

Effect of laser irradiation on the photoconductivity and noise in $n\text{-Cd}_x\text{Hg}_{1-x}\text{Te}$ single crystals

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Abstract

The effect of nanosecond laser radiation on the photoconductivity and $1/f$ noise in $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ crystals has been investigated. It is shown that laser irradiation decreases the photosensitivity of the samples and produces a short-wavelength shift of the maximum and the long-wavelength edge of the photoconductivity spectrum. The intensification of $1/f$ noise and the increase in its frequency are due to a laser-induced increase in the defect density in the material.

Keywords :

Radiation Laser Irradiation Magnetic Material Electromagnetism Defect Density

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Additional information

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