

THE FT MICROWAVE SPECTRA AND STRUCTURE OF THE ARGON AND NEON VAN DER WAALS COMPLEXES OF CYANOCYCLOBUTANE

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The Fourier transform pulsed jet microwave spectra of the argon and neon van der Waals complexes of cyanocyclobutane have been observed and assigned from 5 to 26 GHz. The position of the rare gas is analogous to that of the argon-chlorocyclobutane complex in that the rare gas is on the same side of the ring as the cyanide group and several Angstroms to the side of the ring away from the C_s plane of the cyanocyclobutane monomer. Isotopologues and the nuclear quadrupole coupling constants will be discussed.