

Abstract Submitted
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Towards quantum degeneracy in ultracold neutral strontium S.B.

NAGEL, A.D. SAENZ, Y.N. MARTINEZ, P.G. MICKELSON, Rice University,
Y.C. CHEN, Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei,
Taiwan, T.C. KILLIAN, Rice University — We report continued studies of ultracold
neutral Strontium in a magneto-optical trap operating on the 1S_0 - 3P_1 intercombi-
nation line at 689 nm. Our recent determination of the 1P_1 atomic lifetime via
photoassociative spectroscopy at extremely large internuclear separation has moti-
vated the construction of an apparatus including a new dipole trap. Adding a dipole
trap will allow us to achieve higher densities in the pursuit of quantum degeneracy
in Strontium.

P.G. Mickelson
Rice University

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