

Electronic Supplementary Information (ESI)

Rational construction of hierarchical SAPO-34 with enhanced MTO performance without additional meso/macropore template

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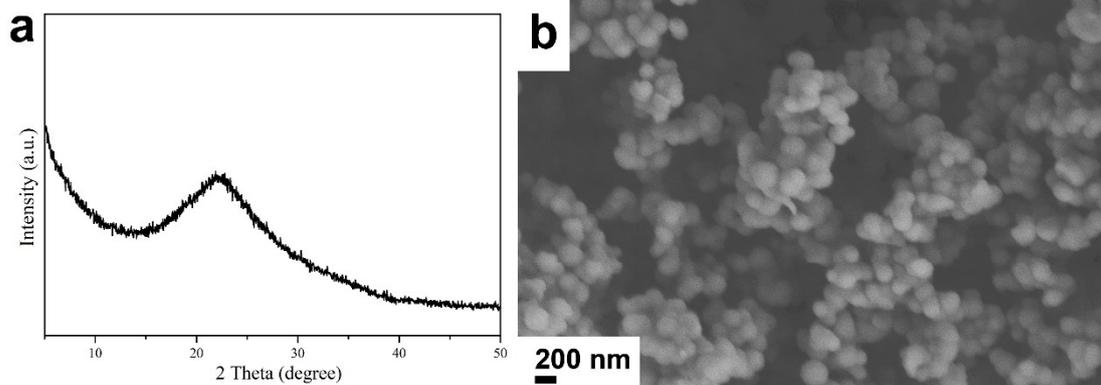


Fig. S1 XRD pattern and SEM image of the APSs precursor.

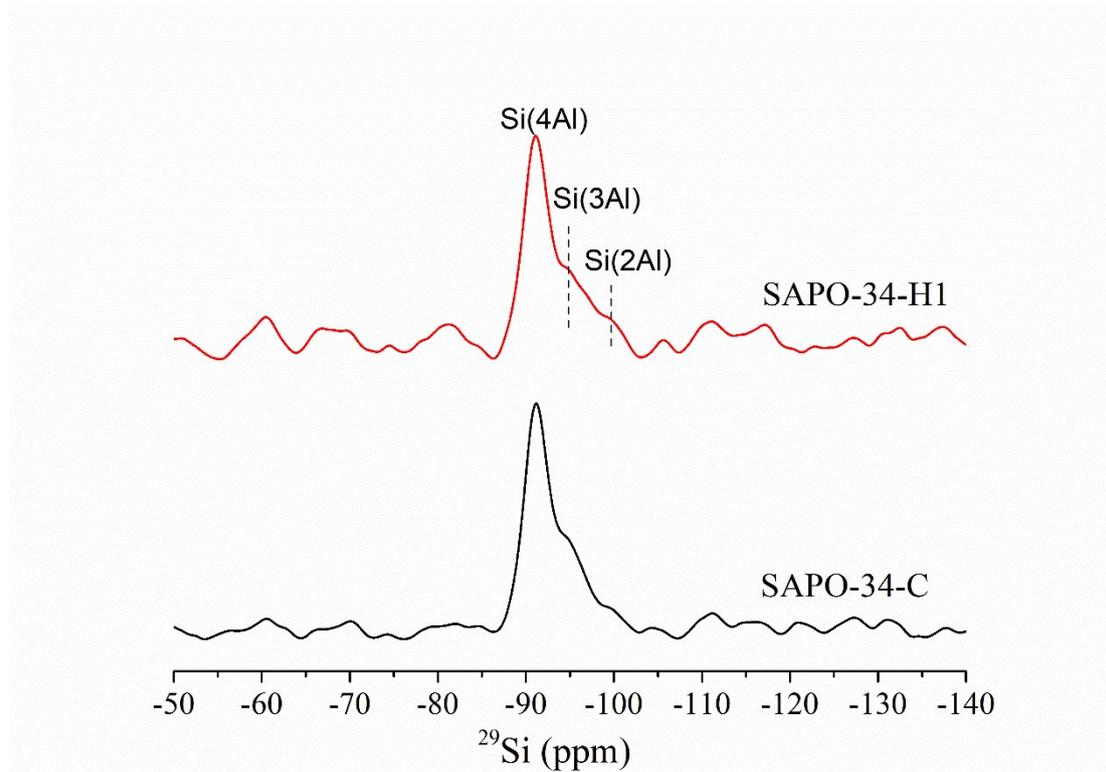


Fig. S2 ^{29}Si MAS NMR spectra of as-synthesized hierarchical SAPO-34-H1 and conventional microporous SAPO-34-C.

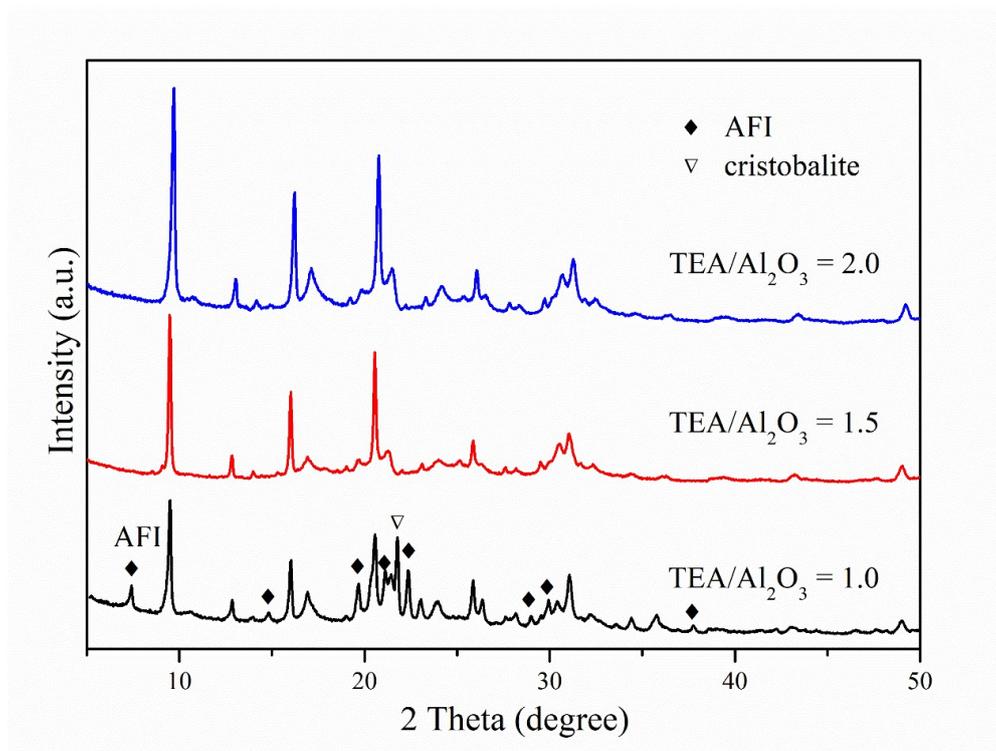


Fig. S3 XRD patterns of the samples synthesized with different TEA/ Al_2O_3 molar ratios.

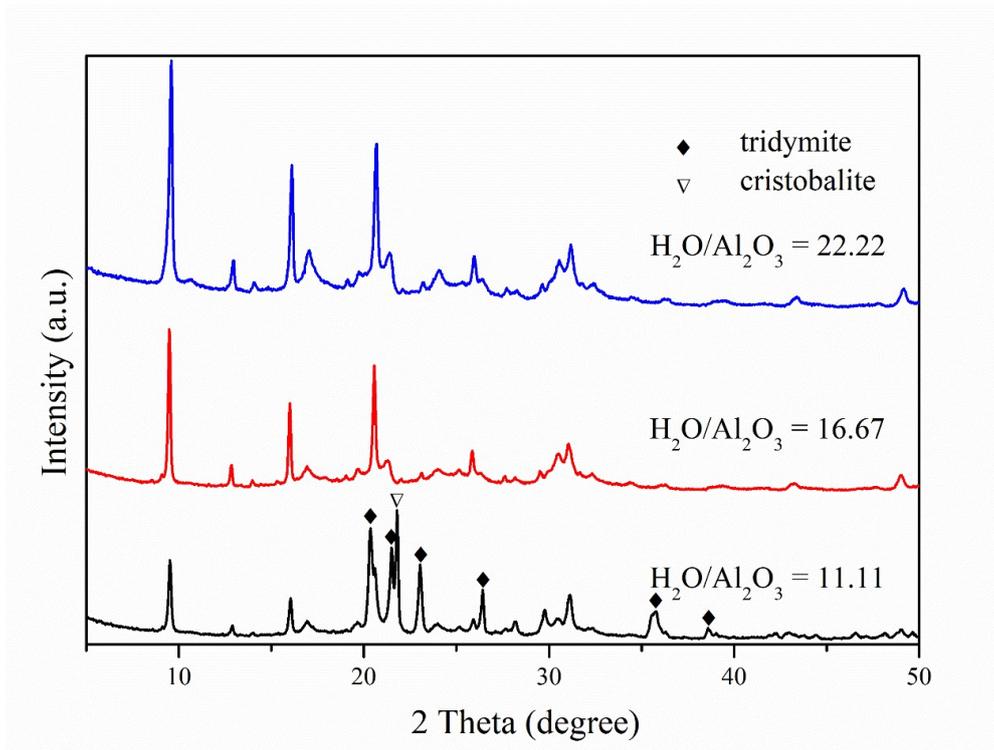


Fig. S4 XRD patterns of the samples synthesized with different H_2O/Al_2O_3 molar ratios.

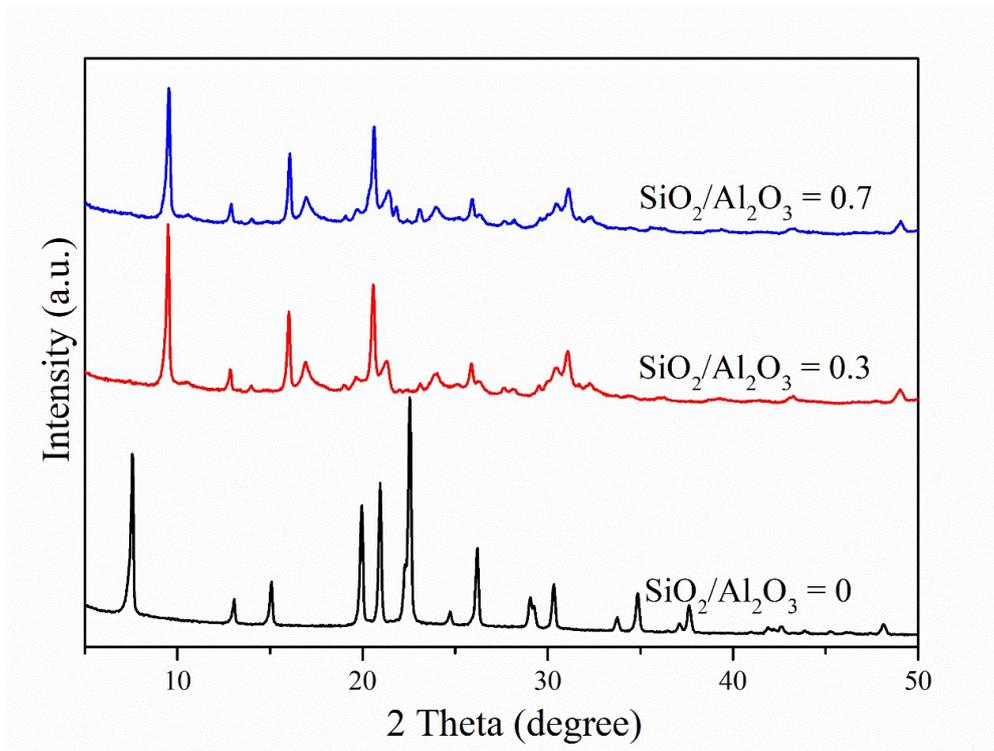


Fig. S5 XRD patterns of the samples synthesized with different SiO_2/Al_2O_3 molar ratios.

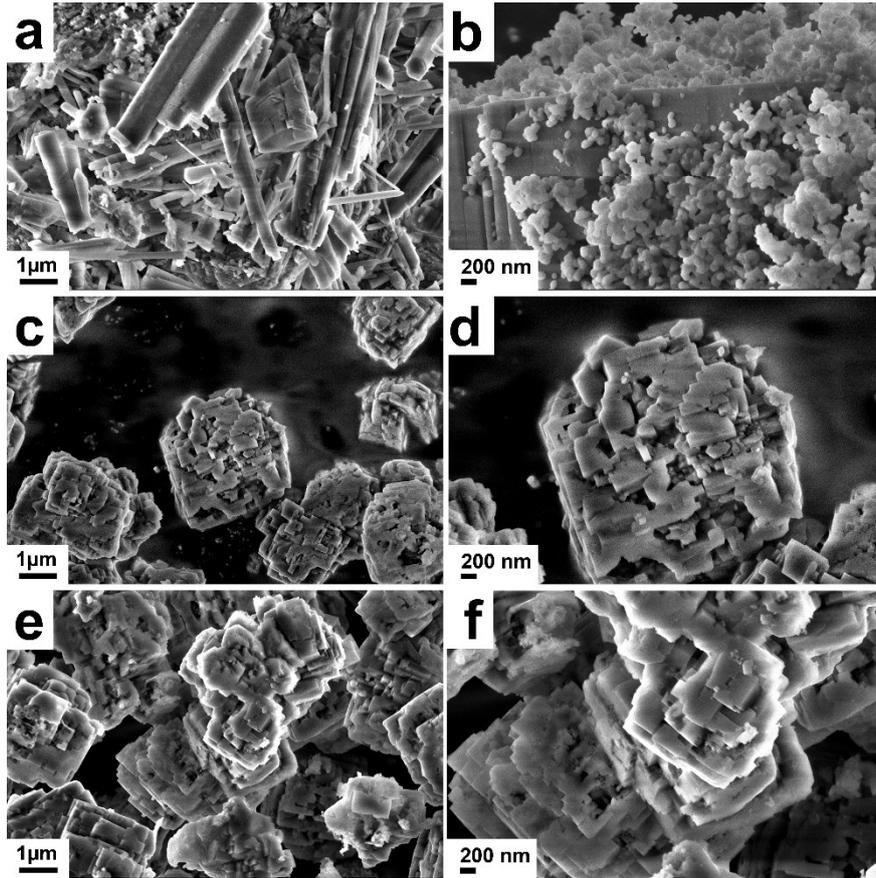


Fig. S6 SEM images of the samples synthesized with $\text{SiO}_2/\text{Al}_2\text{O}_3$ molar ratio of 0 (a, 1.5TEA), 0 (b, 1.0TEA), 0.3 (c, d) and 0.7 (e, f).

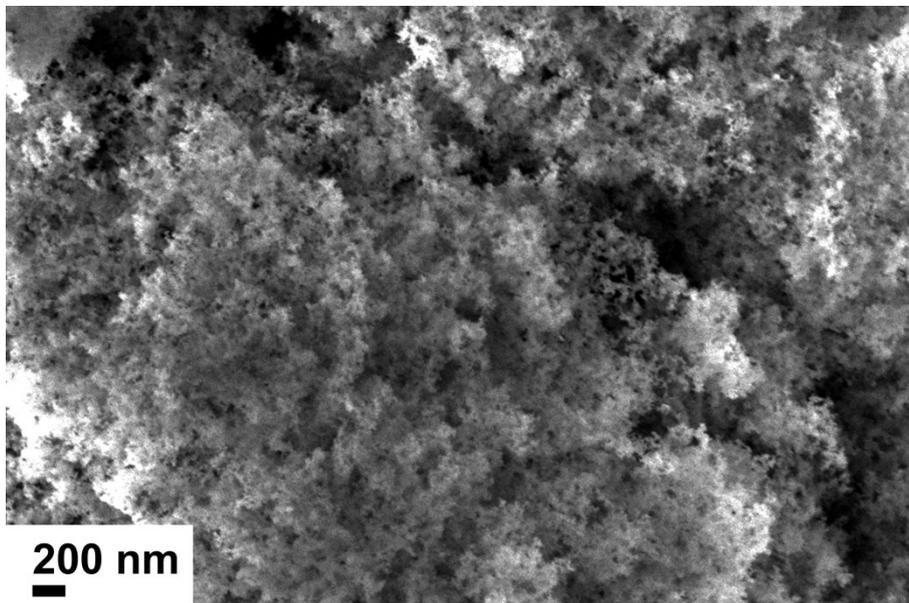


Fig. S7 SEM image of the fumed silica.

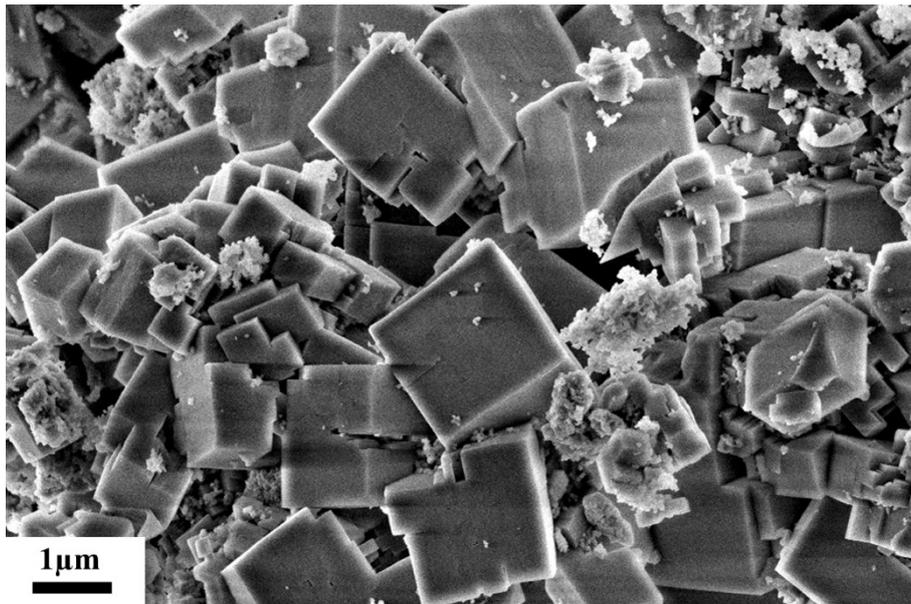


Fig.S8 SEM image of SAPO-34 sample synthesized with aluminium phosphate powder without specific morphology.