Abstract Submitted
for the DAMOP10 Meeting of
The American Physical Society

Polarization Rotation and Circular Dichroism Near the Potassium D2 Lines CHARLES CONOVER, HTET THIHA, JENNIFER DAHNKE, Colby College — We have experimentally measured the Faraday rotation and the differential absorption of the two circular polarizations for light tuned near the D2 line in potassium (766.7 nm). In particular we have explored the vapor temperature and magnetic field dependence of the frequency of the zero crossings of the lineshapes from the circular analyzer and the balanced polarimeter used in the measurements. These signals are routinely used as frequency references for laser locking and we discuss the sensitivity to experimental parameters.

Charles Conover
Colby College

Date submitted: 22 Jan 2010 Electronic form version 1.4