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MW**C₄H₇Br****Methylenecyclopropane – hydrogen bromide (1/1)**

(weakly bound complex)

C_s(effective symmetry class)
(large-amplitude motion)

r_0	Å
*...H ^{a)}	2.353(18)

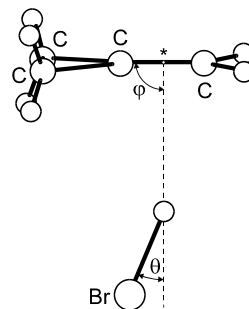
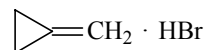
θ_0	deg
β_{av} ^{b)}	20.092(5)
φ ^{c)}	88.8(10)
θ ^{c)}	18.03(23)

The complex has C_s symmetry, with the HBr subunit lying in the principal inertial plane *ab*, which coincides with the molecular symmetry plane. The intermolecular stretching force constant is $k_\sigma = 5.73 \text{ N m}^{-1}$.

^{a)} * denotes the center of the π bond.

^{b)} β is the angle between the instantaneous direction of the HBr axis and its equilibrium direction, and $\beta_{av} = \cos^{-1} \langle \cos^2 \beta \rangle^{1/2}$.

^{c)} See figure for the definition.



Legon, A.C., Lister, D.G.: Phys. Chem. Chem. Phys. **1** (1999) 4175.