NONLINEAR OPTICAL RESPONSE OF SMECTIC GLASSES BASED ON COBALT ALKANOATES

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S u m m a r y

The nonlinear-optical response of anisotropic smectic glasses based on cobalt-alkanoates is studied using the method of dynamic holography. Laser-induced dynamic gratings under the action of nanosecond laser pulses are observed and analyzed for such materials. It is found that a cubic optical nonlinearity of all studied anisotropic glasses is of electronic origin in the nanosecond diapason and caused by a nonlinear polarization of cobalt-alkanoates complexes.