

## Supplementary information

### **Red, Orange-red and Near infra-red Light Emitting Ternary Lanthanide tris $\beta$ -diketonate Complexes with Distorted $C_{4v}$ Geometrical Structures**

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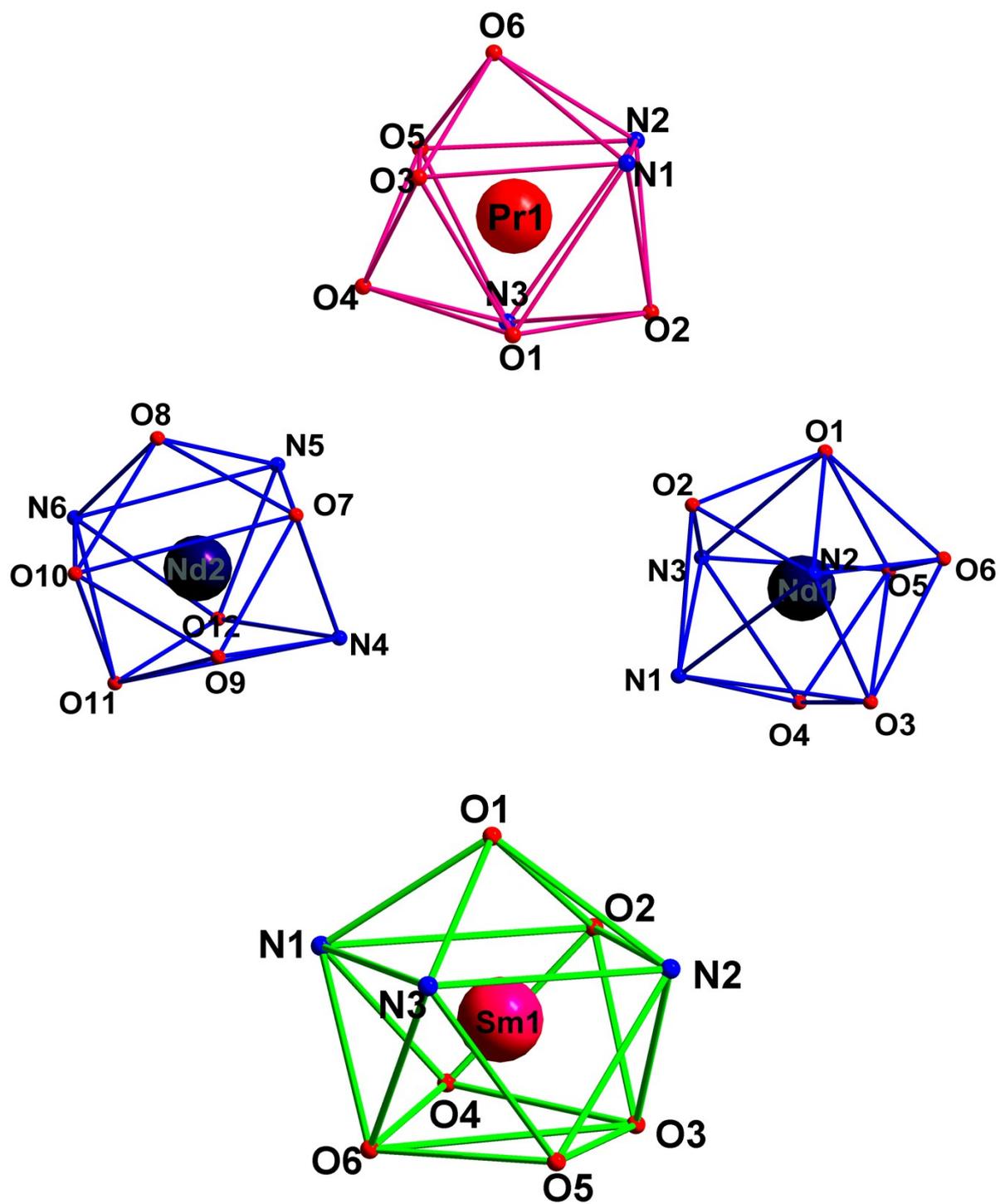
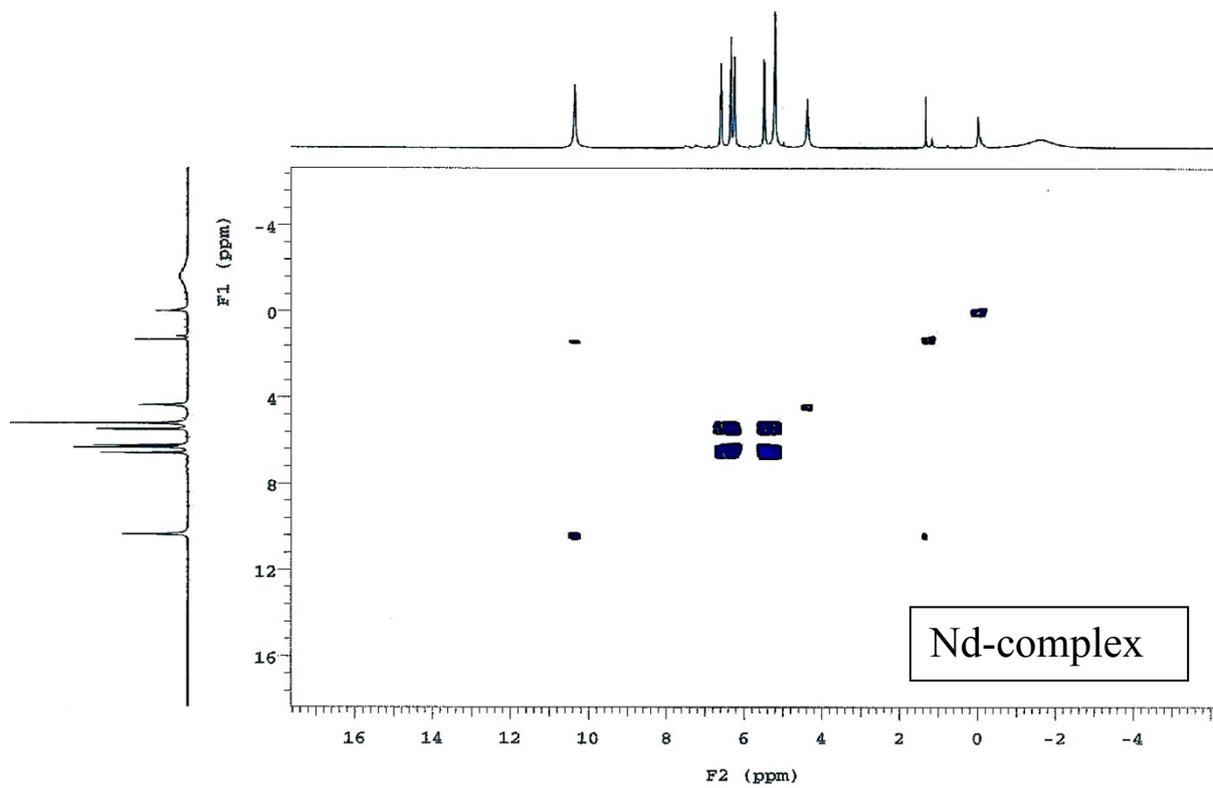
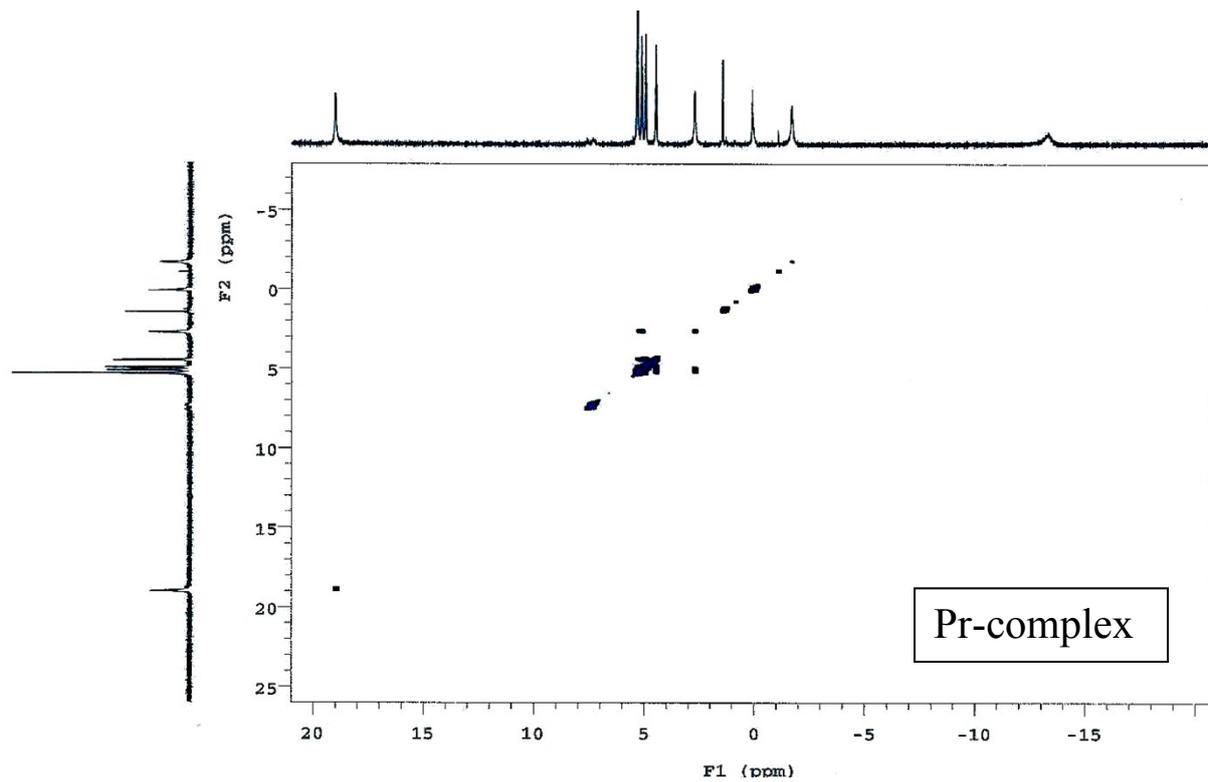
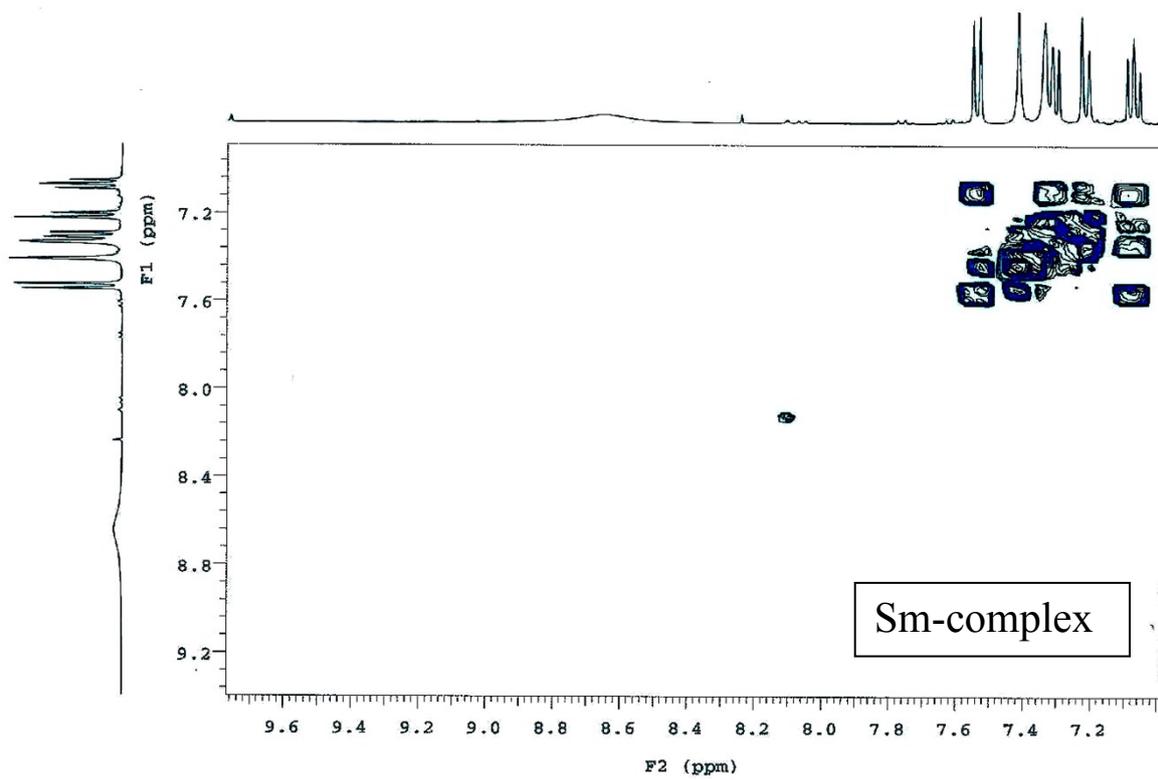
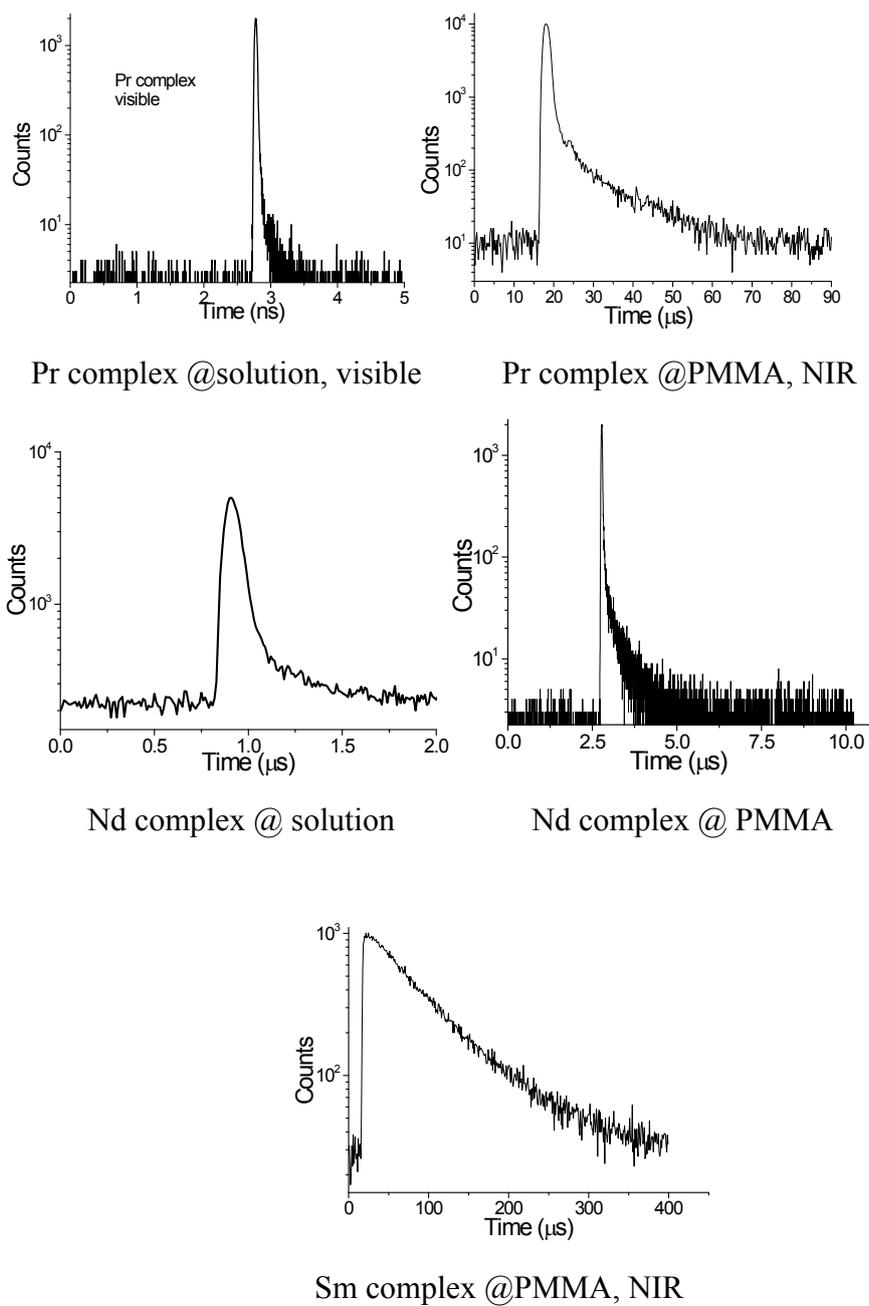


Figure S1. Coordination polyhedra of the complexes.





**Figure S2.** COSY-NMR spectra of the Pr, Nd and Sm complexes.



**Figure S3.** Emission lifetime decay profiles of the complexes.