
276	H_6N_2	Ammonia-d_3 dimer	C_s
MW		(weakly bound complex)	(effective symmetry class)
			(large-amplitude motion)
			$(\text{ND}_3)_2$

The observed spectrum is complicated by the threefold internal rotation of the ND_3 subunits, the interchange tunneling of the two subunits, and the inversion of the subunits through their respective centers of masses. These tunneling motions split the rigid-molecule energy levels into 22 components, which all have nonzero statistical weights. Transitions have been assigned for rotation tunneling states correlating to $A - A$ (*ortho-ortho*) combinations of the ND_3 monomer states, where A designates the rovibronic symmetries of the ND_3 subunits. The data have been fit to 0.28 MHz using linear molecule-type energy level expressions to determine rotational constants, band origins, ℓ/K -type doublet constants, and centrifugal distortion constants.

Karyakin, E.N., Fraser, G.T., Loeser, J.G., Saykally, R.J.: J. Chem. Phys. **110** (1999) 9555.

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