Electronic Supplementary Information

# Porous Frameworks Constructed by Non-Covalent Linking of Substitution-Inert Metal Complexes

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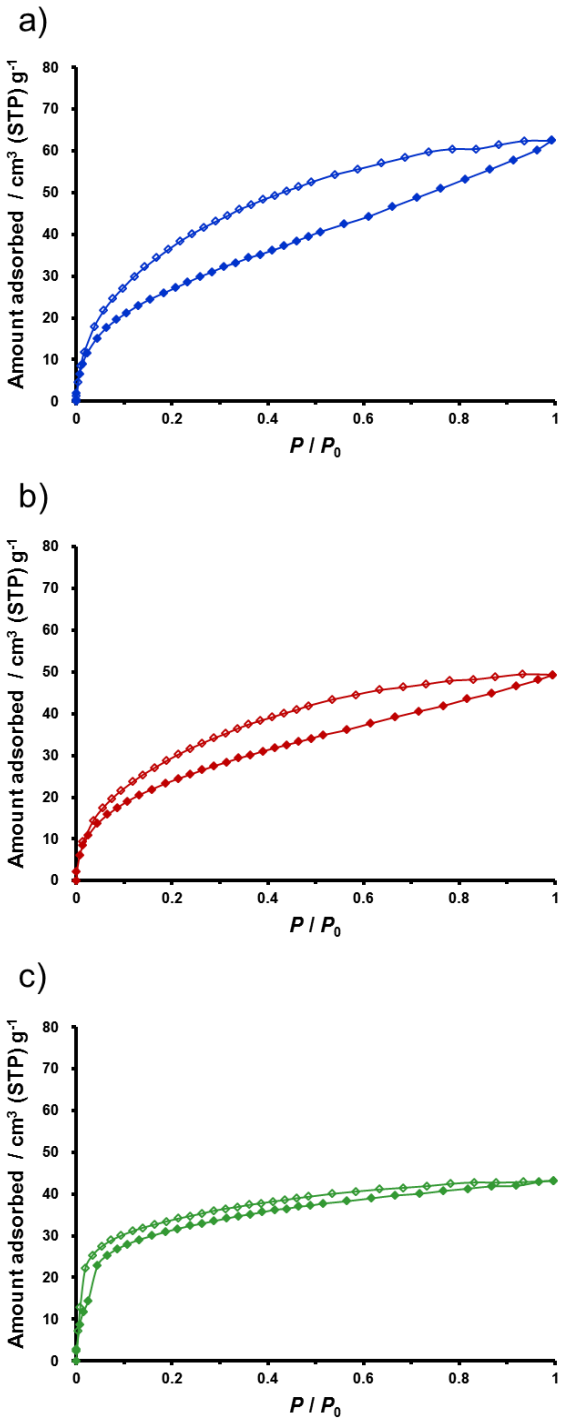


**Fig. S1** $CO_2$ sorption isotherms of (a) **1-THF**, (b) **1-PN**, and (c) **1-AD** at 195 K. Filled shapes: adsorption. Open shapes: desorption. The samples of **1-THF**, **1-PN** and **1-AD** for the $CO_2$ adsorption were evacuated at 120 ˚C before the measurements.

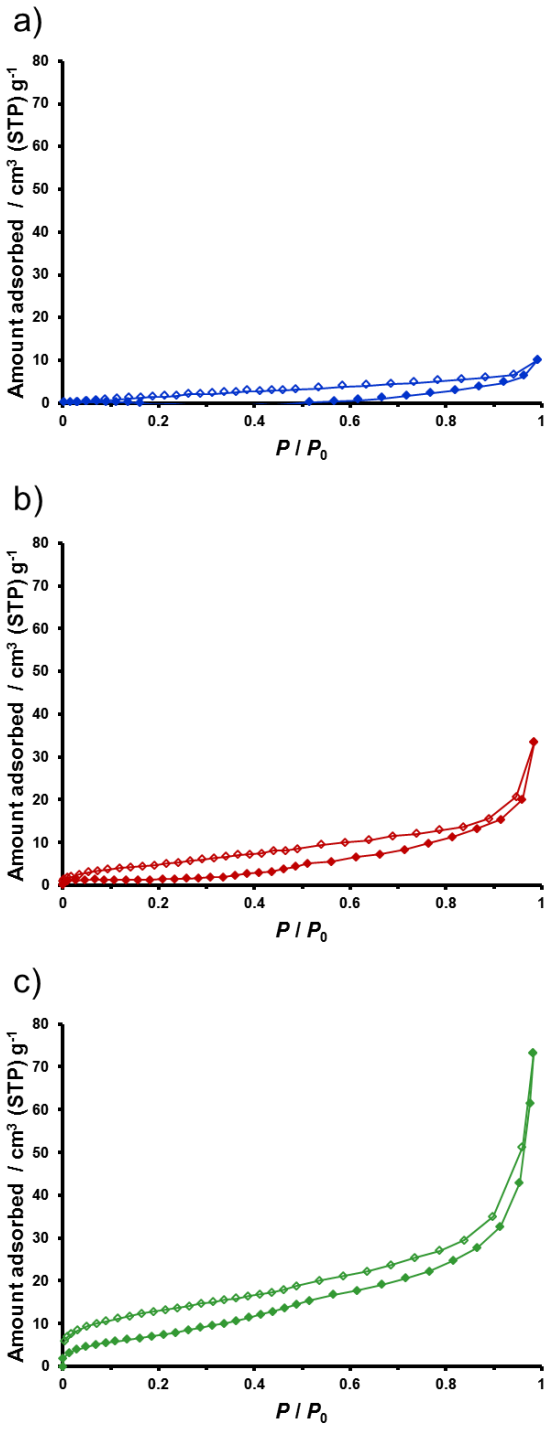


**Fig. S2** $N_2$ sorption isotherms of (a) **1-THF**, (b) **1-PN**, and (c) **1-AD** at 77 K. Filled shapes: adsorption. Open shapes: desorption. The samples of **1-THF**, **1-PN** and **1-AD** for the $N_2$ adsorption were evacuated at 40 ˚C before the measurements.

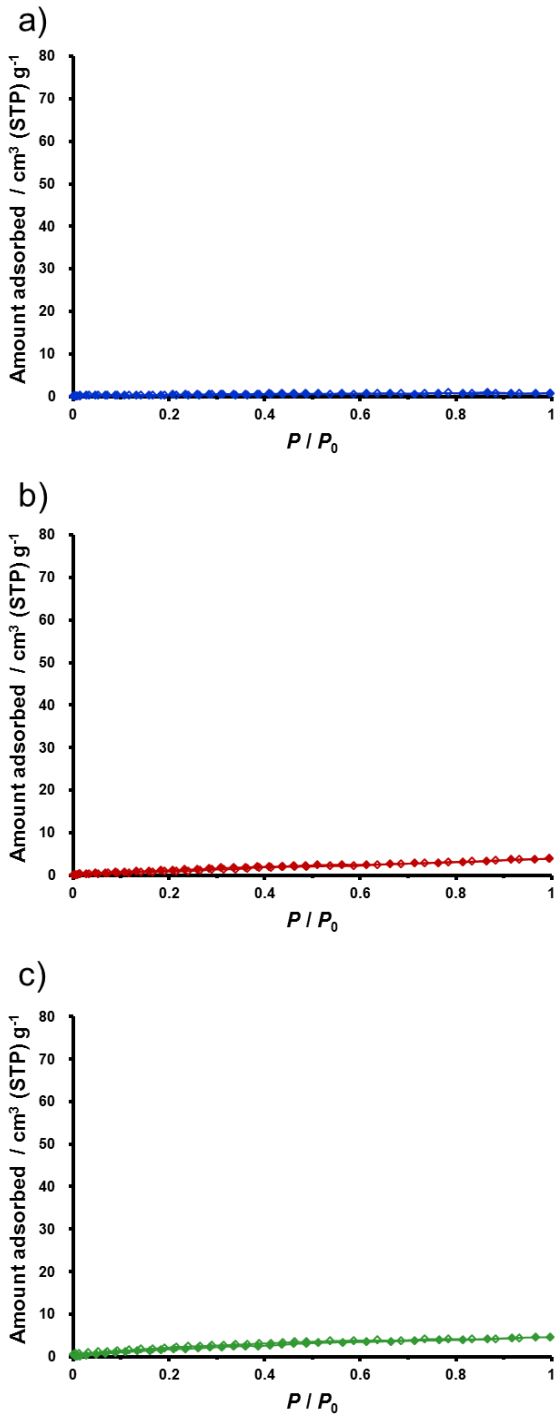


**Fig. S3** $N_2$ sorption isotherms of (a) **1-THF**, (b) **1-PN**, and (c) **1-AD** at 195 K. Filled shapes: adsorption. Open shapes: desorption. The samples of **1-THF**, **1-PN** and **1-AD** for the $N_2$ adsorption were evacuated at 40 ˚C before the measurements.

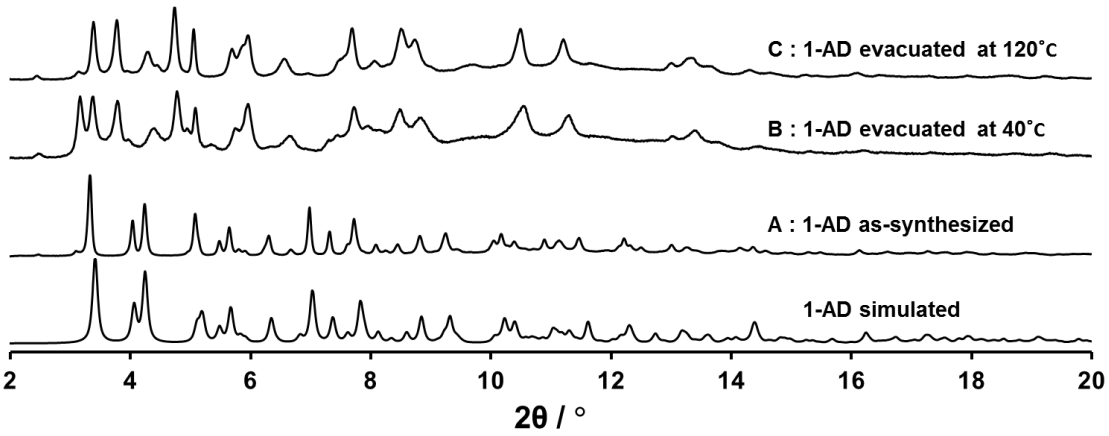


**Fig. S4** PXRD patterns of (A) **1-AD** as-synthesized, (B) **1-AD** evacuated at 40°C, and (C) **1-AD** evacuated at 120°C.

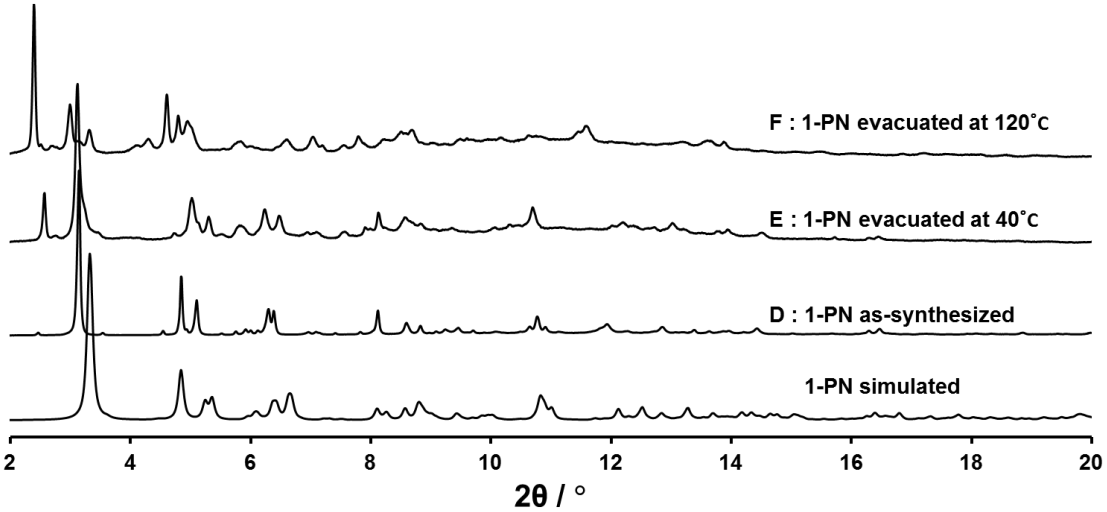


**Fig. S5** PXRD patterns of (D) **1-PN** as-synthesized, (E) **1-PN** evacuated at 40°C, and (F) **1-PN** evacuated at 120°C.

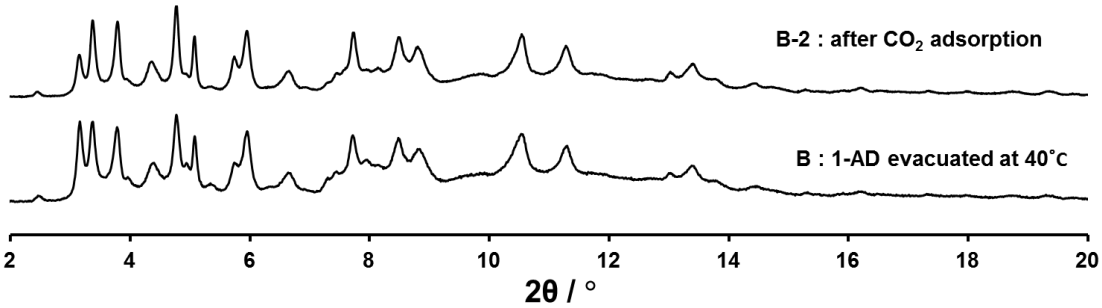


**Fig. S6** PXRD patterns of (B) **1-AD** evacuated at 40°C and (B-2) **1-AD** after the $CO_2$ adsorption measurement.

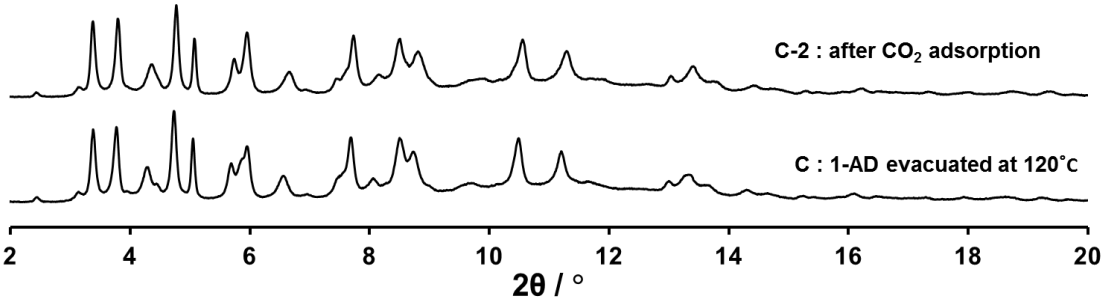


**Fig. S7** PXRD patterns of (C) **1-AD** evacuated at 120°C and (C-2) **1-AD** after the $CO_2$ adsorption measurement.

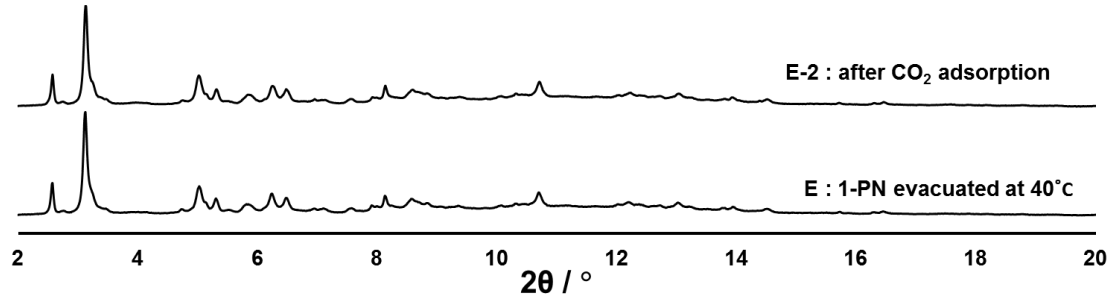


**Fig. S8** PXRD patterns of (E) **1-PN** evacuated at 40°C and (E-2) **1-PN** after the $CO_2$ adsorption measurement.

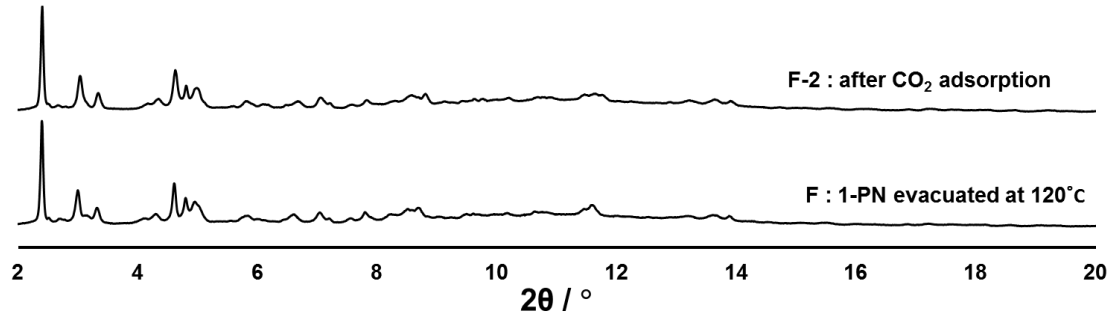


**Fig. S9** PXRD patterns of (F) **1-PN** evacuated at 120°C and (F-2) **1-PN** after the $CO_2$ adsorption measurement.