

Supplementary Table S1. Powder X-ray data (d in Å) for seaborgite. Only calculated lines with $I \geq 5$ are listed.

I_{obs}	I_{calc}	d_{obs}	d_{calc}	hkl
97	65	14.67	15.2813	001
	100		14.0604	010
57	87	9.35	9.3382	0-11
	8		7.6407	002
48	47	7.49	7.4674	012
	7		7.0253	021
35	22	5.904	5.8957	0-21
	32		5.8870	022
100	62	5.320	5.3850	100
	62		5.3076	101
	39		5.1835	013
67	43	5.093	5.1057	110
	21		5.0938	003
16	41	4.880	4.9552	-110
75	5	4.733	4.7987	031
	64		4.7746	1-11
	17		4.7300	112
	5		4.6868	030
	6		4.6619	023
	24		4.6549	-111
18	18	4.549	4.5624	-1-11
	12		4.4770	032
	7		4.3704	120
9	13	4.233	4.2421	1-12
30	16	4.045	4.0777	-112
	21		4.0585	113
	10		4.0048	1-21
21	10	3.906	3.9479	-1-21
	13		3.9247	033
	10		3.9203	014
	5		3.8841	-1-12
	10		3.8258	123
	8		3.8203	004
42	4	3.742	3.7505	131
	22		3.7388	0-23
	27		3.7337	024
31	18	3.632	3.6689	132
	19		3.6414	0-32
	5		3.6313	1-13
	6		3.6231	1-22
	23		3.6106	041
65	47	3.489	3.5151	040
	27		3.4904	0-14
	21		3.4745	-103
	22		3.4355	-131
61	19	3.331	3.3611	034
	10		3.3348	104
	49		3.3260	-1-31
	8		3.3191	124
	5		3.2849	-123
	5		3.2775	-1-13
	12		3.2625	043
	12		3.1391	015
61	15	3.078	3.1130	141
	7		3.0970	142
	32		3.0749	0-24
	8		3.0712	025
	11		3.0661	134
	31		3.0584	1-32

I_{obs}	I_{calc}	d_{obs}	d_{calc}	hkl
	15		3.0057	140
	7		2.9779	-133
98	33	2.954	2.9687	-1-23
	31		2.9631	143
	24		2.9478	0-42
	20		2.9435	044
	30		2.9351	-104
	4		2.9058	115
	5		2.8965	-141
34	21	2.855	2.8855	051
	5		2.8786	035
	14		2.8655	125
	6		2.8593	052
	5		2.8542	0-15
	23		2.8263	105
28	18	2.788	2.8083	-142
	32		2.7771	1-41
	8		2.7514	144
54	16	2.713	2.7190	135
	53		2.7148	201
	19		2.6762	-134
	5		2.6531	1-15
36	6	2.628	2.6356	-1-33
	8		2.6261	0-43
	26		2.6224	151
	9		2.6130	016
22	7	2.552	2.5662	153
	13		2.5524	-115
	14		2.5469	006
	5		2.5397	150
9	10	2.480	2.4894	126
	5		2.4776	-220
	5		2.4626	2-21
18	14	2.430	2.4417	231
	5		2.4323	106
	5		2.4291	-221
	5		2.4000	061
	6		2.3827	233
11	5	2.351	2.3548	055
	7		2.3339	-1-34
	9		2.3282	0-35
22	5	2.243	2.2522	-213
	18		2.2364	163
	5		2.2264	-116
15	5	2.194	2.2077	-2-13
	9		2.1960	2-32
	6		2.1848	160
	7		2.1786	037
25	7	2.098	2.1111	-2-23
	8		2.1086	-1-16
	13		2.0908	-2-41
17	7	2.080	2.0861	0-17
	7		2.0835	2-15
	5		2.0782	-214
	8		2.0771	-1-35

I_{obs}	I_{calc}	d_{obs}	d_{calc}	hkl
	5		2.0647	2-41
23	9	2.045	2.0616	-1-53
	7		2.0495	147
	8		2.0426	251
	6		2.0360	245
	10		2.0295	216
	5		1.9905	254
	7		1.9881	236
41	5	1.969	1.9683	173
	7		1.9667	2-25
	13		1.9623	066
	10		1.9602	028
	8		1.9575	-243
	6		1.9542	057
17	11	1.938	1.9334	157
	5		1.9297	038
17	8	1.902	1.9147	2-43
	8		1.9006	-156
	6		1.8851	-225
21	11	1.865	1.8748	-172
	6		1.8676	0-55
	5		1.8553	148
	7		1.8543	261
15	5	1.836	1.8464	-147
	6		1.8376	-1-63
	9		1.8365	-1-71
	5		1.8207	0-64
19	5	1.802	1.8085	1-46
	9		1.8053	082
	7		1.7932	081
	6		1.7821	-1-27
22	9	1.759	1.7657	3-12
	7		1.7588	-128
	5		1.7533	182
38	8	1.736	1.7452	0-28
	6		1.7439	029
	8		1.7403	1-64
	9		1.7382	1-72
	8		1.7368	129
	5		1.7338	314
	9		1.7278	039
26	9	1.701	1.7057	3-22
	8		1.7019	330
8	7	1.668	1.6517	-330
18	8	1.643	1.6426	0-38
18	6	1.579	1.5915	3-33
	5		1.5756	078
29	13	1.560	1.5698	354
	8		1.5614	-265
	8		1.5597	-341
	6		1.5565	282
	7		1.5516	-333
13	10	1.526	1.5276	195
14	7	1.477	1.4746	-194
18	5	1.450	1.4519	-281
	5		1.4424	-1-3-10