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Observation of single Cs atoms in a far detuned optical bottle beam trap[1] SIYUAN ZHANG, GANG LI, KARA MALLER, MARK SAFFMAN, University of Wisconsin — We report on observation of single Cs atoms in a far detuned optical bottle beam (BoB) trap. The BoB is formed by crossed 532 nm vortex beams which are projected through a single lens. Ground state trapping with a lifetime of several seconds is obtained. We will discuss the prospects for quasi-magic trapping of both ground and Rydberg atoms in the BoB using additional compensation fields.

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