

Abstract Submitted
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Progress towards a degenerate gas of strontium D.S. BARKER, B.J. RESCHOVSKY, J.A. PECHKIS, N.C. PISENTI, G.K. CAMPBELL, Joint Quantum Institute, University of Maryland and NIST — We report on progress towards creating degenerate gases of strontium for use in optical lattice experiments. We have recently created and characterized a MOT capable of trapping either ^{87}Sr or ^{88}Sr on the broad, 461 nm cycling transition. Our diagnostics focus on using the MOT as a source of cold 3P_2 atoms, which are continuously loaded into a magnetic trap. We also investigate sub-Doppler cooling of the fermionic isotope and the possibility of loading these atoms directly into an optical dipole trap.

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