Supporting Information

UV and IR Spectroscopy of Cryogenically Cooled, Lanthanide-Containing Ions in the Gas Phase

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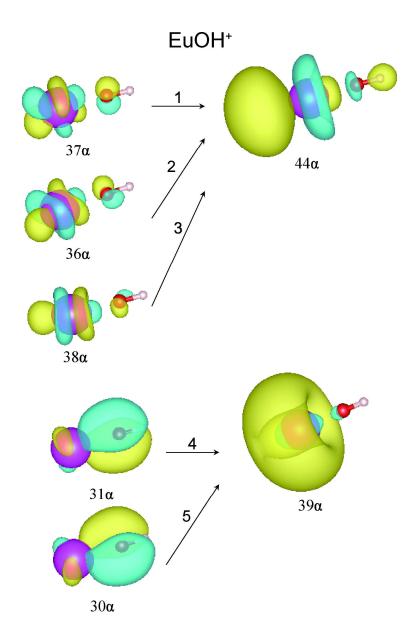


Figure S1. The MOs that contribute the most to the electronic transitions of the EuOH⁺ ion.

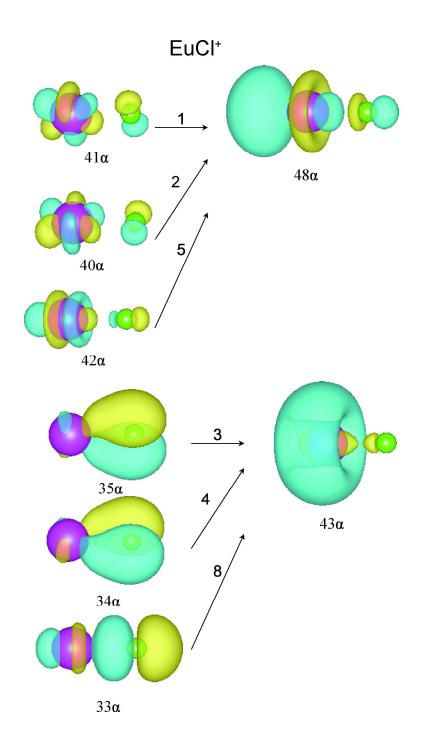


Figure S2. The MOs that contribute the most to the electronic transitions of the EuCl⁺ ion.

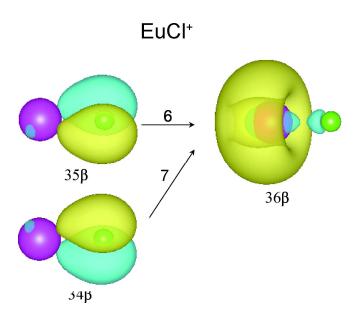
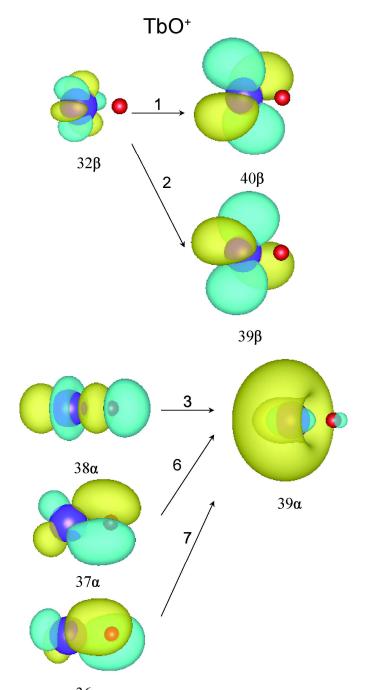


Figure S2. cont.



 $\frac{36\alpha}{\text{Figure S3.}} \quad \text{The MOs that contribute the most to the electronic transitions of the TbO}^{^+} \, \text{ion.}$

