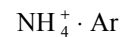
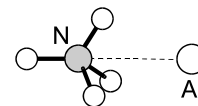


## Structure Data of Free Polyatomic Molecules

32 IR	$\text{ArH}_4\text{N}^+$	<b>Ammonium – argon (1/1)</b> (weakly bound complex)	$\text{C}_{3v}$ (effective symmetry class) (large-amplitude motion)
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$\nu$	Internal rotor substate	$r(\text{N}\dots\text{Ar}) [\text{\AA}]^a$
0	<i>A</i> $K=0$ $i=1$	3.375(1)
	<i>T</i> $K=0$ $i=1$	3.379(2)
	<i>T</i> $K=1$ $i=1$	3.381(2)
1	<i>A</i> $K=1$ $i=1$	3.380(1)
	<i>T</i> $K=1$ $i=2$	3.380(2)
	<i>T</i> $K=2$ $i=2$	3.380(2)



The structure was determined from the rotationally resolved IR photodissociation spectrum of the vibrational band  $\nu_3$ .  
The geometry of the ammonium subunit was assumed to be unchanged upon complexation.

<sup>a</sup>) Twice the estimated standard errors.

Lakin, N.M., Dopfer, O., Howard, B.J., Maier, J.P.: Mol. Phys. **98** (2000) 81.