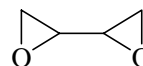


1662
ED

C₄H₆O₂

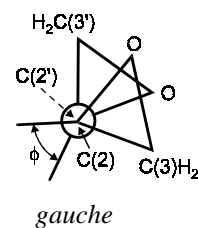
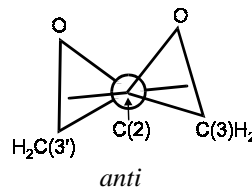
2,2'-Bioxirane
1,2:3,4-Diepoxybutane

C₂ (all conformers)



r_a	\AA^a
C(2)–C(2')	1.521(18)
C(2)–C(3)	1.463(10)
C(2)–O	1.439(8)
C(3)–H	1.09 ^b

θ_a	deg ^a
C(2)–C(2')–C(3')	115.2(20)



A conformer with $\phi \approx 120^\circ$ was suggested to be predominant. However, a subsequent MW study [1] assigned a conformer with rotational constants consistent with an *anti* form, $\phi = 180(20)^\circ$. An analysis of IR band

envelopes observed in the gas phase [1] showed that this *anti* conformer was the most stable and that a less stable *gauche* conformer, with $\phi = 40 \dots 50^\circ$, was also present.

The nozzle temperature was $\approx 80^\circ\text{C}$.

^a) Estimated standard errors, twice those in the original data.

^b) Assumed.

Smith, Z., Kohl, D.A.: J. Chem. Phys. **57** (1972) 5448.

[1] Su, C.F., Cook, R.L., Saiwan, C., Smith, J.A.S., Kalasinsky, V.F.: J. Mol. Spectrosc. **127** (1988) 337.