Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Towards Ultracold Mixtures of Lithium and Cesium ASAF PARIS-MANDOKI, JONATHAN NUTE, MATT JONES, RAGHAVAN KOLLENGODE EASWARAN, SONALI WARRIAR, LUCIA HACKERMUELLER, University of Nottingham — Ultracold mixtures hold the promise of understanding new phases of matter and collisions at very low energies. We are setting up an experiment for bose-fermi mixtures of ^{6}Li and ^{133}Cs, which are especially well suited to study impurities, transport, solitons or mixtures in optical lattices. Here we present the current status of our experiment. We detail the cooling schemes for the two atom species and include the recent development of implementing evaporative cooling to produce a molecular BEC of ^{6}Li. We discuss our contribution to the Quantum Integrated Light and Matter Interface European collaboration (QuILMI) about coupling cesium atoms to waveguides in a test-chip.

Asaf Paris-Mandoki
University of Nottingham

Date submitted: 17 Dec 2013 Electronic form version 1.4