

Abstract Submitted
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Progress towards measurement of the electron electric dipole moment using the $^{207}\text{Pb}^{19}\text{F}$ molecule CHRISTOPHER MCRAVEN, MILINDA RUPASINGHE, TAO ZHENG YANG, POOPALASINGAM SIVAKUMAR, NEIL SHAFER-RAY, Homer L. Dodge Department of Physics and Astronomy, University of Oklahoma — The lead monofluoride molecule provides for a 1000- to 10,000-fold improvement in sensitivity to an electron electric dipole moment (e-EDM) over atomic-based measurements. In addition, unexpectedly closely spaced energy levels of opposite parity in the electronic ground state of $^{207}\text{Pb}^{19}\text{F}$ along with its large dipole moment make this molecule an attractive candidate for improving the limit on the e-EDM. We present our progress towards a measurement of the e-EDM using $^{207}\text{Pb}^{19}\text{F}$, including a recently developed pseudo-continuous REMPI technique for detection from an effusive source.

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