

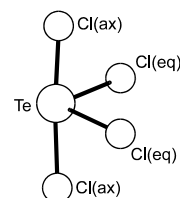
**161**      **Cl<sub>4</sub>Te**ED, *ab initio* calculations,  
vibrational spectroscopy**Tellurium tetrachloride**

Tellurium(IV) chloride

**C<sub>2v</sub>**  
**TeCl<sub>4</sub>**

$r_a$	$\text{\AA}^a$	$\theta_a$	$\text{deg}^a$
Te–Cl(ax)	2.435(5)	Cl(ax)–Te–Cl(ax)	176.4(6)
Te–Cl(eq)	2.294(5)	Cl(eq)–Te–Cl(eq)	103.7(7)

Tellurium dichloride (18(6) mol%) was also found to be present in the gas phase. The structural parameters of TeCl<sub>2</sub> were assumed at the values from the literature. The barrier for pseudorotation of TeCl<sub>4</sub> was predicted to be 30.9 kJ mol<sup>−1</sup> by MP2/6-31G\* calculations. The nozzle temperature was 476(3) K.



<sup>a</sup>) Twice the estimated standard errors including a systematic error.

Kovács, A., Martinsen, K.-G., Konings, R.J.M.: J. Chem. Soc., Dalton Trans. (1997) 1037.