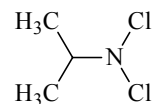


417 **C₃H₇Cl₂N**ED, *ab initio*
calculations***N,N*-Dichloro-2-propanamine***N,N*-Dichloroisopropylamine**C₁** (conformer I)**C_s** (conformer II)

r_g	Å ^{a)}	θ_α	deg ^{a)}
N–C(2)	1.496(11)	N–C(2)–C(3)	107.6(8) ^{b)}
C(2)–C(3)	1.532(6) ^{b)}	N–C(2)–C(1)	117.1(8) ^{b)}
C(1)–C(2)	1.530(6) ^{b)}	C(1)–C(2)–C(3)	108.3(18)
N–Cl(1)	1.762(2) ^{b)}	C(2)–N–Cl(1)	108.5(6) ^{b)}
N–Cl(2)	1.762(2) ^{b)}	C(2)–N–Cl(2)	109.7(6) ^{b)}
C–H (average)	1.119(5)	Cl(1)–N–Cl(2)	106.7(4)
		$\tau^c)$	63(3)



It was assumed that the molecule exists as a mixture of two conformers with symmetry C₁ (conformer I) and C_s (conformer II). The ratio of conformers I and II was determined to be 88(12):12. The differences between the corresponding parameters of these conformers were assumed at the values from MP2/6-31G** calculations.

The parameters are listed for conformer I.

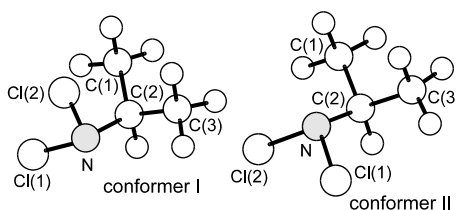
The nozzle was at room temperature.

^{a)} Three times the estimated standard errors.

^{b)} Differences between the C(2)–C(3) and C(1)–C(2), N–Cl(1) and N–Cl(2), N–C(2)–C(3) and N–C(2)–C(1), C(2)–N–Cl(1) and C(2)–N–Cl(2)

were assumed at the values from MP2/6-31G** calculations.

^{c)} Torsional angle Cl(1)–N–C(2)–C(1) from the *syn* position.



Egawa, T., Ohtsubo, M., Nakagawa, H., Kuze, N., Fujiwara, H., Konaka, S.: J. Phys. Chem. A **104** (2000) 1311.