Abstract Submitted
for the DAMOP08 Meeting of
The American Physical Society

A wide-open molecular magnetic trap for collision studies[1] BENJAMIN STUHL, JILA / University at Colorado Boulder, BRIAN SAWYER, MARK YEO, DAJUN WANG, BENJAMIN LEV, JUN YE — Cold molecular collision studies hold the potential of revolutionizing our understanding of chemical and molecular dynamics, both on Earth and astrophysically. Toward this end, we have developed and implemented a magneto-electrostatic trap with near-360 $^\circ$ circumferential access for optical or molecular beam probes. The trap has demonstrated almost optimal loading efficiency, yielding a trapped density of 10^6 cm^{-3} at a temperature of 70 mK. We also report further progress towards the goal of cold molecular collisions.

[1]We gratefully acknowledge funding from NSF, DOE, NIST, and NRC.

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Date submitted: 01 Feb 2008 Electronic form version 1.4