

**Pseudo-merohedral twined crystalline family of Ln-MOFs:
relationship between the structure and the catalytic properties.**

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Supporting Information

Section S2. Experimental X-ray powder patterns for **RPF-20**-Ln compounds.

Section S3. FT-IR for the **RPF-20**-Ln series

Section S4. TG analysis of **RPF-20**-Ln compounds.

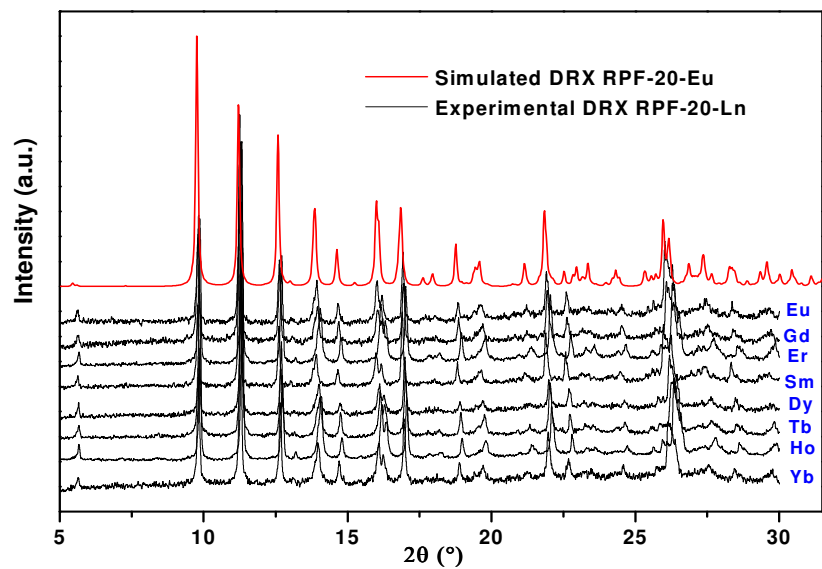
Section S5. X-ray powder thermo-diffraction patterns for **RPF-20**-Eu.

Section S6. X-ray powder patterns for **RPF-20**-Ln compounds after TG analysis.

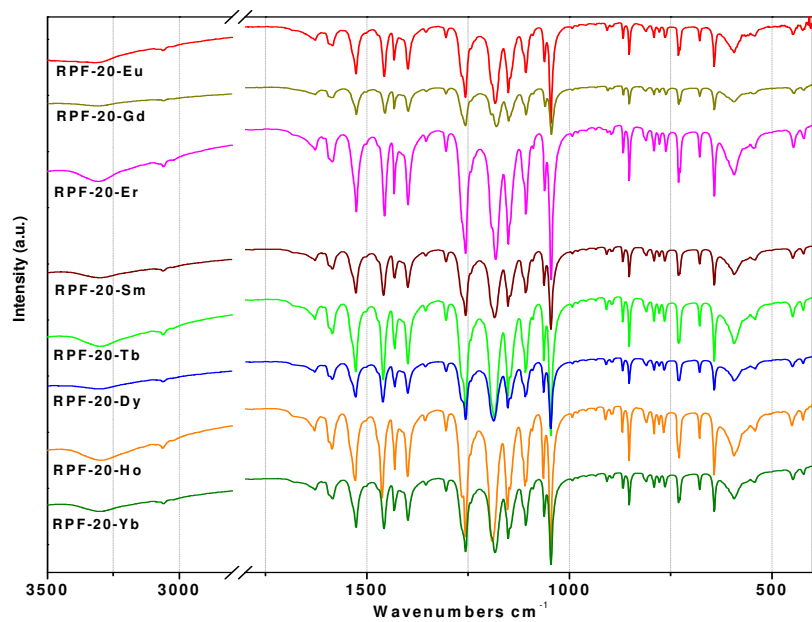
Section S7. Kinetic profiles of the RPF-20-Yb catalyst in cyanosilylation reaction for different temperatures (red) and the catalyst activated to 150 °C (blue).

Section S8. X-ray powder patterns for **RPF-20**-Ln (Sm, Dy and Yb) before and after catalytic reactions.

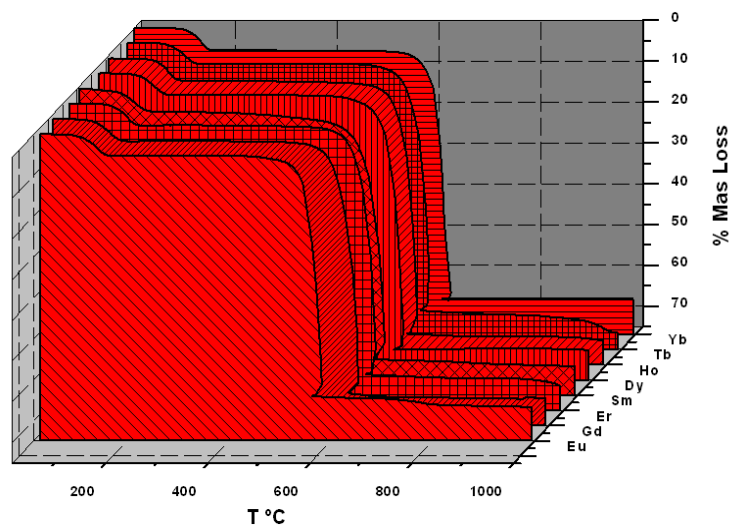
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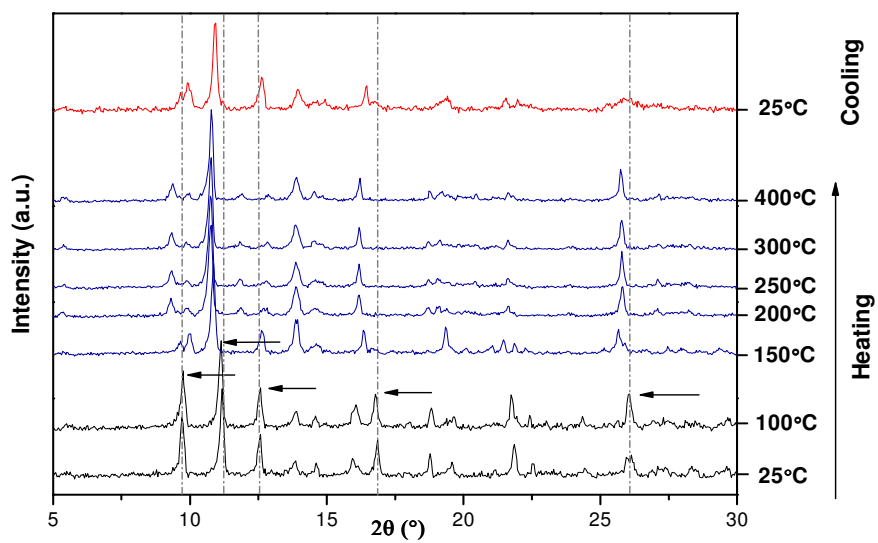
Section S3. FT-IR for the **RPF-20-Ln** series



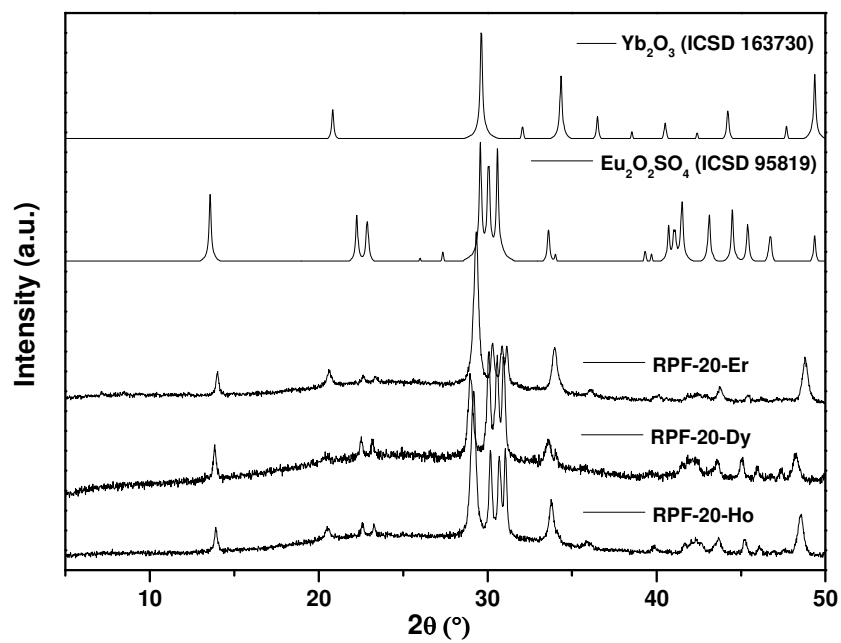
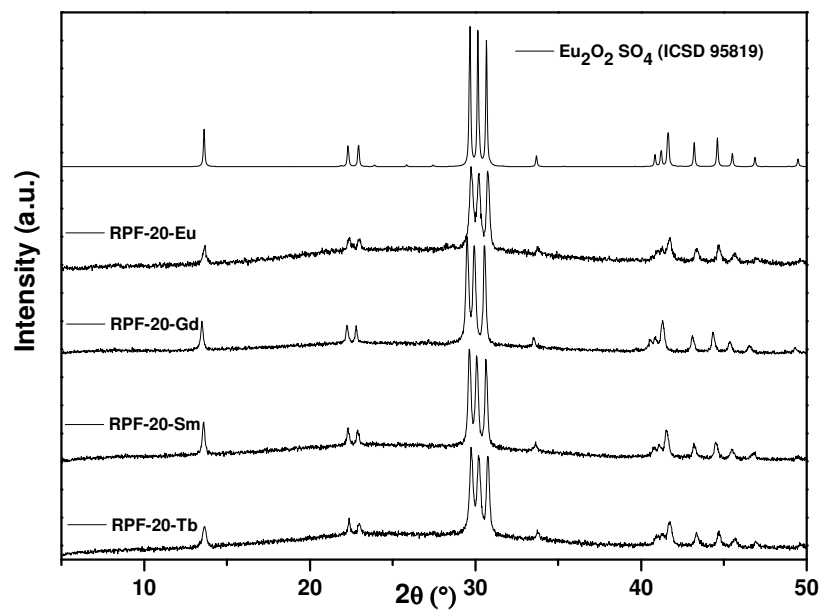
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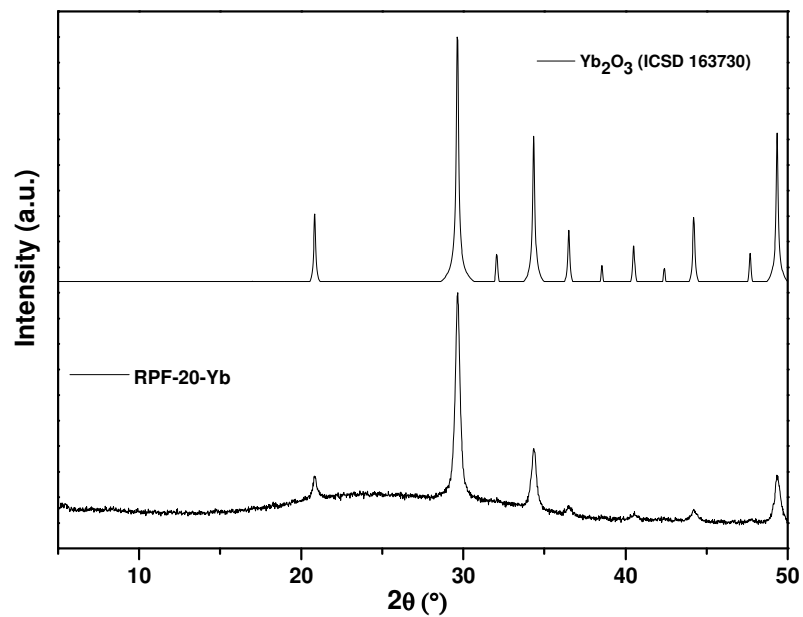


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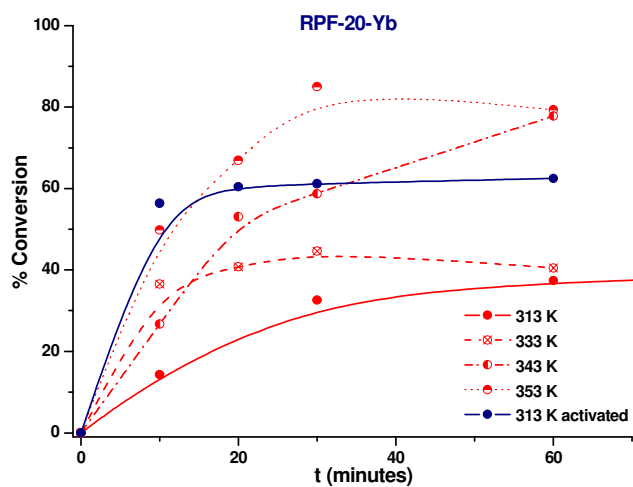


Section S6. X-ray powder patterns for **RPF-20-Ln** compounds after TG analysis.





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