INFRARED SPECTRA OF ACETYLENE-NITROUS OXIDE TRIMERS: THE $(N_2O)_2$-C_2H_2 AND $(N_2O)_2$-C_2D_2

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The spectra of the $(N_2O)_2$-C_2H_2 and $((N_2O)_2$-C_2D_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.