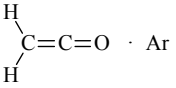
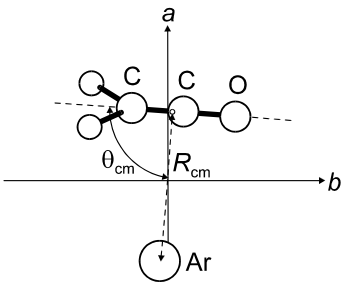
199 **C_2H_2ArO** **Ketene – argon (1/1)** **C_s**
MW Ethenone – argon (1/1) (effective symmetry class)
(weakly bound complex) (large-amplitude motion)



r_0	Å
R_{cm}	3.5868(3)

θ_0	deg
θ_{cm} [a])	96.4(2)

Tunneling of the hydrogen or deuterium atoms splits the *a*- and *b*-type rotational transitions. The spectral data are consistent with a planar geometry with the argon atom tilted toward the carbonyl carbon of ketene by 6.4° from a T-shaped configuration.



[a]) See figure for the definition.

Gillies, C.W., Gillies, J.Z., Amadon, S.J., Suenram, R.D., Lovas, F.J., Warner, H., Malloy, R.: J. Mol. Spectrosc. **207** (2001) 201.

Replaces II/25B(**3**, 576)