

INFRARED SPECTRA OF ACETYLENE-NITROUS OXIDE TRIMERS: THE $(\text{N}_2\text{O})_2\text{-C}_2\text{H}_2$ AND $(\text{N}_2\text{O})_2\text{-C}_2\text{D}_2$

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The spectra of the $(\text{N}_2\text{O})_2\text{-C}_2\text{H}_2$ and $(\text{N}_2\text{O})_2\text{-C}_2\text{D}_2$ trimers in the region of the N_2O ν_1 fundamental (2224 cm^{-1}) are observed using a tuneable diode laser to probe a pulsed supersonic slit jet expansion. The observed bands have c- and b-type rotational structure and the trimer has C_2 symmetry. The structure of the trimer can be thought of as a nonpolar N_2O dimer with a C_2H_2 monomer lying above the dimer plane. Search for the other possible isomers of the trimer is currently underway.