

ACETYLENE DISPERSED FLUORESCENCE SPECTRA ABOVE THE ISOMERIZATION BARRIER

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Dispersed fluorescence spectra of the acetylene $\tilde{A} \rightarrow \tilde{X}$ system have been recorded, and observed transitions in these spectra have been assigned which terminate on eigenstates with greater than $15,000 \text{ cm}^{-1}$ of internal energy. Results for both $^{13}\text{C}_2\text{H}_2$ and $^{12}\text{C}_2\text{H}_2$ will be discussed, as well as implications for acetylene-vinylidene isomerization, which is expected to become feasible at $15,200 \text{ cm}^{-1}$.^a

^aJ. F. Stanton and J. Gauss, *J. Chem. Phys.* **110**, 1831 (1999).