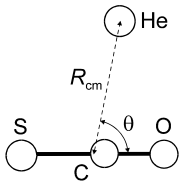
**141** **CHeOS** **Carbonyl sulfide – helium (1/1)** **$C_s$**
IR (weakly bound complex) (effective symmetry class)
(large-amplitude motion)
O=C=S · He




| Isotopic species | $r_0(R_{cm})$ [Å] [a] | $\theta_0$ [deg] [a] [b] |
|---|---|---|
| OCS · $^3$He | 3.966(5) | 64.0(5) |
| OCS · $^4$He | 3.827(5) | 66.1(5) |

The complex has T-shaped configuration. The structure was determined from the rotationally resolved IR spectrum in the region of the $\nu_1$ fundamental band of OCS under the assumption that the bond lengths of the monomers are unchanged upon complexation.

[a]) Uncertainties were not given in the original paper.
[b]) Angle between the OCS figure axis and $R_{cm}$.

Tang, J., McKellar, A.R.W.: J. Chem. Phys. **117** (2002) 2586.