

Abstract Submitted
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Laser cooling and trapping of YO SHIQIAN DING, ALEJANDRA COLLOPY, YEWEI WU, JILA, University of Colorado Boulder, EUNMI CHAE, AAKASH RAVI, LOIC ANDEREGG, BENJAMIN AUGENBRAUN, JOHN DOYLE, Harvard University, JUN YE, JILA, University of Colorado Boulder — Using microwave mixing of rotational states and only two vibrational repump lasers, we implement a cycling transition in the yttrium (II) monoxide (YO) molecule that is closed to the 10^6 level. With this cycling transition, a beam of YO from a two-stage cryogenic buffer gas cell is decelerated by the slowing lasers with broadband modulation and frequency chirping. The resulting decelerated molecules (less than 10 m/s) are slow enough to be loaded into a magneto-optical trap. We present progress towards loading into our radio frequency (5 MHz) MOT.

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