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Supporting information for article:

Cadmium(II) three-dimensional coordination polymers constructed from 1,3,5-tris(4-carboxyphenoxy)benzene: synthesis, crystal structure, fluorescence and I2 sorption characterization

Yuting Bai, Meirong Han, Enxi Wu, Sisi Feng and Miaoli Zhu

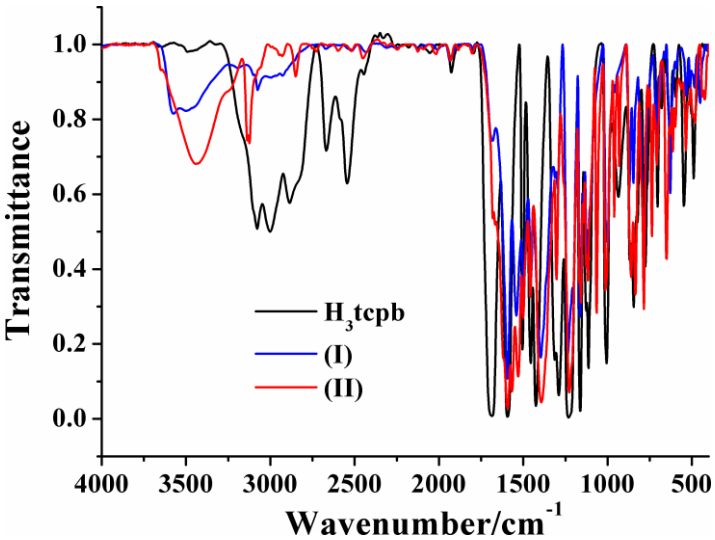

Figure S1. IR spectra for H_3tcpb, (I) and (II) (KBr, cm^{-1})

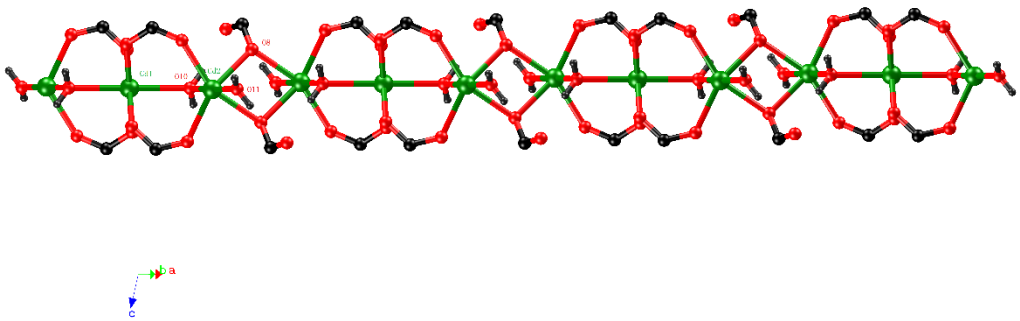

Figure S2. The pillars in (I) linked by $tcpb^{3-}$ anions viewed along the *b* axis.

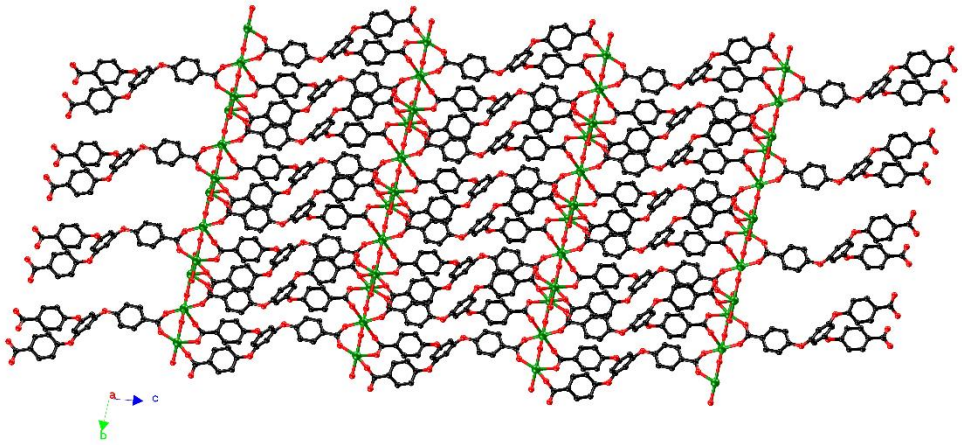

Figure S3. The 2D skeleton in (I) linked by $tcpb^{3-}$ anions viewed along the *a* axis.

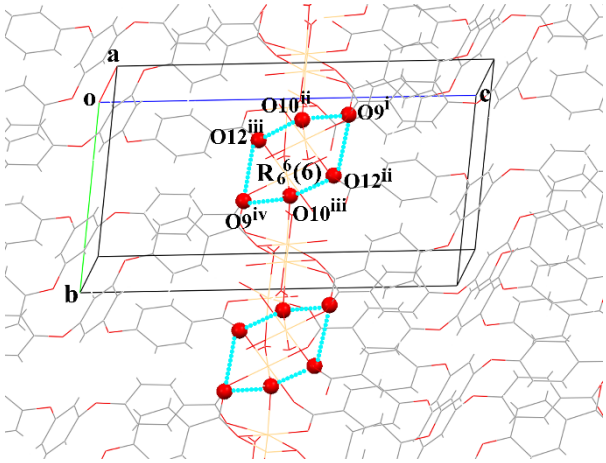

Figure S4. A view of the hydrogen bonds in (I), showing the formation of $R_6^6(6)$ hydrogen bonding rings. H atoms have been omitted for clarity. [Symmetry codes: (i) 1 + x, 1 + y, 1 + z; (ii) 1 + x, y, z; (iii) 1 – x, 1 – y, 1 – z; (iv) 1 – x, 2 – y, - z.]

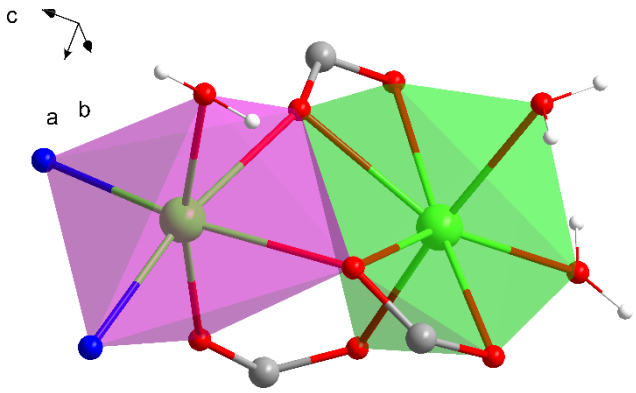

Figure S5. The $[Cd_2(COO)_3(H_2O)_3]$ SBU in (II).

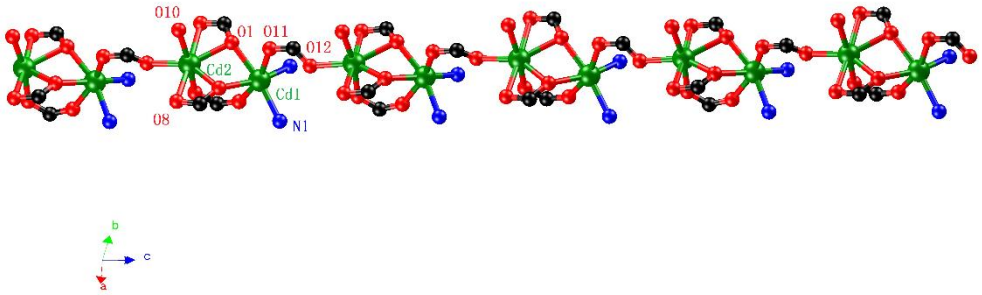

Figure S6. The pillars in (II) linked by 1,3- formate groups viewed along the *c* axis.

Figure S7. The sheets in (II) linked by μ_8-tcpb viewed along the *b* axis.

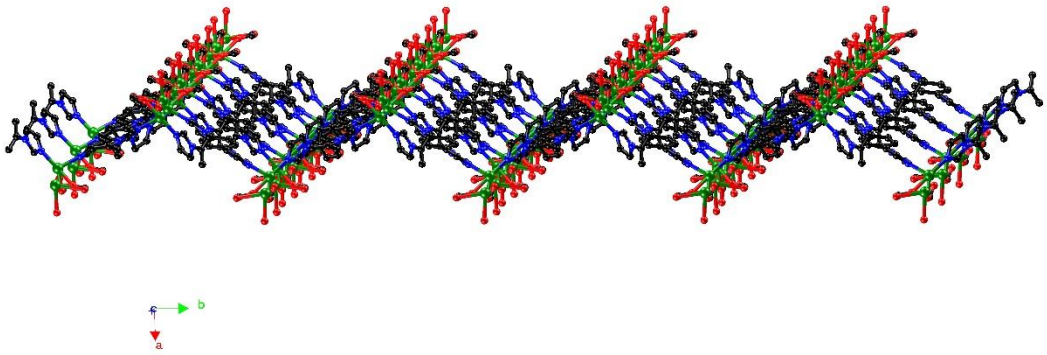

Figure S8. The waving layars in (II) linked by $\mu_{1,10}$-bib viewed along the *c* axis.

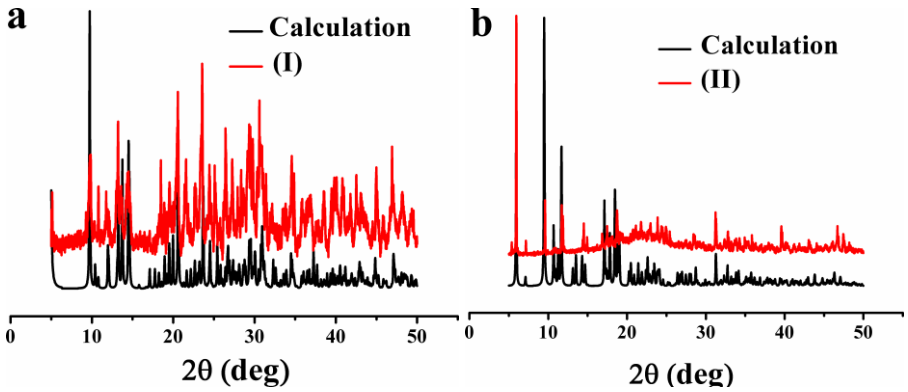

Figure S9. The PXRD patterns of complexes (I) and (II) (experiment and calculation) at room temperature.

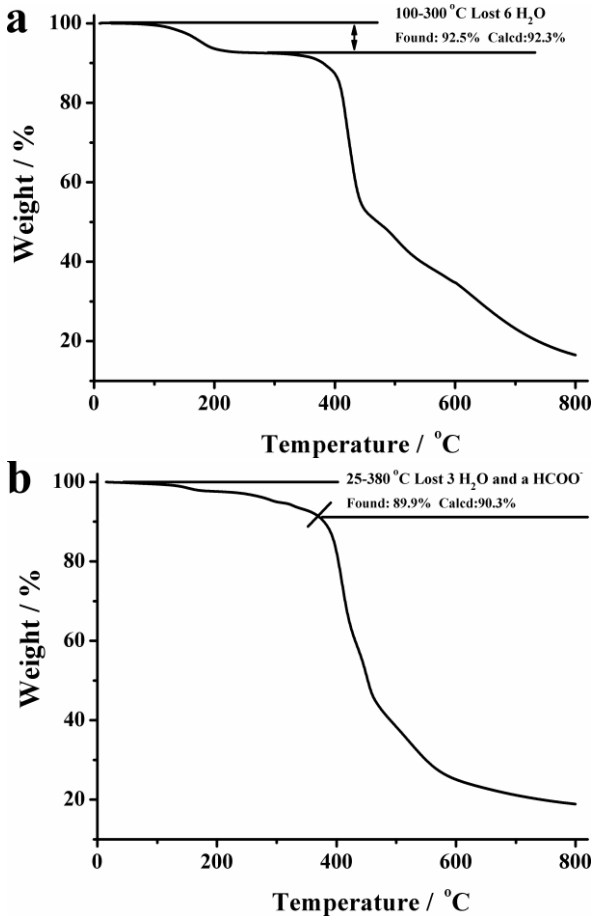

Figure S10. TGA plots of complexes (I) and (II).

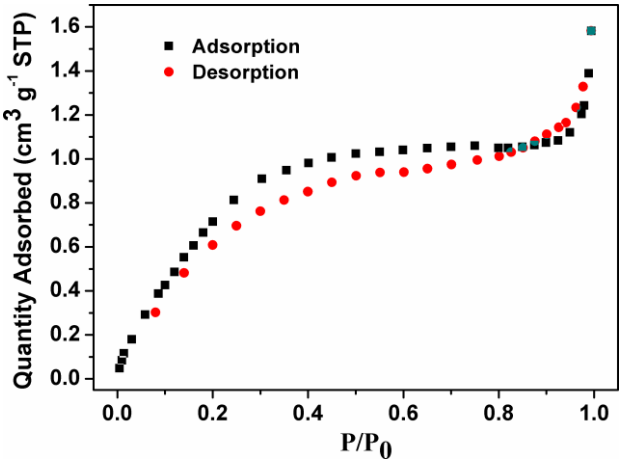

Figure S11. N_2 adsorption–desorption isotherm of (II)'.

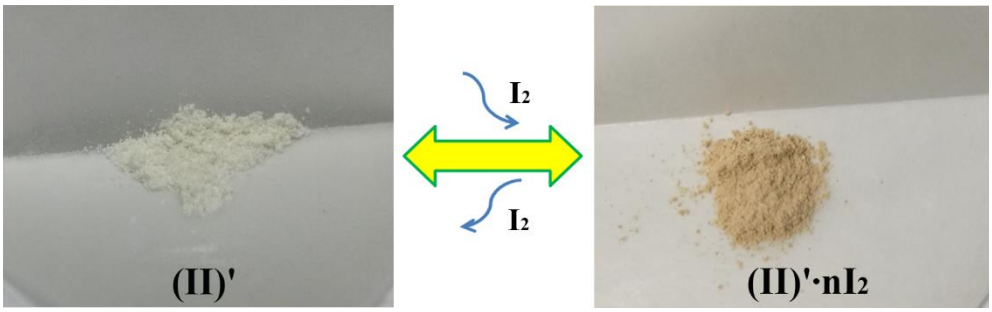

Figure S12. Summary of the powder adsorption and desorption cycle of the iodine.

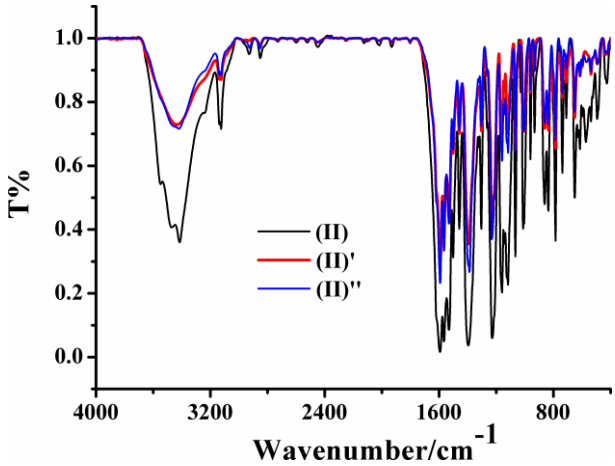

Figure S13. IR spectra of (II), (II)' and (II)".

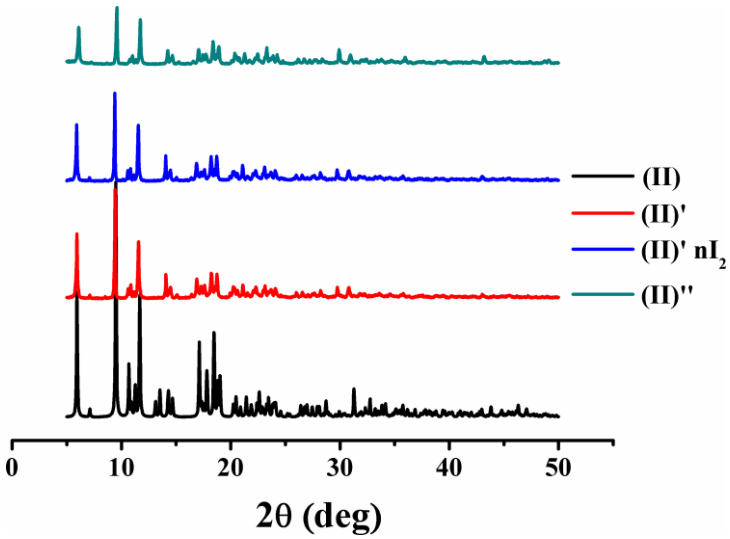

Figure S14. PXRD of (II), (II)', (II)'·nI_2 and (II)".