

**273**     **C<sub>2</sub>H<sub>4</sub>OS**

MW, IR

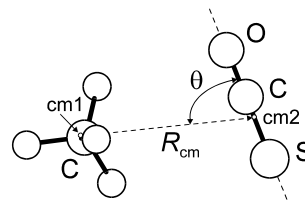
**Methane – carbonyl sulfide (1/1)**

(weakly bound complex)

**C<sub>s</sub>**(effective symmetry class)  
(large-amplitude motion)CH<sub>4</sub> · O=C=S

$r_0$	Å <sup>a)</sup>	$\theta_0$	deg <sup>a)</sup>
$R_{\text{cm}}$	3.83(1)	cm1...cm2–O <sup>b)</sup>	73(1)

Analysis of the spectrum yields a near T-shape structure. Splittings attributed to the internal rotations of methane within the complex have been observed in the MW spectrum.



<sup>a)</sup> Uncertainties were not estimated in the original paper.

<sup>b)</sup> cm1 and cm2 denote the centers of mass of the methane and carbonyl sulfide molecules, respectively.

Hearn, J.P.I., Howard, B.J.: Mol. Phys. **100** (2002) 2679.