

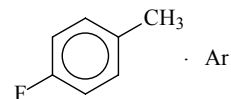
**790**  
MW

**C<sub>7</sub>H<sub>7</sub>ArF**

**1-Fluoro-4-methylbenzene – argon (1/1)**

*p*-Fluorotoluene – argon (1/1)  
(weakly bound complex)

**C<sub>s</sub>**  
(effective symmetry class)  
(large-amplitude motion)

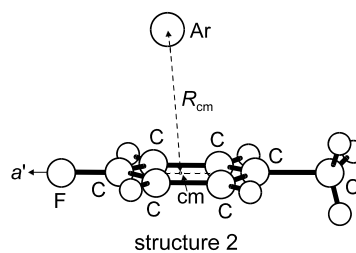
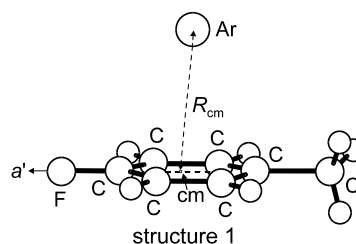


$r_0$	$\text{\AA}$		$\theta_0$	deg	
	structure 1	structure 2		structure 1	structure 2
$a'$ <sup>a)</sup>	-0.281(28)	0.283(28)	Ar...cm...F <sup>b)</sup>	94.53(42)	85.44(42)
$R_{\text{cm}}$	3.555(36)	3.555(36)			

Two possible structures shown in the figures were derived. The argon atom is located 3.541(1) Å above the aromatic ring.

<sup>a)</sup> The  $a'$  coordinate of Ar in the system of *p*-fluorotoluene.

<sup>b)</sup> cm denotes the center of mass of *p*-fluorotoluene.



Rottstegge, J., Hartwig, H., Dreizler, H.: J. Mol. Spectrosc. **195** (1999) 1.