

Modeling of heating in the epitaxial structure $\text{Cd}_x\text{Hg}_{1-x}\text{Te}/\text{CdTe}$ a projection by the least squares method

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In work contains the results of use of the modified projective method of the least squares for modeling of unsteady heat conduction in epitaxial structure of infrared techniques $\text{Cd}_x\text{Hg}_{1-x}\text{Te}/\text{CdTe}$, exposed a short laser pulse. The solution is in the form of partial sums of double Fourier series on polynoms Jacobi-Laguerre. Earlier works [1], [2] was held and discussed computing sustainability the proposed us of the modified projection method of least squares scheme for one-dimensional modeling and spatial distributions of nonequilibrium minority charge carriers, generated by external influence, after their diffusion in the semiconductor materials, and in the work [3]- the Galerkin projection method to solve stationary diffusion equation of modified Laguerre functions. This paper continues such studies: the estimate of the projection scheme of the least squares method used to calculate temperature field in epitaxial structure $\text{Cd}_x\text{Hg}_{1-x}\text{Te}/\text{CdTe}$.

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