
IN MEMORY OF ANATOLII PETROVYCH GORBAN' (1938–2009)



An outstanding Ukrainian physicist, Dr. Sci. in physics and mathematics, Professor, winner of the State Prize of Ukraine in science and engineering, Chief designer of photovoltaic arrays for the first Ukrainian space vehicles Anatolii Petrovych Gorban' has suddenly died.

Anatolii Petrovych was well-known in Ukraine and abroad as an outstanding expert in semiconductor physics and solar photoenergetics. His creative life passed at the V.E. Lashkarev Institute of Semiconductor Physics of the NAS of Ukraine, where he had been working since the foundation of the Institute, and where he had made a carrier from an engineer to Head of the Department of Physical and Engineering Problems of Semiconductor Photoener-

getics. A talented and extremely productive physicist, he was an author of more than 200 scientific works, including a monograph and more than 20 author's certificates and patents for invention. Anatolii Petrovych aimed the staff of department he headed at executing a complex of scientific researches dealing with the investigation of physical and physico-technical properties of layered insulator–semiconductor and metal–insulator–semiconductor structures which comprise the basis of modern micro- and nanoelectronics.

Anatolii Petrovych reached the outstanding success in scientific researches and application developments in photoenergetics. As a result, the members of group he headed created high-performance silicon solar cells with combined diffusion-field barriers that are characterized by the efficiency up to 19%, which corresponds to the world standards. In the framework of the State program of Ukraine on overcoming the consequences of disaster at the Chernobyl Nuclear Power Plant, R&D aimed at the development and fabrication of solar batteries for dosimeter-radiometers of the DKS-01 type and other portable new-generation equipment for dosimetry and radiometry and managed by Anatolii Petrovych were executed. Another important stage of Anatolii Petrovych's activity was his work as Chief designer of photovoltaic arrays for space vehicles of the "Mikrosputnyk" ("Microsatellite") series in the framework of the National space program of Ukraine carried out on the order of the State design office "Pivdenne". Here, R&D dealing with the development and fabrication of a new-generation spaceborne collection of solar batteries intended for application in a power supply system of the first home-made space vehicle KS5MF2 "Mikron", which was put into orbit in December 2004, were fulfilled.

Lately, Anatolii Petrovych intensively worked at the development and implementation of advanced constructions of solar cells.

The professional achievements of Anatolii Petrovych were recognized at the State level. In 2007, he became the winner of the State Prize of Ukraine in science and engineering. He trained a number of Ph.D.'s and one Dr. Sci. in physics and mathematics.

Anatolii Petrovych's death means a heavy loss for the staff of the V.E. Lashkarev Institute of Semiconductor Physics of the NAS of Ukraine and the Ukrainian physics. All those who were lucky to know Anatolii Petrovych personally will forever keep the memory of him in their hearts.

On behalf of the staff of the Institute of Semiconductor Physics of the NAS of Ukraine:

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