

Zellparameter und optische Daten:

ao = 4.6 Å
bo = 9.95 Å
co = 3.02 Å
ao : bo : co 0.462 : 1 : 0.304
n _o = 2.260
n _o = 2.393
n _o = 2.398
2Vm = 10°
eas. = 20°
2Vca
lc.
optisch zweiachsig optisch negativ

Zellparameter und optische Daten:
Nach STRUNZ und TENNYSON (1977)

ao = 4.65 Å
bo = 10.02 Å
co = 3.04 Å
ao : bo : co 0.464 : 1 : 0.303
n _o = 2.21
n _o = 2.35
n _o
2V = klein
Z = 4
optisch zweiachsig optisch negativ

Chemismus (Gew.-%)

Fe ₂ O ₃	89.86
H ₂ O	10.14
□	100.00

Röntgendaten: GUALTIERI und VENTURELLI (1999).
X-Ray, Wellenlänge: 1.541838

Goethit			
h k l	d-Wert	I/I ₁	2-Theta
2 0 0	4.9594	13.25	17.89
1 0 1	4.1607	100.00	21.36
2 0 1	3.3661	11.53	26.48
3 0 1	2.6815	43.16	33.42
2 1 0	2.5762	23.17	34.83
0 1 1	2.5188	5.61	35.64
4 0 0	2.4797	13.93	36.23
1 1 1	2.4413	66.52	36.82
0 0 2	2.2917	2.42	39.31
2 1 1	2.2457	9.06	40.15

1 0 2	2.2329	3.67	40.39
4 0 1	2.1810	14.22	41.40
2 0 2	2.0804	1.17	43.50
3 1 1	2.0036	4.00	45.26
4 1 0	1.9151	5.04	47.47
1 1 2	1.7944	6.99	50.89
4 1 1	1.7671	1.90	51.73
2 1 2	1.7123	25.06	53.52
4 0 2	1.6830	7.59	54.52
6 0 0	1.6531	2.44	55.59
3 1 2	1.5974	4.87	57.71
5 1 1	1.5585	14.70	59.30
0 2 0	1.5074	6.57	61.52
5 0 2	1.4999	2.77	61.86
4 1 2	1.4696	1.86	63.28
2 0 3	1.4601	2.86	63.74
6 1 0	1.4495	6.21	64.26
1 2 1	1.4173	3.23	65.91
3 0 3	1.3869	2.23	67.54
0 1 3	1.3628	2.32	68.90
7 0 1	1.3538	3.01	69.43
1 1 3	1.3501	1.02	69.64
6 0 2	1.3407	1.02	70.20
2 1 3	1.3141	1.21	71.84
3 2 1	1.3140	3.62	71.85
4 2 0	1.2881	1.36	73.53
4 2 1	1.2400	1.17	76.88
4 1 3	1.1943	1.51	80.40
1 0 4	1.1383	1.07	85.26
4 2 2	1.1229	1.45	86.72

a = 9.9189 Å
b = 3.0148 Å
c = 4.5835 Å