

Abstract Submitted
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Trapping and Spectroscopy of Singly- and Doubly-charged Ytterbium Ions¹ MARTIN SCHAUER, JUSTIN TORGERSON, DAVID FELDBAUM, Los Alamos National Laboratory, TUAN NGUYEN, University of Pittsburgh, LIBANG WANG, National Tsing Hua University, XINXIN ZHAO, Los Alamos National Laboratory — Forbidden optical transitions in Ytterbium ions have been shown to possess both high sensitivity to possible time variation of the Fine Structure Constant and low sensitivity to external field perturbations. Of specific interest in this regard are the $^1S_0 - ^3P_0$ transition in Yb^{2+} and the $^2S_{1/2} - ^2D_{3/2}$ electric quadrupole transition in Yb^+ . We describe recent progress in trapping Yb^{2+} and report on initial spectroscopic work on Yb^+ and Yb^{2+} .

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