

**Table S1** Comparison of the cell parameters and estimated B<sub>2</sub>O<sub>3</sub> mol.% content of B-mullites produced by thermal breakdown of tourmalines. Fe-rich F-elbaite and Mn-bearing F-elbaite data taken from Celata et al. (2021) and Ballirano et al. (2022), respectively.

	schorl	Fe-rich F-elbaite	Mn-bearing F-elbaite
<i>a</i> (Å)	7.5307(4)	7.5382(2)	7.5151(2)
<i>b</i> (Å)	7.6703(6)	7.6749(2)	7.6431(2)
<i>c</i> (Å)	2.8427(2)	2.8385(1)	2.8157(1)
<i>V</i> (Å <sup>3</sup> )	164.20(2)	164.22(1)	161.73(1)
Estimated B <sub>2</sub> O <sub>3</sub> mol.%	10	10	16-17