

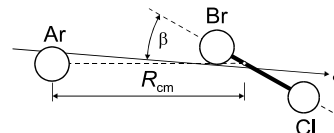
16  
MW

ArBrCl

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

Isotopic species	$r_0(R_{cm})$ [Å] <sup>a)</sup>	$r_0(\text{Ar} \cdots \text{Br})$ [Å] <sup>a)</sup>	$\theta_0(\beta_{av})$ <sup>b)</sup> [deg]
Ar · <sup>79</sup> Br <sup>35</sup> Cl	4.1232(50)	3.4665(50)	6.40(1)
Ar · <sup>79</sup> Br <sup>37</sup> Cl	4.1484(50)	3.4661(50)	6.28(3)
Ar · <sup>81</sup> Br <sup>35</sup> Cl	4.1118(50)	3.4664(50)	6.39(1)
Ar · <sup>81</sup> Br <sup>37</sup> Cl	4.1368(50)	3.4662(50)	6.47(3)

The intermolecular stretching and bending force constants are  $2.79 \text{ N m}^{-1}$  and  $4.7 \times 10^{-20} \text{ J rad}^{-2}$ , respectively.



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

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

Davey, J.B., Legon, A.C., Waclawik, E.R.: Chem. Phys. Lett. **346** (2001) 103.