



EFFECTIVE DELETING OF RESIDUAL PHOTOCONDUCTIVITY IN HIGH-RESISTANCE LAYERS GaAs <Cr>

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The phenomenon of residual photoconductivity as the storage of optical memory (OM) represents practical interest in micro and optoelectronics. The finding - out of the nature OM represents undoubtedly and scientific interest.

Now residual photoconductivity (RPC) is explained by potential barriers arising because of non-monocharacteristical of distribution components of the semiconductor or carriers of a current in volume. Depending on a nature non-monocharacteristical the time relaxation RPC changes in a wide limit. The special interest represents RPC created by impurity.

In the given work the results of research of a nature RPC created photos by ionization of the filled centres of chrome in compensated epitaxilologic layers arsenid galls are resulted.

Epitaxilologic layers were brought up by a vertical method ЖФЭ. Highness was reached (achieved) by special indemnification of the residual donors deep acceptors of chrome. Substrates served n-GaAs. Lassitude of i-layers has made 70-80 microns. Specific resistance of layers has made $(1/3) 108 \text{ } \Omega \cdot \text{cm}$. ($T = 300 \text{ K}$).

The structures were photosensitive as at low ($T = 77 \text{ K}$) and at room temperatures. The photosensitivity of structures in impurity to a strip of absorption chrome ($= 1,4 \text{ microns}$) was comparable (compared) with own.

The researches show, that the structures have RPC. Size RPC the greatest ambassador impurity of illumination is carrying out photoionization Cr^{2+} - of the centres.

That is established, RPC impurity of a photocurrent is effectively erased only at certain length of a wave of external illumination.

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GAMMA-STIMULATED MODIFICATION OF STRUCTURE AND MECHANICAL PROPERTIES OF SILICON CRYSTALS

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The paper presents the results of gamma-irradiation effect on the fine structure and mechanical properties of silicon crystals.