

Supplementary Information

for

Incorporation of single-walled aluminosilicate nanotubes for the control of crystal size and porosity of zeolitic imidazolate framework-L

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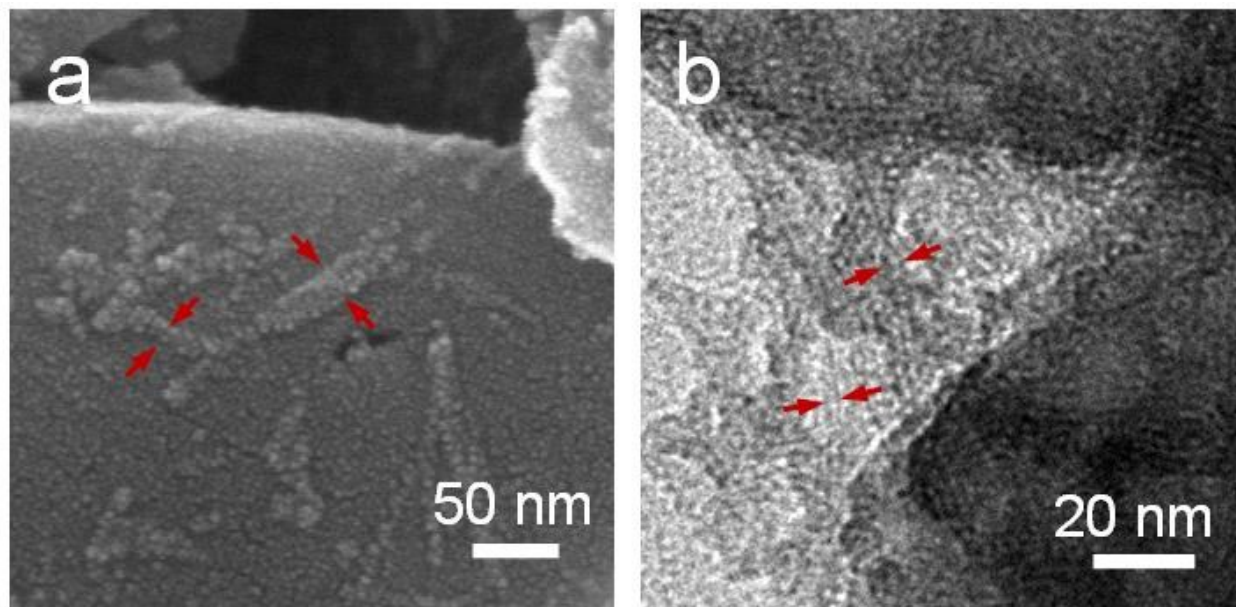


Fig. S1. High-magnification (a) SEM and (b) TEM images of AlSiNT@ZIF-L. The red arrows indicate the location of AlSiNTs.

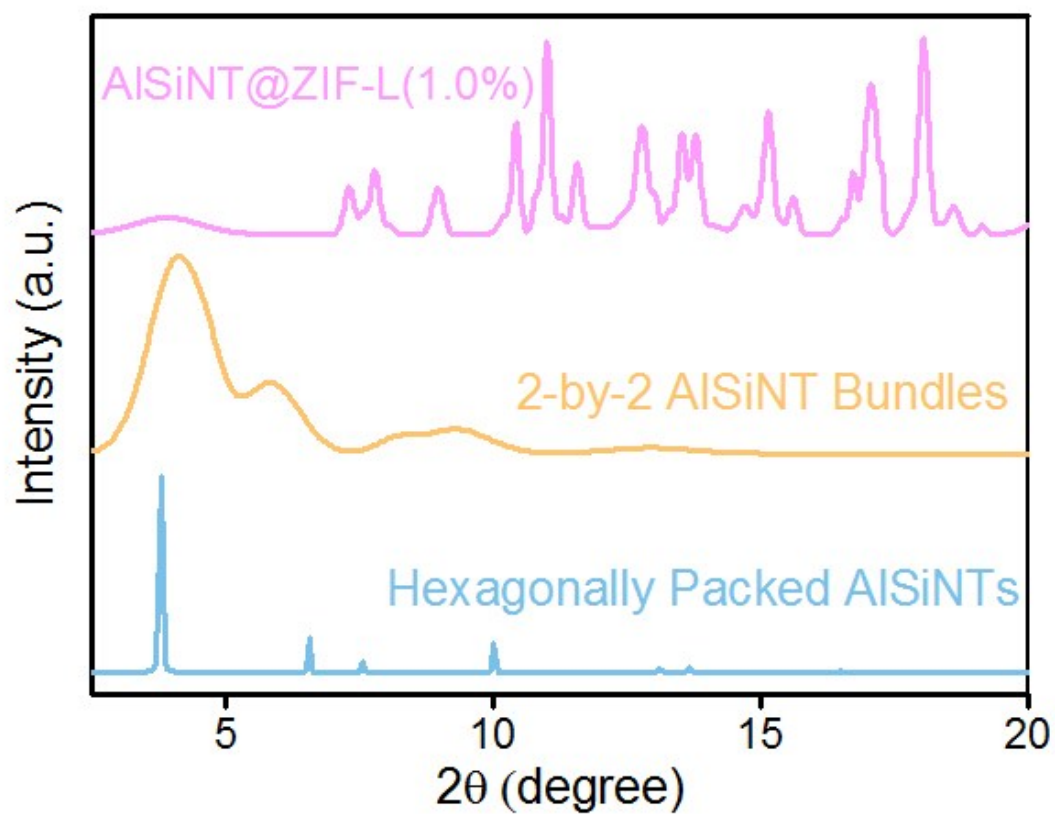


Fig. S2. Experimental XRD pattern of AISiNT@ZIF-L(1.0%) and simulated XRD patterns of 2-by-2 AISiNT bundles and hexagonally packed AISiNTs.

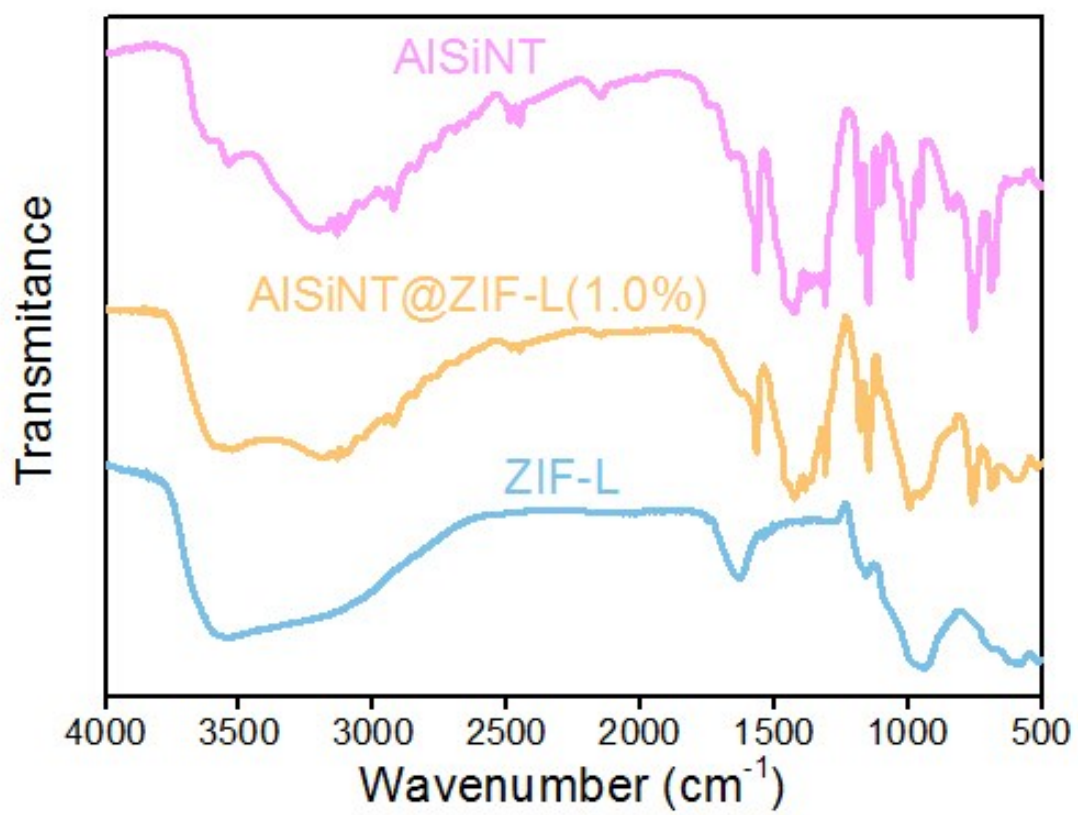


Fig. S3. FT-IR spectra of AlSiNT@ZIF-L(1.0%), AlSiNT and ZIF-L

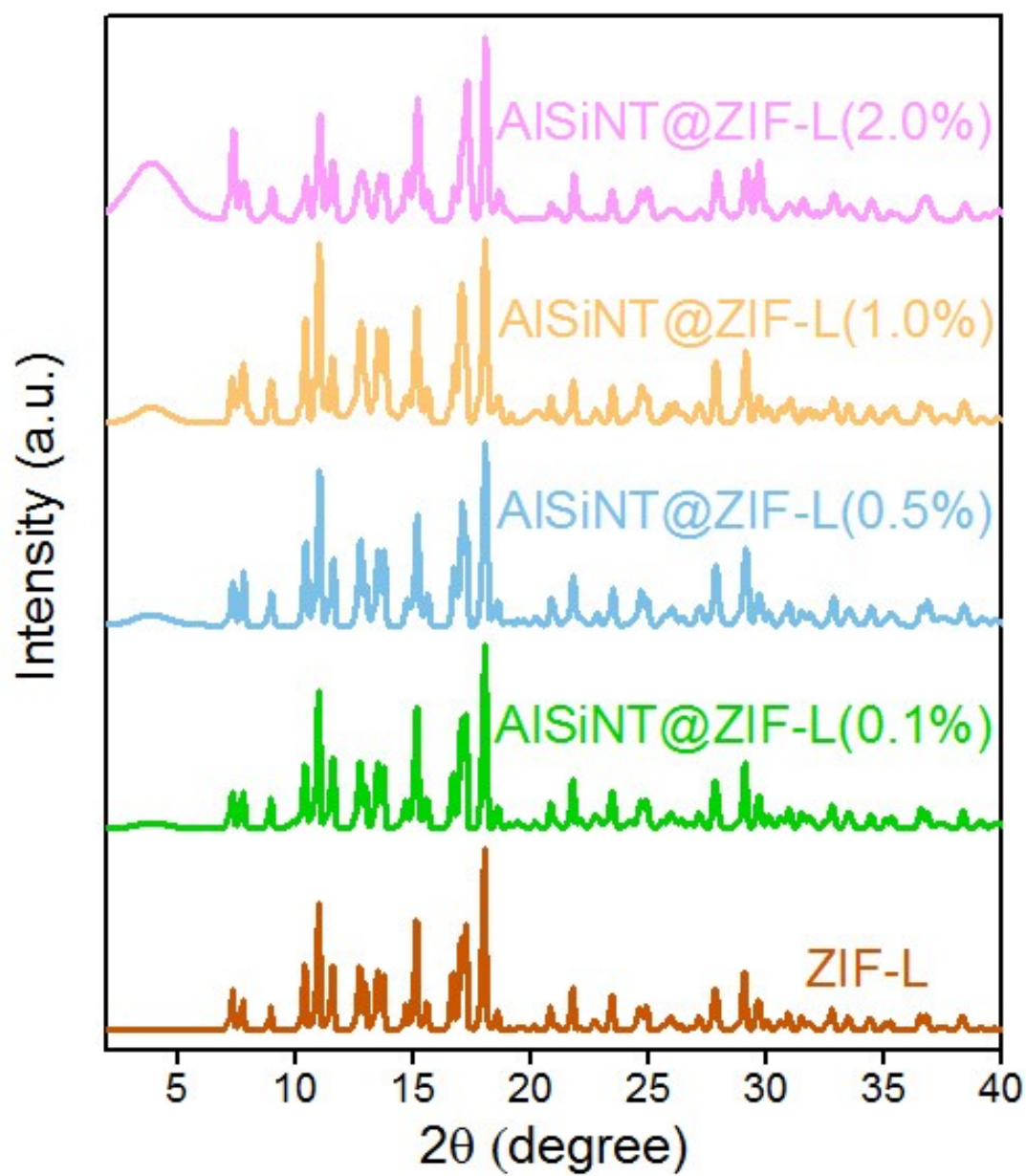


Fig. S4. XRD patterns of various ZIF-L/AlSiNT composites

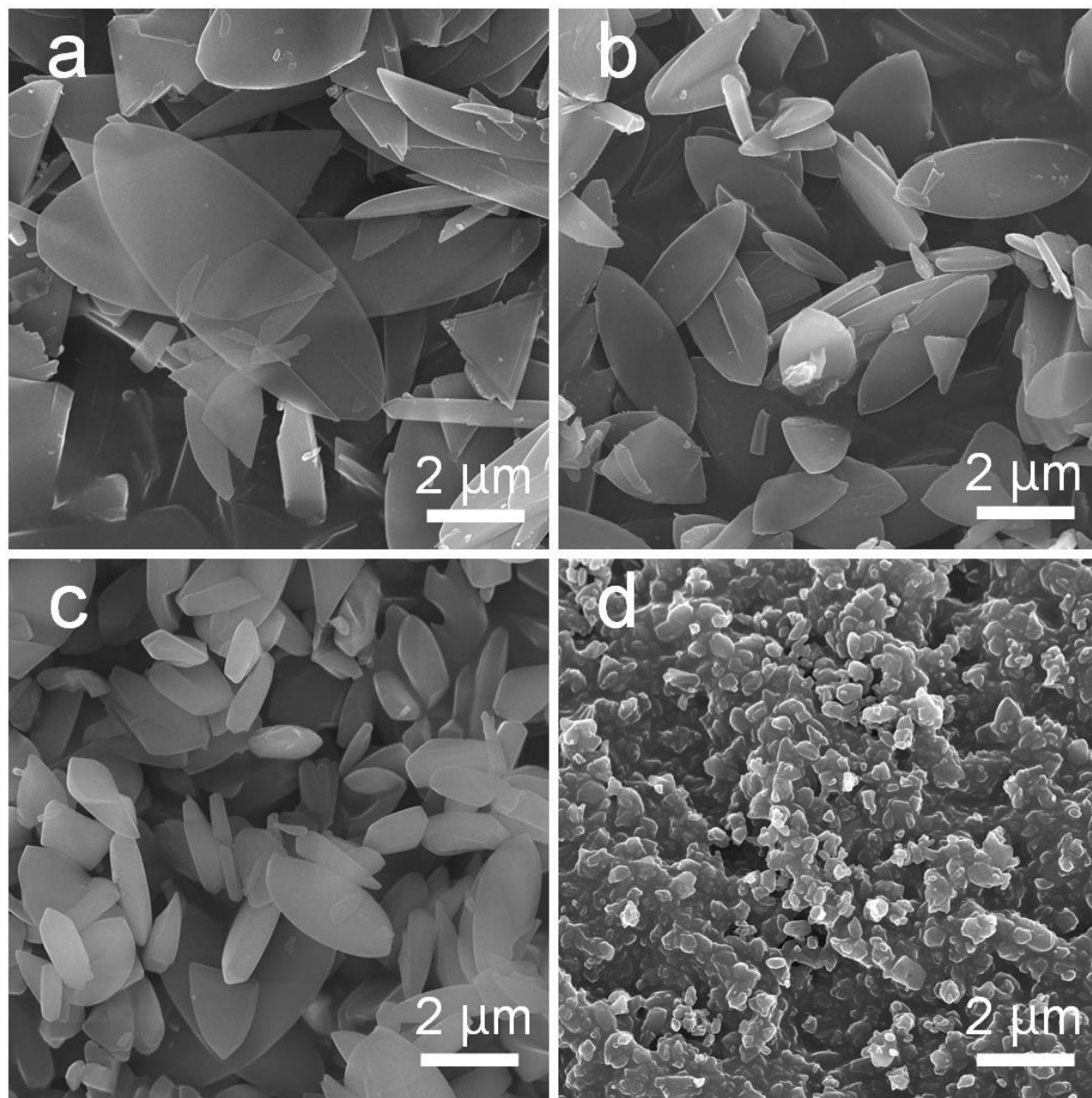


Fig. S5. SEM images of pure ZIF-L synthesized under various molar Zn-to-H₂O ratios: (a) 1:2286 (b) 1:1143 (c) 1:592 and (d) 1:190

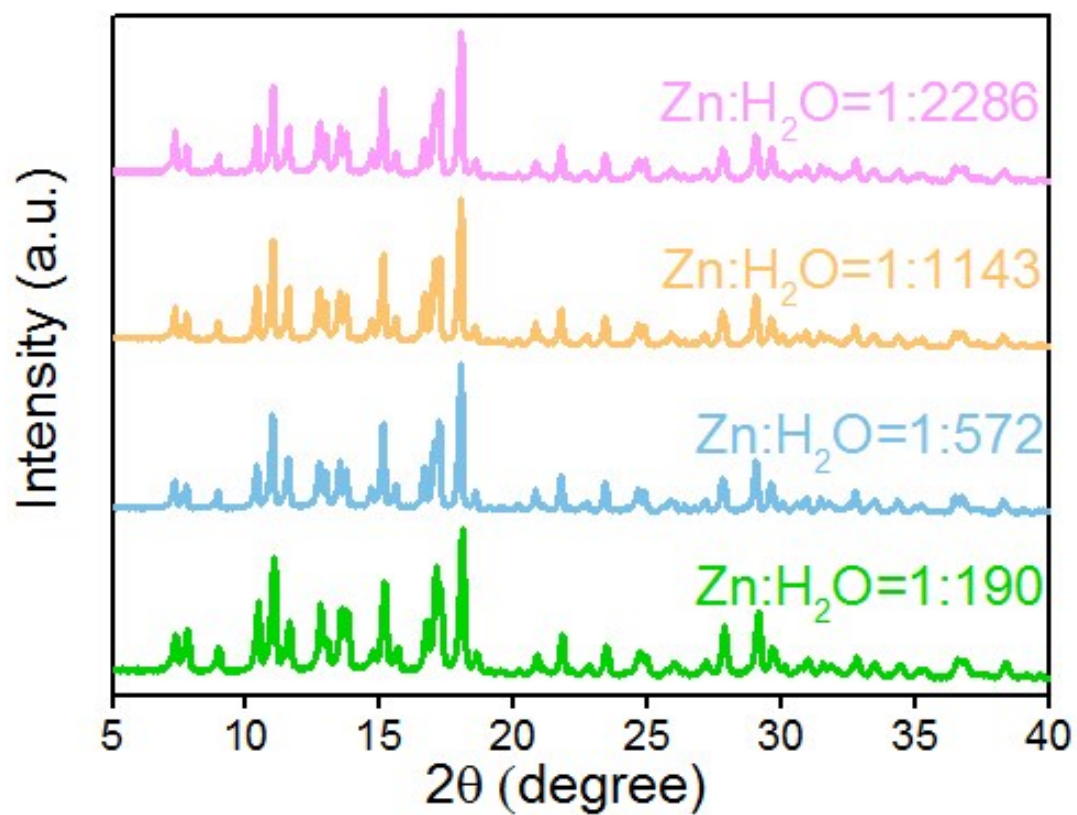


Fig. S6. Powder XRD patterns of pure ZIF-L synthesized under various molar Zn-to-H₂O ratios

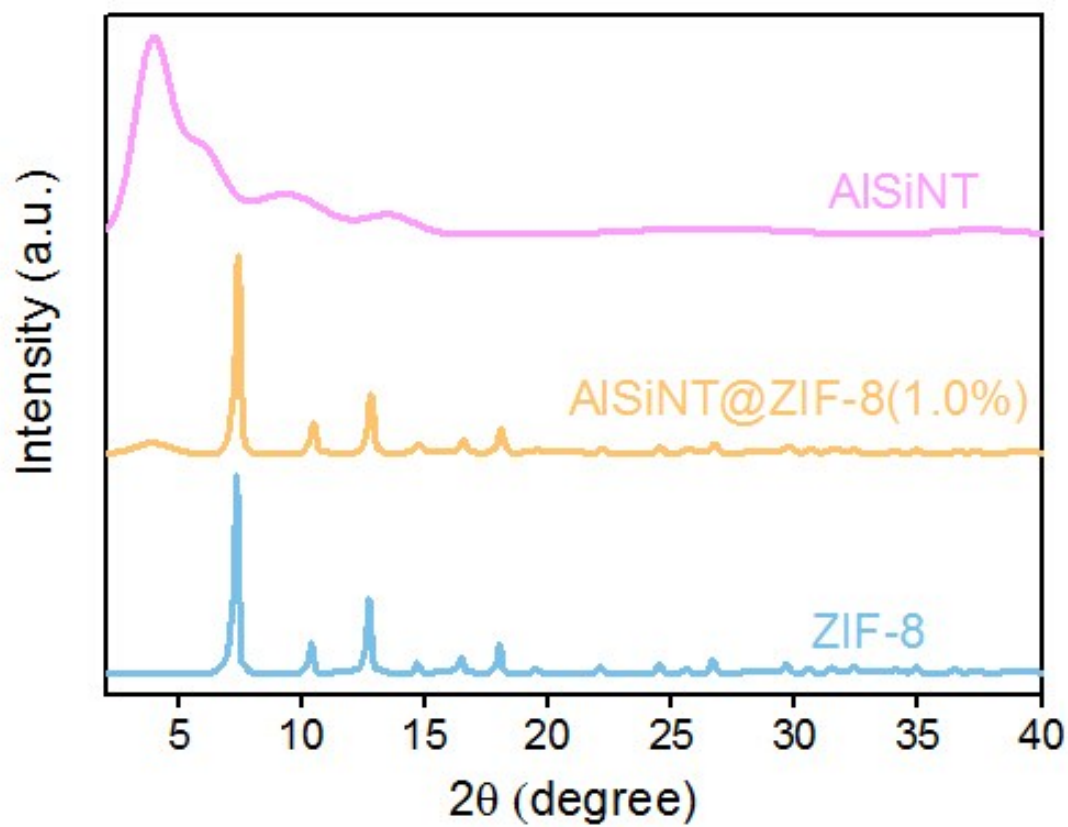


Fig. S7. Powder XRD patterns of AlSiNT, ZIF-8, and the product of our attempt at synthesizing AlSiNT@ZIF-8(1.0%).

Table S1 Deduced properties from nitrogen physisorption isotherms

	BET surface area (m ² /g)	Pore volume (cm ³ /g)
ZIF-L	7.25	0.015
AlSiNT	152	0.024
AlSiNT@ZIF-L(1.0%)	193	0.183