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IN MEMORIAM

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## To the Memory of Mikhail Grigor'evich Mil'vidskii (1932–2009)

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Mikhail Grigor'evich Mil'vidskii passed away suddenly not long ago; he was a doctor of technical sciences, a professor, a Lenin prize winner, a winner of the Soviet State Prize twice, an Honored Science Worker of Russian Federation, and an Honorary Metallurgist of Russian Federation.

M.G. Mil'vidskii is well known in Russia and abroad as an outstanding specialist in the field of semiconductor materials science. His intense scientific activity started in 1956 after he graduated from the Moscow Institute of Steel and Alloys. At that time, semiconductor materials science in this country was only at the beginning of its development as an independent field of science. The most important problem at that time was the development of technology and large-scale production of silicon, the latter of which remains the main semiconductor material in world microelectronics. Mil'vidskii contributed significantly to the solution of this problem; this contribution was acknowledged by awarding him the Lenin Prize in 1964. The series of subsequent publications of Mil'vidskii was concerned with the technology and production of gallium arsenide (the Soviet State Prize in 1975). In 1985, Mil'vidskii was again awarded the USSR State Prize for his participation in the solution of the problem of production of high-efficiency injec-

tion lasers, optical waveguides, and photodetectors based on the III–V semiconductor compounds.

Wide coverage of the main problems of semiconductor materials science and a forthright approach to solution of these problems were cardinal virtues of Mil'vidskii's studies. The scope of his studies included the processes of growth of various materials, variations in semiconductor properties under technological effects accompanying fabrication of semiconductor devices, and phenomena occurring in devices in the course of their operation. Mil'vidskii always set himself and his collaborators the task of not only understanding why and how the properties of a semiconductor are varied, but also determining what is necessary to be done to minimize the unwanted variations in the properties of crystals and, if possible, affect the material in such a way as to improve its properties and characteristics of devices.

Mil'vidskii was also heavily engaged in scientific–organizational and pedagogical activity. He actively participated in the activity of the Scientific Councils of the Russian Academy of Sciences concerned with the physics of semiconductors and physicochemical basics of semiconductor materials science, as well as the Scientific Councils of the State Research and Project Institute of Rare Metal Industry, Institute of Crystallography of the Russian Academy of Sciences, and Moscow Institute of Steel and Alloys.

Everyone who has attended his lectures or presentations at conferences unanimously agreed that he organically combined a deep knowledge of the subject with striking and convincing exposition of the material. This is also completely applicable to many publications by Mil'vidskii, who was the author of several monographs and more than 500 papers. Mil'vidskii was the supervisor of large number of doctoral and candidate theses and created a world-acknowledged school of researchers in the field of materials science.

Mil'vidskii combined intellectual power and erudition with charm, contagious optimism, and benevolence. The death of Mil'vidskii signifies an irreplaceable loss for Russia's scientific community. May his memory live on forever.

Colleagues,  
Editorial Staff of the Journal  
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*Translated by A. Spitsyn*