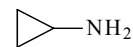


424 **C₃H₇N**ED, *ab initio*
calculations**Cyclopropanamine**

Cyclopropylamine

C_s assumed (*anti*)

r_g	\AA^a	θ_α	deg^a
C(1)–C(2,3)	1.514(3)	C–C–N	117.2(6)
$\Delta(\text{C–C})^b$	0.005 ^c	C–N–H	111.5 ^d
C–N	1.429(8)	H–C–H	114.5 ^e
C(2,3)–H	1.099 ^e	N–C–H	117.8 ^e
C(1)–H	1.104 ^f	H–N–H	106.0 ^d
N–H	1.031 ^d		

It was assumed that the molecule has C_s overall symmetry and *anti* conformation, where the nitrogen lone pair is *anti* with respect to the C(1)–H bond. The CCC and HCH planes were assumed to bisect each other.

The nozzle was at room temperature.

^a) Three times the estimated standard errors including a systematic error.

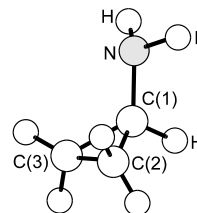
^b) [C(2)–C(3)] – [C(1)–C(2,3)].

^c) Assumed at the value from HF/4-31G(N*) calculations.

^d) Assumed at the value of methylamine.

^e) Assumed at the value of cyclopropane.

^f) Difference between the C(2,3)–H and C(1)–H bond lengths was assumed at the value from HF/4-31G(N*) calculations.



Iijima, T., Kondou, T., Takenaka, T.: J. Mol. Struct. **445** (1998) 23.

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