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Progress towards measurement of the electron electric dipole moment using the PbF molecule: Continuous ionization of PbF MILINDA RUPASINGHE, CHRISTOPHER MCRAVEN, POOPALASINGAM SIVAKUMAR, NEIL SHAFER-RAY, 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 a pulsed laser detection scheme, the technique of resonance enhanced multi photon ionization (REMPI) is typically 100 to 10,000 times more sensitive than laser induced florescence (LIF). In a pseudo continuous detection scheme, much higher data collection rates can be achieved compared to a pulsed laser detection scheme. Here we present the recent data collected using a pseudo continuous ionization scheme.

Priyanka Rupasinghe
University of Oklahoma

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