

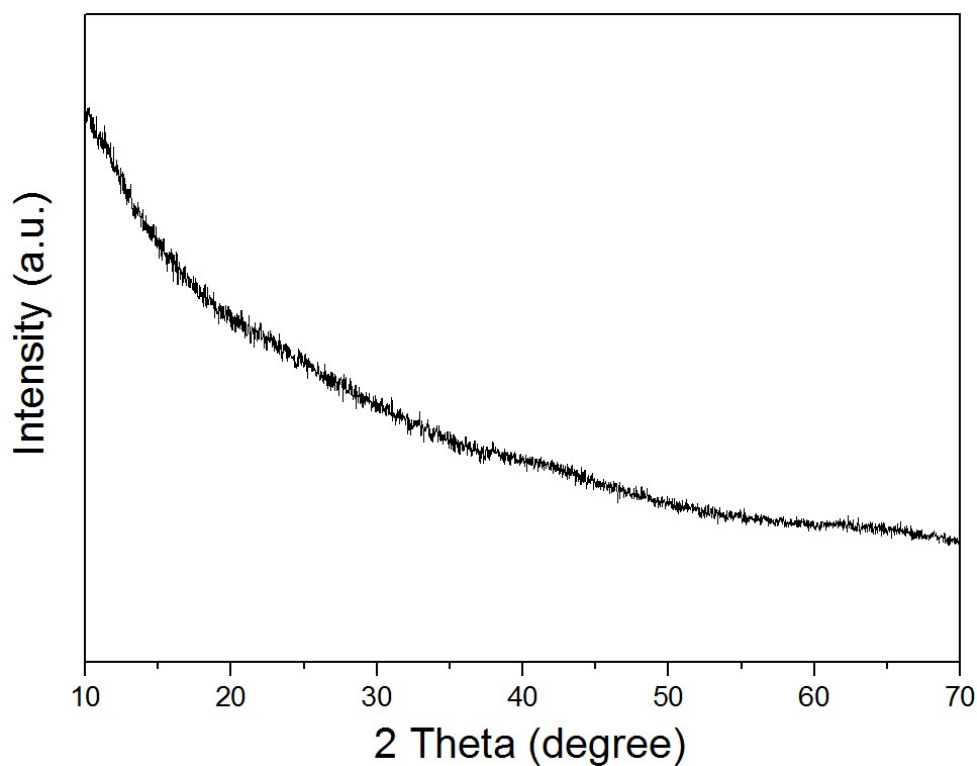
Supplementary Information for

**Interfacial engineering of renewable metal organic framework derived honeycomb-like nanoporous aluminum hydroxide with tunable porosity and its application**

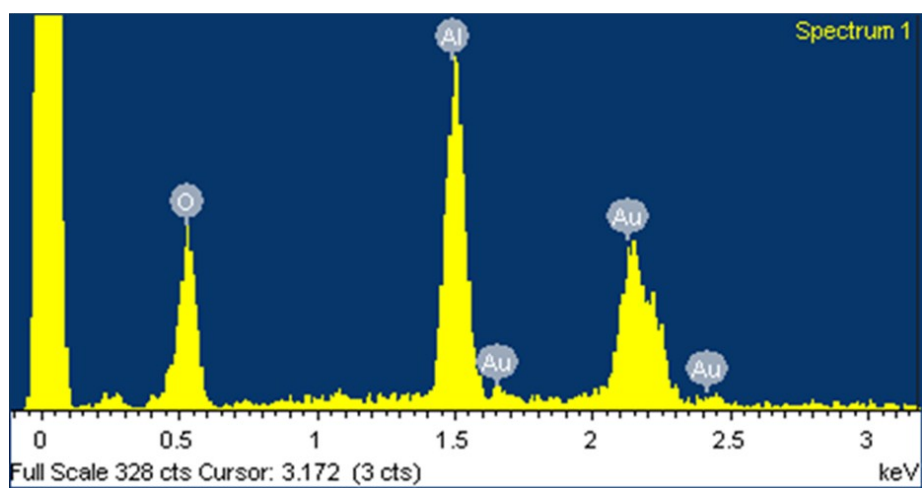
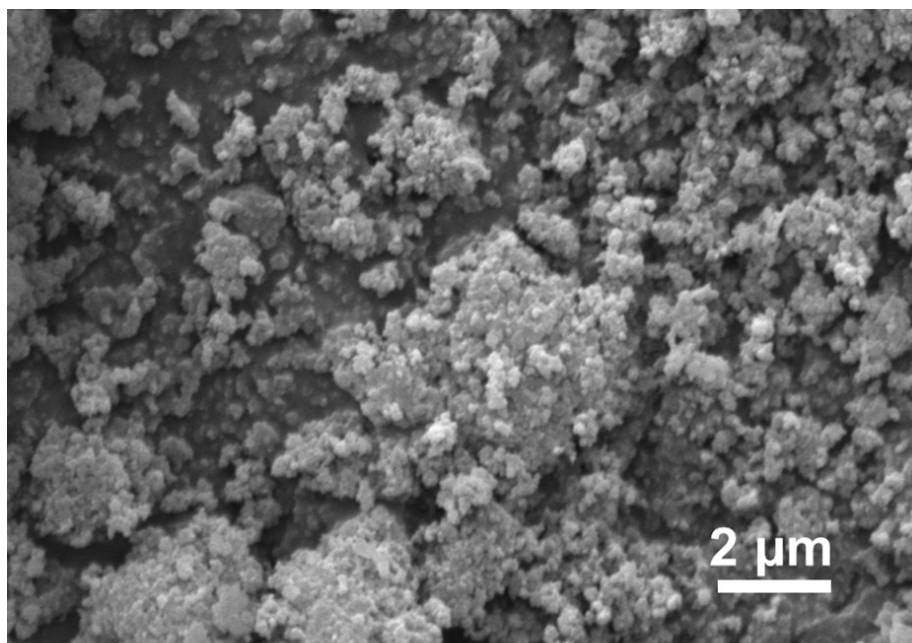
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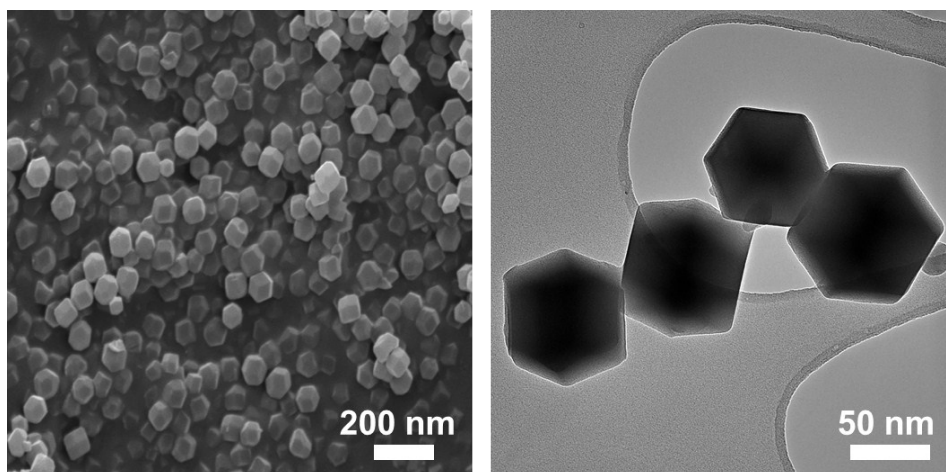
Corresponding Author: E-mail address: [deyi.wang@imdea.org](mailto:deyi.wang@imdea.org)



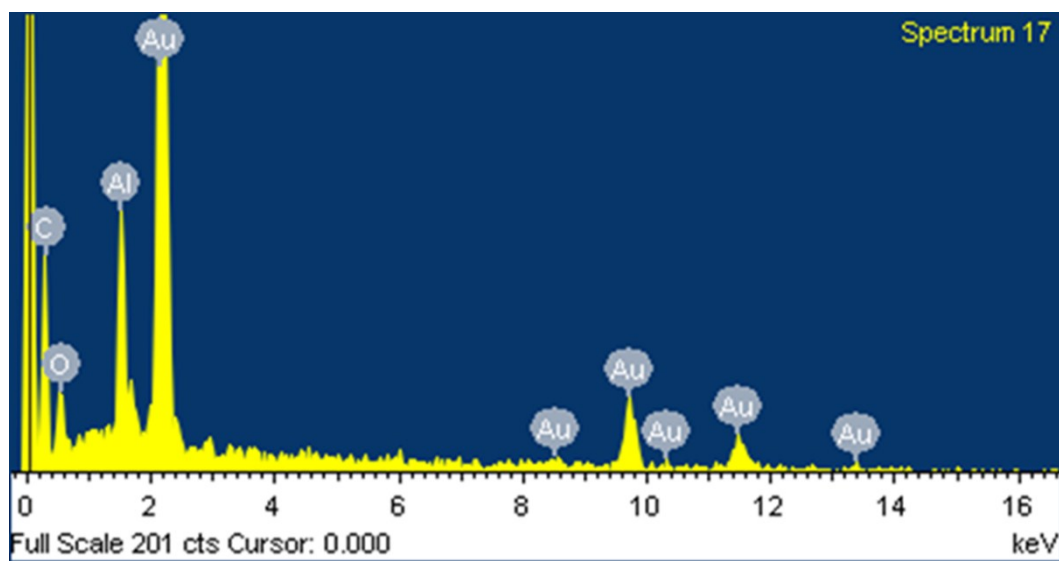
**Fig. S1** XRD pattern of pATH.



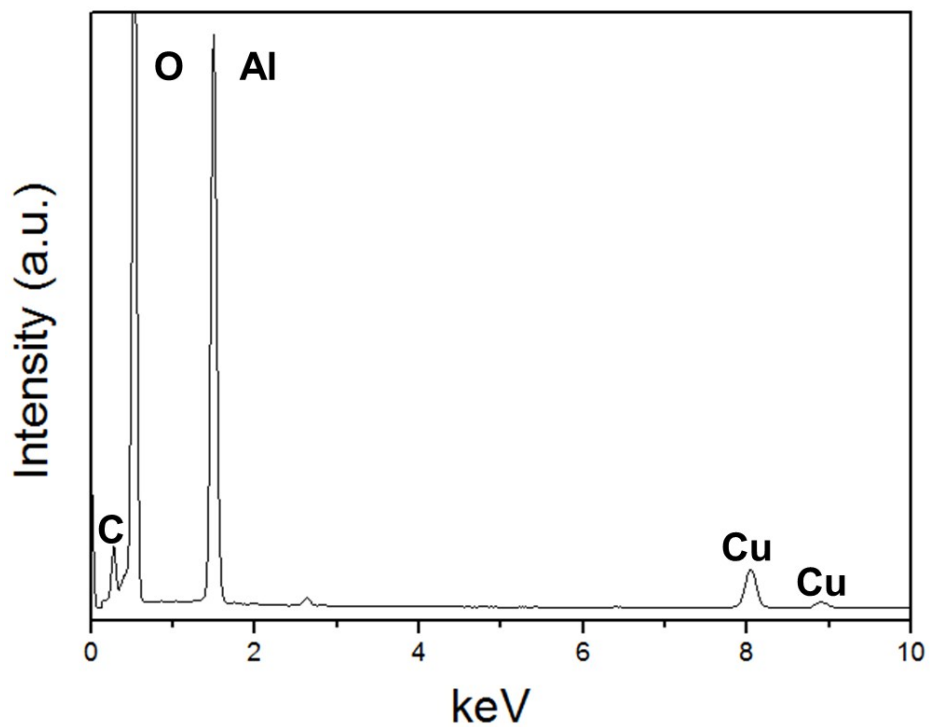
**Fig. S2** SEM image and EDX spectra of commercial ATH.



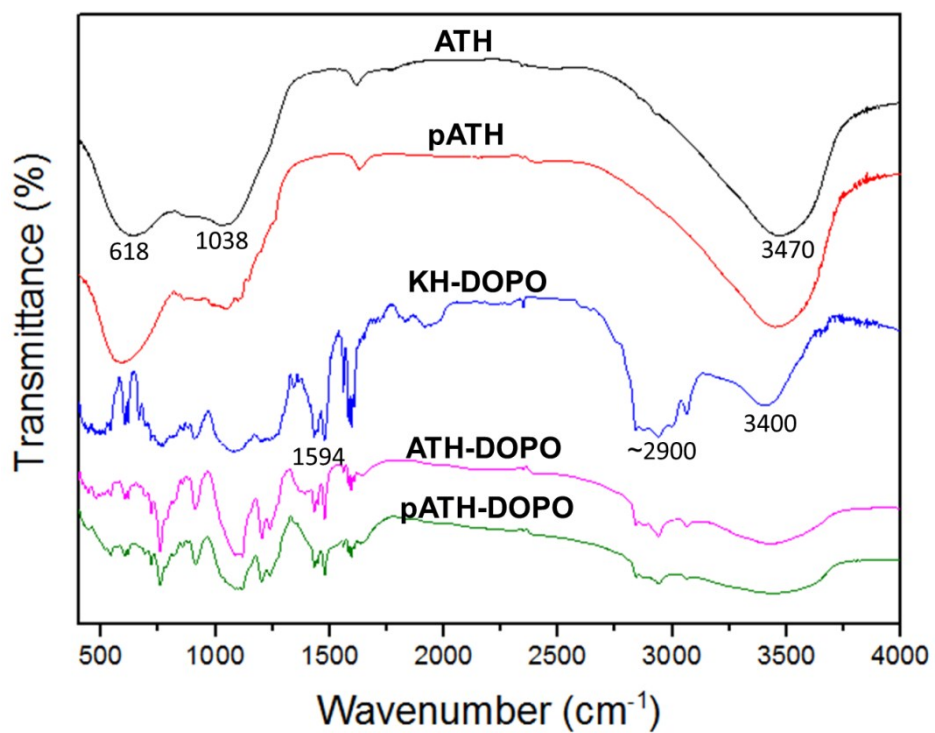
**Fig. S3** SEM and TEM images of ZIF-8-2h template.



**Fig. S4** EDX spectra of pATH from SEM. (C element was derived from the conductive belt)



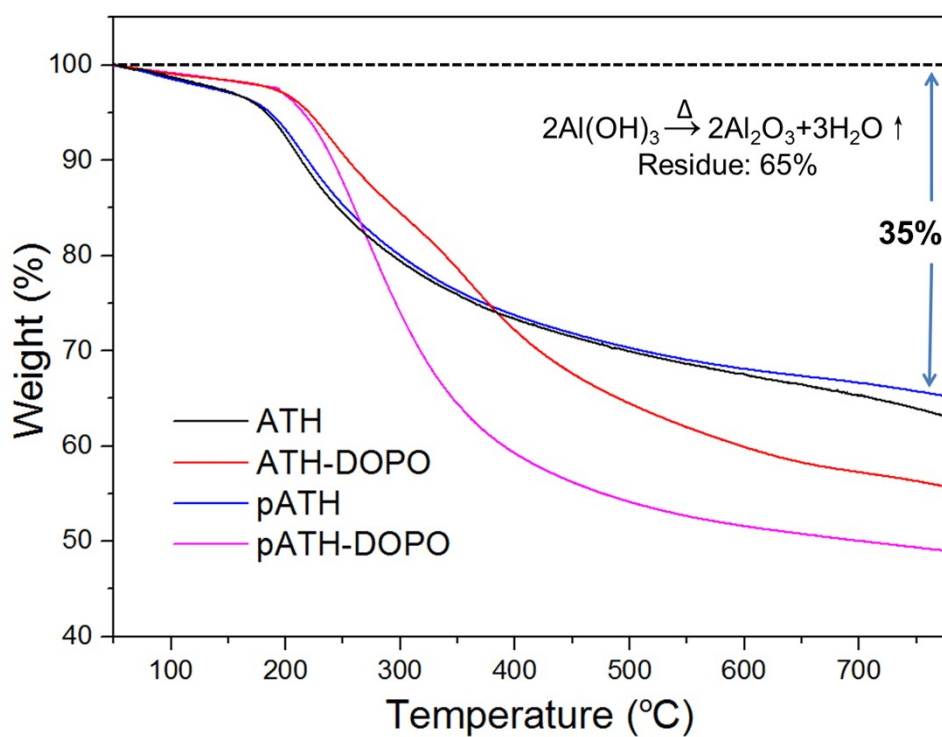
**Fig. S5** EDX spectra of pATH from TEM.



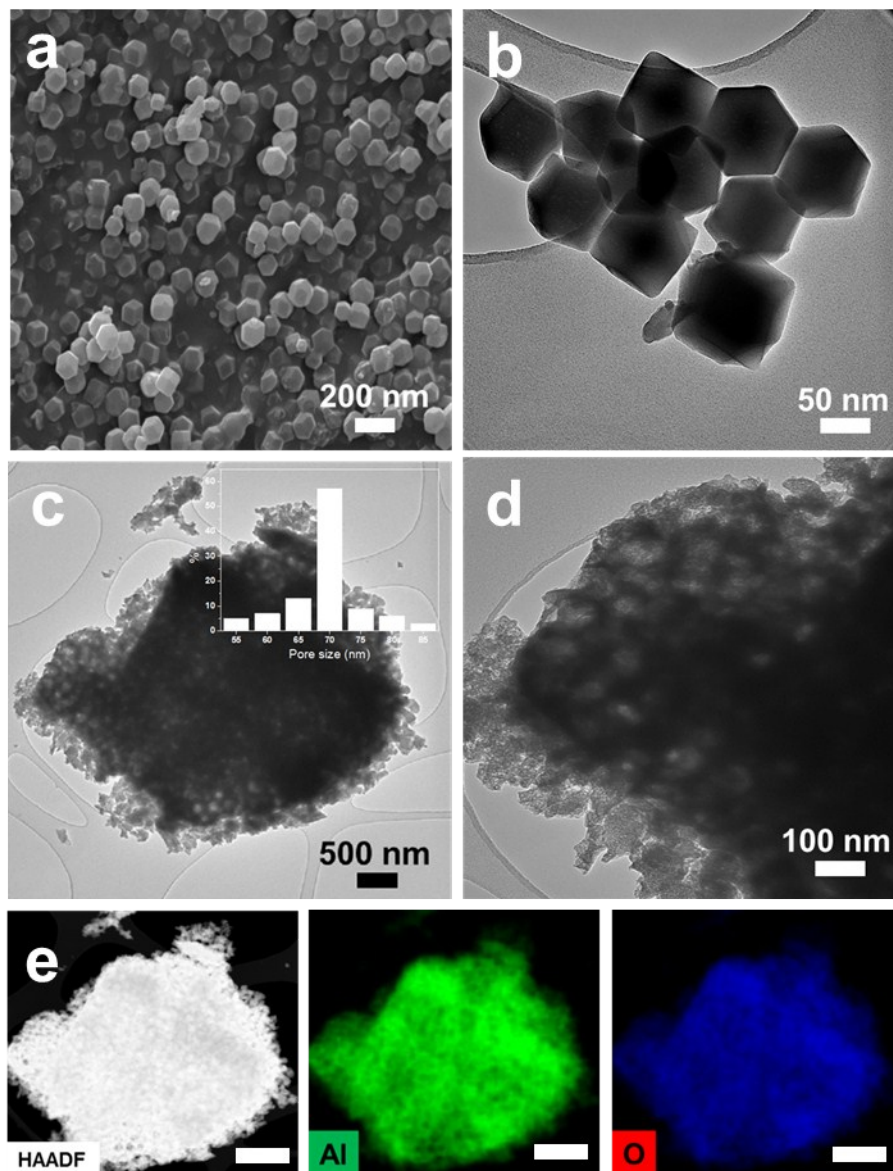
**Fig. S6** The FT-IR spectra of ATH, pATH, KH-DOPO, ATH-DOPO and pATH-DOPO.



**Fig. S7** Digital photos of commercial ATH and pATH with same weight.

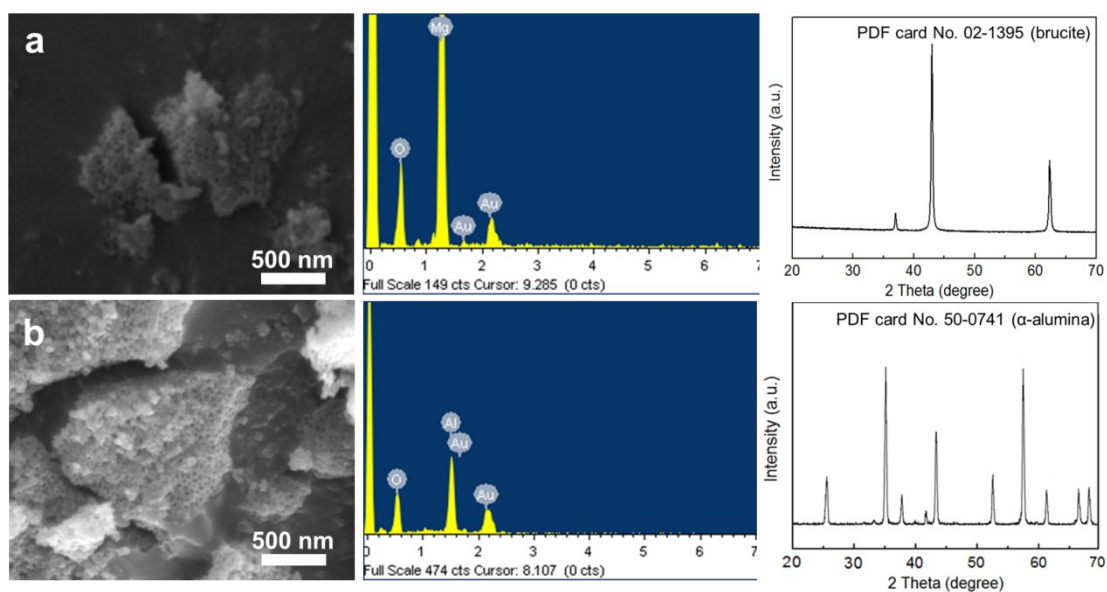


**Fig. S8** TGA profiles of ATH, ATH-DOPO, pATH and pATH-DOPO.

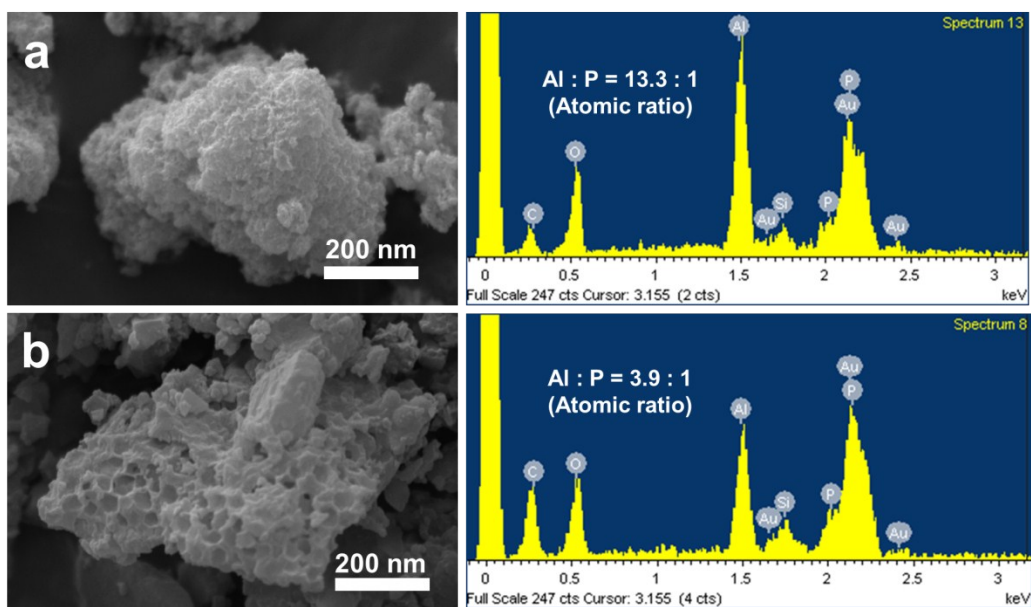


**Fig. S9** (a) SEM image of ZIF-8-5h; (b) TEM image of ZIF-8-5h; (c, d) TEM images of macro-PATH (The inset showed the pore size distribution); (e) HAADF image and elemental mapping of macro-PATH.





**Fig. S10** SEM images, EDX spectra and XRD patterns of (a) alumina and (b) magnesium hydroxide.



**Fig. S11** (a) SEM image and EDX spectra of ATH-DOPO; (b) SEM image and EDX spectra of pATH-DOPO.