

Electronically Supporting Information

Novel photofunctional hybrid materials (alumina and titania) functionalized with both MOF and lanthanide complexes through coordination bonds

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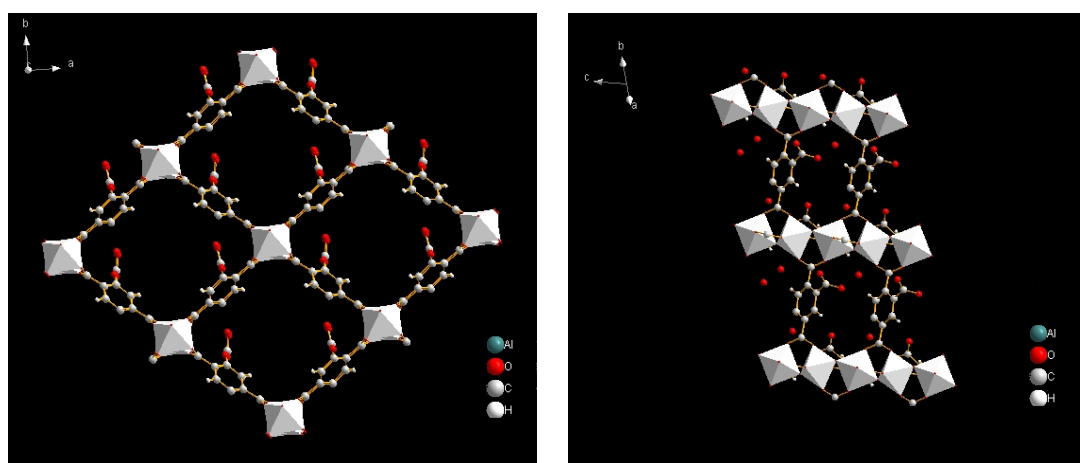


Figure S1 Structural representations of Al-MIL-53-COOH (MOF), whose AlO_6 -octahedra are presented in white.

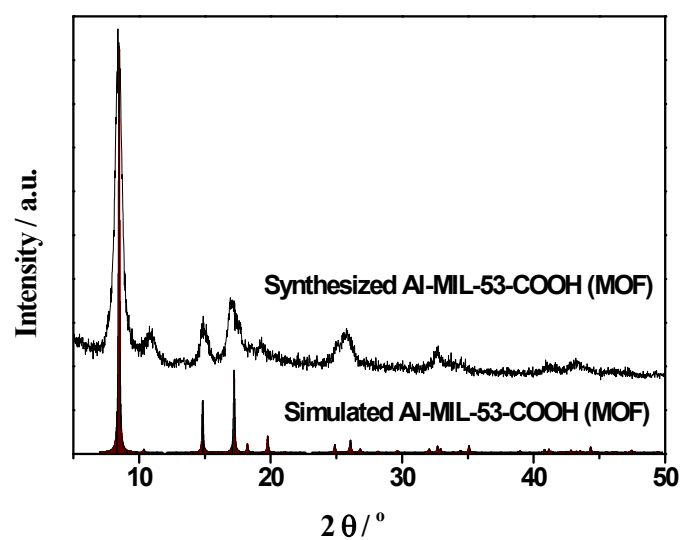


Figure S2 X-ray diffraction pattern of Al-MIL-53-COOH (MOF) and its simulated XRD pattern

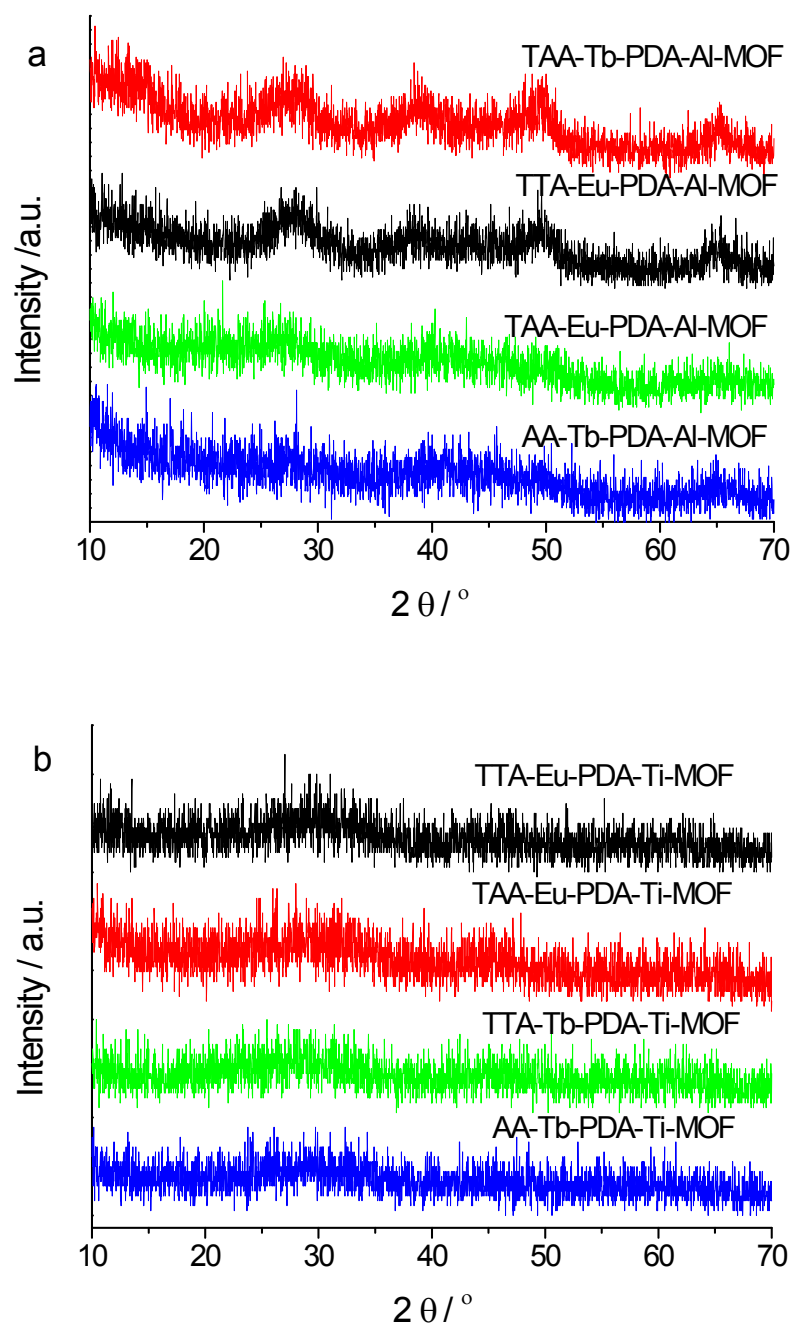


Figure S3 X-ray diffraction pattern of hybrid materials L-Eu/Tb-PDA-Al/Ti-MOF: (a) alumina system; (b) titania system (Eu^{3+} , L = TTA, TAA; Tb^{3+} , L = TAA, AA)

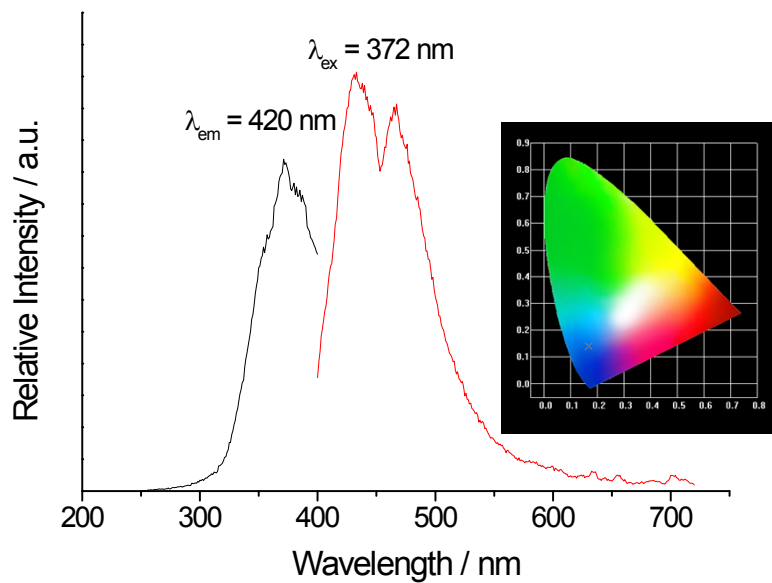


Figure S4 The excitation and emission spectra and the CIE chromaticity diagram of MOF (Al-MIL-53-COOH)

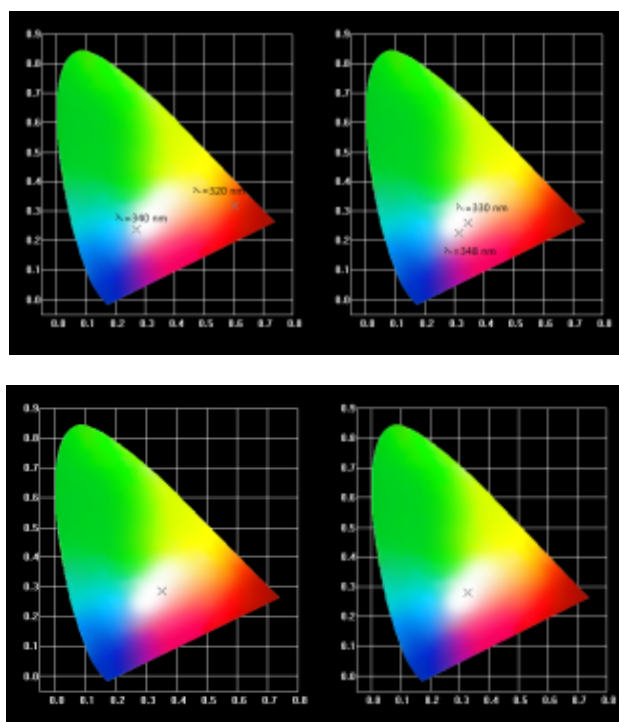


Figure S5 The CIE chromaticity diagrams of the hybrids TAA-Eu-PDA-Al-MOF (a), TTA-Eu-PDA-Al-MOF (b), TTA-Eu-PDA-Ti-MOF (c) and TAA-Eu-PDA-Ti-MOF (d).

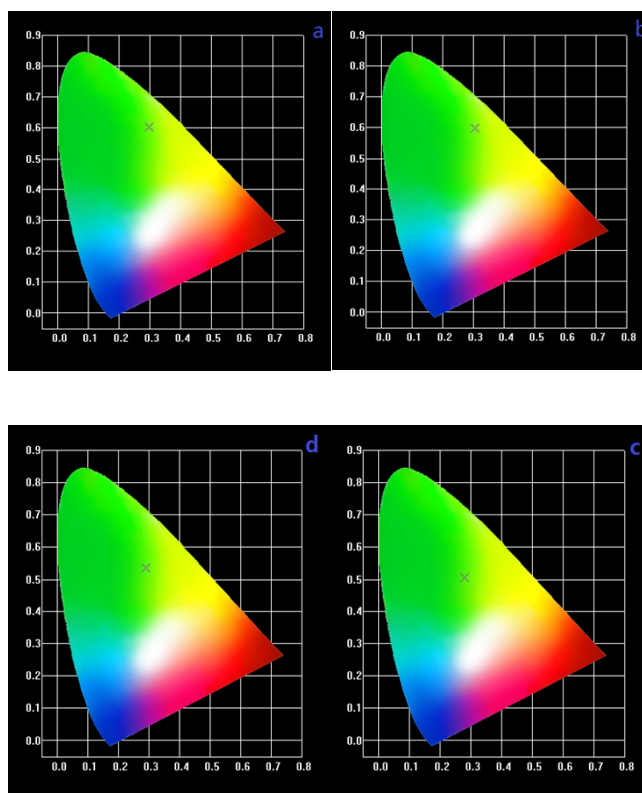


Figure S6 The CIE chromaticity diagram of TAA-Tb-PDA-Al-MOF (a), AA-Tb-PDA-Al-MOF (b), TAA-Tb-PDA-Ti-MOF (c) and AA-Tb-PDA-Ti-MOF (d).

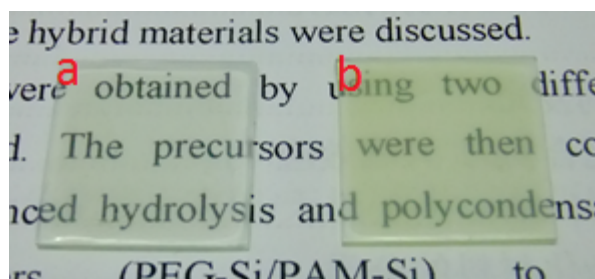


Figure S7 The pictures of hybrid films fabricated with TTA-Eu-PDA-Ti-MOF (a) and TTA-Eu-PDA-Ti-MOF (b)

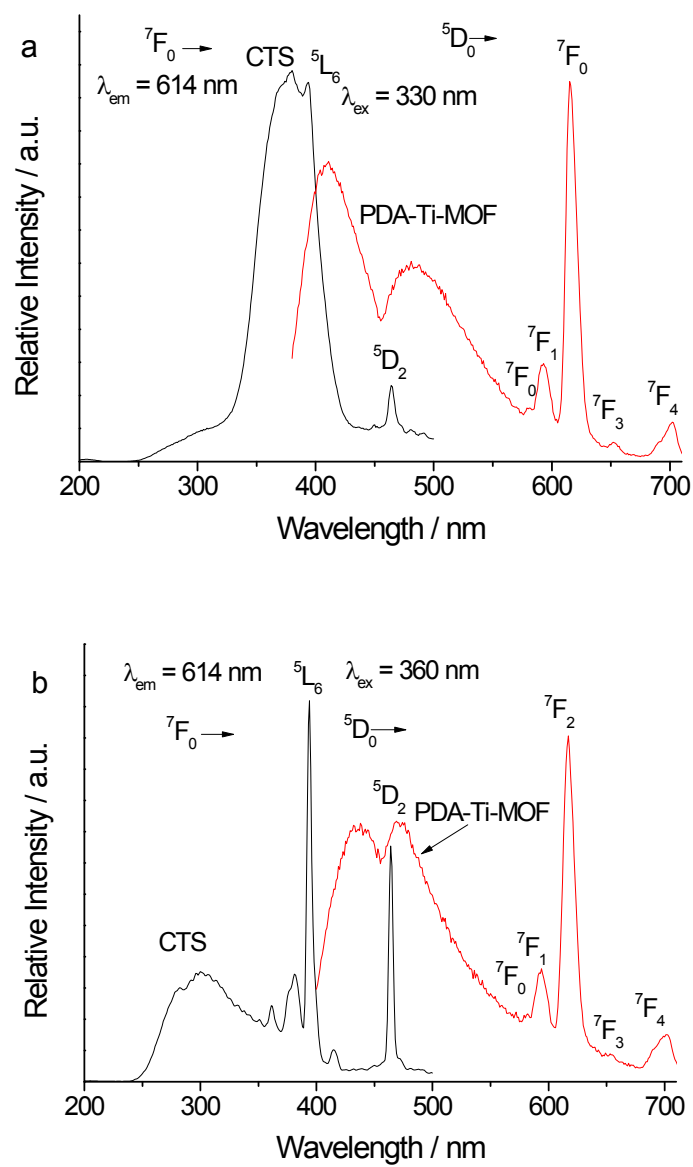


Figure S8 The excitation and emission spectra of hybrid films fabricated with TTA-Eu-PDA-Ti-MOF (a) and TAA-Eu-PDA-Ti-MOF (b).