

Abstract Submitted
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Manipulation of Ultracold Radium Atoms for a Nuclear EDM Measurement M.R. DIETRICH, K. BAILEY, J.P. GREENE, R.J. HOLT, Argonne National Lab, M. KALITA, W. KORSCH, University of Kentucky, Z.-T. LU, P. MUELLER, Argonne National Lab, R.H. PARKER, University of Chicago, J. SINGH, Argonne National Lab, I.A. SULAI, University of Chicago, T.P. O'CONNOR, Argonne National Lab — We describe recent progress towards measurement of the nuclear electric dipole moment (EDM) of radium. Neutral ultracold radium is loaded from a magneto-optic trap into an optical dipole trap (ODT), which is mechanically translated to move the radium into the science region. Here the atoms are observed and transferred into a second ODT suitable for EDM measurements. Short and long term prospects for upcoming permanent EDM measurements are discussed. Research supported by DOE, Office of Nuclear Physics, under contract DE-AC02-06CH11357.

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