

Structure and Efficient Luminescence Upconversion of Ln(III) Aromatic N-Oxide Coordination Polymers

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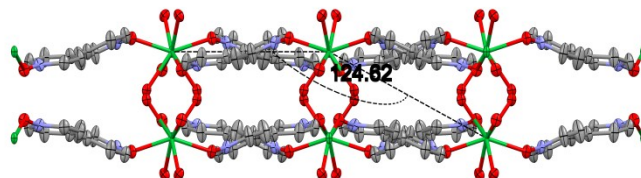
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1. Additional Details of Crystallographic Analysis



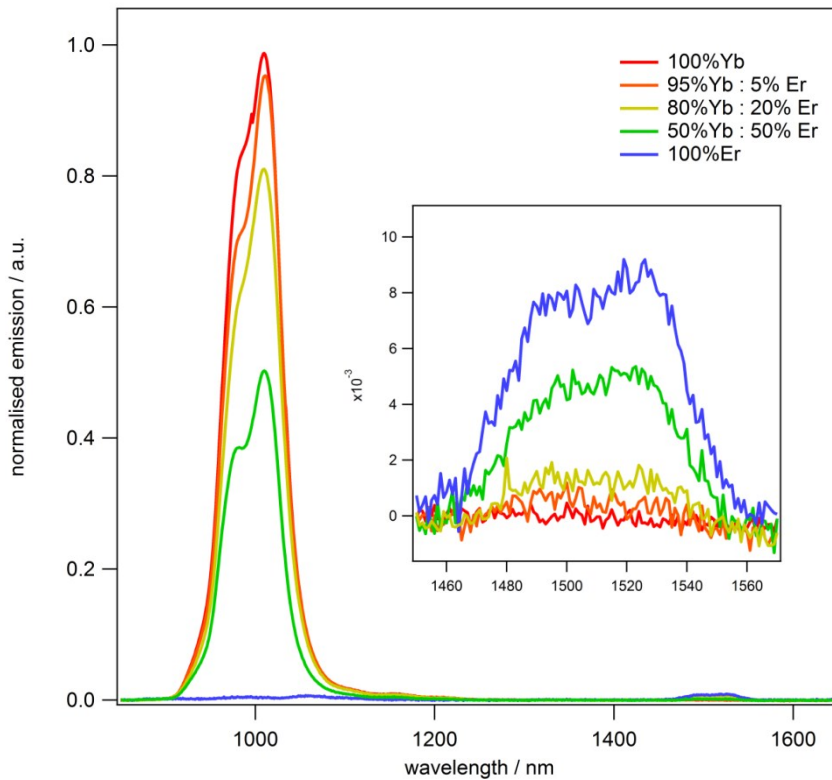
Samples	Angle 1
0%Er-100%Yb	124.62
5%Er-95%Yb	124.67
20%Er-80%Yb	124.71
50%Er-50%Yb	124.72
100%Er-0%Yb	124.76

Selected bond angles in $\{[\text{Yb}_{1-x}\text{Er}_x(4,4'\text{-bpdo})_3(\text{H}_2\text{O})_2](\text{CF}_3\text{SO}_3)_3\}_\infty$ coordination polymers: Angle 1 between the layers along the a-axis.

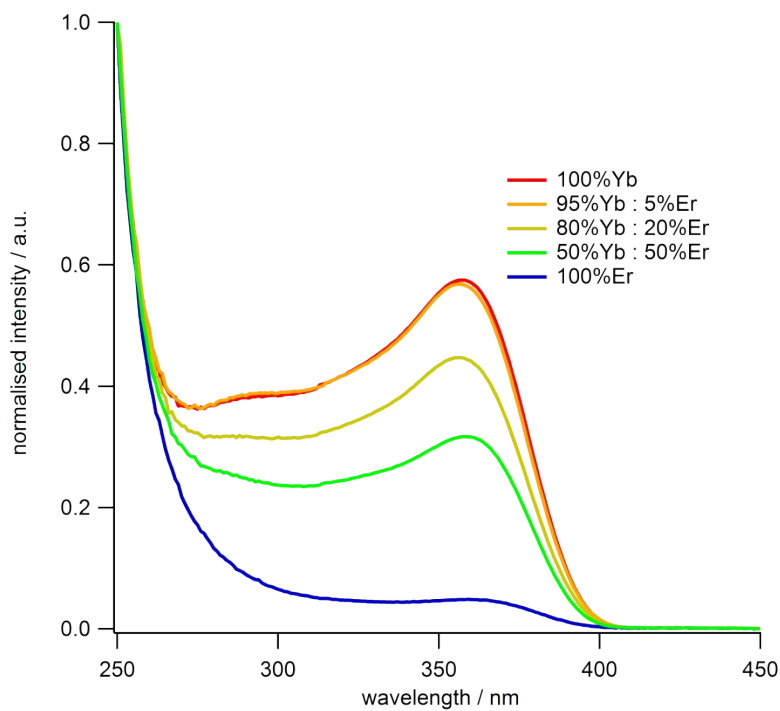
Samples	Experimental Average $\text{LnO}_{\text{ligand}}$ Distance
0%Er-100%Yb	2.3000(5)
5%Er-95%Yb	2.3007(4)
20%Er-80%Yb	2.3037(4)
50%Er-50%Yb	2.3087(4)
100%Er-0%Yb	2.3187(4)

Calculated average experimental bond length of the Ln(III) metal with the oxygen atom from the 4,4'-bpdo ligands.

2. Near Infra-Red (NIR) Emission and Excitation Data



FigS1. Observed NIR emission for solid powdered samples of (1) to (5) upon 360 nm excitation at room temperature.



FigS2. Excitation spectra for solid powdered samples of (1) to (4) monitored at 980nm and (5) monitored at 1520nm.