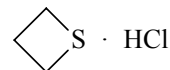
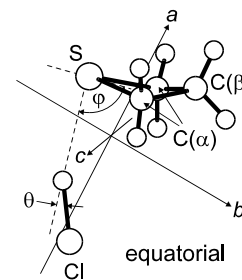
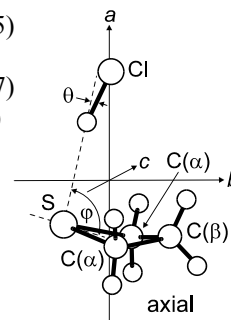


415  
MW $C_3H_7ClS$ **Thietane – hydrogen chloride (1/1)**  
(weakly bound complex) $C_s$   
(effective symmetry class)  
(large-amplitude motion)

$r_0$	$\text{\AA}^a)$		$\theta_0$	$\text{deg}^a)$	
	axial	equatorial		axial	equatorial
S–C( $\alpha$ )	1.82(2)	1.82 <sup>b)</sup>	$\gamma^c)$	24(2)	24 <sup>b)</sup>
C( $\alpha$ )–C( $\beta$ )	1.56(3)	1.56 <sup>b)</sup>	$\psi^d)$	87.0(7)	84.5(15)
C( $\alpha$ )...C( $\alpha$ )	2.287(5)	2.287 <sup>b)</sup>	C–S–C	77.7(11)	
S...Cl	3.539(8)	3.50(3)	$\varphi^e)$	92.1(10)	91.1(17)
S...H	2.28(2)	2.26(6)	$\theta^e)$	14.1(8)	18.4(5)



Two conformers, axial and equatorial, were detected.

<sup>a)</sup> Estimated standard errors.<sup>b)</sup> Assumed.<sup>c)</sup> Puckering angle of the ring.<sup>d)</sup> Angle between S...Cl and the bisector of C–S–C.<sup>e)</sup> See figure for the definition.Sanz, M.E., Lesarri, A., López, J.C., Alonso, J.L.: Angew. Chem.  
**113** (2001) 961; Angew. Chem., Int. Ed. Engl. **40** (2001) 935.