Supplementary information

CO_2 sensing at ambient conditions using metal-organic frameworks

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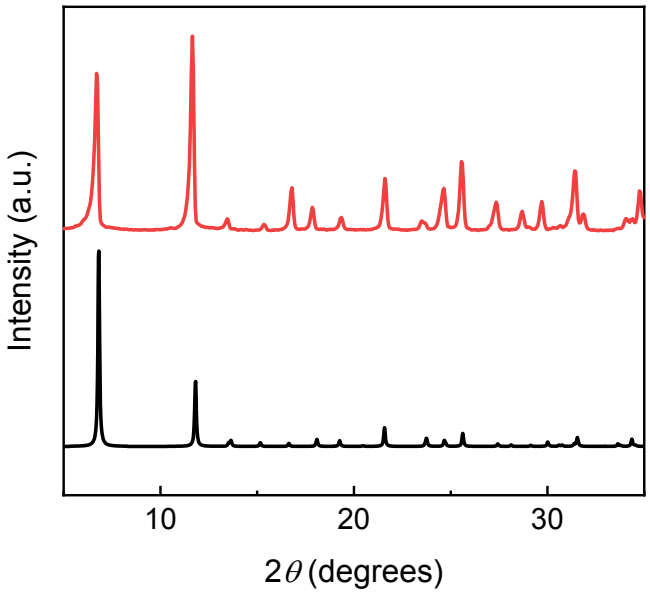

Fig. S1. PXRD pattern of the as-synthesized Zn-MOF-74 compared to the simulated one.[1]

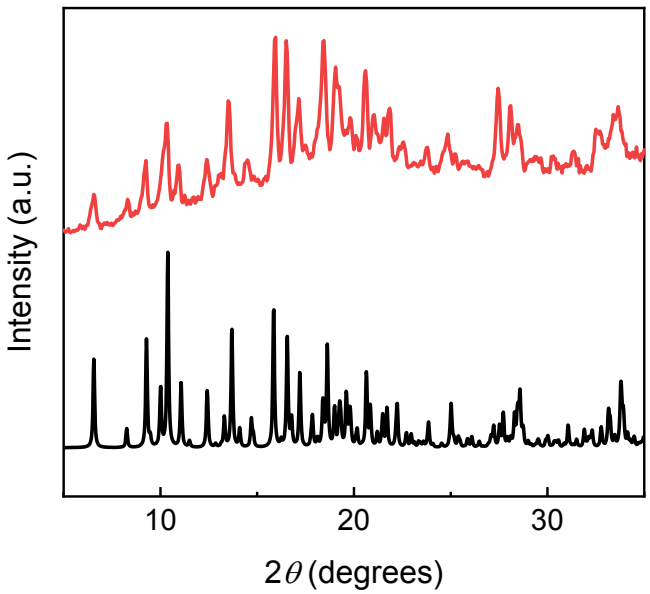

Fig. S2. PXRD pattern of the as-synthesized NdMo-MOF compared to the simulated one.[2]

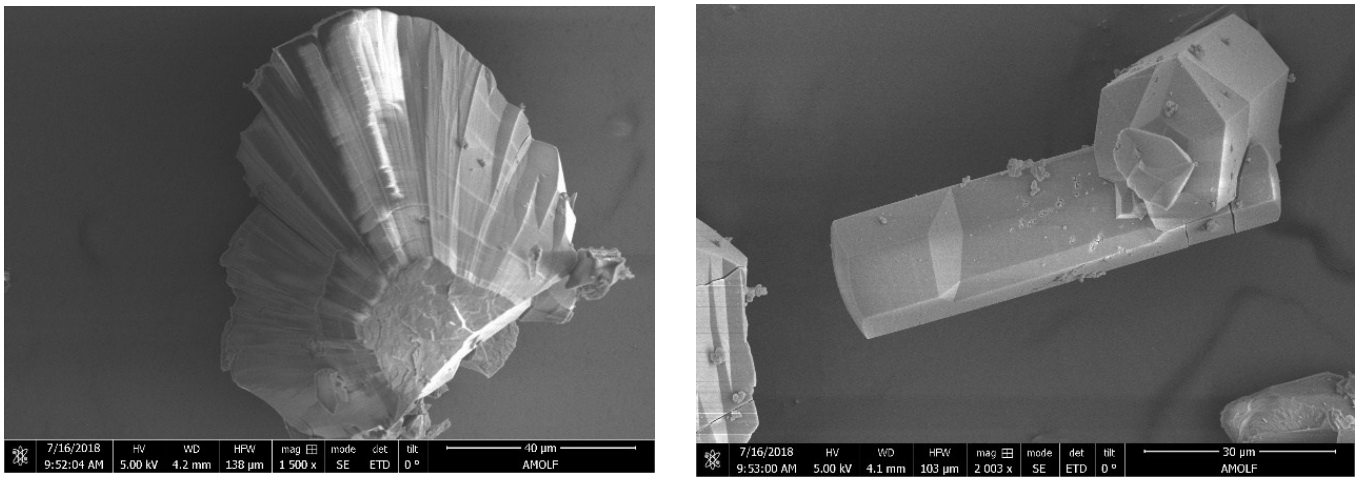

Fig. S3. SEM images of Zn-MOF-74.

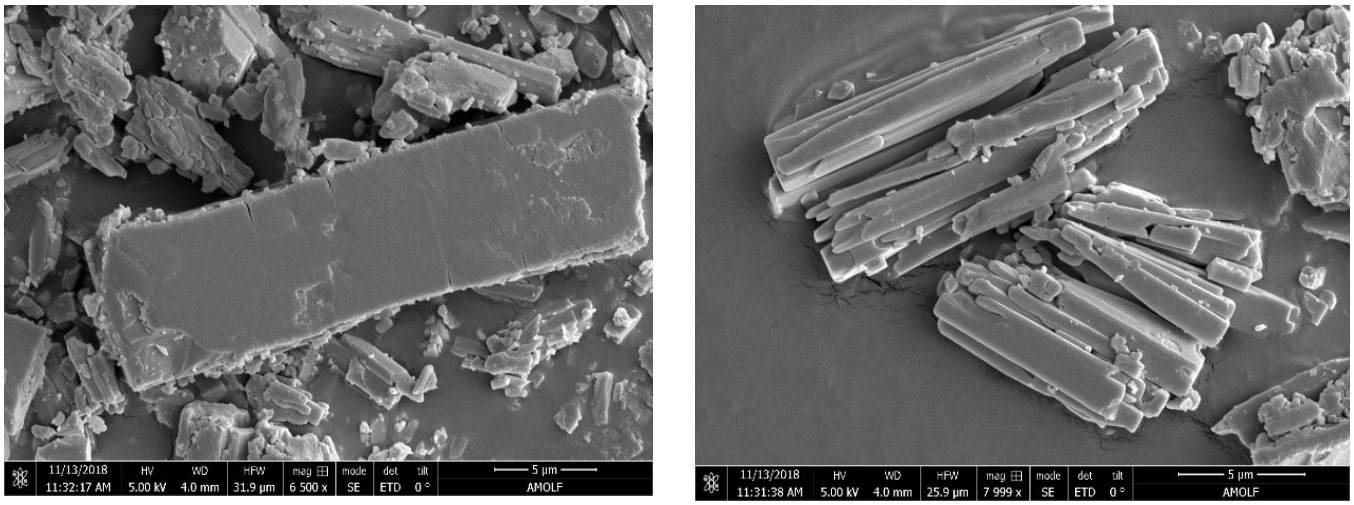

Fig. S4. SEM images of NdMo-MOF.

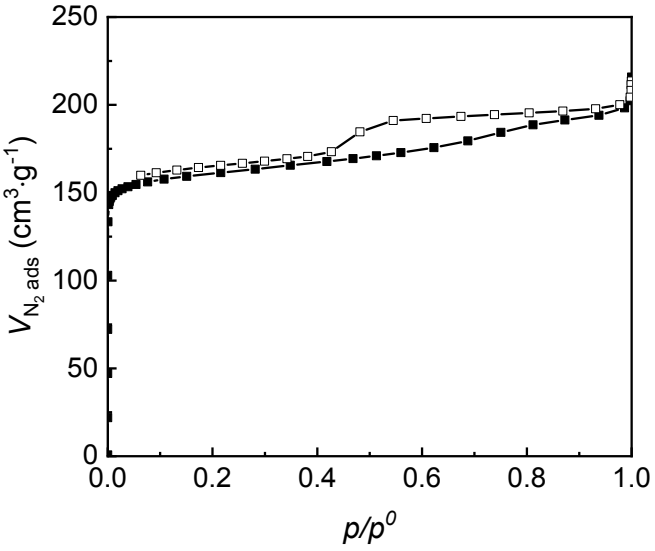

Fig. S5. N_2 adsorption isotherm at 77K of activated Zn-MOF-74, with a calculated surface area of 795 m^2g^{-1} (Langmuir formula). Zn-MOF-74 was activated by stepwise vacuum heating from RT – 100 – 150 – 270 ℃, with a heating rate of 4 °/min and a hold of 1h or 6h for the final step.

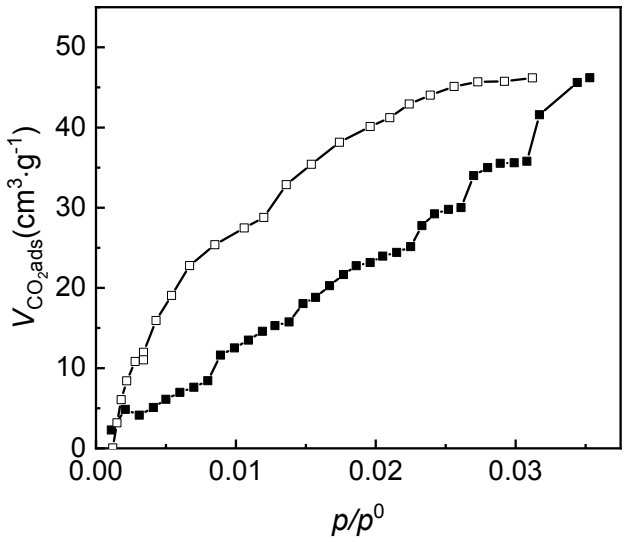

Fig. S6. CO_2 adsorption isotherm at 273K of activated NdMo-MOF, with a calculated surface area of 205 m^2g^{-1} (Dubinin-Raduskewitsch formula). NdMo-MOF was activated by vacuum heating from RT to 200 °C and a 2h hold.

References

1 W. Wong-Ng, J. A. Kaduk, H. Wu and M. Suchomel, *Powder Diffraction*, 2012, **27**, 256–262.

2 S. Tanase, M. C. Mittelmeijer-Hazeleger, G. Rothenberg, C. Mathonière, V. Jubera, J. M. M. Smits and R. de Gelder, *J. Mater. Chem.*, 2011, **21**, 15544–15551.