Abstract Submitted for the MAR05 Meeting of The American Physical Society

Anomalous space-charge field enhancement in Fe:KNbO3 GARY COOK, WPAFB, DEAN EVANS, WPAFB, SERGEI BASUN, A. F. Ioffe Physico-Technical Institute, JENNIFER GIBSON, WPAFB, MOHAMMAD SALEH, WPAFB, WPAFB TEAM, A. F. IOFFE PHYSICO-TECHNICAL INSTITUTE TEAM — Photorefractive measurements on Fe:KNbO3 using self-pumped two-wave mixing have revealed the formation of a large bulk electric field with characteristics similar to those arising from the photovoltaic effect. The magnitude of the field necessary to account for the observed optical effects is much greater than the directly measured photovoltaic field.

Gary Cook WPAFB

Date submitted: 01 Dec 2004 Electronic form version 1.4