Table S2. Calculated X-ray powder diffraction (*d* in Å) data for priscillagrewite-(Y) with simplified formula $(Ca_{2.19}Y_{0.65}REE_{0.16})_{\Sigma 3.00}(Zr_{1.80}Ti^{4+}_{0.13}Sb^{5+}_{0.07})_{\Sigma 2.00}(Al_{1.79}Fe^{3+}_{1.21})_{\Sigma 3}O_{12}$ (for Cu*K*α = 1.540598, Debye-Scherrer geometry, $I_{rel} > 2$; Kraus and Nolze, 1996).

h	*k*	*l*	d_{hkl}	I_{rel}
2	1	1	5.103	2
2	2	0	4.419	35
4	0	0	3.125	72
4	2	0	2.795	84
3	3	2	2.665	5
4	2	2	2.552	100
4	3	1	2.451	7
5	2	1	2.282	9
6	1	1	2.028	6
5	3	2	2.028	5
6	2	0	1.976	15
4	4	4	1.804	4
6	4	0	1.733	32
6	4	2	1.670	96
8	0	0	1.563	19
8	2	2	1.473	4
8	4	0	1.398	23
8	4	2	1.364	16
6	6	4	1.333	18
8	4	4	1.276	3
8	6	2	1.226	2
10	4	0	1.161	6
8	6	4	1.161	9
10	4	2	1.141	25
8	8	0	1.105	14