

Abstract Submitted  
for the DAMOP18 Meeting of  
The American Physical Society

**Apparatus for Laser-Cooling and Trapping Potassium** KELLAN KREMER, MATT BUTSCHEK , JONATHAN WRUBEL , Creighton Univ — We present our apparatus for laser cooling and trapping potassium atoms. The apparatus utilizes a compact permanent-magnet 2D magneto-optical trap (MOT) as a low-velocity intense source for the 3D MOT. The science chamber is an octagonal glass cell chosen to allow for precise control over the magnetic field at the atoms. The goal of the apparatus is to study the hyperfine (radio-frequency) Feshbach resonance, which requires excellent magnetic field stability.

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Date submitted: 26 Jan 2018

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