

Abstract Submitted
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Limitations to the Number of ^{85}Rb and ^{87}Rb Atoms Simultaneously Confined in a Shallow Optical Trap.¹ ANTHONY GORGES, Colorado State University, MATHEW HAMILTON, Colorado State University, JACOB ROBERTS, Colorado State University — Simultaneously loading ^{85}Rb and ^{87}Rb into an optical trap has led to the observation of unexpected interferences. Not only will the presence of one species reduce the load rate into the trap of the other, but additionally the maximum number which can be loaded into the trap is greatly reduced as well. The reduction in maximum number is greater than expected from the measured light-assisted collisional loss rate. Rather, the presence of atoms in the trap interferes with subsequent loading. We present our observations characterizing the interference in the loading of atoms into the shallow optical trap.

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