P4839: *Low-Barrier Proton-Transfer Dynamics in 6-Hydroxy-2-Formylfulvene (HFF)*

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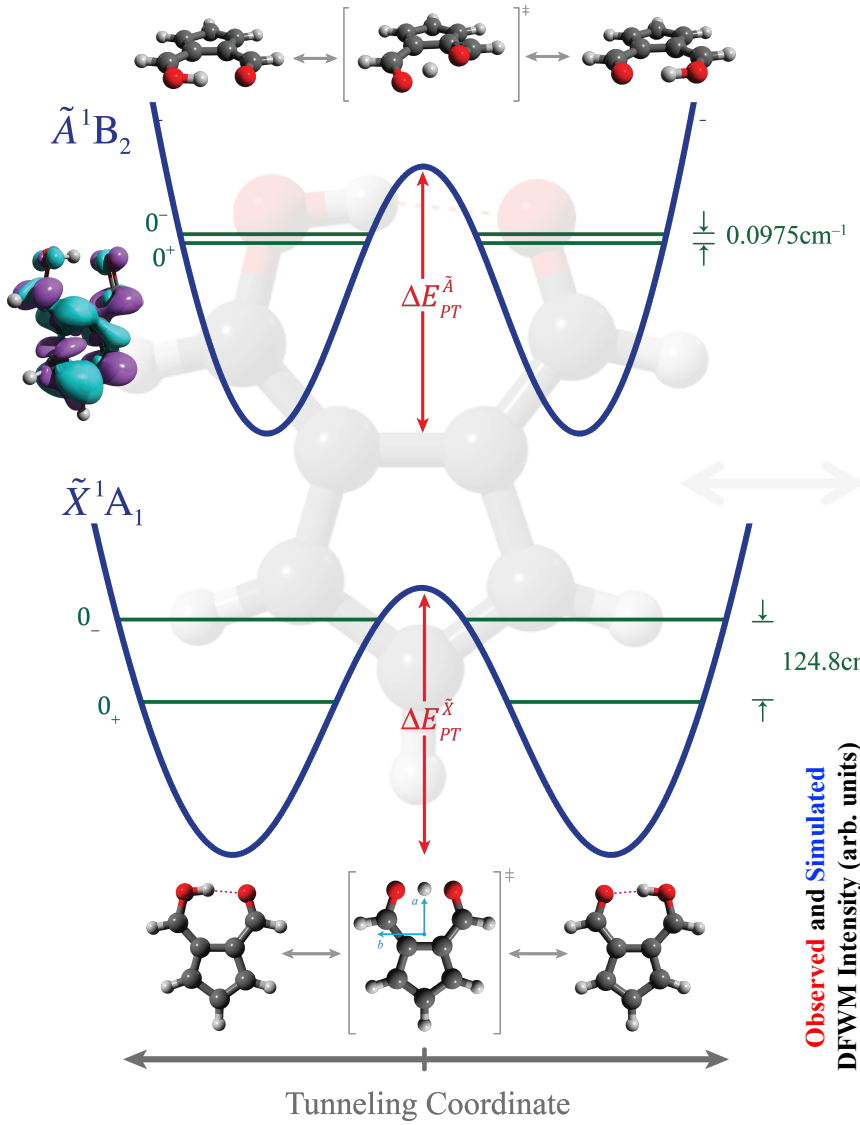
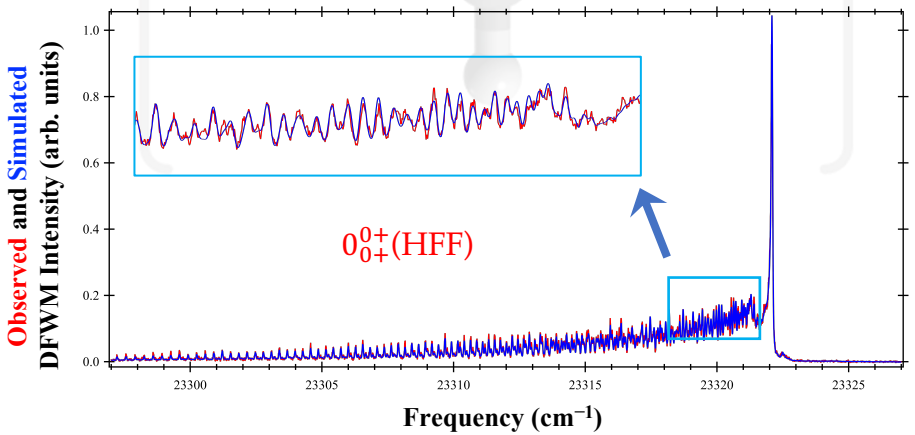
$\tilde{A}\,^1B_2 - \tilde{X}^1A_1$ ($\pi^*\leftarrow\pi$) *Electronic System of HFF*



- *As a model system, 6-hydroxy-2-formylfulvene* (HFF) *affords a potent & flexible platform for studying low-barrier hydrogen bonding* (LBHBing).
- *Evidence for ultrafast proton-transfer dynamics commensurate with the onset of* LBHBing *has been uncovered in the ground electronic state* ($\Delta_0^{\tilde{X}} \approx 125\ cm^{-1}$).
- *Lack of discernable excited-state spectral bifurcation suggest an aplanar reaction coordinate that suppresses tunneling dynamics* ($\Delta_0^{\tilde{A}} \approx 0.1\ cm^{-1}$).
- *Probes of in-plane fundamentals for electronically-excited species show only modest changes in tunneling behavior relative to vibrationless level.*

Degenerate Four-Wave Mixing (DFWM) *Spectroscopy*



Fluorescence-Based (LIF & DF) *Spectroscopy*