

Supplementary materials

**Effects of ligand functionalization on the band gaps and luminescent
properties of a Zr₁₂ oxo-cluster based metal-organic framework**

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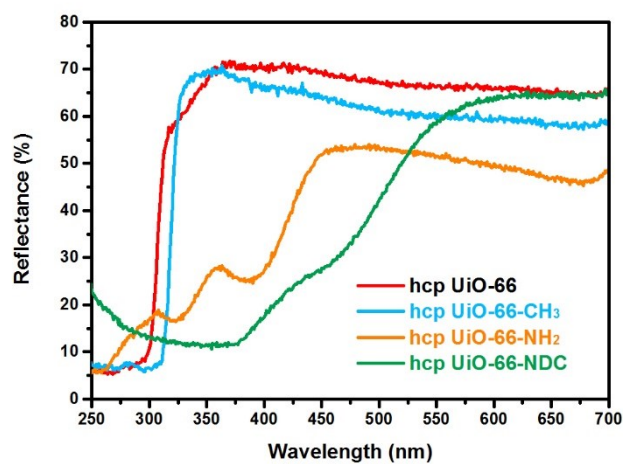


Fig. S1 UV-vis diffuse reflectance spectra (DRS) of the synthesized samples.

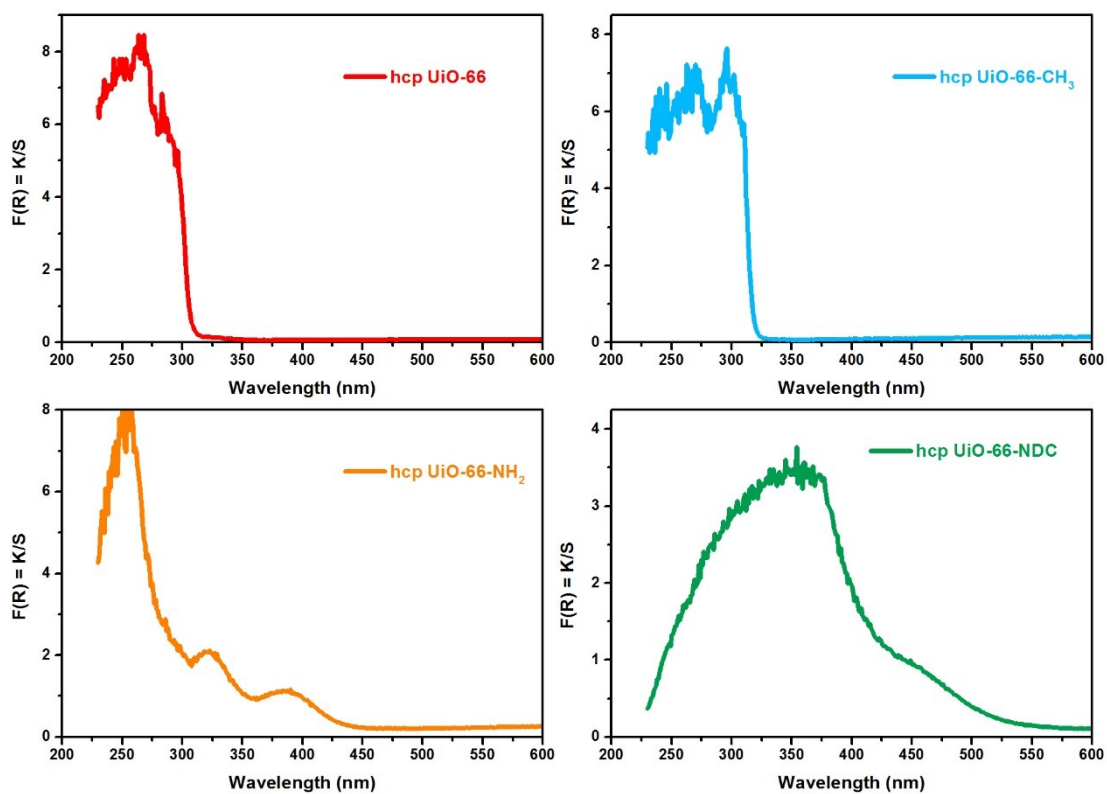


Fig. S2 UV-Vis absorption spectra of samples obtained according to K-M function.

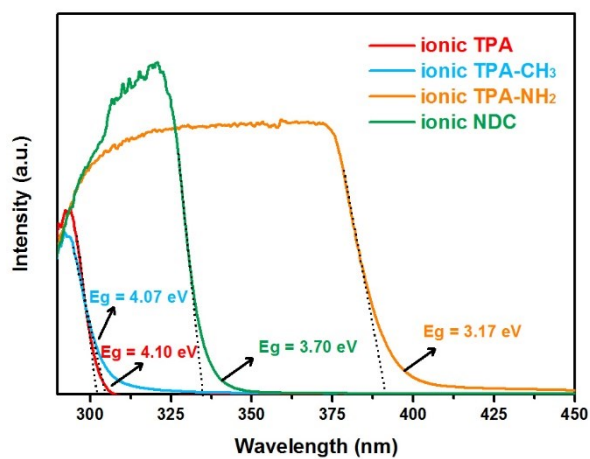


Fig. S3 UV-vis absorption spectra of the ionic form ligand solutions.

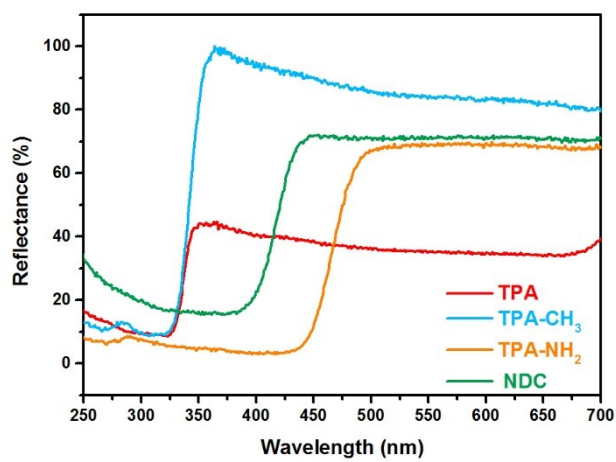


Fig. S4 UV-vis DRS of the powder-form ligands.

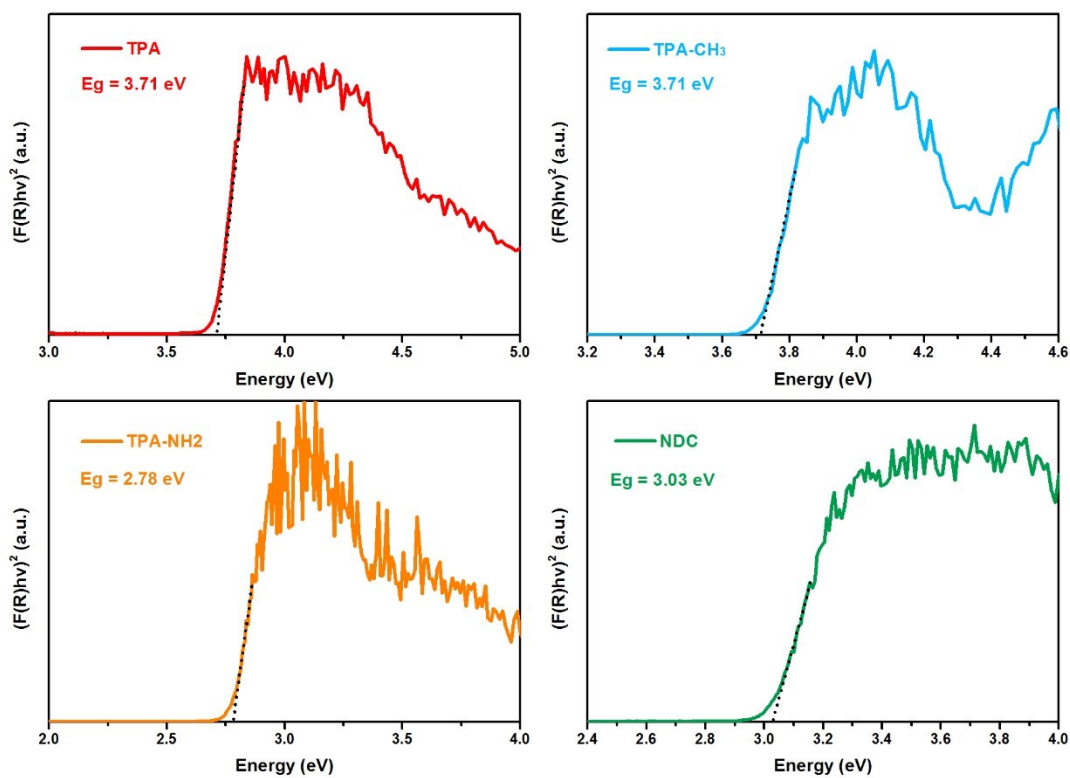


Fig. S5 Tauc plots converting from the DRS of the powder-form ligands.

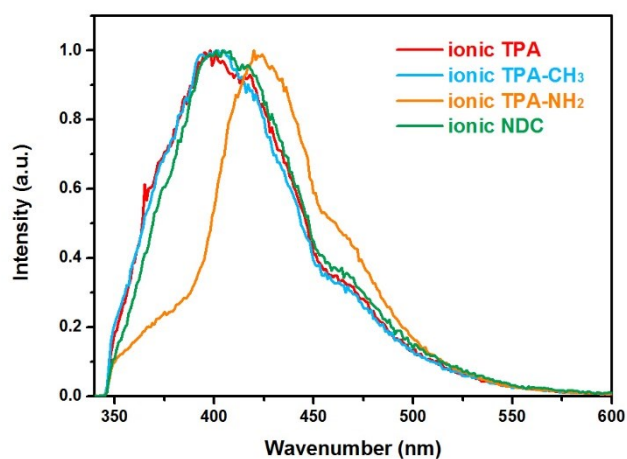


Fig. S6 Normalized emission spectra of the ionic form ligand solutions.

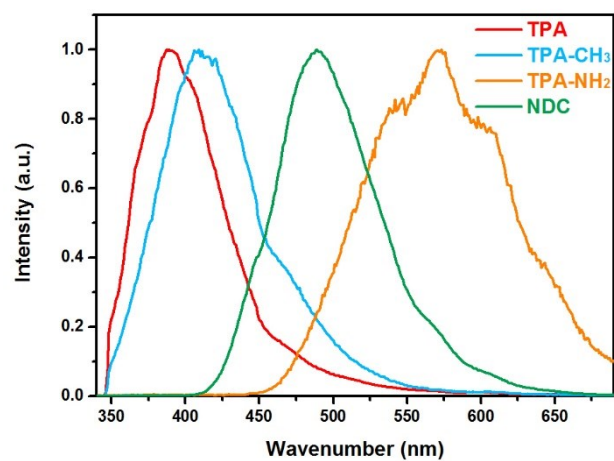


Fig. S7 Normalized emission spectra of the powder-form ligands.