. First his scientific interests broadened, which resulted in his writing a paper on the lattice energy of ionic crystals with Max Born. Second, and most important, he met Maria Goeppert (1963 Nobel laureate in physics), one of Born's students. They married in 1930, and their life together proved to be abundant in friendship and scientific achievement until her death in 1972. Their book *Statistical Mechanics*, first published in 1940, continues to be a popular introduction to the subject.

Mayer's first faculty appointment was at Johns Hopkins University.



MAYER

There he did his celebrated work on the virial expansion, which Born described as "a most important contribution to the development of van der Waals theory."

At the urging of Harold Urey, Mayer accepted an appointment at Columbia University in 1939. At Columbia, he produced several well-known results on the theory of distribution functions including the Mayer-Montroll integral equations, and an article, "The Statistical Mechanics of Multicomponent Systems," which he wrote with William McMillan. In the latter paper, and in one written at Chicago, he showed how to express the grand canonical partition function and potentials of mean force at one activity in terms of those at another activity. Through the use of cumulant expansions, he revealed the reciprocal nature between distribution functions at positive and zero activities. This work provided the basis for extensive research on fluid mixtures, ionic solution theory, and critical phenomena, particularly in the development of