

Supplementary Information

Structure and magnetism of a new hexagonal polymorph of $\text{Ba}_3\text{Tb}(\text{BO}_3)_3$ with a quasi-2D triangular lattice

Nicola D. Kelly, Cheng Liu and Siân E. Dutton

Cavendish Laboratory, University of Cambridge, J J Thomson Avenue, Cambridge, CB3 0HE, UK

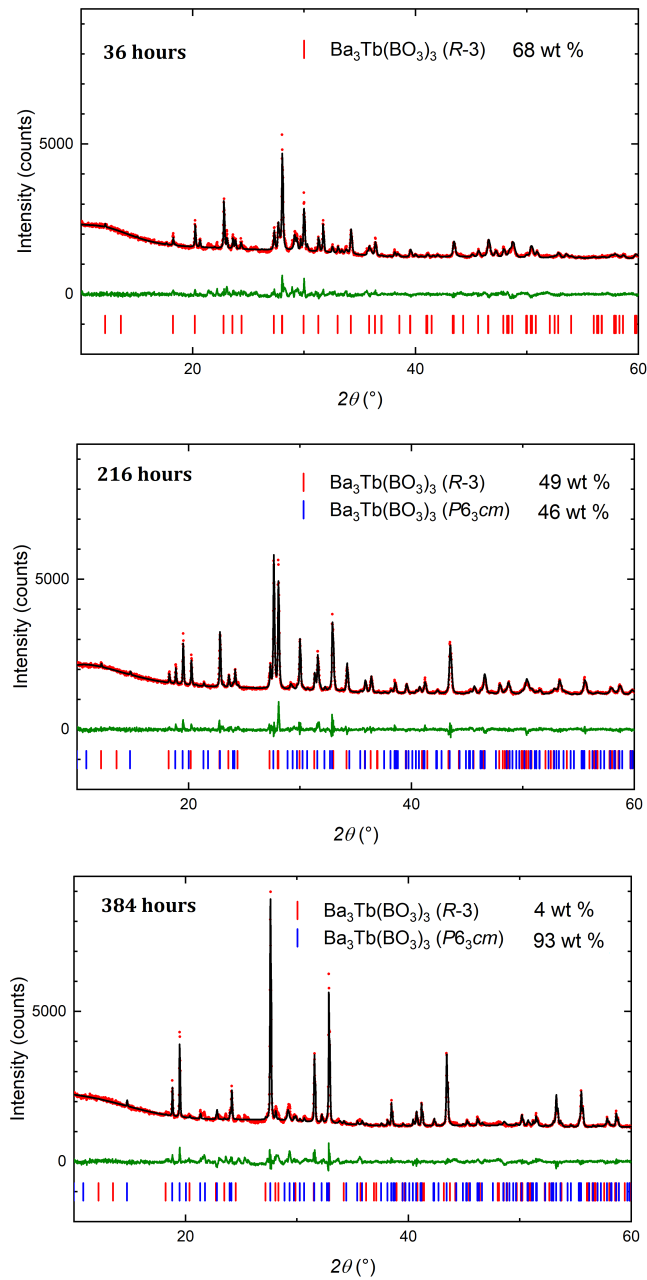


Fig. S1. Evolution of $\text{Ba}_3\text{Tb}(\text{BO}_3)_3$ PXRD patterns with temperature. The reaction mixture was heated to $900\text{ }^\circ\text{C}$ in 24 h stages. After each heating stage the sample was cooled to room temperature, ground, measured on the diffractometer and repelletised before reheating. Tick marks for minor impurities (Tb_4O_7 and $\text{Ba}_3(\text{BO}_3)_2$) are omitted for clarity.

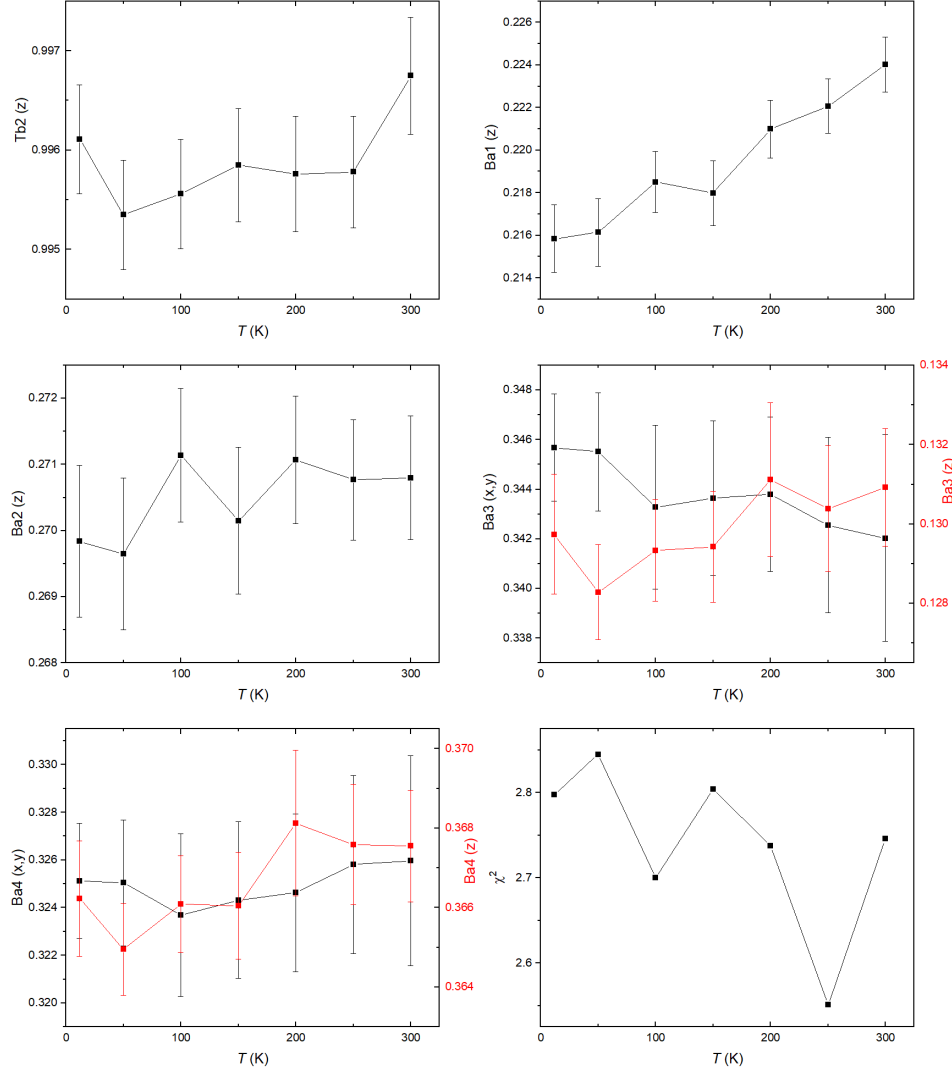


Fig. S2. Ba and Tb atomic positions in $\text{Ba}_3\text{Tb}(\text{BO}_3)_3$ ($P6_3cm$) as a function of temperature. Solid lines are provided to guide the eye.