## Abstract Submitted for the OSS05 Meeting of The American Physical Society

Phase conjugation, isotropic and anisotropic higher order diffraction generation, and image correlation using photorefractive barium titanate PRATHAN BURANASIRI, PARTHA BANERJEE, Department of Electrical and Computer Engineering, University of Dayton — Using barium titanate as the photorefractive material, we demonstrate phase conjugation, beam coupling, higher diffraction order generation. At small incident angles less than 0.015 radian, both codirectional isotropic self-diffraction (CODIS) and contradirectional isotropic self-diffraction (CONDIS) are generated simultaneously. At bigger incident angles approximately more than 0.2094 radian, only codirectional anisotropic-self diffraction (CODAS) are generated. On going imaging correlation is also showing.

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Date submitted: 18 Mar 2005 Electronic form version 1.4