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Trapping single Cs atoms in an optical bottle beam[1] SIYUAN ZHANG, KARA MALLER, University of Wisconsin, JOHANNES NIPPER, University of Stuttgart, MARK SAFFMAN, University of Wisconsin — We have implemented a microscopic optical bottle beam (BoB) trap using 532 nm light focused to waists of $w = 2$ and 4 μm. We obtain calculated trap depths > 100 μK. The BoB trap has the potential for stable trapping of both ground state and Rydberg atoms. We have superimposed the BoB trap with a Cs magneto-optical trap, and will report progress towards observation of single trapped Cs atoms.

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