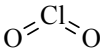


# Structure Data of Free Polyatomic Molecules

<b>140</b>	<b>ClO<sub>2</sub></b>	<b>Chlorine dioxide</b>	<b>C<sub>2v</sub></b>
MW, IR			
	$r_e$ Å	$\theta_e$ deg	
	Cl=O    1.4698235(120)	O=Cl=O    117.40666(100)	

The spectroscopic constants, in particular, in the ground vibrational states have been improved, and the newly derived ground state rotational and quartic centrifugal distortion constants, their vibrational changes, and the sextic centrifugal distortion constants were used together with data from IR studies in a calculation of the force field (up to the quartic force constants) and of the equilibrium structure.

Müller, H.S.P., Sørensen, G.O., Birk, M., Friedl, R.R.: J. Mol. Spectrosc. **186** (1997) 177.

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