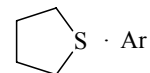


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MW**C₄H₈ArS****Tetrahydrothiophene – argon (1/1)**
(weakly bound complex)**C₁**
(effective symmetry class)
(large-amplitude motion)

r_0	Å
R_{cm}	3.912(8)

θ_0	deg
α^{a}	80.1(16)
φ^{a}	98.5(13) ^b or 69.5(12) ^b

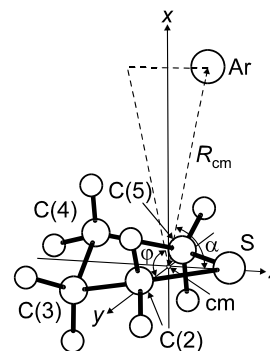


Atom	$ a_0 $ [Å]	$ b_0 $ [Å]	$ c_0 $ [Å]
S	0.95	1.254	0.170

Analysis of the rotational constants has provided two mathematically possible locations for the Ar atom, above or below the ring of tetrahydrothiophene.

^a) The angle α and the dihedral angle φ denote Ar...cm...S and Ar...cm...S–C(2), respectively, where cm is the center of mass of tetrahydrothiophene; see figure.

^b) Two possible values.



Sanz, M.E., Lopez, J.C., Alonso, J.L., Melandri, S., Caminati, W., Favero, P.G.: Phys. Chem. Chem. Phys. **1** (1999) 239.