

THE INFLUENCE OF THE RADIATION-INDUCED CHANGES OF SAMPLE PROPERTIES TO THE TEMPERATURE AUTOOSCILLATIONS

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The influence of radiation induced changes of sample properties (dislocation density, migration energy of point defects) and parameters of heat sink on autooscillations of temperature and concentration of defects are handled. Changes of this parameters influence in different way on autooscillations. For example, increase of dislocation density and decrease of heat sink calls decreasing the amplitude of autooscillations and leads to their disappearance. Period of autooscillations remains nearly constant. Decrease of migration energy of vacancies calls increase the period and amplitude of autooscillations.

Keywords: autooscillations, thermoconcentration instabilities, dislocations, theoretical model.