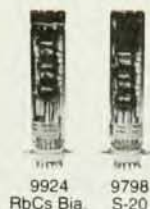
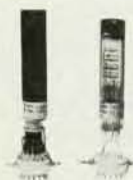


COMPACT PHOTOMULTIPLIERS FOR OEM AND R&D



9924 RbCs Bia
9798 S-20



9826 Bia
9882 S-20

The new RbCs 9924 and the S-20 9798 are 30mm dia. PMTs designed for high cathode sensitivity and low dark current characteristics in a tube of small dimensions. These have been proven ideal for OEM and R&D applications in which cost and space limitations are a factor. The 9924 provides for a 20 to 50% improvement in blue and green sensitivity. The 9798 with S-20 cathode and UV glass window provides a spectral range of 200 to 850nm. Both are available from stock and are mechanically and electrically interchangeable with other 30mm PMTs such as the 9824, 9524, R268, R374, and C31059.

The 19mm dia. types are the 9826 and 9882 with bi-alkali and S-20 cathodes respectively. The compact size allows for simplified OEM and R&D packaging, and the fast linear focussed dynode structures and high gain of the 9826 makes it useful for high energy physics experiments (hodoscopes, etc.).



The QL-30 family of PMT housings provides the ultimate in simplicity and versatility when operating any 19mm or 30mm PMT. RFI shielding, mounting flanges, and custom voltage divider networks are routinely supplied. OEM and R&D inquiries are invited.

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obituaries

trospectroscopy marked the beginning of investigations in Raman spectroscopy that gained him an international scientific reputation. He invented methods for determining accurately the depolarization factors, quantities that must be known if the correct assignments of vibrational bands in Raman spectra are to be obtained.

Around 1952, Rank changed his research program from Raman to high-resolution infrared spectroscopy, the field for which he is perhaps best known. His infrared investigations, which set new standards for wavelength accuracy and resolution, enabled him to study fine structures that had not previously been observed, to measure shapes of lines and collision-induced shifts, pressure narrowing, and quadrupole effects. Some of his work related to planetary atmospheres.

When lasers, both pulsed and cw, came into his laboratory in 1964, Rank and his coworkers exploited them to investigate various light scattering phenomena. Three nonlinear optical phenomena were discovered in the course of his investigations: optical mixing in stimulated Brillouin scattering, stimulated Rayleigh wing scattering and stimulated thermal Rayleigh scattering.

Rank also concerned himself with lens design, optical testing, and optical materials. His success as an experimental physicist resulted partly from his skill as a designer and his exacting optical craftsmanship. Several master opticians began their training as his apprentices. His optical designs can be found in such everyday products as surveying instruments, medical cystoscopes, magnifying lenses on butcher-shop scales and highway retroreflectors.

T. KING McCUBBIN JR.
T. A. WIGGINS

The Pennsylvania State University

Walter M. Nielsen

Walter M. Nielsen, James B. Duke Professor Emeritus of Physics at Duke University and chairman of the Department of Physics from 1938 to 1961, died in Durham, N. C. on 8 January. Before World War II, he was active in cosmic-ray research, conducting counter studies of electromagnetic showers and measuring the lifetime of the mu meson. These experiments were carried out in Linville Caverns and on Mt. Mitchell in North Carolina and on Mt. Evans in Colorado. He spent a year at the Bartol Research Foundation as a National Research Council Fellow. After the war, he concentrated mainly on the develop-

ment of his department and the university. As chairman, he was the guiding force in attracting key faculty members to initiate programs in microwave spectroscopy, nuclear physics, low-temperature physics, and high-energy physics; he was also instrumental in helping them obtain support.

Nielsen was born in 1900 in Tyler, Minnesota, and received his degree from the University of Minnesota. He joined the Duke faculty in 1925, becoming one of the leaders in developing the institution into a research university.

During World War II, from 1941 to 1943, he was a member of the staff of the Naval Ordnance Laboratory, working in Washington, D. C., and Pearl Harbor on the degaussing of ships and on underwater detection devices. For this work he was given the Navy Distinguished Civilian Service Award.

Nielsen was a member of the Council of the Oak Ridge Institute for Nuclear Studies (which became the Oak Ridge Associated Universities in 1966) from its beginning in 1946 until 1959. He served a year as chairman of the Southeastern Section of the American Physical Society and was a Fellow of the American Physical Society. For many years he headed the University Research Council. For reasons of health, he gave up the departmental chairmanship in 1961 and retired from the university in 1966.

HAROLD W. LEWIS
WILLIAM D. WALKER
Duke University

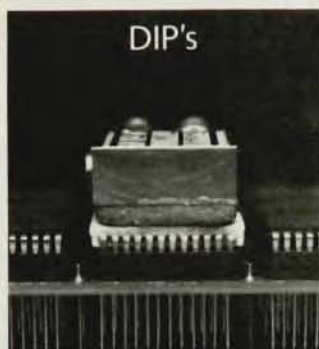
Herman M. Gurin

Herman Gurin, Executive Officer of the American Astronomical Society from 1969 to 1979, died on 9 January.

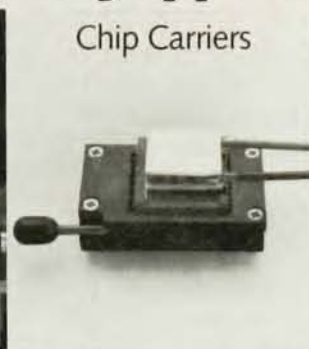
In 1936, Gurin received a BS in mechanical engineering from New York University. Even before graduation, he began a 34-year career at NBC in the engineering department concerned with the design and operation of broadcasting studios. In 1957 he served on the staff of Radio Free Europe in Munich, the greater part of the time as the chief engineer. In 1958, he transferred to the Astro-Electronics Division of RCA and participated in the engineering and management phases of major satellite programs, including the development of the first weather satellite, TIROS I, launched in 1960. He left RCA in 1969 to become the Executive Officer of the American Astronomical Society, in which capacity he was involved in fund raising, program planning, organizing technical conferences and editing the official bulletin of the Society.

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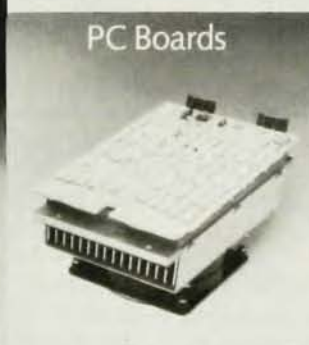
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