

Electronic Supplementary Materials

Facile synthesis of three-dimensional Ln-MOF@FCNT composite for the fabrication of a symmetric supercapacitor device with ultra-high energy density: Delimiting the energy storage barrier

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Table S1. Selected bond lengths (Å) and bond angles (degree) for **YK-1**

Pr1 O2	2.483(4)
Pr1 O4	2.433(4)
Pr1 O1	2.382(4)
Pr1 N1	2.650(4)
O2 C1	1.245(6)
O4 C7	1.266(7)
O1 C1	1.236(6)
N1 C3	1.334(7)
N1 C4	1.310(7)
C1 C2	1.514(7)
C3 C2	1.369(7)
C2 C6	1.352(10)
C4 C7	1.520(9)
C4 C5	1.371(10)
C7 O3	1.222(8)
C6 C5	1.390(11)
N2 C8	1.438(10)
O2 Pr1 O2	126.31(19)
O4 Pr1 O2	132.03(12)
O4 Pr1 O2	87.18(14)

O4 Pr1 O4	93.25(19)
O1 Pr1 O2	73.04(15)
O1 Pr1 O2	78.87(16)
O1 Pr1 O4	154.21(14)
O1 Pr1 O4	80.62(14)
O1 Pr1 O1	115.1(2)
N1 Pr1 O2	72.25(12)
N1 Pr1 O2	144.19(15)
N1 Pr1 O2	72.25(12)
N1 Pr1 O4	72.06(13)
N1 Pr1 O4	62.51(12)
N1 Pr1 O1	83.00(14)
N1 Pr1 O1	136.34(15)
N1 Pr1 N1	111.85(17)
C1 O2 Pr1	137.3(3)
C7 O4 Pr1	127.0(4)
C1 O1 Pr1	154.3(4)
C3 N1 Pr1	124.1(3)
C4 N1 Pr1	118.3(4)
C4 N1 C3	117.1(5)
O1 C1 O2	126.1(5)
C2 C1 O2	116.7(5)
C2 C1 O1	117.2(5)
C2 C3 N1	125.2(5)
H3 C3 N1	117.4(3)
C3 C2 C1	121.0(5)
C6 C2 C1	121.6(6)
C6 C2 C3	117.4(6)
C7 C4 N1	114.7(5)
C5 C4 N1	121.6(6)

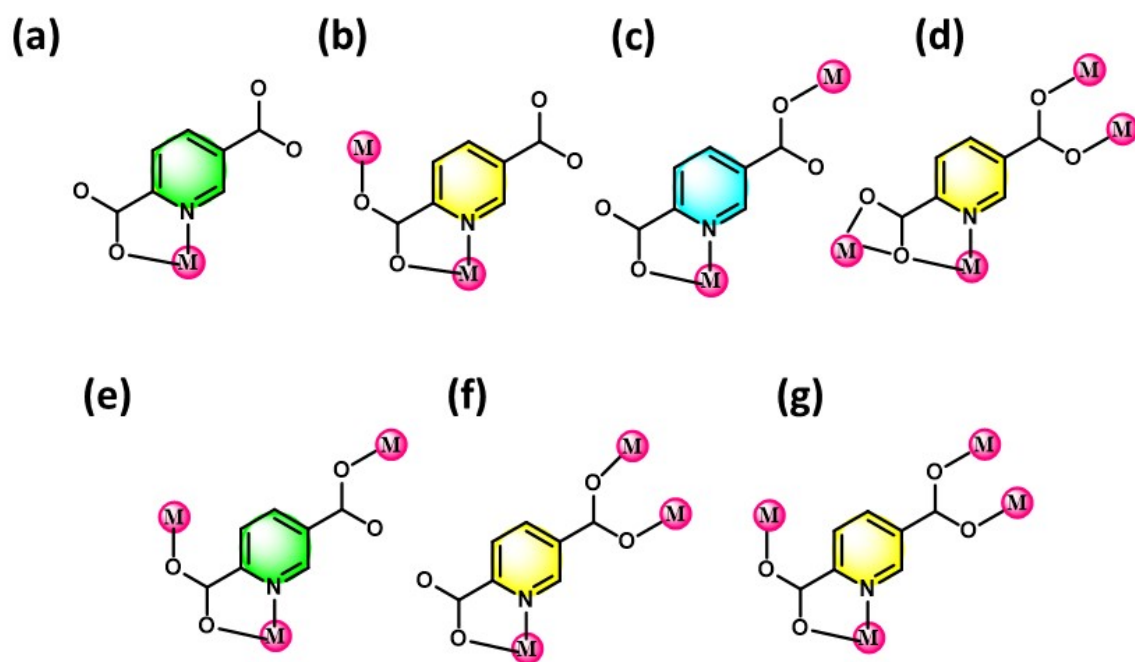


Fig. S1. Various coordination modes of pdc²⁻ ligand.

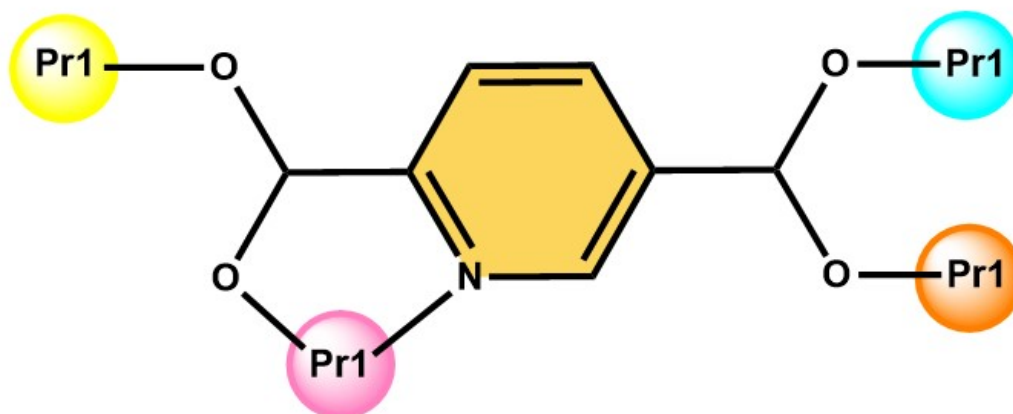


Fig. S2. Coordination mode of pdc²⁻ ligand in YK-1.

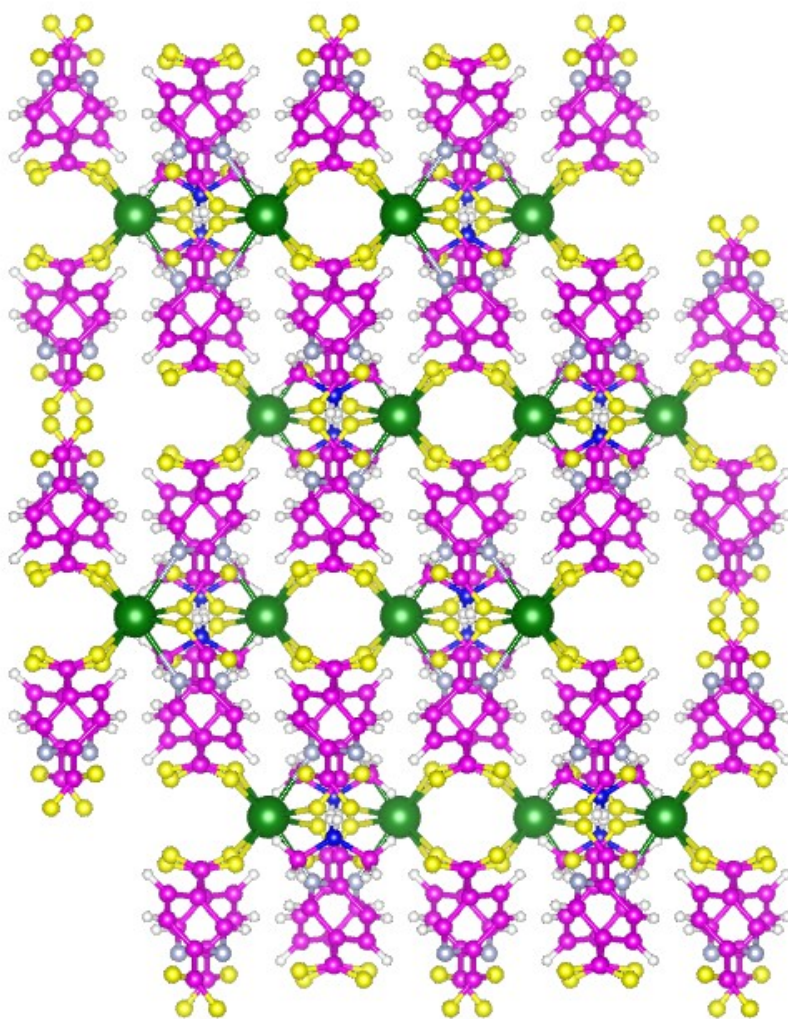


Fig.S3. Ball and stick model of YK-1 along a axis.

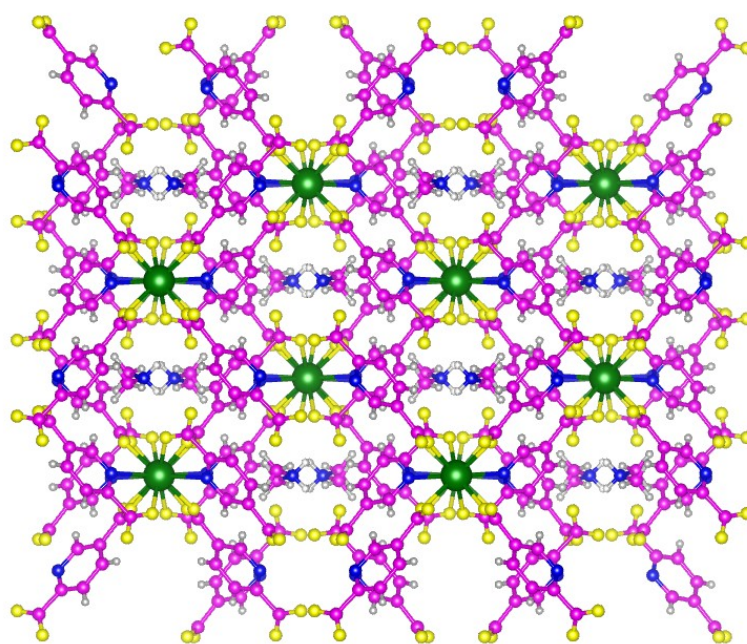


Fig. S4. Ball and stick model of YK-1 along b axis

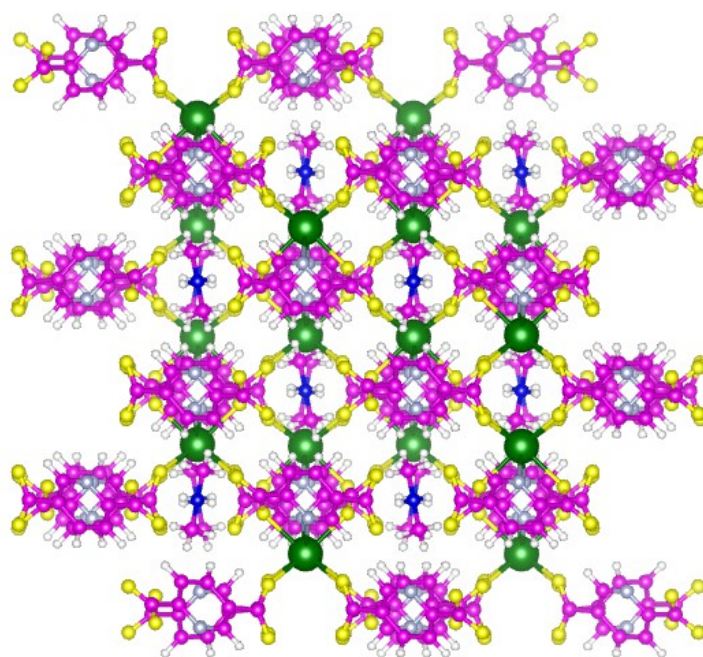


Fig.S5. Ball and stick model of YK-1 along c axis

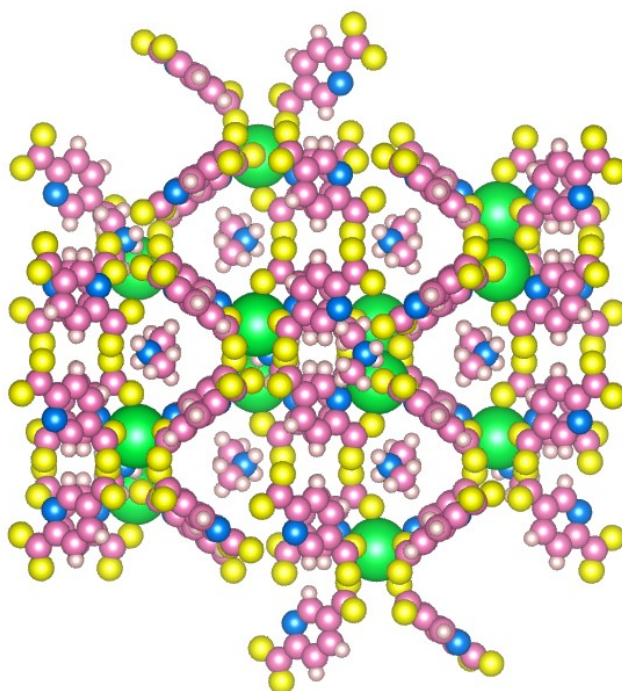


Fig.S6. Spacefilled model of YK-1

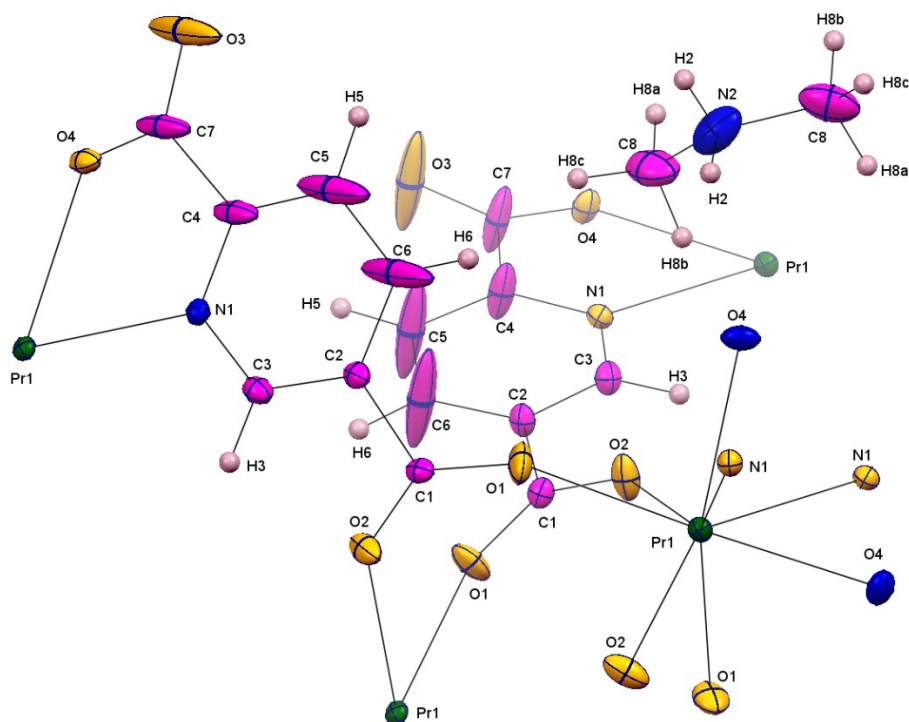


Fig. S7. Ortep view of YK-1.

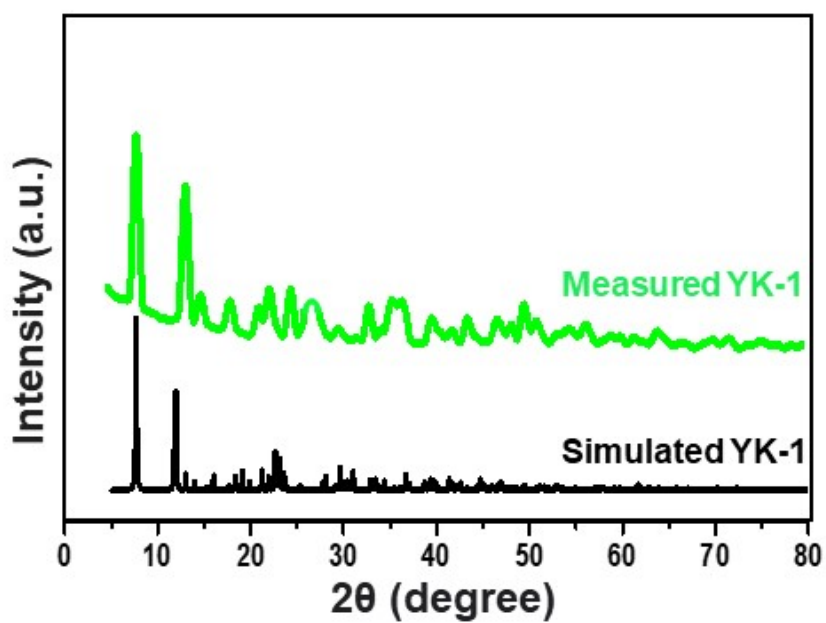


Fig. S8. PXRD images for YK-1 (observed and simulated)

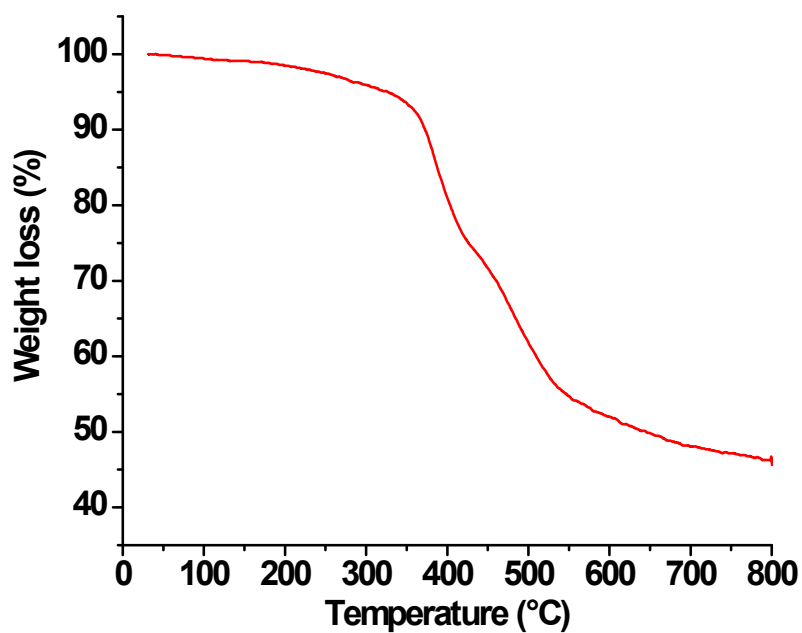
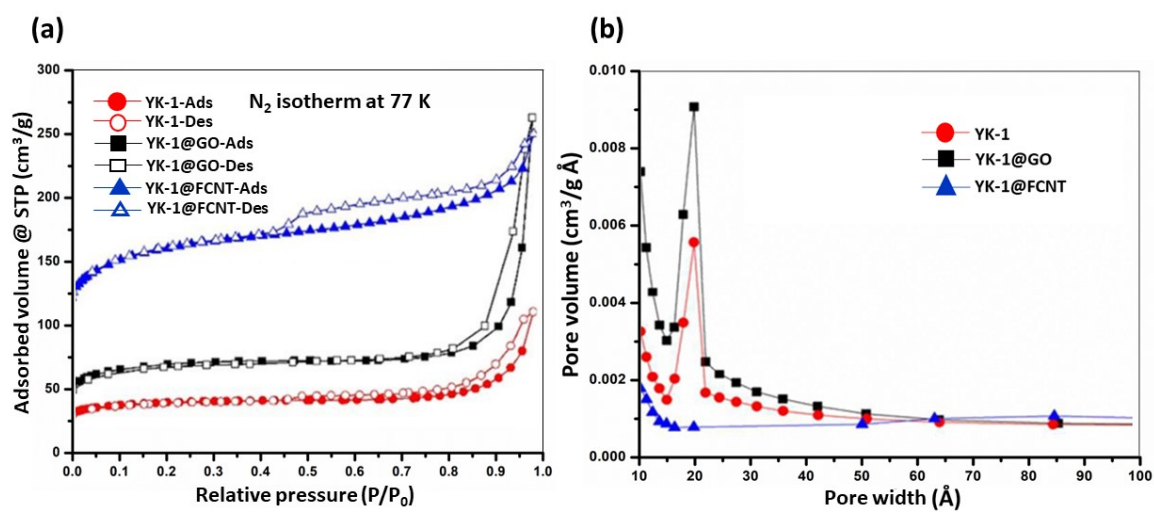


Fig. S9. TGA of YK-1



Fig

. S10. (a) Nitrogen adsorption-desorption isotherms (BET), and (b) Barrett-Joyner-Halenda (BJH) pore size distribution curves of YK-1, YK-1@GO, and YK-1@FCNT.

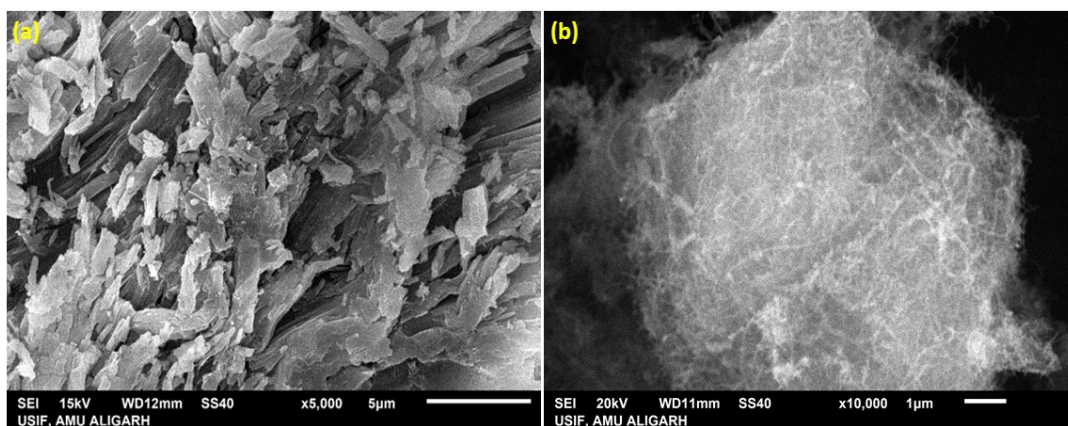


Fig. S11. SEM images of (a) GO and (b) FCNT.