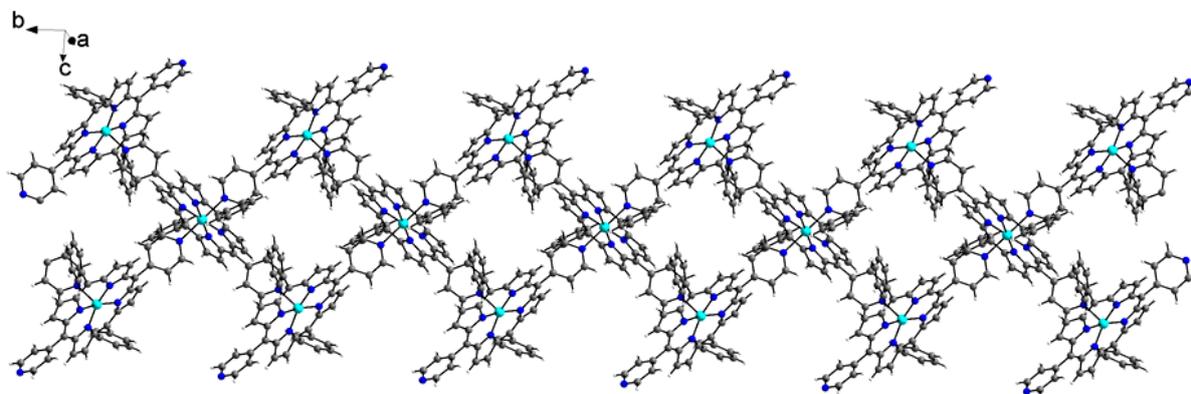


(a)



(b)

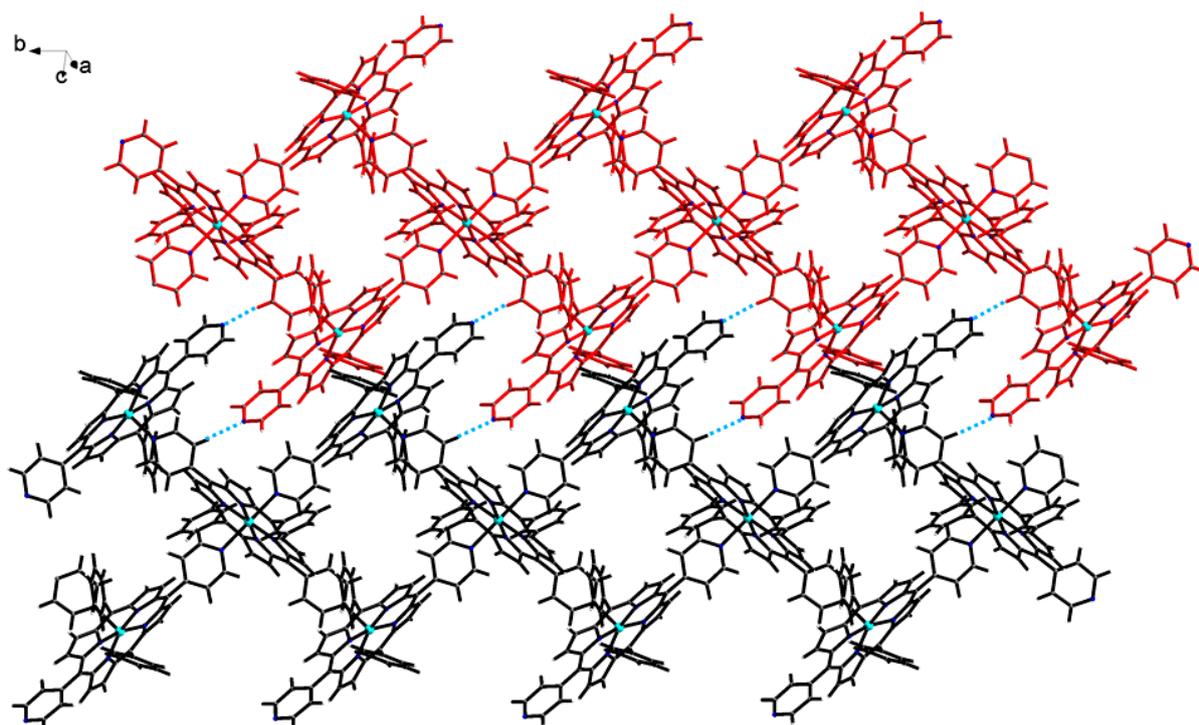


Fig. S2 (a) 1D double chain structure of **II**. All DMF and water solvent molecules were omitted for clarity. (b) Hydrogen bonds between 1D double chains are shown as green dotted lines. Two 1D double chain coordination polymers are shown as different colors for clarity.

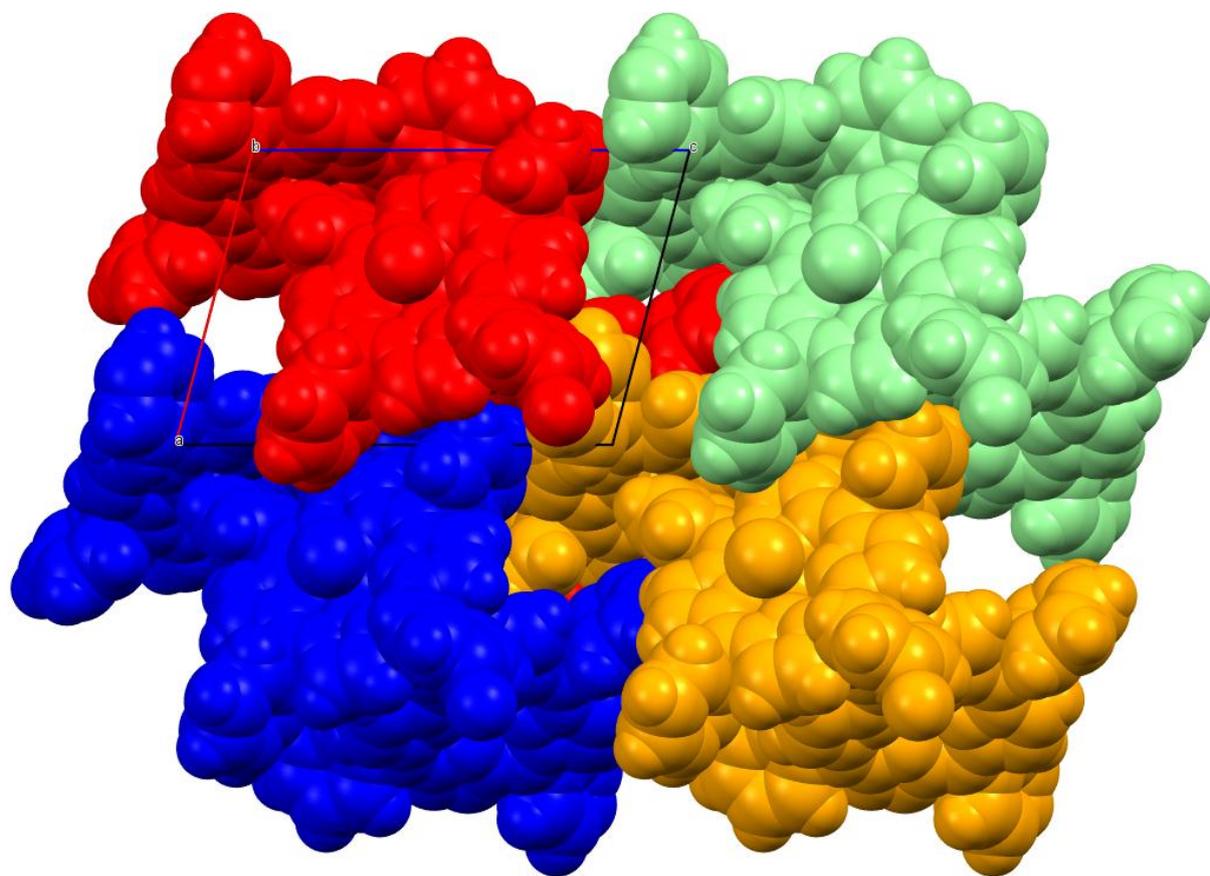


Fig. S3 Space-filling model of four selected 1D double chains for **II** with different colors viewed down the *b*-axis, indicating efficient packing of each chain.

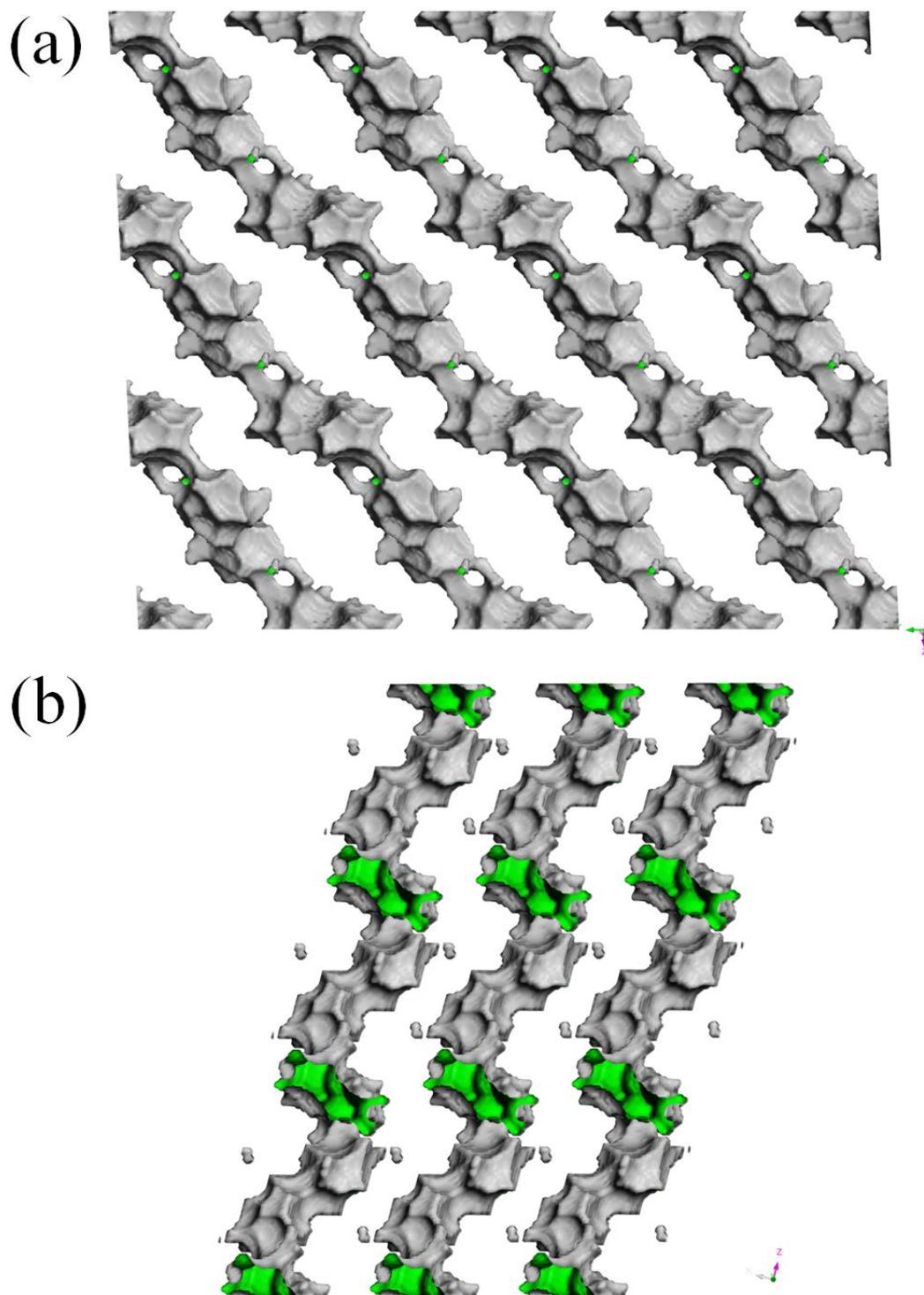


Fig. S4 Isosurface of the channels for solvent-free **II** along the *a*-axis (a) and *b*-axis (b). Grey and green colors indicate the exterior and interior of the isosurface, respectively.

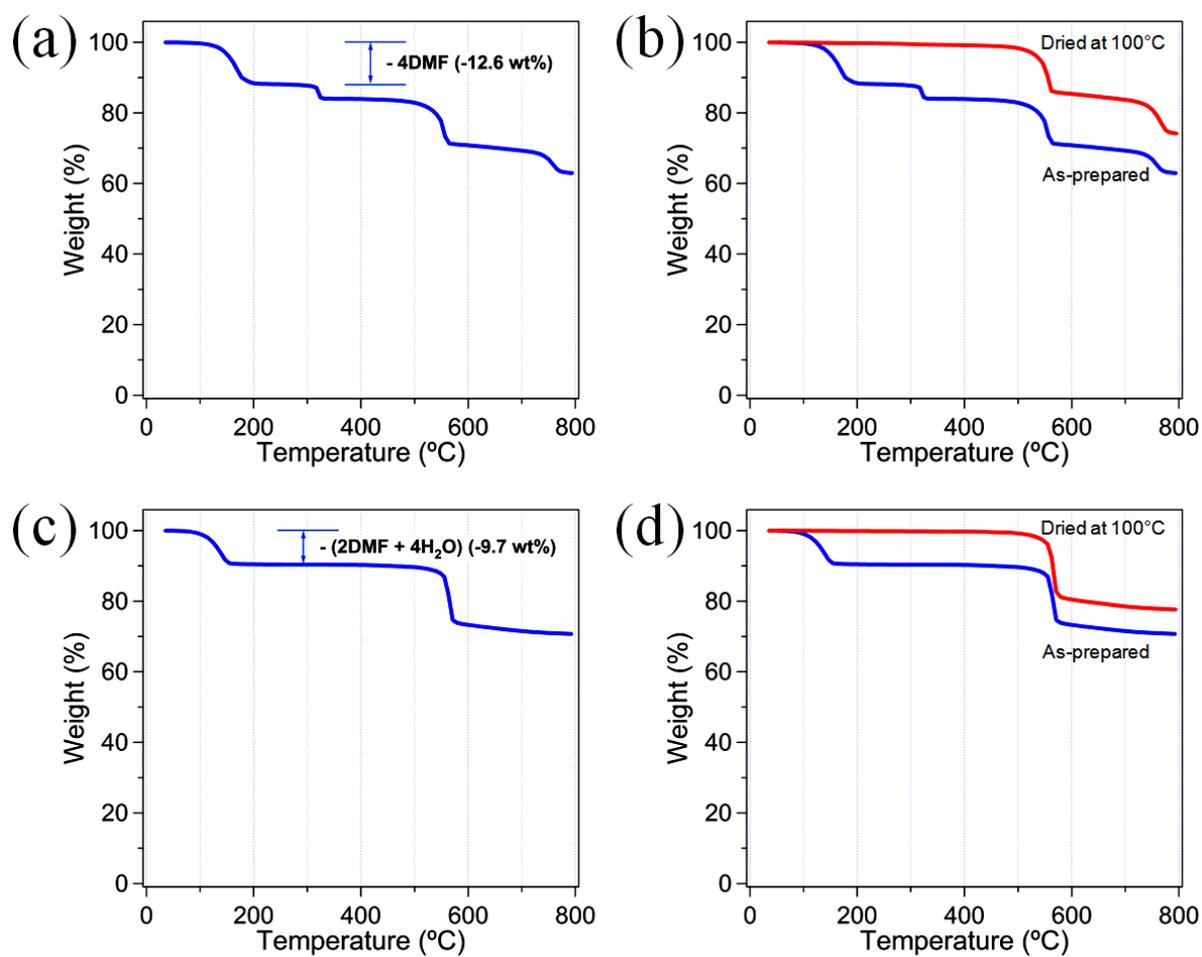


Fig. S5 TG profiles for **I** (a, b) and **II** (c, d). The TG profiles of the activated samples are plotted together with those of as-prepared samples in b and d.

Table S1. ICP data of **Co₃(DPyP)₃·4DMF (I)**.

No. of Trial	1	2	3	mean value
Mn (ppm)	1.299	1.284	1.290	1.291