

Nonlinear Photomagnetolectric (PME) Effect in Bi by Laser Irradiation*

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Abstract

The transverse (nonoscillatory) and longitudinal (oscillatory) photomagneto-electric effects have been measured with single crystals of Bi under pulsed illumination by a Q-switched Nd-laser (wavelength: 1.06μ) with its peak intensity range from 10^3 to 10^6 W/cm.² The superlinearity in the PME voltage is observed for the Faraday configuration for the beam intensity above 1.4×10^5 W/cm.²

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