

1708  
ED

**C<sub>4</sub>H<sub>7</sub>NO<sub>2</sub>**

**Diacetamide**

**C<sub>1</sub>**  
H<sub>3</sub>C–C(O)–NH–C(O)–CH<sub>3</sub>

$r_g$	Å <sup>a)</sup>	$\theta$ <sup>b)</sup>	deg <sup>a)</sup>
C–N	1.402(2)	C–N–C	129.2(15)
C=O	1.210(2)	O(1)–C(1)–C(3)	123.3(15)
C–C	1.518(3)	O(2)–C(2)–C(4)	123.3(15)
C–H	1.10 <sup>c)</sup>	N–C(2)–O(2)	123.7(15)
N–H	0.95 <sup>c)</sup>	N–C(1)–O(1)	118.8(18)
		C–C–H	109.7 <sup>c)</sup>
		$\tau_1$ <sup>d)</sup>	13(16)
		$\tau_2$ <sup>e)</sup>	157(9)
		$\tau_3$ <sup>f)</sup>	43(9)
		$\tau_4$ <sup>g)</sup>	42(30)

The atoms of the skeleton in each half of the molecule are coplanar, the dihedral angle between these planes is  $\approx 36^\circ$ .

The nozzle temperature was 120 °C.

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

<sup>b)</sup> Unidentified, possibly  $\theta_a$ .

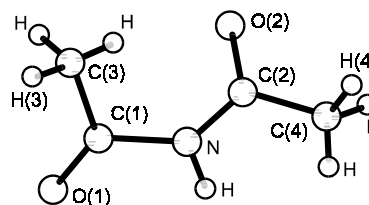
<sup>c)</sup> Assumed.

<sup>d)</sup> Dihedral angle C(1)–N–C(2)–O(2).

<sup>e)</sup> Dihedral angle C(2)–N–C(1)–O(1).

<sup>f)</sup> Dihedral angle H(3)–C(3)–C(1)–O(1).

<sup>g)</sup> Dihedral angle H(4)–C(4)–C(2)–O(2).



Gallaher, K.L., Bauer, S.H.: J. Chem. Soc., Faraday Trans. II **71** (1975) 1423.