

COLLISIONAL DEPolarIZATION OF ZEEMAN COHERENCES IN THE  $^{133}\text{Cs } 6p^2P_{3/2}$  LEVEL WITH ARGON MOLECULES: TWO-PHOTON POLARIZATION SPECTROSCOPY

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An experimental investigation of the Cs  $6s^2S_{1/2} \rightarrow 6p^2P_{3/2} \rightarrow 10s^2S_{1/2}$  double resonance two-photon polarization spectrum has been made. In the investigation, a linear polarization degree was measured to extract the alignment depolarization cross section in the cesium  $6p^2P_{3/2}$  level due to collisions between ground-level argon and excited  $6p^2P_{3/2}$  cesium atoms over the Zeeman coherences. The spectra show strong depolarization of the Cs  $6p^2P_{3/2}$  level. The measured alignment depolarization cross section value of  $186(58)\text{\AA}^2$  is in good agreement with experiment and theoretical predictions.

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