

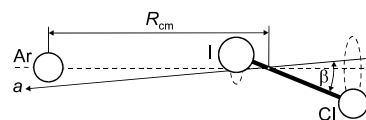
22  
MW

ArCII

Argon – iodine chloride (1/1)  
(weakly bound complex) $C_{\infty v}$   
(effective symmetry class)  
(large-amplitude motion)  
Ar · ICl

Isotopic species	$r_0(R_{cm})$ [Å] <sup>a)</sup>	$r_0(\text{Ar} \cdots \text{I})$ [Å] <sup>a)</sup>	$\theta_0(\beta)$ <sup>b)</sup> [deg]
Ar · I <sup>35</sup> Cl	4.0777(20)	3.5757(30)	5.45(1)
Ar · I <sup>37</sup> Cl	4.0996(20)	3.5755(30)	5.37(4)

The complex is linear. The intermolecular stretching wavenumber and force constant are 41.2 cm<sup>-1</sup> and 3.197 N m<sup>-1</sup>, respectively, whereas the values for the bending are 41.8 cm<sup>-1</sup> and  $9.18 \times 10^{-20}$  N m rad<sup>-2</sup>, respectively.



<sup>a)</sup> Uncertainties were not estimated in the original paper.

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

Davey, J.B., Legon, A.C., Wacławik, E.R.: Chem. Phys. Lett. **306** (1999) 133.