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Toward a 2-D magneto-optical trap for polar molecules<sup>1</sup> MATTHEW HUMMON<sup>2</sup>, BENJAMIN STUHL, MARK YEO, ALEJANDRA COL-LOPY, JUN YE, JILA, University of Colorado, Boulder — The additional structure that arises from the rotational degree of freedom in diatomic molecules makes difficult the adaptation of a traditional atomic magneto-optical trap (MOT) for use with molecules. We describe progress toward development of a 2-D MOT for laser cooled yttrium monoxide molecules based on a resonant LC baseball coil geometry.

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