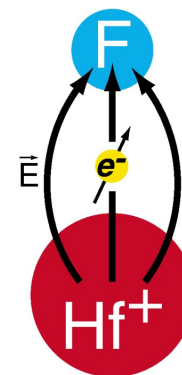


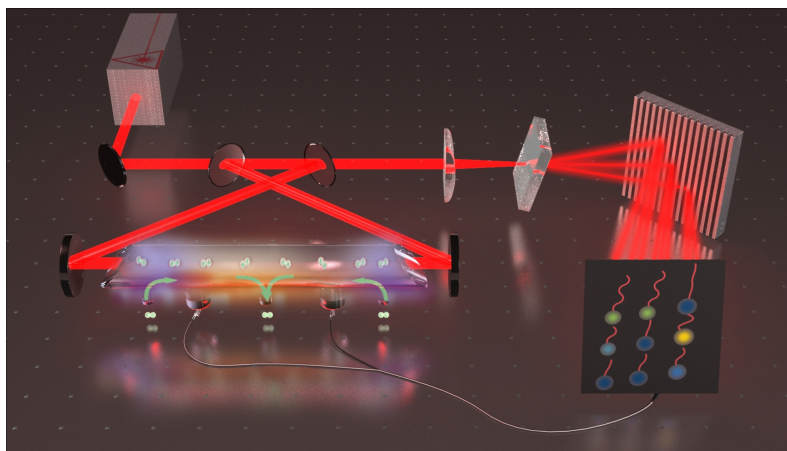
# Trapped HfF<sup>+</sup> for a JILA eEDM search<sup>[1]</sup>

To reach current limit of  $10.5 \cdot 10^{-28}$  e-cm in 1 hour:

$$\epsilon_{\text{eff}} \sim 24 \text{ GV/cm}; \tau_{\text{coherence}} = 0.25\text{s}; N = 2/\text{shot}$$

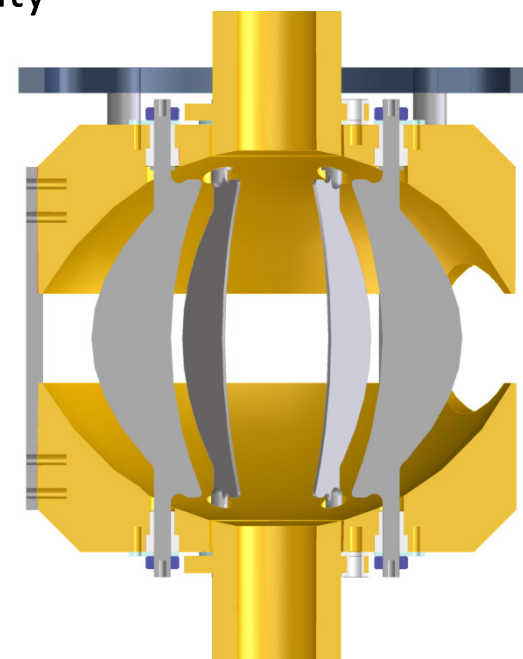
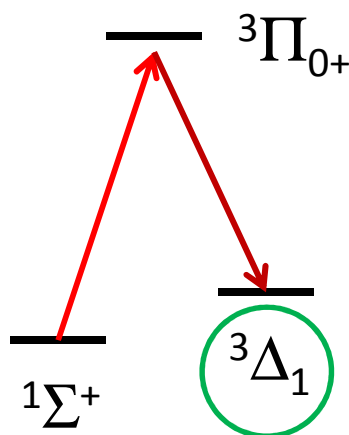


## Current status:



- Mapped out HfF<sup>+</sup> energy levels up to  $15000 \text{ cm}^{-1}$
- Identified promising transitions for population transfer to  $^3\Delta_1$

- Prepared 300 ions in a single Zeeman, rovibronic level
- Trapped HfF<sup>+</sup> in RF Paul trap designed for fluorescence photon collection + field uniformity



<sup>[1]</sup> JILA eEDM team, J Mol Spectrosc, 270, 1 (2011) and references therein