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## **THE FOUNDERS OF ORIGIN AND DEVELOPMENT OF THE DOMESTIC SEMICONDUCTOR INDUSTRY**

The article reveals the results of the prosopographic study of the history of domestic semiconductor electronics. The theoretical and technological base of the domestic semiconductor electronics was laid in the early 20s of the twentieth century by a researcher O. H. Holdman. The next theoretical and practical investigations of the Ukrainian scientists were conducted at the forefront of the world achievements. The main purpose of the study is to reveal the contribution of the domestic physicists

in the development of scientific and technical research on the principles of semiconductor electronics.

A fundamental research on the theory of semiconductors was started in the early 30s of the twentieth century, when the first theoretical work of a native of Yelisavetgrad I.Ye. Tamm was released, that predicted the existence on the surface of the crystals of special electronic states, called superficial at first and then "Tamm's".

The article examines the creative activities of the four founders of semiconductor electronics, whose life and scientific research was associated with Ukraine – Oleksandr Henrikhovich Holdman, Yelpidyfor Anempodystovych Kyrylov, Vadym Yevhenovych Lashkaryov and Oleksandr Viktorovych Krasyllov. O.H. Holdman initiated physical studies of the properties of dielectrics and semiconductors and discovered the phenomenon of photopolarization of dielectrics, investigated and described the photoelectric effect in semiconductor solar cells and the rectification phenomenon in semiconductors, Ye.A. Kyrylov discovered and investigated the fine structure of the absorption spectrum photochemically dyed silver halide, V.Ye. Lashkaryov, in fact, was the first in the world to discover the phenomenon of p-n junction and the image of the first band diagram of the p-n junction, studied the effect of photo-ERS. in copper oxide, discovered bipolar diffusion of nonequilibrium current carriers in semiconductors, O.V. Krasyllov created the first transistor in the former USSR and the first example of a planar alloy germanium transistor, laying his research on the foundations of the chip production technology. The scientific developments of these scientists and their teams have laid a solid foundation for the production of semiconductor electronic devices and their use by consumers.

***Key words:*** *prosopography, domestic founders, scientific and technical research, electronics, semiconductors, dielectrics, p-n junction, transistor.*