

Table D. Cell dimensions (Å, deg.) for α -oxalic acid dihydrate. X, N refer to X-ray or neutron diffraction respectively. For convenience, all the measurements reported are included in the Table, although only those at room temperature (if not specified, then given as nominally 295* K) and 100 K are discussed in the text. The s.u.s (in round brackets) are those given by the original investigators.

T(K); X or N; sample number	<i>a</i>	<i>b</i>	<i>c</i>	β	Brief notes on methodology used	REFCODE or Reference
299 X	6.119(1)	3.607(1)	12.057(1)	106.32(2)	Cu $K\alpha$ to 110°; all reflections by LS procedure	OXACDH11
295* X	6.119(4)	3.604(3)	12.051(5)	106.27(2)	“Straumanis method” (presumably Cu $K\alpha$)	OXACDH12
300 X	6.120(2)	3.6058(8)	12.057(3)	106.29(2)	Mo $K\alpha$, 24 reflections, $2\theta = 50\text{--}60^\circ$.	OXACDH24
295* X	6.115(2)	3.601(1)	12.050(3)	106.31(2)	Mo $K\alpha$ (Nb filter) 54 reflections	OXACDH26
225 X	6.109(1)	3.5595(4)	12.008(2)	106.02(2)	do.	do.
170 X	6.102(2)	3.5298(5)	11.978(2)	105.89(2)	do.	do.
130 X	6.102(2)	3.5190(4)	11.973(2)	105.84(2)	do	do.
100 X	6.102(2)	3.5011(5)	11.964(3)	105.79(2)	do.	do.
100(2) X2	6.0986(5)	3.4981(3)	11.952(1)	105.777(8)	Mo $K\alpha_1$, 38 reflections at high Bragg angles	OXACDH09
100(3) X1	6.103(3)	3.498(3)	11.978(8)	105.87(5)	Mo $K\alpha$	Coppens (1984)
100(1) X3	6.0968(7)	3.4975(4)	11.9462(15))	105.78(1)	Mo $K\alpha$	Coppens (1984)
103(0.5) X4	6.1108(9)	3.5109(4)	11.9780(8)	105.767(8)	Mo $K\alpha$	Coppens (1984)
100(1) N1	6.1016(1)	3.4972(1)	11.9549(3)	105.759(2)	0.862 Å; powder;	Coppens (1984)
100 (0.05) N4	6.102(3)	3.496(2)	11.949(5)	105.66(4)	0.8213(2) Å	Coppens (1984)

15(0.5) X	6.093(2)	3.469(1)	11.926(2)	105.69(2)	Mo K α (Nb filter), 86 reflections	OXACDH26
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OXACDH11: Delaplane, R. G. & Ibers, J. A. (1969), *Acta Cryst.* **B25**, 2423–2437.

OXACDH12: Ahmed, F. R. & Cruickshank, D. W. J. (1953). *Acta Cryst.* **6**, 385–392.

OXACDH24: Wang, Y., Tsai, C. J., Liu, W. L. & Calvert, L. D. (1985). *Acta Cryst.* **B41**, 131–135.

OXACDH09: Dam, J., Harkema, S. & Feil, D. (1983). *Acta Cryst.* **B39**, 760–768.

Coppens, P. *et al.* (1984). *Acta Cryst.* **A40**, 184–195.

OXACDH26: Zobel, D., Luger, P., Dreissig D. & Koritsanszky, T. (1992). *Acta Cryst.* **B48**, 837–848.

Table E. Cell dimensions (\AA , deg.) of anthracene

T(K); X	<i>a</i>	<i>b</i>	<i>c</i>	β	Brief notes on methodology used	REFCODE or Reference
290 X	8.561(10)	6.036(10)	11.163(10)	124.70(8)	Cu K α , "carefully calibrated oscillation and moving-film photographs."	ANTCEN02.
290 X	8.562(6)	6.038(8)	11.184(8)	124.70(10)	Calibrated Weissenberg photographs, using Cu K $\alpha_{1,2}$	ANTCEN.
295* X	8.554(4)	6.016(4)	11.174(4)	124.60(2)	Cu K α , "inclined type diffractometer"	ANTCEN07.
295 X	8.5526(12)	6.0158(11)	11.1720(16)	124.596(15)	CAD-4 diffractometer, Mo K α , 10 Friedel pairs, 20•20•38°.	ANTCEN14.
290 X	8.550(8)	6.028(8)	11.172(8)	124.67(8)		Ryzhenkov et al., 1969
100 X	8.407(3)	6.006(6)	11.092(4)	125.31(2)	Cu K α , "inclined type diffractometer"	ANTCEN08.
95 X	8.443(6)	6.002(7)	11.124(8)	125.60(12)	Calibrated Weissenberg photographs,	ANTCEN01.

					using Cu K $\alpha_{1,2}$	
94 X crystal 3	8.4260(15)	5.9830(12)	11.0968(26)	125.328(19)	CAD-4 diffractometer, Mo K α , 10 Friedel pairs, 20•2 θ •38°.	ANTCEN09.
94 X crystal 4	8.4144(20)	5.9903(14)	11.0953(17)	125.293(18)	CAD-4 diffractometer, Mo K α , 10 Friedel pairs, 20•2 θ •38°.	ANTCEN09.
95 X	8.440(8)	5.994(8)	11.113(8)	125.08(8)		Ryzhenkov et al., 1969

ANTCEN09; ANTCEN14: Brock, C. P. & Dunitz, J. D. (1990). *Acta Cryst.* B46, 795–806.

ANTCEN; ANTCEN01: Mason, R. (1964). *Acta Cryst.* 17, 547–555.

ANTCEN02: Mathieson, A. McL., Robertson, J. M. & Sinclair, V. C. (1950). *Acta Cryst.* 3, 245–256.

ANTCEN07; ANTCEN08: Ponomarev, V. I. & Shilov, G. V. (1983). *Sov. Phys. Crystallogr.* 28, 397–399.

Ryzhenkov, A. I., Kozhin, V. M. & Myasnikova, R. M. (1969). *Sov. Phys. Crystallogr.* 13, 896–898.

Table F. Cell dimensions of naphthalene (rejected because of insufficient information).

T(K); X	<i>a</i>	<i>b</i>	<i>c</i>	β	Brief notes on methodology used	Reference
295* X	8.235(5)	6.003(10)	8.658(10)	122.92(8)	Cu K α , "carefully calibrated oscillation and moving-film photographs."	NAPHTA.
298 X	8.259(8)	5.980(2)	8.668(6)	122.60(10)	Cu K α	NAPHTA05.
295* N	8.272	5.980	8.671	122.7	Neutron λ • 2.46 Å, calibrated to 0.001 Å.	El Hamamsy <i>et al.</i> , 1977

NAPHTA: Abrahams, S. C., Robertson, J. M. & White, J. G. (1949). *Acta Cryst.* 2, 233–238.

NAPHTA05: Chanh, N. B. & Haget-Bouillaud, Y. (1972). *Acta Cryst.* B28, 3400–3404.

El Hamamsy, M., Elnahwy, S., Damask, A. C., Taub, H. & Daniels, W. B. (1977). *J. Chem. Phys.* 67, 5501–5504.

Table G. Cell dimensions of acetamide (rejected because of insufficient information).

T(K); X or N	<i>a</i>	<i>c</i>	Brief notes on methodology used	Reference
299 X	11.526(5)	13.589(5)	Cu K α ("LS fit of θ values")	Denne & Small, 1971
295* X	11.493(2)	13.547(2)	Mo K α (Nb filter)	Zobel, Luger, Dreissig & Koritsanszky, 1992.
173 X	11.536(5)	13.194(5)	Cu K α ("LS fit of θ values")	Denne & Small, 1971
100 X	11.490(2)	13.045(2)	Mo K α (Nb filter)	Zobel, Luger, Dreissig & Koritsanszky, 1992.
85(0.2) X	11.504(6)	12.986(7)	LS fit of angular coordinates of 9 Mo K α_1 reflections with 70•2 θ •80°.	Ottersen, Almlöf & Hope, 1980
23 X	11.492(2)	12.892(2)	Mo K α (Nb filter)	Zobel, Luger, Dreissig & Koritsanszky, 1992.
22.6(5) N	11.513(3)	12.883(4)	$\lambda=1.0445(2)$ Å; LS fit of sin ² θ values with 46•2 θ •49°	Jeffrey, Ruble, McMullan, DeFrees, Binkley & Pople, 1980.

Denne, W. A. & Small, R. W. H. (1971). *Acta Cryst.* **B27**, 1094–1098.

Jeffrey, G. A., Ruble, J. R., McMullan, R. K., DeFrees, D. J., Binkley, J. S. & Pople, J. A. (1980). *Acta Cryst.* **B36**, 2292–2299.

Mathieson, A. McL., Robertson, J. M. & Sinclair, V. C. (1950). *Acta Cryst.* **3**, 245–256.

Ottersen, T., Almlöf, J. & Hope, H. (1980). *Acta Cryst.* **B36**, 1147–1154.

Zobel, D., Luger, P., Dreissig D. & Koritsanszky, T. (1992). *Acta Cryst.* **B48**, 837–848.

Table H. Cell dimensions of organometallic and organic crystals measured by area detector methods and reported in *Acta Cryst.*, **C53**, nos. 10 and 11 (1997). All measurements were made using Mo K α radiation, with λ given sometimes as 0.71069 and sometimes as 0.71073 Å. The standard uncertainties are those taken from the papers and averaged over *a*, *b*, *c* (given as parts in 10⁵), and averaged over α , β , γ (given in units of 10⁻³ degrees). SS denotes Siemens SMART CCD System

Area detector system	No. of reflections used for cell parameter determination	θ range (deg.)	Averaged u(length) (parts in 10 ⁵)	Averaged u(angle) (10 ⁻³ degrees).	Starting page of paper

SS	4605	3–20	23	10	1385
Nonius Kappa	94916	4.64–25.65	20	-	1383
SS	4149(I>10 σ (I))	1.6–26.0	3	1	1436
SS	3751 (220 K)	2.07–23.26	10	2	1438
SS	4175 (220 K)	2.17–23.28	8	40	1439
SS	3385 (220 K)	2.27–23.28	11	2	1442
SS	8192	2.0–18.0	1	1	1473 (Compd. 2a)
SS	5784	1.4–26	5	1	1549
SS	3103	2–23	5	-	1555
Stoe IP	397	9.5–56.3	130	80	1572
SS	512	1.38–23.42	10	-	1653
R-axis 2CS	3934	$\theta_{\max} = 27.70$	24	13	1692
FAST	250	1.77–24.97	11	-	1701
P4 SMART	27	22–30	4	2	1707 (“crystals not of high quality”)
SS	1497	2.50–23.24	12	2	1720