

Supporting Information – ORTEP Plots of Asymmetric Units of Structures 1 - 15

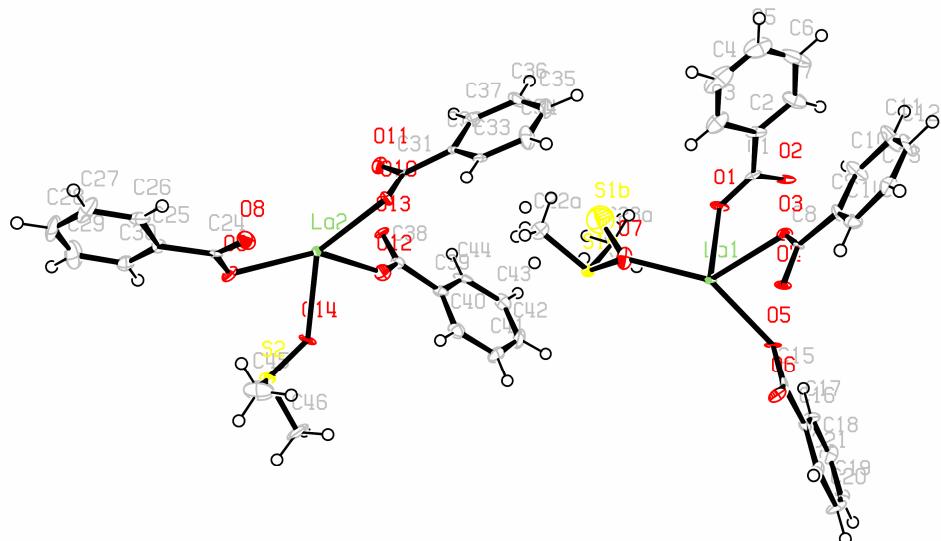


Figure S1: ORTEP representation of the asymmetric unit of $[La(BA)_3(DMSO)]_n$ **1**. Ellipsoids displayed at 50% probability.

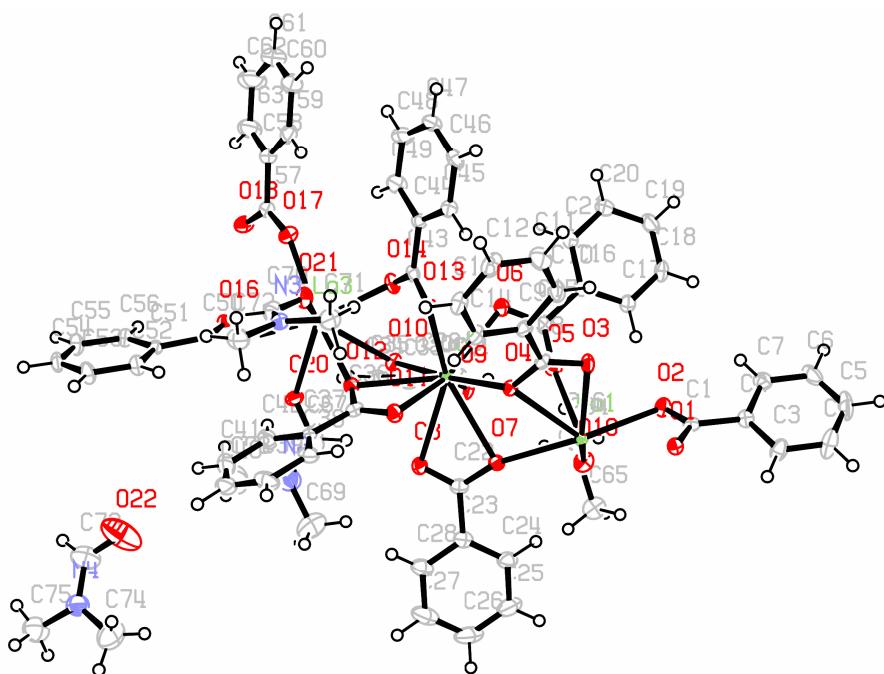


Figure S2: ORTEP representation of the asymmetric unit of $\{[La_3BA_9(DMF)_3] \cdot DMF\}_n$ **2**. Ellipsoids displayed at 50% probability.

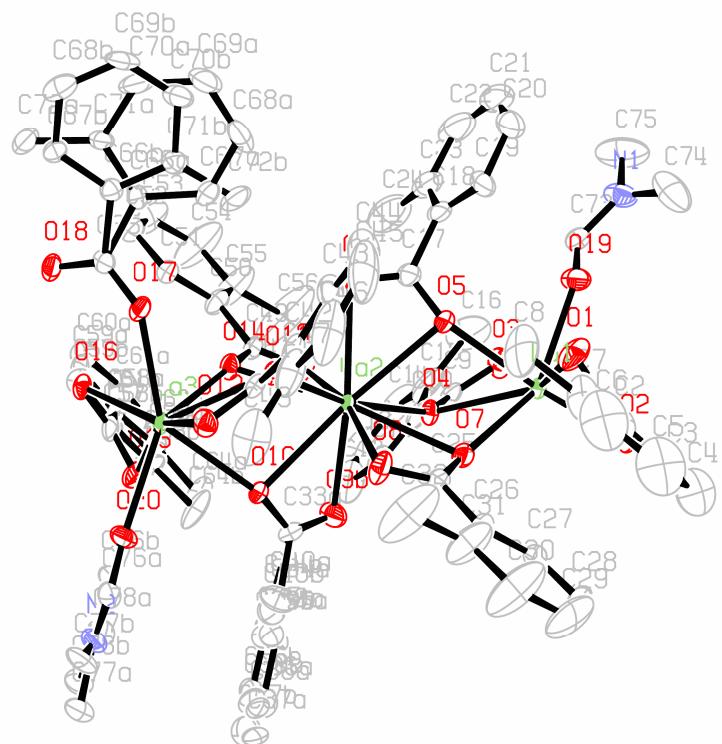


Figure S3: ORTEP representation of the asymmetric unit of $[\text{La}_3(2\text{-MeBA})_9(\text{DMF})_2]_n$ **3**. Ellipsoids displayed at 50% probability. Hydrogen atoms omitted for clarity.

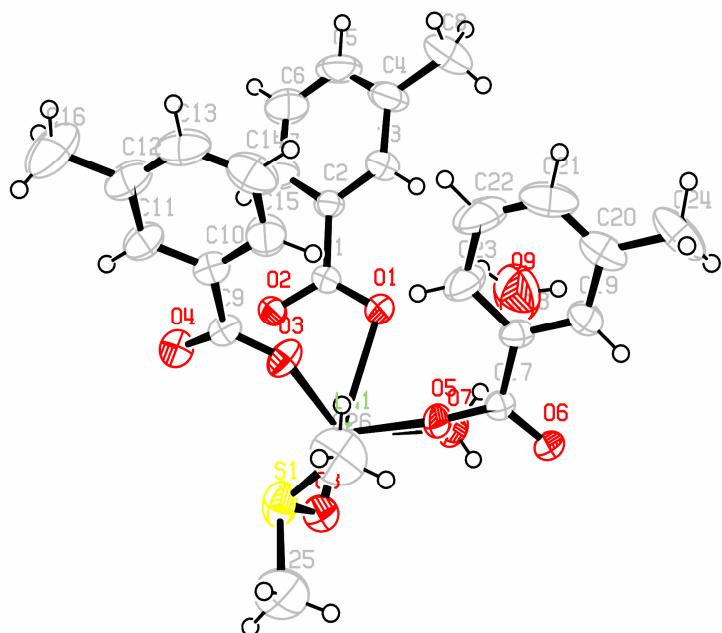


Figure S4: ORTEP representation of the asymmetric unit of $\{[\text{La}(3\text{-MeBA})_3(\text{DMSO})(\text{H}_2\text{O})]\cdot\text{H}_2\text{O}\}_n$ 4. Ellipsoids displayed at 50% probability.

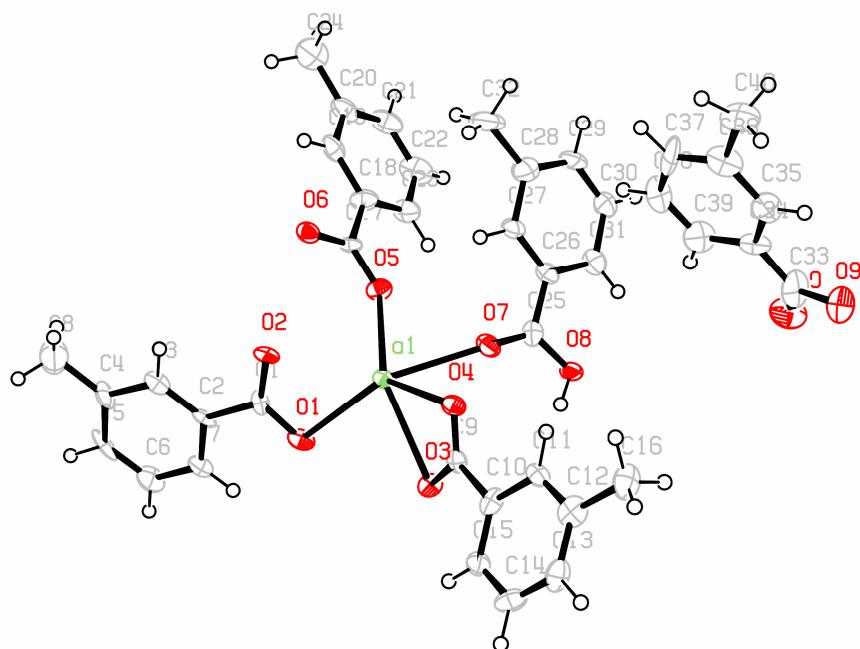


Figure S5: ORTEP representation of the asymmetric unit of $\{[\text{La}(3\text{-MeBA})_3(3\text{-MeBAH})]\cdot 3\text{-MeBAH}\}_n$ **5**. Ellipsoids displayed at 50% probability.

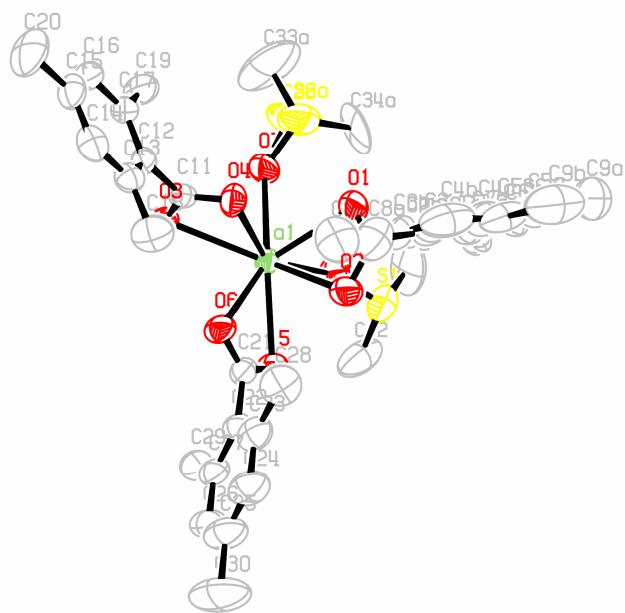


Figure S6: ORTEP representation of the asymmetric unit of $[\text{La}(2,4,6\text{-Me}_3\text{BA})_3(\text{DMSO})_2]_2$ **6**. Ellipsoids displayed at 50% probability. Hydrogen atoms omitted for clarity.

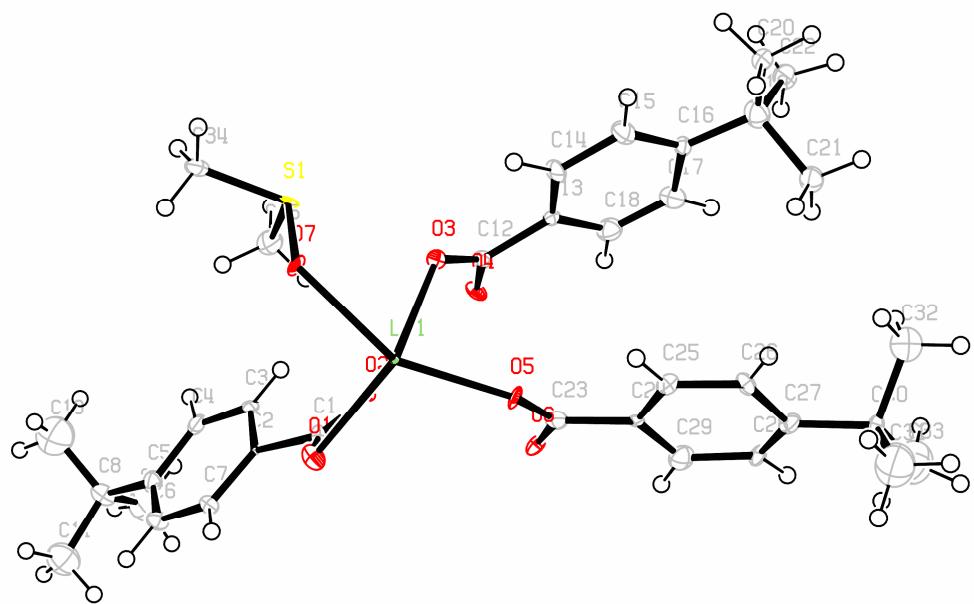


Figure S7: ORTEP representation of the asymmetric unit of $[\text{La}(4\text{-tBuBA})_3(\text{DMSO})]_n$ **7**. Ellipsoids displayed at 50% probability.

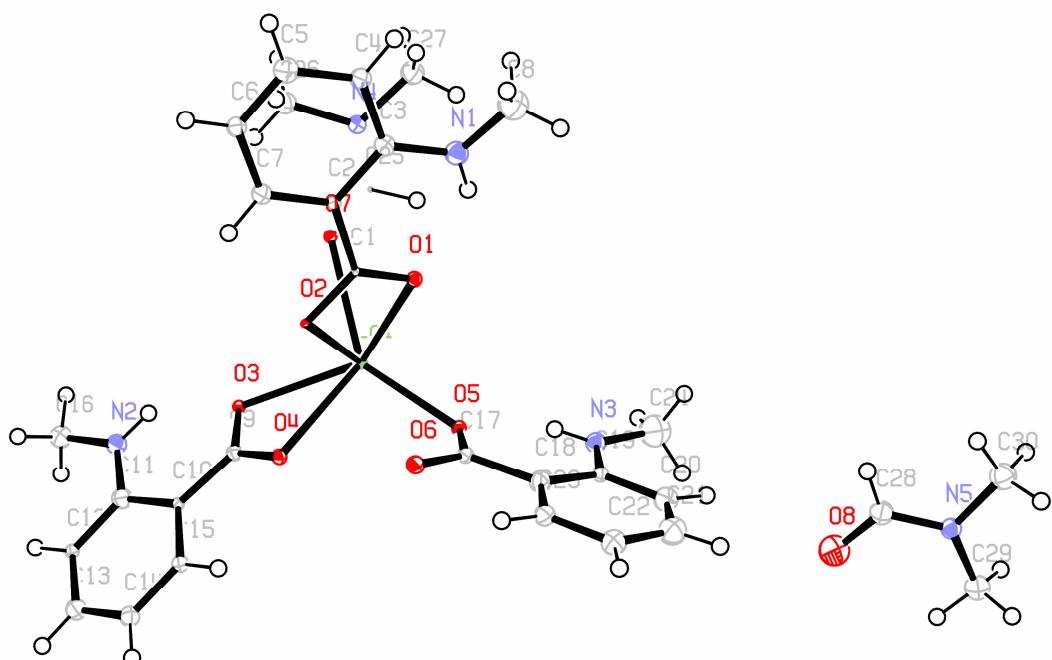


Figure S8: ORTEP representation of the asymmetric unit of $\{[\text{La}(\text{MeNHBA})_3(\text{DMF})]\cdot\text{DMF}\}_n$ **8**. Ellipsoids displayed at 50% probability.

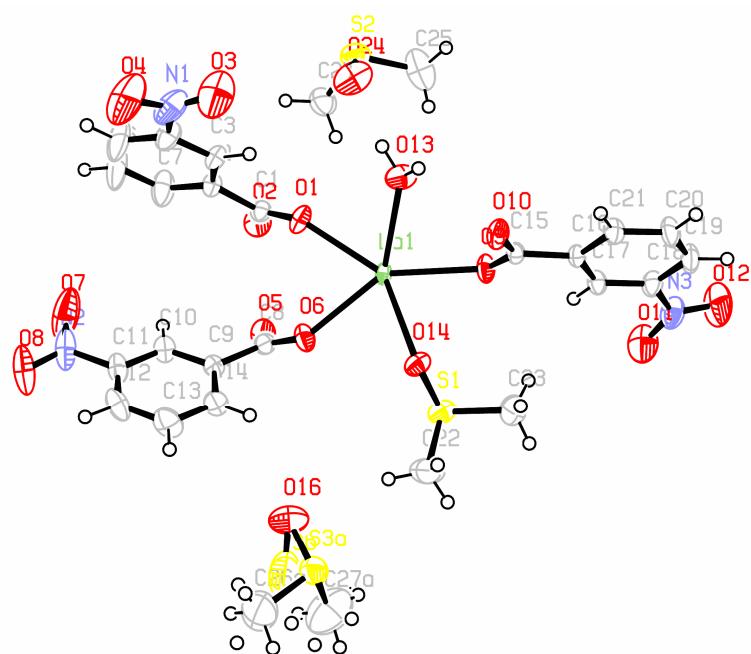
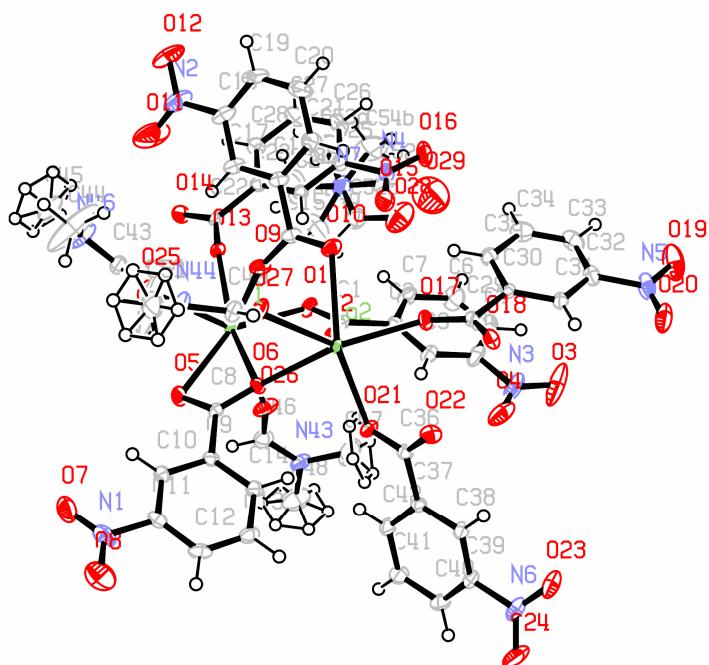


Figure S9: ORTEP representation of the asymmetric unit of $\{[\text{La}(3\text{-NO}_2\text{BA})_3(\text{DMSO})(\text{H}_2\text{O})]\cdot 2\text{DMSO}\}_n$ **9**. Ellipsoids displayed at 50% probability.



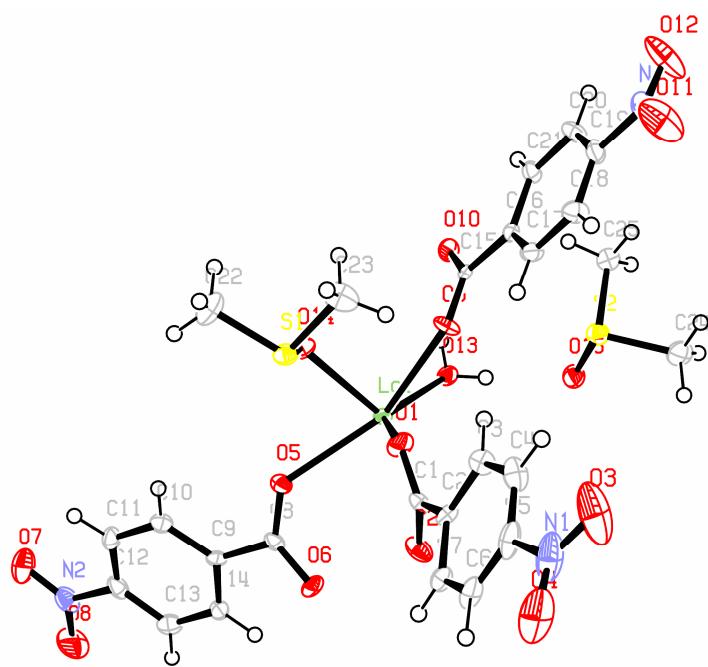


Figure S11: ORTEP representation of the asymmetric unit of $\{[\text{La}(4\text{-NO}_2\text{BA})_3(\text{DMSO})(\text{H}_2\text{O})]\cdot\text{DMSO}\}_n \mathbf{11}$. Ellipsoids displayed at 50% probability.

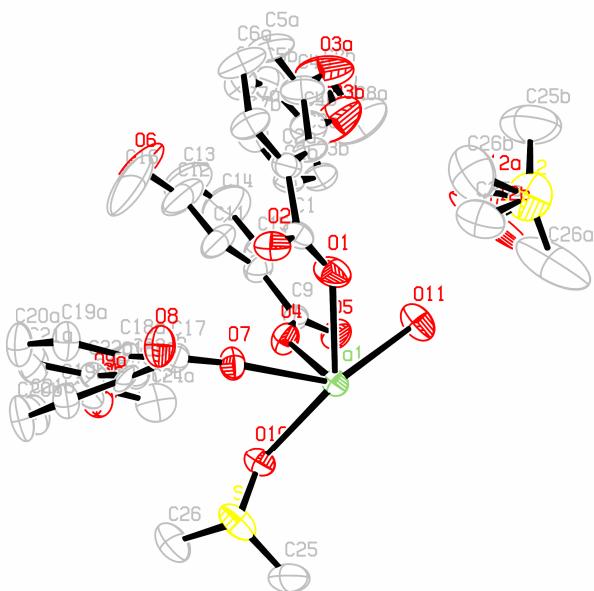


Figure S12: ORTEP representation of the asymmetric unit of $\{[\text{La}(3\text{-MeOBA})_3(\text{DMSO})(\text{H}_2\text{O})]\cdot\text{DMSO}\}_n \mathbf{12}$. Ellipsoids displayed at 50% probability. Hydrogen atoms omitted for clarity.

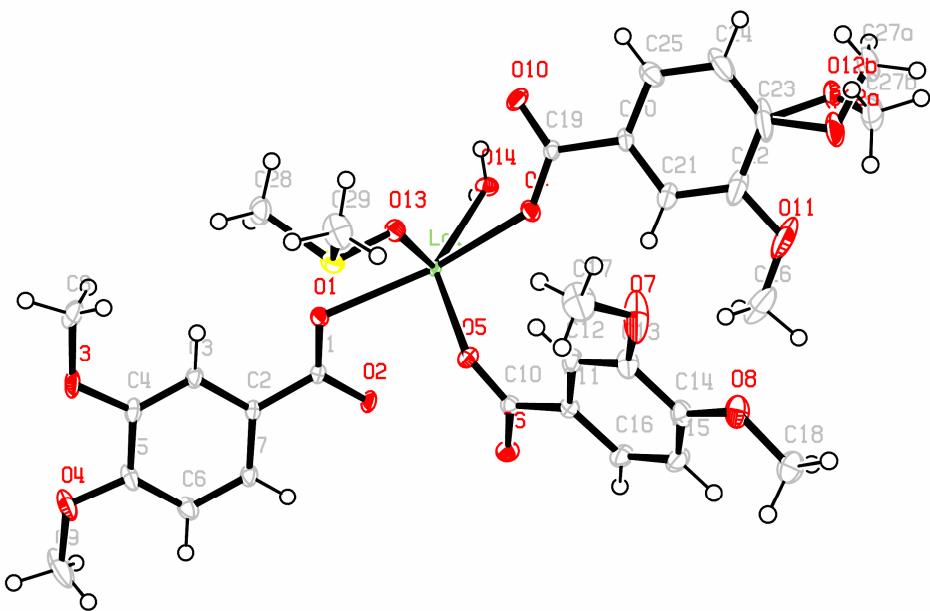


Figure S13: ORTEP representation of the asymmetric unit of $[\text{La}(3,4\text{-MeO}_2\text{BA})_3(\text{DMSO})(\text{H}_2\text{O})]_n$ **13**. Ellipsoids displayed at 50% probability.

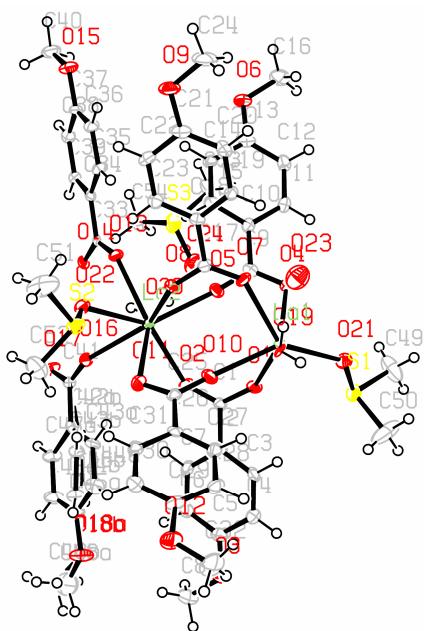


Figure S14: ORTEP representation of the asymmetric unit of $\{[\text{La}_2(4\text{-MeOBA})_6(\text{DMSO})_2(\text{H}_2\text{O})_2]\cdot\text{DMSO}\cdot\text{H}_2\text{O}\}_n$ **14**. Ellipsoids displayed at 50% probability.

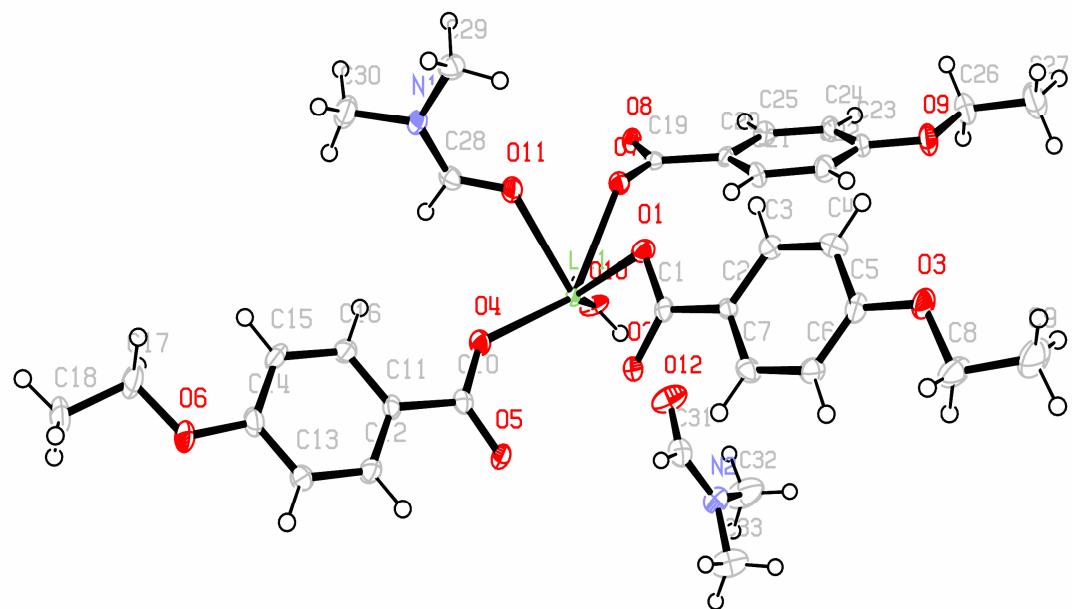


Figure S15: ORTEP representation of the asymmetric unit of $\{[\text{La}(4\text{-EtOBA})_3(\text{DMF})(\text{H}_2\text{O})]\cdot\text{DMF}\}_n \textbf{15}$. Ellipsoids displayed at 50% probability.