

The following material did not appear in the original publication.

TABLE I. CRYSTAL AND CHEMICAL DATA FOR WITHERITES

	1	2	3	4	5	6	7	8	9	10
PbO	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CaO	-	0.04	0.05	0.08	0.03	0.04	0.09	0.03	0.23	0.05
SrO	-	0.49	0.75	0.68	0.84	0.93	0.79	1.11	0.61	1.42
BaO	77.70	77.05	77.61	77.15	78.06	76.26	77.55	77.54	77.77	77.58
CO ₂ *	22.30	22.35	22.62	22.50	22.77	22.32	22.67	22.75	22.76	22.91
Total	100.00	99.93	101.02	100.41	101.70	99.55	101.10	101.43	101.35	101.96
			Number of ions on the basis of 1 CO ₃							
Pb	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ca	-	0.0015	0.0017	0.0028	0.0009	0.0015	0.0031	0.0009	0.0079	0.0017
Sr	-	0.0093	0.0138	0.0129	0.0156	0.0177	0.0149	0.0207	0.0113	0.0264
Ba	1.000	0.9892	0.9845	0.9844	0.9835	0.9808	0.9820	0.9783	0.9809	0.9719
M.I.R.***	~1.47	1.4682	1.4673	1.4672	1.4672	1.4668	1.4667	1.4664	1.4660	1.4653
V, A ³	304.24	304.05(8)**	-	303.93(6)	-	303.54(7)	303.40(6)	303.79(9)	303.49(10)	-
a, A	5.314	5.314(2)	-	5.312(.7)	-	5.310(1)	5.308(1)	5.311(1)	5.307(1)	-
b, A	8.904	8.901(3)	-	8.999(1)	-	8.894(2)	8.897(3)	8.898(2)	8.896(2)	-
c, A	6.430	6.428(3)	-	6.428(1)	-	6.428(1)	6.425(2)	6.429(2)	6.428(2)	-
d ₂₂₀ calc.	-	2.2814	-	2.2807	-	2.2795	2.2789	2.2802	2.2789	-
d ₂₂₀ meas.	-	2.2826	-	2.2807	-	2.2788	2.2806	2.2804	2.2788	-
ρ _{calc.}	4.31	4.30	-	4.29	-	4.29	4.30	4.29	4.29	-
ρ _{meas.}	-	-	-	4.31	-	-	-	-	-	-

*Calculated to give C = Ba + Sr + Ca + Pb
 **The estimated standard errors are given in parentheses and refer to the last decimal place(s).
 ***Mean ionic radius

- 1 From Swanson and Fuyat (1953)
- 2 J. T. Baker BaCO₃ reagent recrystallized at 1kb. + 550° with H₂O for 2 weeks.
- 3 Northumberland, England NMNH#78840
- 4 Anglesarke, Lancashire, England NMNH#103262
- 5 Alston Moor, Cumberland, England NMNH#84880
- 6 Cave-in-Rock, Hardin Co., Illinois
- 7 Rosalare, Illinois
- 8 Falloufield, Northumberland, England NMNH#2563
- 9 Forecupine Mine, Thunder Bay District, Ontario NMNH#GSC1681
- 10 Minerva Mine, Cave-in-Rock, Illinois NMNH#16602

TABLE I. cont.

	11	12	13	14	15	16	17	18	19
Pb0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca0	0.10	0.04	0.11	0.11	0.09	0.05	0.13	0.24	0.02
Sr0	1.36	1.85	1.72	1.77	1.79	1.95	3.04	3.26	6.06
Ba0	76.28	77.16	76.58	76.62	75.51	76.02	74.72	75.00	72.10
CO2*	22.54	22.97	22.78	22.82	22.50	22.69	22.84	23.10	23.28
Total	100.28	102.02	101.19	101.32	99.89	100.72	100.73	101.60	101.46
	Number of ions on the basis of 1 CO ₃								
Pb	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ca	0.0034	0.0014	0.0037	0.0037	0.0030	0.0018	0.0045	0.0081	0.0008
Sr	0.0256	0.0342	0.0320	0.0330	0.0338	0.0365	0.0565	0.0599	0.1104
Ba	0.9710	0.9644	0.9644	0.9634	0.9632	0.9617	0.9390	0.9320	0.8888
M.I.R.***	1.4649	1.4641	1.4639	1.4637	1.4637	1.4636	1.4597	1.4580	1.4521
V, A ³	303.10(9)	302.98(10)	302.87(9)	-	-	-	302.24(7)	301.32(10)	300.38(6)
a, A	5.308(1)	5.307(1)	5.305(1)	-	-	-	5.300(1)	5.297(2)	5.293(1)
b, A	8.894(2)	8.889(2)	8.890(2)	-	-	-	8.888(2)	8.877(3)	8.861(2)
c, A	6.421(2)	6.423(2)	6.421(2)	-	-	-	6.416(1)	6.408(2)	6.404(1)
d ₂₂₀ calc.	2.2788	2.2782	2.2779	-	-	-	2.2760	2.2745	2.2722
d ₂₂₀ meas.	2.2791	2.2786	2.2777	-	-	-	2.2769	2.2750	2.2721
p _{calc.}	4.29	4.29	4.28	-	-	-	4.27	4.27	4.24
p _{meas.}	-	4.31	4.28	-	-	-	4.23	4.26	4.22

*Calculated to give C = Ba + Sr + Ca + Pb

**The estimated standard errors are given in parentheses and refer to the last decimal place(s).

***Mean ionic radius

- 11 Alston Moor, Cumberland, England
- 12 Haseei Mine, Akita Prefecture, Houshu, Japan NMNH #105440
- 13 Settingham Mine, Northumberland, England
- 14 Alston Moor, Cumberland, England NMNH #B10170
- 15 Settingham Mine, Northumberland, England
- 16 Settingham Mine, Northumberland, England
- 17 Cumberland, England NMNH #R2560
- 18 Arkhys, Kazakhstan, USSR
- 19 Cassiar District, British Columbia NMC#54999

End of supplemental material.