

Abstract Submitted
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Autoionization of HfF for an electron EDM search HUANQIAN LOH, RUSSELL STUTZ, MATTHEW GRAU, ERIC CORNELL, JILA / University of Colorado — The $^3\Delta_1$ state of HfF^+ has been proposed as a candidate for the search for an electron electric dipole moment (eEDM). Neutral HfF molecules are created upon laser ablation of a Hf target in the presence of Ar + 1%SF₆, and cooled rotationally via supersonic expansion. The neutral molecules are optically excited with two photons to an autoionizing state, from which they decay to form ions. We report on progress to measure the rotational populations of the autoionization decay products, using laser-induced fluorescence of ions excited on the $^1\Sigma_0 \rightarrow ^3\Pi_1$ line.

Huanqian Loh
JILA / University of Colorado

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