

BORIS VERKIN, PHYSICIST AND FOUNDER OF THE INSTITUTE FOR LOW TEMPERATURE PHYSICS AND ENGINEERING

G. E. Grechnev

*B. Verkin Institute for Low Temperature Physics and Engineering of the NASU, Kharkiv, Ukraine
e-mail: grechnev@ilt.kharkov.ua*

Boris Verkin was a brilliant experimental physicist and teacher, but, above all, he was an outstanding organizer of science. This rare gift, which included a deep understanding of physics, intuition, foresight, purposefulness, he has dedicated to creating a unique structure – the Institute for Low Temperature Physics and Engineering. At that time, 1960, hardly anyone adequately imagined which circle of unknown quantum phenomena and which application possibilities in the new technique and in everyday life are hidden in the region of low and ultralow temperatures. The institute is not only a large building built for scientific research. There are also people and their affairs. Boris Verkin knew how to find, attract with his enthusiasm and personal charm, “infect” with scientific problems talented physicists whom he employed and involved in research activity in the Institute. He took care of and supported them. Verkin was able to create at the Institute a community of physicists, mathematicians and designers, and to ensure the realization of fruitful ideas in specific products.

Boris Verkin was encyclopedically formed and enriched the range of promising areas of research in the main areas of low-temperature condensed matter physics: in electronic properties of metals, superconductivity, magnetism, quantum electronics, properties of cryocrystals, quantum crystals and quantum liquids, structure and mechanical properties of materials, molecular biophysics, physics and technology at ultralow temperatures. The scientific directions chosen by him have been fruitfully developed at the institute to this day. Boris Verkin initiated and developed a wide range of applications of low temperatures in instruments engineering, electrical engineering, space technology, medicine, biology, and the food industry. Therefore the interests of the institute and its activity stretched from the terrestrial and sea depths to the neighboring planets.