Boris Alekseevich Maksimov
(November 7, 1941–January 1, 2007)

Boris Alekseevich Maksimov, a candidate of physics and mathematics and a leading researcher at the Laboratory of X-ray Diffraction at the Institute of Crystallography of the Russian Academy of Sciences, died on New Year's night in 2007.

Maksimov was born in the village of Sokolovo, Gor'kiĭ oblast, on November 7, 1941. After graduating from the Faculty of Physics of Gor'kii (now Nizhni Novgorod) State University in 1965, he was appointed to the postgraduate course at the Institute of Crystallography.

He worked as a postgraduate at the Laboratory of X-ray Diffraction under the guidance of Academician N.V. Belov. The subject of Maksimov's scientific interests were X-ray diffraction analysis of the atomic structure of single crystals of ortho- and diorthosilicates of rare earth elements based on the $NaYSiO_4$ structure.

The results of these studies formed the basis of the candidate's dissertation defended by Maksimov with great success in 1969. Since that year, Maksimov was part of the staff of the Institute of Crystallography. In 1974, he became a senior researcher, and, in 1986, he took part in the competition for the leading researcher vacancy and won.

Maksimov had carried out structural investigations of many tens of compounds with specific physical properties. His most important investigations were related to the X-ray and neutron diffraction analysis of the atomic structure of crystals of superionic conductors with conduction by lithium and sodium cations. Lithium superionic conductors are currently the basis for the most effective micropower supplies. Maksimov's studies of nonstoichiometric crystals with fluorite structure, which also exhibit superionic conduction but by fluorine anions, should be noted also.

Maksimov's contribution to the development of the methods of structural investigations can hardly be overestimated. In this context, his studies on the rhombuses of peaks for interpreting the function of interatomic vectors and analysis of twin crystals should be noted.

Maksimov successfully performed temperature structural investigations and was a pioneer in the study of high-pressure phase transitions in crystals.

Maksimov's latest investigations were devoted to lithium niobate crystals doped with cations of different

valence and the wide family of promising piezoelectrics—langasites.

A distinctive feature of the studies carried out by Maksimov was the profound analysis (characteristic of Belov's school) of the symmetry of the atomic structure of crystals. His scientific work was characterized by deep understanding of the physical bases of the phenomena under study and fine intuition of experimental crystallographer. He devoted great efforts to share his knowledge and experience with young researchers and train new high-class experts in crystal structure. His consultations were very helpful for many young experts at other laboratories. Maksimov was among the key experts in the staff.

At the same time, he was a responsive and very moderate man. Boris Alekseevich Maksimov will be always warmly remembered by those who were privileged to know him.

Translated by Yu. Sin'kov