

Supplementary Information – ORTEP Plots of Asymmetric Units of Complexes 1 – 12

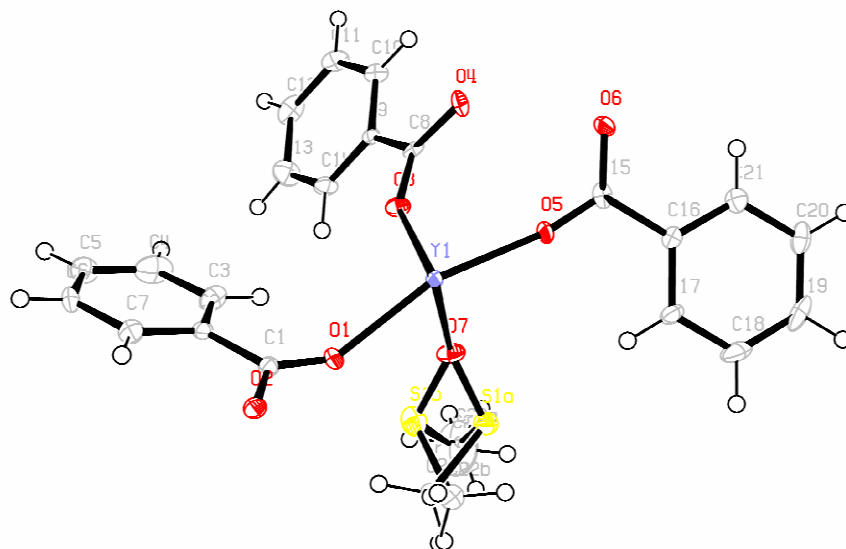


Figure S1: ORTEP representation of the asymmetric unit of $[\text{Y}(\text{BA})_3(\text{DMSO})]_n$ **1a**. Ellipsoids displayed at 50% probability.

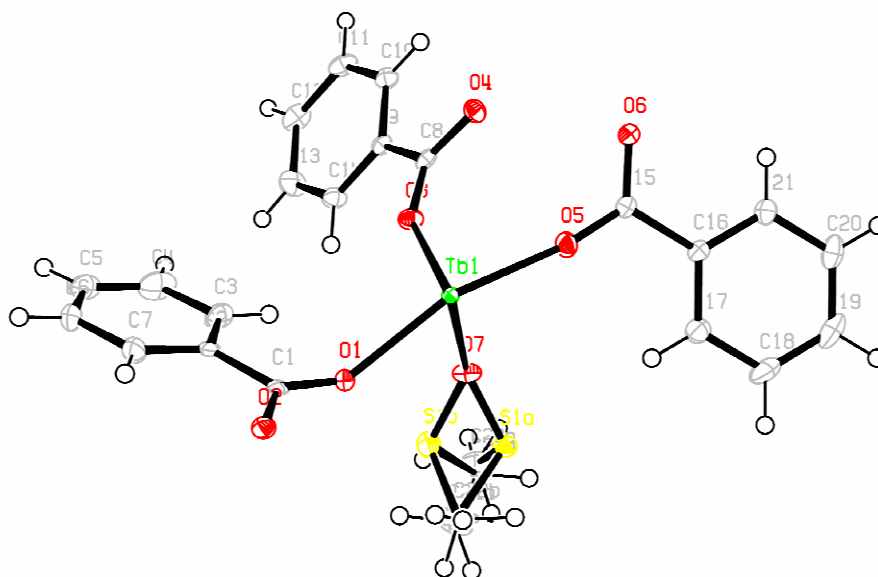


Figure S2: ORTEP representation of the asymmetric unit of $[\text{Tb}(\text{BA})_3(\text{DMSO})]_n$ **1b**. Ellipsoids displayed at 50% probability.

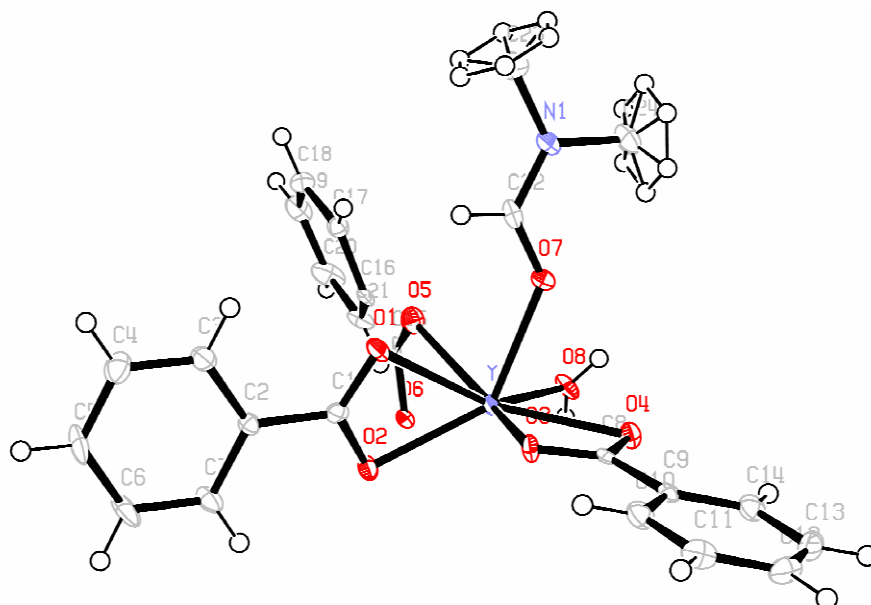


Figure S3: ORTEP representation of the asymmetric unit of $[\text{Y}(\text{BA})_3(\text{DMF})(\text{H}_2\text{O})_2]_2$
2. Ellipsoids displayed at 50% probability.

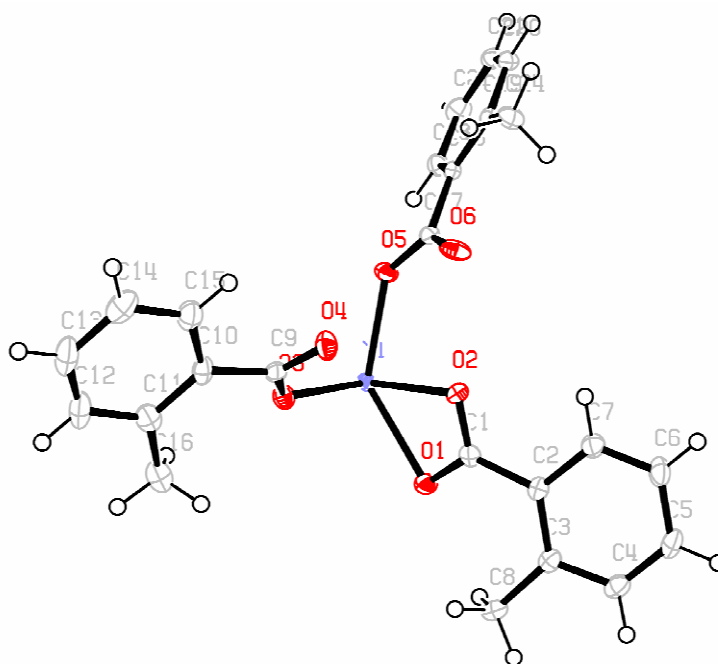


Figure S4: ORTEP representation of the asymmetric unit of $[\text{Y}(\text{2-MeBA})_3]_n$ 3.
Ellipsoids displayed at 50% probability.

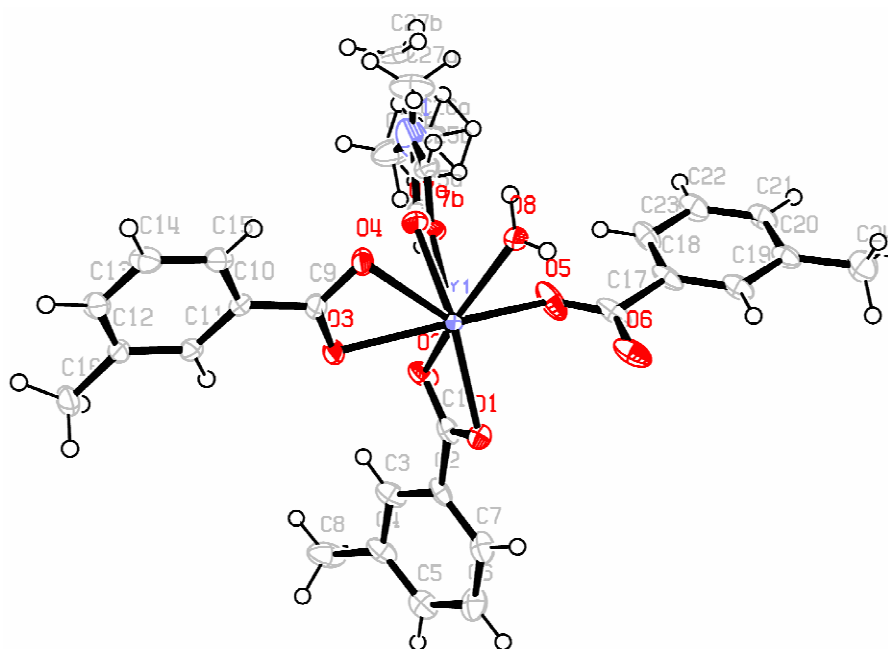


Figure S5: ORTEP representation of the asymmetric unit of $[\text{Y}(\text{3-MeBA})_3(\text{DMF})(\text{H}_2\text{O})]_2$ **4**. Ellipsoids displayed at 50% probability.

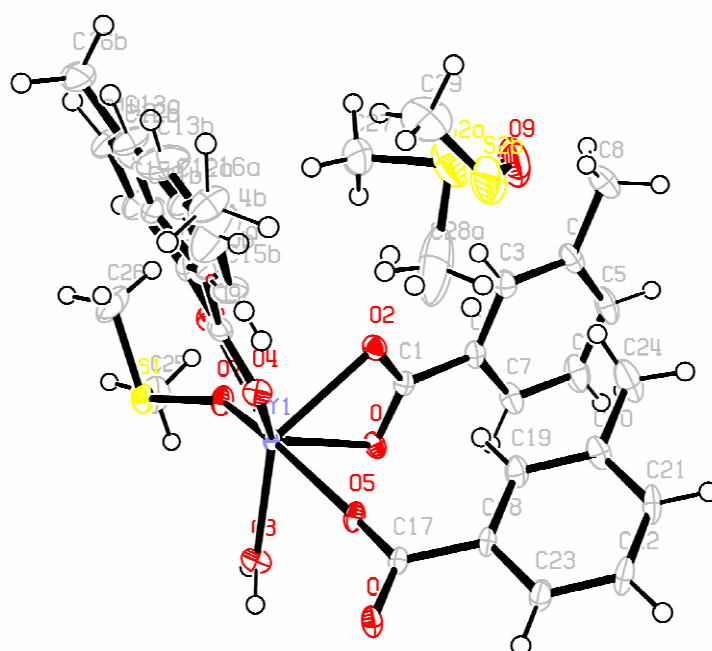


Figure S6: ORTEP representation of the asymmetric unit of $\{[\text{Y}(\text{3-MeBA})_3(\text{DMSO})(\text{H}_2\text{O})] \cdot \text{DMSO}\}_2$ **5**. Ellipsoids displayed at 50% probability.

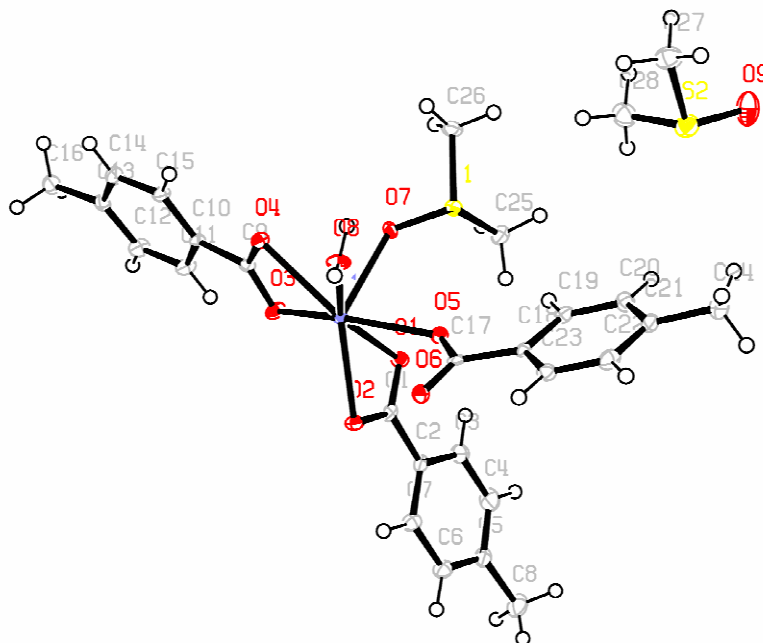


Figure S7: ORTEP representation of the asymmetric unit of $\{[Y(4\text{-MeBA})_3(\text{DMSO})(\text{H}_2\text{O})]\cdot\text{DMSO}\}_2$ **6**. Ellipsoids displayed at 50% probability.

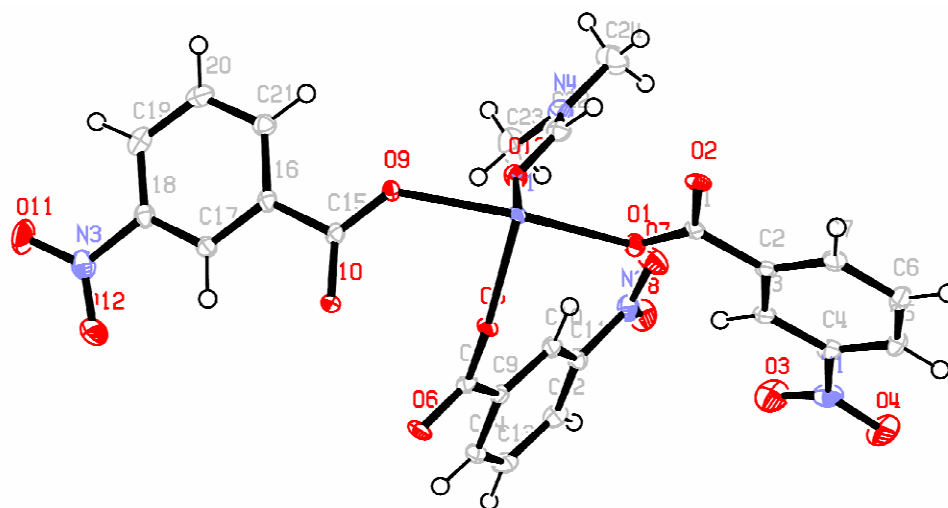


Figure S8: ORTEP representation of the asymmetric unit of $[Y(3\text{-NO}_2\text{BA})_3(\text{DMF})]_n$ **7a**. Ellipsoids displayed at 50% probability.

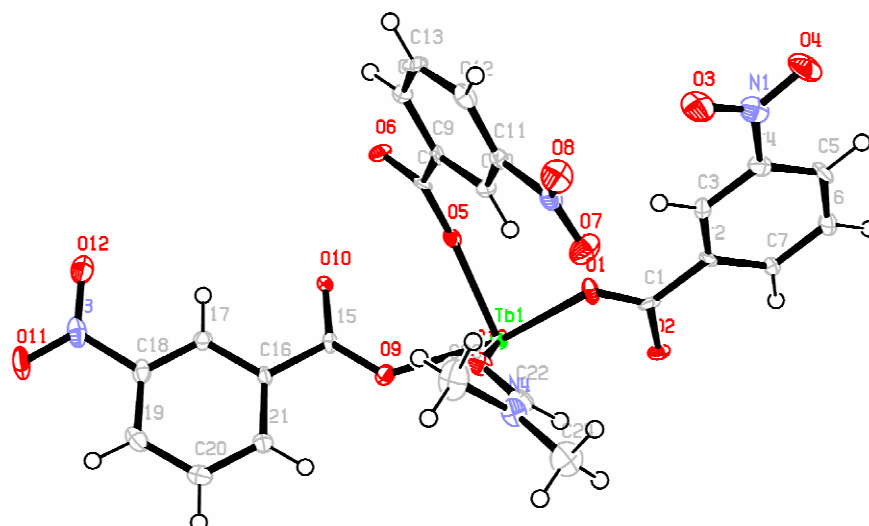


Figure S9: ORTEP representation of the asymmetric unit of [Tb(3-NO₂BA)₃(DMF)]_n **7b**. Ellipsoids displayed at 50% probability.

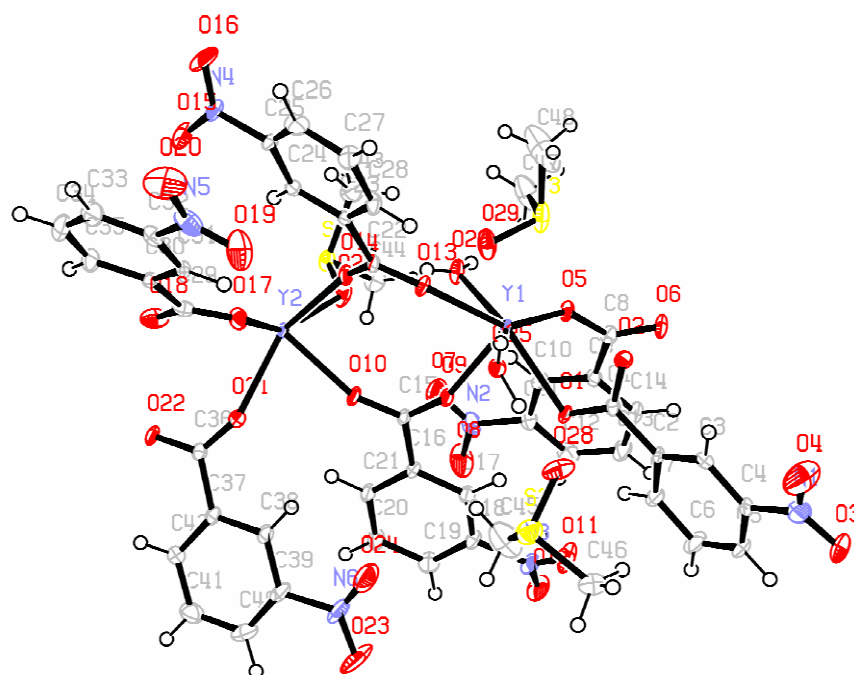
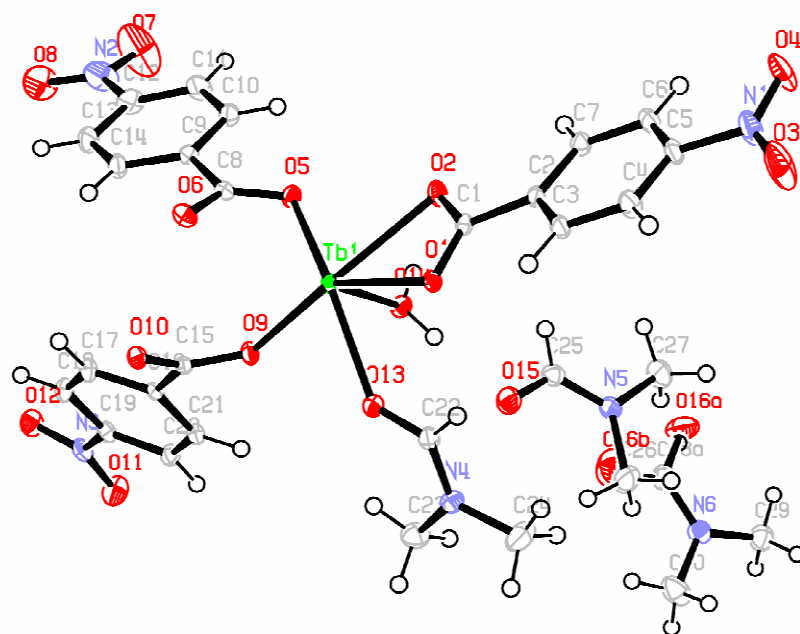


Figure S10: ORTEP representation of the asymmetric unit of $\{[\text{Y}_2(3\text{-NO}_2\text{BA})_6(\text{DMSO})(\text{H}_2\text{O})_2]\cdot 2\text{DMSO}\}_n$ **8**. Ellipsoids displayed at 50% probability.



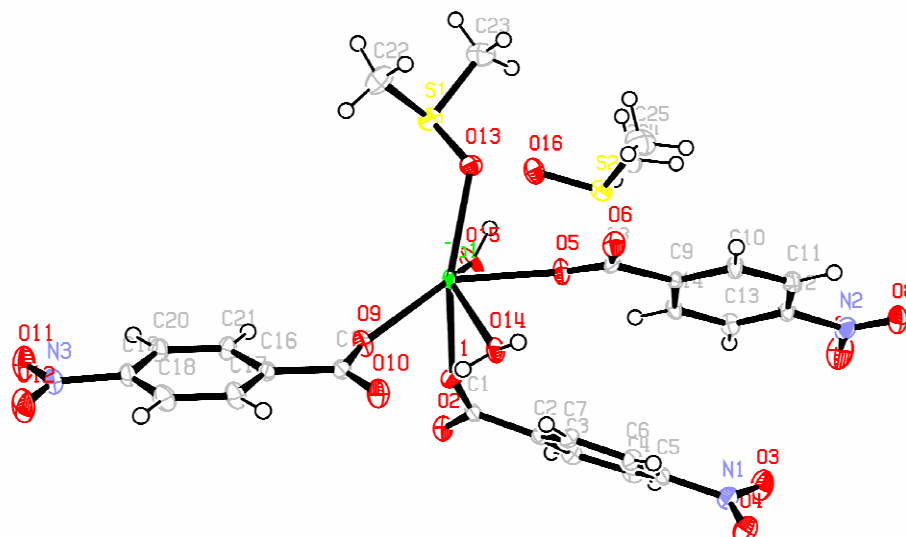


Figure S13: ORTEP representation of the asymmetric unit of $\{[\text{Tb}(4\text{-NO}_2\text{BA})_3(\text{DMSO})(\text{H}_2\text{O})]\cdot\text{DMSO}\}_n$ **10b**. Ellipsoids displayed at 50% probability.

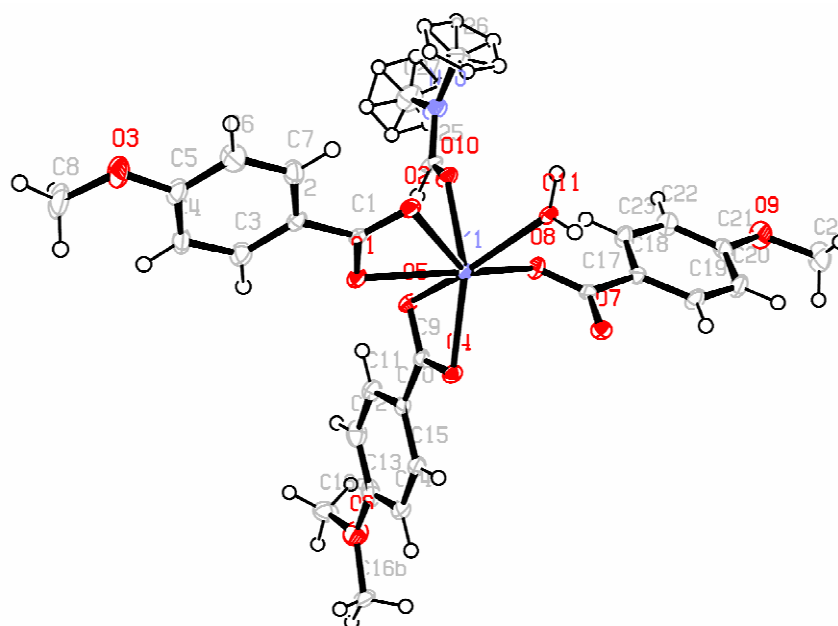


Figure S14: ORTEP representation of the asymmetric unit of $\{[\text{Y}(4\text{-MeOBA})_3(\text{DMF})(\text{H}_2\text{O})]\cdot 2\text{H}_2\text{O}\}_n$ **11a**. Ellipsoids displayed at 50% probability.

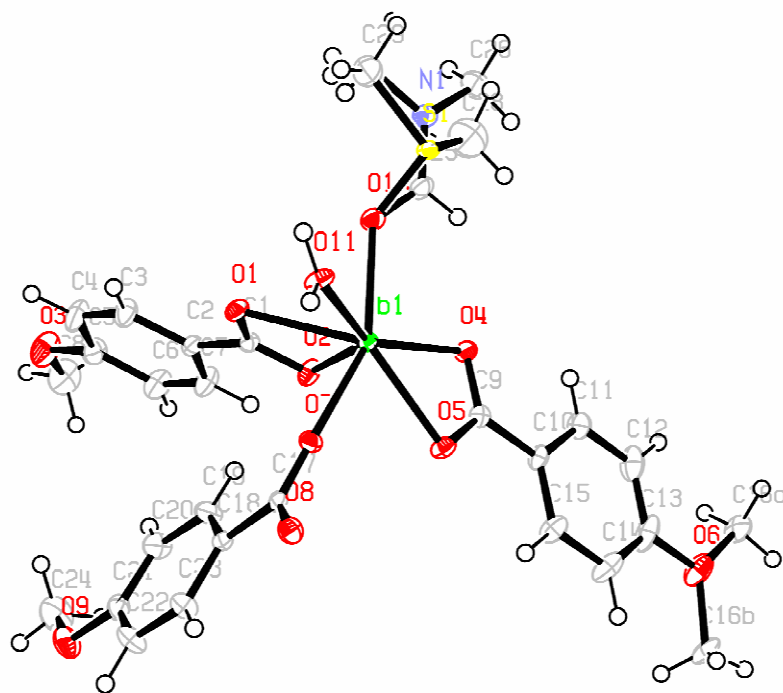


Figure S15: ORTEP representation of the asymmetric unit of $\{[\text{Tb}(4\text{-MeOBA})_3(\text{DMF}/\text{DMSO})(\text{H}_2\text{O})]_2\}$ **11b**. Ellipsoids displayed at 50% probability.

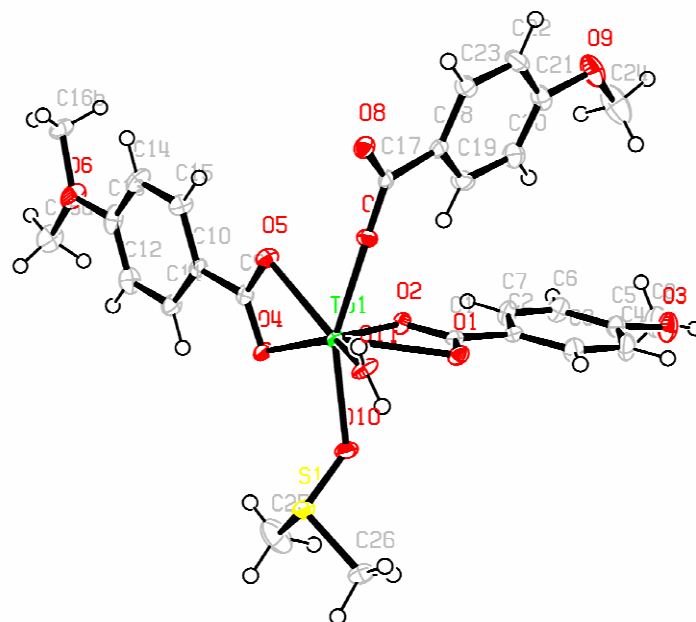


Figure S16: ORTEP representation of the asymmetric unit of $\{[\text{Tb}(4\text{-MeOBA})_3(\text{DMSO})(\text{H}_2\text{O})]_2\}$ **12**. Ellipsoids displayed at 50% probability.