

OPTICAL KERR EFFECT IN PHOTOREFRACTIVE
 $\text{Bi}_{12}\text{SiO}_{20}$ CRYSTAL

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S u m m a r y

We present the experimental evidence for the strong optical Kerr effect in photorefractive $\text{Bi}_{12}\text{SiO}_{20}$ crystals. Our theoretical analysis shows an enhancement of the diffraction efficiency caused by the optical Kerr effect, when the photorefractive grating in this crystal is illuminated by high-intensity pulsed light.