

Abstract Submitted
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Characterization of Refractive Index for Potassium Terbium Fluoride. JOHN KUNKEL, SAID ELHAMRI, Department of Physics, University of Dayton, Dayton, Ohio, D. E. ZELMON, Materials and Manufacturing Directorate, Wright-Patterson AFB, OH — Potassium Terbium Fluoride (KTF) has the potential for application as an effective optical isolator. It would be valuable for use in high-power laser systems to prevent reflected beams from coupling back into the pump laser. Characterization of the material, including the dependence of the refractive index on wavelength and temperature, are important for incorporating KTF into these laser systems. The method of minimum deviation was used to measure the refractive index for wavelengths ranging from 0.400 to 5.20 microns and in temperatures ranging from 20 to 225C. Results of this characterization will be presented.

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