

Abstract Submitted
for the DAMOP16 Meeting of
The American Physical Society

Realization of an Er 2D MOT for a Na+Er mixture experiment

NEIL ANDERSON, SWARNAV BANIK, MONICA GUTIERREZ, AVINASH KUMAR, STEPHEN ECKEL, GRETCHEN CAMPBELL, Joint Quantum Institute (NIST/UMD) — We have realized a dual-species sodium and erbium 2D MOT. This compact source allows us to rapidly switch between loading either species into 3D MOTs in a main chamber. We have characterized the flux from this source and the resulting loading rates into the 3D MOTs. This new source opens possibilities of studying lanthanide-alkali collisions and Feshbach spectra, possibly opening new pathways to realizing interesting quantum many body systems.

Neil Anderson
Joint Quantum Institute (NIST/UMD)

Date submitted: 29 Jan 2016

Electronic form version 1.4