

OBSERVATION OF CPT FOR THE GROUND HYPERFINE INTERVAL IN ^{133}CS

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We use the technique of coherent population trapping (CPT) to access the ground hyperfine interval (clock transition) in ^{133}Cs . The probe and control beams required for CPT are obtained from a single compact diode lasers system. The phase coherence between the beams, whose frequency difference is the clock frequency, is obtained by frequency modulating the laser with an electro-optic modulator (EOM). The EOM is fiber coupled and hence does not require alignment, and the atoms are contained in a vapor cell. Both of these should prove advantageous for potential use as atomic clocks in satellites.
