Photorefractive Fiber and Crystal Devices: Materials, Optical Properties, and Applications VII, and Optical Data Storage Proc. SPIE., Volume 4459, Pages 65-70 SPIE--The International Society for Optical Engineering

Angular Multiplexing with Spherical Reference Wave and the Application Sun, Ching-Cherng; Hsu, Chih-Yuan; Su, Wei-Chia; Yuh Ouyang

Abstract

We have studied the characteristic of the angular multiplexing with spherical reference wave in volume holographic storage. Through the theoretical analysis and the corresponding experimental observation, the angular sensitivity is almost independent of the distances between the point source and the hologram. Accordingly, an all- optical angular sensing system have been proposed and demonstrated.