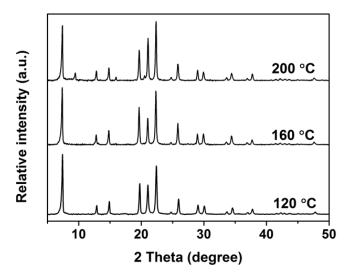
Supporting information

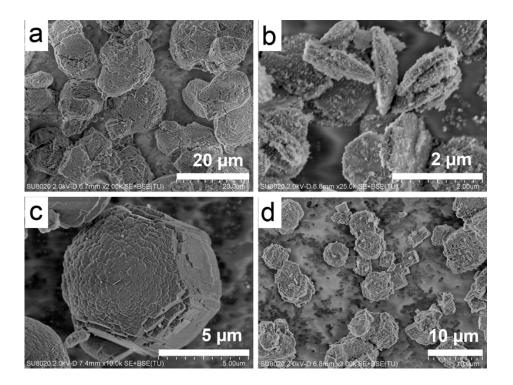
## In Situ Growth and Assembly of Microporous Aluminophosphate Nanosheets into Ordered Architectures at Low Temperature and the Enhanced Catalytic Performance

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**Fig. S1** XRD patterns of the products prepared at different crystallization temperatures. The synthetic gel compositions are 1.5 TEA:  $0.8 \text{ Al}_2\text{O}_3$ :  $1.0 \text{ P}_2\text{O}_5$ :  $0.5 \text{ SiO}_2$ :  $50 \text{ H}_2\text{O}$ . The crystallization time is 24h.



**Fig. S2** SEM images of the samples prepared with different templates at 200 °C: (a) dimethylethanolamine; (b) ; (c) TPA; (d) TEAOH.

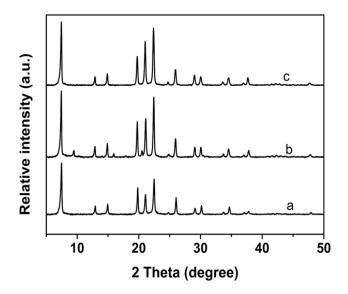


Fig. S3 XRD patterns of the MeAPO-5-NS products: (a) CrAPO-5-NS; (b) CoAPO-5-NS; (c) MnAPO-5-NS.

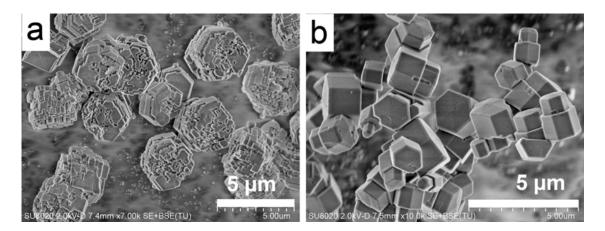


Fig. S4 SEM images of the conventional SAPO-5-C (a) and MnAPO-5-C (b).

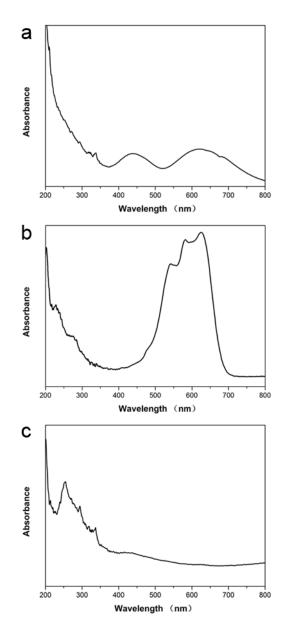


Fig. S5 DR UV - Vis spectra of the as-synthesized MeAPO-5-NS: (a) CrAPO-5-NS, (b) CoAPO-5-NS, (c) MnAPO-5-NS.

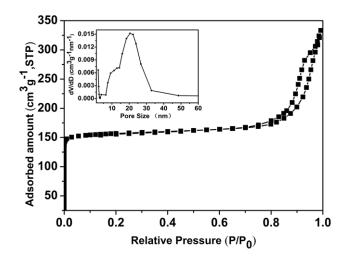


Fig. S6  $N_2$  adsorption-desorption isotherms of DNL-7-Co. The inset shows the corresponding BJH pore size distribution curve calculated from the desorption branch.

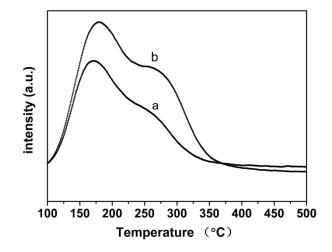


Fig. S7  $NH_3$ -TPD profiles of SAPO-5-NS2 (a) and SAPO-5-C (b).