

The Effect of Ag^+ on the Excited State Properties of Gas Phase (Cytosine) $_2\text{Ag}^+$ Complex: Electronic Transition and Estimated Lifetime

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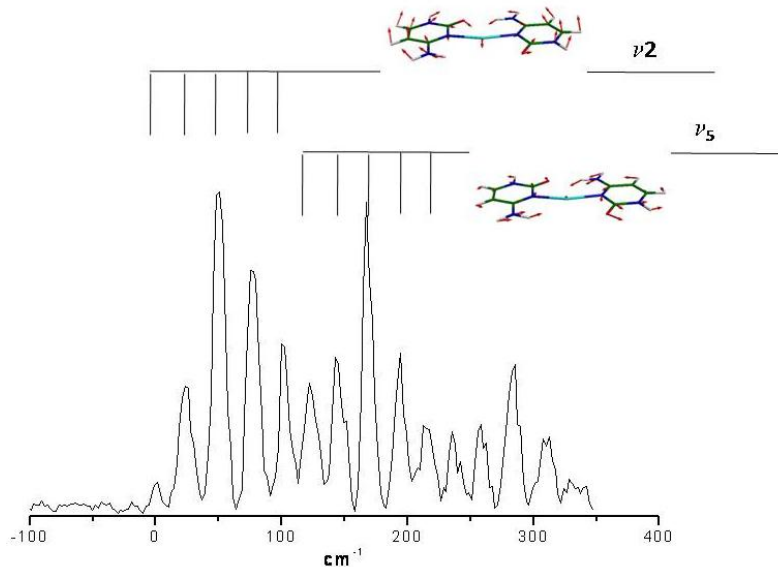


Figure S1: Low frequencies active modes of the C_2Ag^+ cluster. The experimental spectrum of the C_2Ag^+ complex shows a very low vibrational frequency progression ($\nu = 24\text{ cm}^{-1}$) and another one at 123 cm^{-1} which correspond to in-plane intermolecular bending modes (N- Ag^+ -N angle), $\nu_2=33\text{ cm}^{-1}$ and $\nu_5=95\text{ cm}^{-1}$ as calculated in the ground state geometry at the MP2/SV(P) theory level.

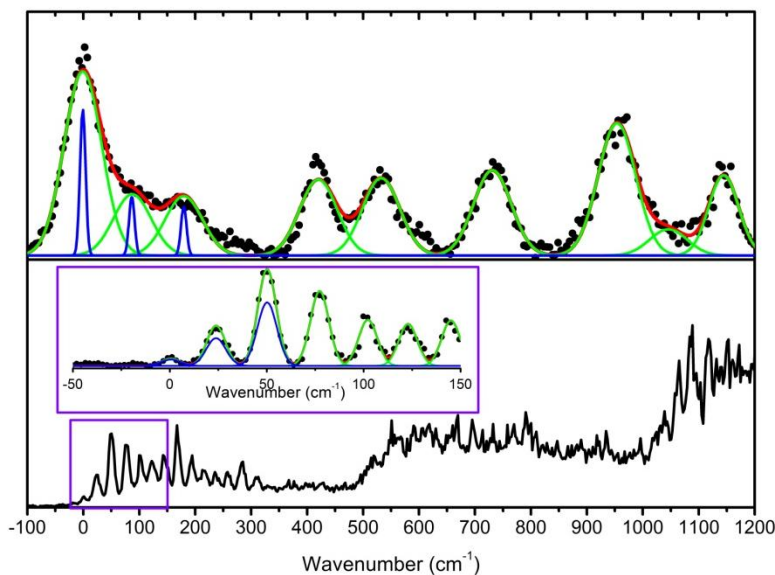


Figure S2: Low energy part of the spectra of the C_2H^+ (a) and C_2Ag^+ (b) complexes. In panel (b) the inset shows an amplification with better resolution of the first 150 cm^{-1} of the spectrum of the C_2Ag^+ complex, in which a low vibrational frequency progression composed of narrow bands is observed. The vibrational bands were fitted to Voigt (green line). For comparison, the intrinsic Gaussian profile of the laser was added in blue lines.