

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 Anglesarks, 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 Porcupine Mine, Thunder Bay District, Ontario NMCH#GSC1681
- 10 Minerva Mine, Cave-in-Rock, Illinois NMNH#16602

TABLE I. cont.

	11	12	13	14	15	16	17	18	19
PbO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CaO	0.10	0.04	0.11	0.11	0.09	0.05	0.13	0.24	0.02
SrO	1.36	1.85	1.72	1.77	1.79	1.95	3.04	3.26	6.06
BaO	76.28	77.16	76.58	76.62	75.51	76.02	74.72	75.00	72.10
CO ₂ *	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, Caucasus, USSR

19 Cassiar District, British Columbia NMC#34999

End of supplemental material.