Abstract Submitted
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Infrared Spectroscopy of Germanium-Carbon Clusters: $\nu_4(\sigma_u)$ mode of GeC_5Ge[1] ERIC GONZALEZ, C.M.L. RITTBY, W.R.M. GRAHAM, TCU — Recent results will be presented from FTIR (Fourier transform infrared) and DFT (density functional theory) studies of the vibrational fundamentals and structures of germanium-carbon clusters trapped in solid Ar. The linear germanium-carbon cluster GeC_5Ge has been detected using FTIR spectra generated when products from the dual laser evaporation of Ge and C rods are trapped in solid Ar matrices at ∼10 K. Comparison of frequencies and ^{13}C isotopic shift measurements with the predictions of DFT calculations at the B3LYP/cc-pVDZ level confirms the identification of the $\nu_4(\sigma_u)$ mode of GeC_5Ge at 2158.0 cm^{-1}.

[1]The Welch Foundation.

Eric Gonzalez
TCU

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