

Figure S1 The XRD pattern of the material obtained during the heating process

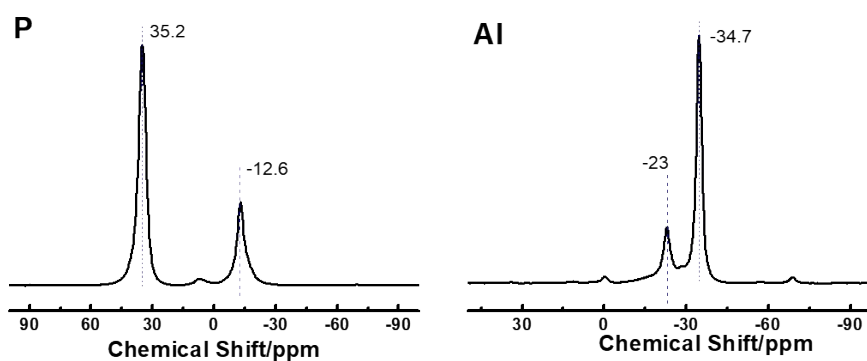


Figure S2 The  $^{31}\text{P}$  MAS NMR and  $^{27}\text{Al}$  MAS NMR spectra of the  $\text{AlPO}_4\text{-A}$  material

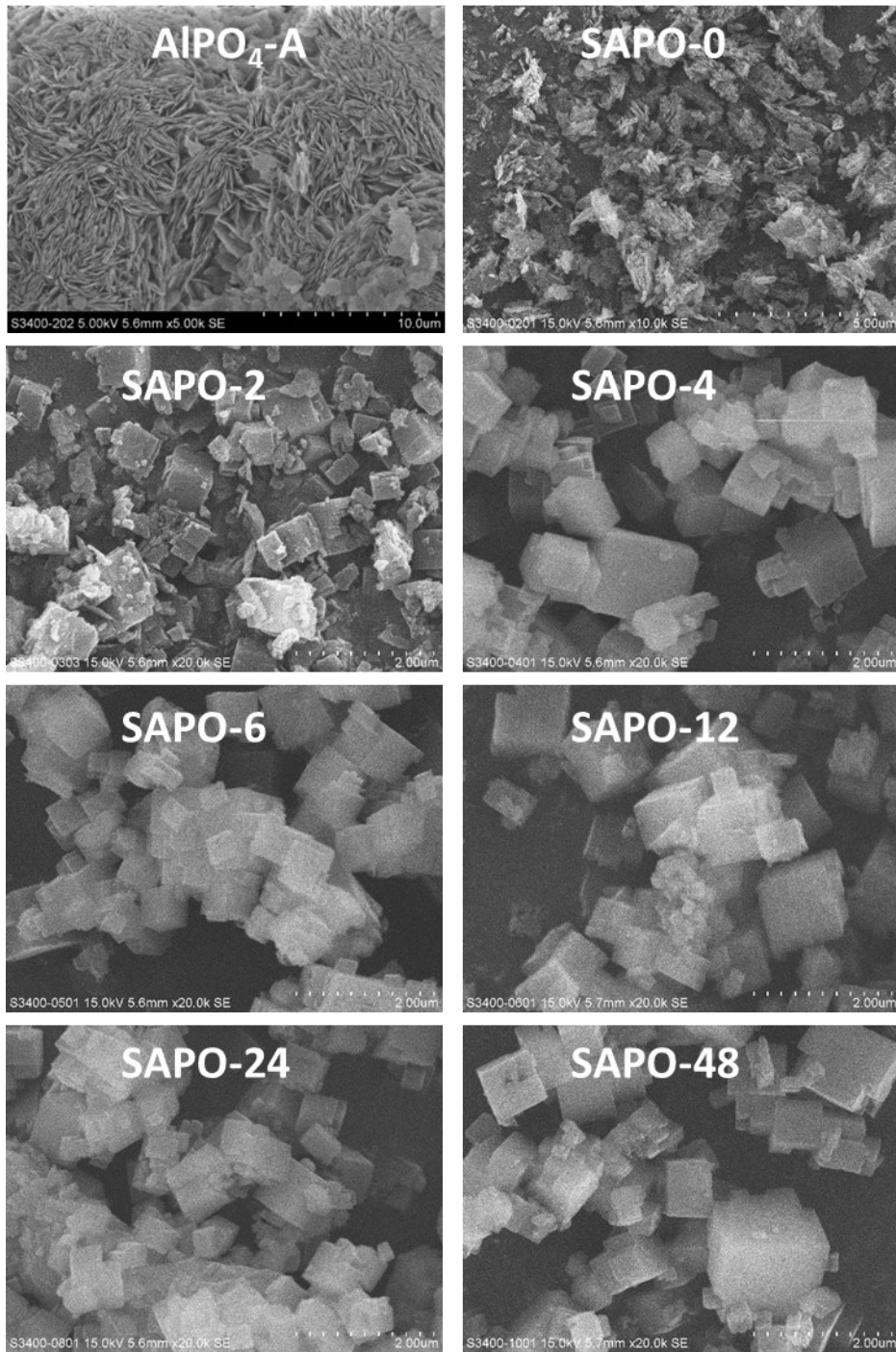


Figure S3 The SEM images of the  $\text{AlPO}_4\text{-A}$  material and the crystallization products obtained in 0-48 h

Table S1 The comparison with the reported methods for hierarchical synthesis with only TEA/TAOH

Synthesis method	precursor	Mesopores	Crystallization time / h	Ref.
Dry-gel conversion	1.0 Al <sub>2</sub> O <sub>3</sub> :1.0 P <sub>2</sub> O <sub>5</sub> :0.6SiO <sub>2</sub> :2.0 TEAOH	Hollow structure, the intracrystalline meso/macro-pores, which can only be accessed through the crystalline 8-ring channel	>12	[24]
Seeding	1.0Al <sub>2</sub> O <sub>3</sub> :1.0P <sub>2</sub> O <sub>5</sub> :(0.2~5.0)TEA:(0.4~0.8)SiO <sub>2</sub> :70H <sub>2</sub> O, 8%wt seeds	Intracrystalline micro/macro-pores, part of which connected directly to the crystal surface	>6	[21],[35]
Two-step approach with crystalline AlPO <sub>4</sub> as intermediate	1.0Al <sub>2</sub> O <sub>3</sub> :1.0P <sub>2</sub> O <sub>5</sub> :2TEA:0.5TEAOH:0.3SiO <sub>2</sub> :31H <sub>2</sub> O, 8%wt seeds	Intracrystalline mesopores, almost all of which can be accessed through the zeolite surface	>4	This paper

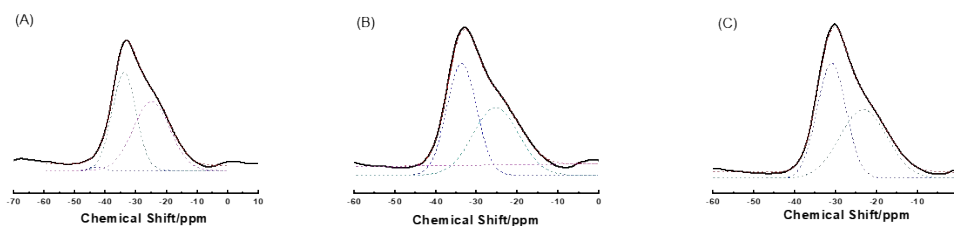


Figure S4 The peak-fitting of the  $^{31}\text{P}$  MAS NMR spectra of (A) SPAO-34-31, (B) SAPO-34-11, and (C) SAPO-34-II

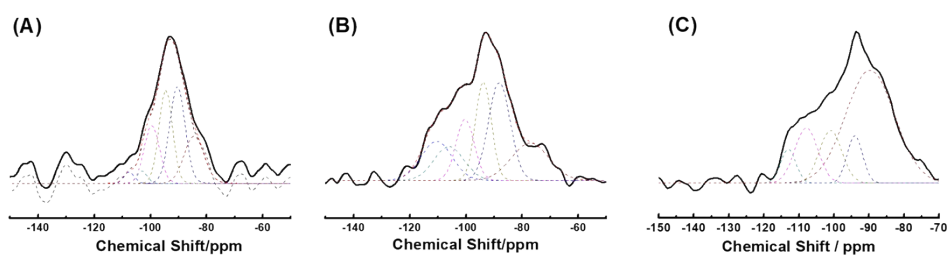


Figure S5 The peak-fitting of the  $^{29}\text{Si}$  MAS NMR spectra of (A) SPAO-34-31, (B) SAPO-34-11, and (C) SAPO-34-II

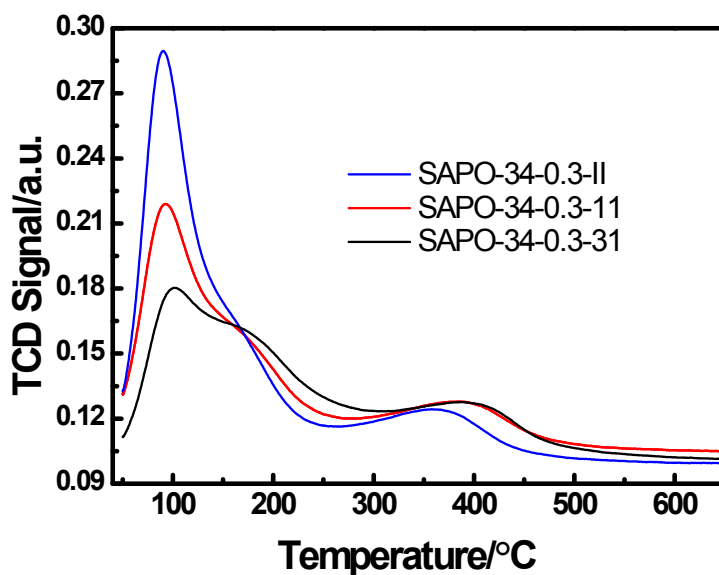


Figure S6 The  $\text{NH}_3$ -TPD profile of the SAPO-34 samples