

Abstract Submitted  
for the OSF07 Meeting of  
The American Physical Society

**Observation of electromagnetically induced transparency (EIT) in Rubidium using the Hanle Effect<sup>1</sup>** SAMIR BALI, IRIS ZHANG, Miami University — We have observed strong EIT signals in room temperature Rubidium vapor using an especially simple experimental setup involving just a single linearly polarized light beam and a collinear magnetic field. The use of a magnetic field to split the linearly polarized light into two effective beams of opposite circular polarization, and induce a Dark state between the Zeeman sublevels of the ground state is known as the Hanle configuration for EIT. We have also observed preliminary signatures of electromagnetically induced absorption (EIA).

<sup>1</sup>We gratefully acknowledge financial support from Research Corporation and the Petroleum Research Fund.

Samir Bali  
Miami University

Date submitted: 02 Oct 2007

Electronic form version 1.4