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**C<sub>3</sub>H<sub>6</sub>O<sub>2</sub>**

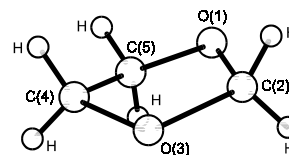
**1,3-Dioxolane**

**C<sub>2</sub> (pseudorotation)**

$r_g$	$\text{\AA}^a$	$\theta_\alpha$	deg <sup>a)</sup>
C–H	1.106(6)	C–C–O	101.0(4)
C–C	1.542(6)	H–C–H	118(5)
C–O(average)	1.423(1)	$\tau^b$	41.8(31)
		$\phi^c$	34 <sup>d)</sup>

The best results were obtained using a pseudorotational model with a potential minimum at the twist form (shown in figure).

The measurements were made at room temperature.



<sup>a)</sup> Three times the estimated standard errors including a systematic error.

<sup>b)</sup> Torsional angle O(1)–C(5)–C(4)–O(3).

<sup>c)</sup> Dihedral angle formed by the O(1)C(2)O(3) plane and the plane formed by atoms O(3) and O(1) and the midpoint of C(4)–C(5) bond.

<sup>d)</sup> Assumed.

Shen, Q., Mathers, T.L., Raeker, T., Hilderbrandt, R.L.: J. Am. Chem. Soc. **108** (1986) 6888.