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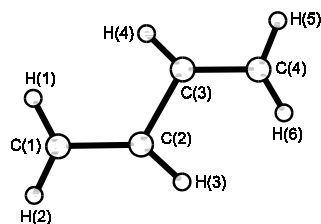
C₄H₆

1,3-Butadiene

C_{2h} (*anti*)
H₂C=CH–CH=CH₂

r_a	Å ^{a)}	θ_a	deg ^{a)}
C(2)–C(3)	1.468(2)	C(1)=C(2)–C(3)	124.3(1)
C(1)=C(2)	1.348(1)	C(1)=C(2)–H	120.7(3)
C–H	1.107(1)		

The predominant conformer at all temperatures is *anti*.
The measurements were made at 25...900 °C.
The results at 500 °C are listed.



^{a)} Estimated standard errors including a systematic error.

Kveseth, K., Seip, R., Kohl, D.A.: Acta Chem. Scand. Ser. A **34** (1980) 31.
See also: Kuchitsu, K., Fukuyama, T., Morino, Y.: J. Mol. Struct. **1** (1968) 463.
Kuchitsu, K., Fukuyama, T., Morino, Y.: J. Mol. Struct. **4** (1969) 41.

MW

1,3-Butadiene-1,1-d₂

C_s (*anti*)
D₂C=CH–CH=CH₂

r_0	Å ^{a)}	θ_0	deg ^{a)}
C(2)–C(3)	1.467 ^{b)}	C(1)=C(2)–C(3)	123.5(5)
C(1)=C(2)	1.337(5)	C(1)=C(2)–H	119.6 ^{b)}
C(1)–D(1)	1.087 ^{b)}	C(2)=C(1)–D(1)	121.6 ^{b)}
C(1)–D(2)	1.085 ^{b)}	C(2)=C(1)–D(2)	121.5 ^{b)}
C(2)–H	1.089 ^{b)}		

The pure rotational spectrum of *anti* conformer has been observed.

^{a)} Uncertainties were not estimated in the original paper.

^{b)} Assumed.

Caminati, W., Grassi, G., Bauder, A.: Chem. Phys. Lett. **148** (1988) 13.