Electronic Supplementary Material (ESI) for CrystEngComm.

Supporting Information

Preparation and Characterization of Metal-Organic Frameworks and its Composite Eu_2O_3@[$Zn_2(bdc)_2$dabco] (ZBDh) via Pulsed Laser Ablation in Flow Liquid

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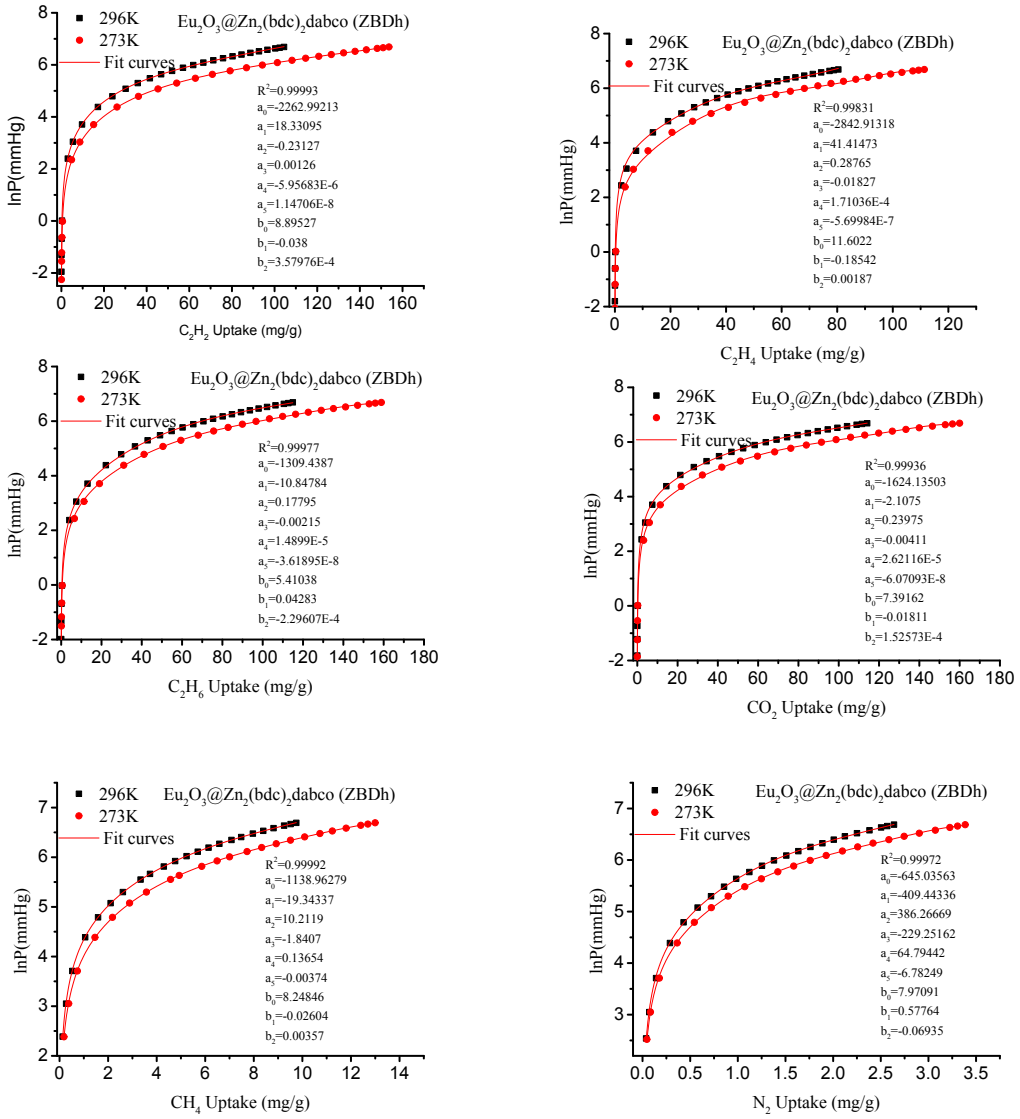

Figure. **S1** The details of virial equation (solid lines) fitting to the experimental C_2H_2(a), C_2H_4(b), C_2H_6(c), CO_2(d), CH_4(e) and N_2(f) adsorption data (symbols) for composite **Eu_2O_3@[Zn_2(bdc)$_2$dabco] (ZBDh)(sample 3)**.

Table S1 Virial graph analyses data for composite **Eu_2O_3@[Zn_2(bdc)$_2$dabco](ZBDh)(sample 3)**

adsorbate	T(K)	A_0/ln(molg^{-1}Pa^{-1})	A_1/gmol^{-1}	R^2	K_H (mol g^{-1}Pa^{-1})
C_2H_2	296K	-16.65469±0.0063	-112.49875±2.44014	0.99718	5.847 x 10^{-8}
	273K	-16.17561±0.01097	-92.49127±3.97657	0.99265	9.441 x 10^{-8}
C_2H_4	296K	-16.89201±0.01035	-206.42565±6.19934	0.99372	4.612 x10^{-8}
	273K	-16.40012±0.01634	-216.7058±9.68476	0.99206	7.542 x 10^{-8}
C_2H_6	296K	-16.49453±0.01054	-186.47888±4.61228	0.99573	6.863 x 10^{-8}
	273K	-16.0403±0.01286	-187.231±5.65232	0.99636	1.080 x 10^{-7}
CO_2	296K	-17.25741±0.0003	-112.36749±0.34469	0.99988	3.200 x 10^{-8}
	273K	-16.81623±0.00114	-116.72664±1.06447	0.99934	4.975 x 10^{-8}
CH_4	296K	-18.88024±0.0013	-184.29494±4.65521	0.99366	6.315 x 10^{-9}
	273K	-18.55902±0.0011	-168.62847±3.85143	0.99688	8.708 x 10^{-9}