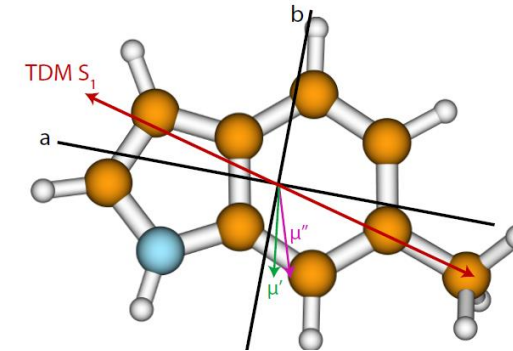


# P5614: ROTATIONALLY RESOLVED $S_1 \leftarrow S_0$ ORIGIN BANDS OF DIFFERENT METHYLINDOLES AND THEIR INTERNAL ROTATION EFFECTS

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- Investigation of 6-methylindole *via* high resolution laser induced fluorescence spectroscopy
- Evaluation *via* evolutionary algorithms & Comparison to *ab initio* calculations
- A- and E-subband due to the  $0a_1 \leftarrow 0a_1$  and  $1e \leftarrow 1e$  torsional transitions;  $\Delta EA \sim 90$  GHz
- Comparison to indole:  
Lowest excited singlet state could be shown to be of  $^1L_b$  state depending on TDM orientation, permanent dipole moment in ground & first excited state, orbital contribution to the excitation



A-subband      E-subband

