

590
MW**C₄H₉NO****Morpholine****C_s**

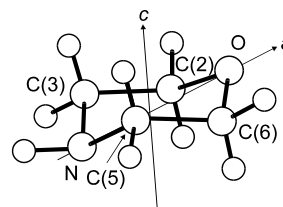
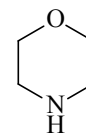
r_0	Å
N–C	1.470 ^{a)}
C–C	1.524(5)
C–O	1.442(7)
N–H	1.029(17)
C–H	1.070 ^{b)}
N...O	2.843(6)

θ_0	deg
N–C–C	107.8 ^{a)}
C–N–C	110.0 ^{a)}
C–C–O	110.8(4)
C–O–C	108.9(6)
H–C–H	109.47 ^{b)}
H–N...O	150.2 ^{a)}
H–N–C	108.5 ^{a)}
φ_1 ^{c)}	124.3 ^{a)}
φ_2 ^{d)}	125.6 ^{a)}

r_s	Å ^{e)}
N–C	1.4603(50)
C–C	1.5169(50)
N–H	1.0544(100)

θ_s	deg ^{d)}
N–C–C	108.38(50)
C–N–C	110.40(50)
H–N–C	107.54(80)
φ_1 ^{c)}	125.55(100)

Atom	a_0 [Å]	b_0 [Å]	c_0 [Å]
O	1.3925	0.0	0.2631
C(2)	0.7193	1.1729	–0.2366
C(6)	0.7193	–1.1729	–0.2366
H(2,eq)	1.2117	2.0497	0.1289
H(2,ax)	0.7439	1.1697	–1.3063
H(6,eq)	1.2117	–2.0497	0.1289
H(6,ax)	0.7439	–1.1697	–1.3063
C(3)	–0.7312	1.2047	0.2300
C(5)	–0.7312	–1.2047	0.2300
H(3,eq)	–1.2097	2.0821	–0.1523
H(3,ax)	–0.7616	1.2191	1.2994
H(5,eq)	–1.2097	–2.0821	–0.1523
H(5,ax)	–0.7616	–1.2191	1.2994
N	–1.3970	0.0	–0.2876
H(N)	–2.3723	0.0	0.0408

^{a)} Dependent parameter.^{b)} Assumed.^{c)} Dihedral angle between the C–N–C and CCCC planes.^{d)} Dihedral angle between the C–O–C and CCCC planes.^{e)} Uncertainties were not estimated in the original paper.Indris, O., Stahl, W., Kretchmer, U.: J. Mol. Spectrosc. **190** (1998) 372.