

## VOLTAGE CONTROLLED GEOMETRIC PHASE ROTATION IN $^{208}\text{Pb}^{19}\text{F}$ .

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Many theoretical publications have investigated the impact of the geometric phase on measurements of the  $e$ -EDM. However, there has been surprisingly little quantitative comparison of these models with experiment. Here we create a quantum beat experiment that starts with an optical pump and ends with an optical probe of  $^{208}\text{Pb}^{19}\text{F}$ . This measurement includes the ability to control a geometric phase variation of the molecular alignment by applying an appropriate bias voltage. These experiments will then used to test the accuracy of our model calculations of geometric phase rotation.