

OBITUARY

UNO KHERMANOVICH KOPVILLEM (1923-1991)

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On September 23, 1991, Professor Uno Khermanovich Kopvillem, prominent physicist, famous specialist in the field of nonlinear optics, optical and acoustic spectroscopy, ocean physics, and doctor of physicomathematical sciences, died in Vladivostok at the age of 67.

Uno Khermanovich was born on October 4, 1923, in Tallin. After graduating from Kirov Pedagogical Institute he worked as a physical school teacher. Later he went to post-graduate school of the Kazan' State University where his scientific activity began. His Candidate's Dissertation was devoted to resonant phenomena in solid states. The brilliantly-defended dissertation attracted the attention of the Kazan' Physicotechnical Institute of the Russian Academy of Sciences and Kopvillem was invited to work there. In 1961 he established a theoretical physics department which shortly became the Department of Quantum Acoustics. A large group of young scientists of this Department, headed by Kopvillem, effectively worked on developing, primarily, quantum acoustics but also nonlinear optics, laser spectroscopy, and radiospectroscopy. In the early 1960's Uno Khermanovich predicted a phonon maser and paraelectrical resonance. He contributed to the development acoustic coherent and laser spectroscopy.

This talented scientist's love of echo-spectroscopy began in the 1960's and continued for the rest of this life. In 1962, with his student V. R. Nagibarov, he predicted photon echo which, two years later, was observed by Americans. With Kopvillem's active assistance a photon-echo spectrometer was created which was used, for the first time in the USSR, for experimental research into photon echo and its applications. Photon echo has become a powerful and highly efficient method for laser spectroscopy of condensed media and gases.

Kopvillem foresaw a wide scope of applications of this method in developing optical memory and optical processors. All his predictions have been confirmed. He was one of the organizers of the First All-Union Symposium on Photon Echo in 1973 in Kazan' and

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actively participated in the preparation of all the following similar events. To his last days Kopvillem channeled his efforts into optical-echo spectroscopy.

His pioneering research in the polarized echo in piezoelectric powders and crystal gained world-side recognition. Using his idea, Kopvillem's students discovered a long-lived polarized echo which is now finding its application in data processing and storage.

From 1975 to his last days Kopvillem worked in Vladivostok at the Pacific Ocean Institute of the Far Eastern Region of the Russian Academy of Sciences where he established a Department of Quantum Oceanography and surrounded himself by young and creative scientists.

Kopvillem authored two monographs, several reviews, and numerous articles in different fields of physics. He is a coauthor of "Polarized Echo" (Moscow, 1985) the only monograph on this subject.

Uno Khermanovich was a true scientific leader, able to organize and motivate people in the most unfavorable situations. He was a teacher in the most noble meaning of this word who educated many doctors and candidates. His memory will remain with us all always.