

Abstract Submitted
for the OSS07 Meeting of
The American Physical Society

Measurement of disorientation cross section in the $^{133}\text{Cs } 6p^2P_{3/2}$ level by circular polarization spectra¹ BURCIN BAYRAM, RAMESH MARHATTA, MATTHEW BRIEL, PRAKASH KOIRALA, Miami University — A measurement of the circular polarization degree of the $6s^2S_{1/2} \rightarrow 6p^2P_{3/2} \rightarrow 10s^2S_{1/2}$ transition in atomic ^{133}Cs has been made. The spectra is dependent on both alignment and orientation created by a circularly polarized light in the $6p^2P_{3/2}$ level of cesium. The cross section for disorientation of optically oriented $6p^2P_{3/2}$ cesium atoms, induced in collisions with argon noble gases have been extracted from the two-photon double-resonance circular polarization spectra. Experimental details and the results will be presented.

¹Support by Research Corporation under the grant number CC6119C is gratefully acknowledged

Burcin Bayram
Miami University

Date submitted: 13 Apr 2007

Electronic form version 1.4