

Abstract Submitted
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Search for the electric dipole moment of the electron with thorium monoxide NICHOLAS HUTZLER, Harvard University, WES CAMPBELL, University of Maryland, YULIA GUREVICH, PAUL HESS, Harvard University, EMIL KIRILOV, Yale University, MAXWELL PARSONS, ELIZABETH PETRIK, BENJAMIN SPAUN, Harvard University, AMAR VUTHA, DAVID DEMILLE, Yale University, GERALD GABRIELSE, JOHN DOYLE, Harvard University — The thorium monoxide molecule (ThO) in its metastable H state is a promising system for measuring or improving the limit on the permanent electric dipole moment of the electron (eEDM). We report on progress towards using ThO to measure the eEDM with a high-flux molecular beam. A cryogenic beam source has been constructed and is undergoing characterization and optimization. We also report on some preliminary realizations of state preparation and detection of laser-induced blue-shifted fluorescence from the EDM-sensitive H state.

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