

23  
MW

CClIO

Carbon monoxide – iodine chloride (1/1)

(weakly bound complex)

 $C_{\infty v}$ 

(effective symmetry class)

(large-amplitude motion)

CO · ICl

Isotopic species	$r_0(R_{cm})$ [Å] <sup>a)</sup>	$r_0(C...I)$ [Å] <sup>a)</sup>	$\theta_0(\beta)$ [deg] <sup>b)</sup>
O <sup>12</sup> C · I <sup>35</sup> Cl	4.1593(10)	3.0112(10)	4.5(5) <sup>c)</sup>
O <sup>12</sup> C · I <sup>37</sup> Cl	4.1818(10)	3.0115(10)	4.5(5) <sup>c)</sup>
O <sup>13</sup> C · I <sup>35</sup> Cl	4.1363(10)	3.0106(10)	4.5(5) <sup>c)</sup>

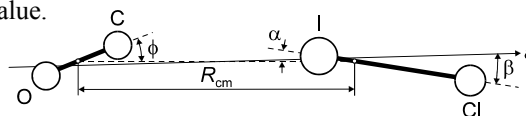
The complex is linear or quasilinear; the nuclei lie in the order OC...ICl. The intermolecular stretching force constant is 8.00 N m<sup>-1</sup>.

<sup>a)</sup> The errors in the distances are those arising from the assumed errors in  $\alpha_{av} = 4.5(5)^\circ$  and

$\phi_{av} = 10(5)^\circ$  (see figure for the definition of these angles).

<sup>b)</sup> See figure for the definition. Average value.

<sup>c)</sup> Assumed.



Davey, J.B., Legon, A.C., Wacławik, E.R.: Phys. Chem. Chem. Phys. **1** (1999) 3097.