

"Making Gallium Thin Oxide Tapes and Studying Their Properties"

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annotation. To progress in any household direction, it is necessary to increase the quality of operation of high-quality information systems components. Therefore, this requires improving the quality of the relevant materials or creating and using new better materials. In this regard, in recent times, researchers have attracted a lot of attention from energy-wide, oxides and nitrides of group 3 of the Mendeleev system. Among them, the foundational and applied scientific side expects the introduction of gallium oxide (Ga_2O_3) into nanotechnology as a new generation, promising semiconductor material. It is especially interesting to use them as an integral scheme for the manufacture of high-temperature, fast-acting and radiation-resistant circuits. In addition, it is highly efficient to form p-n transistors on them to create high-frequency (HEMT) transistors and other micro and nanotools that consume little energy.

Therefore, in many countries of the world, studies are underway extensively to develop and process various technologies for the adoption of gallium oxide (Ga_2O_3) tapes as a new material, in order to further use them in different directions.

In this paper, the technological process of low-temperature, magnetic dissipation of Ga_2O_3 formation is discussed, and its electrophysical, optical and dielectric parameters are examined. A technological route is designed to use its silicon diaper as a shuttered dielectric in a field transistor. Optimal parameters for making tape have been developed. It has been shown that oxide tapes obtained by this technology can be used in the production of micro and nanotools.