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Repumping of ultracold strontium atoms using the $^3P_2$ - $^3D_2$ transition[1] P.G. MICKELSON, Y.N. MARTINEZ DE ESCOBAR, A.J. TRAVERSO, T.C. KILLIAN, Rice University — We discuss recent experiments involving ultracold strontium. Using a commercially-available 3 micron laser, we repump atoms out of the $^3P_2$ level via the $^3D_2$ state and gain almost a factor of 10 in the number of atoms in our system. This increase in the signal-to-noise ratio enables improved spectroscopy of strontium in our optical trap.

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