

Fig. 1 X-ray diffraction patterns of initial gels and intermediate phases: (a) - Sample Gel-Bh; (b) - Sample Gel-iAl; (c) - Sample IF-Bh-90; (d) - Sample IF-iAl-90; (e) - Sample IF-Bh-130; (f) - Sample IF-iAl-130.

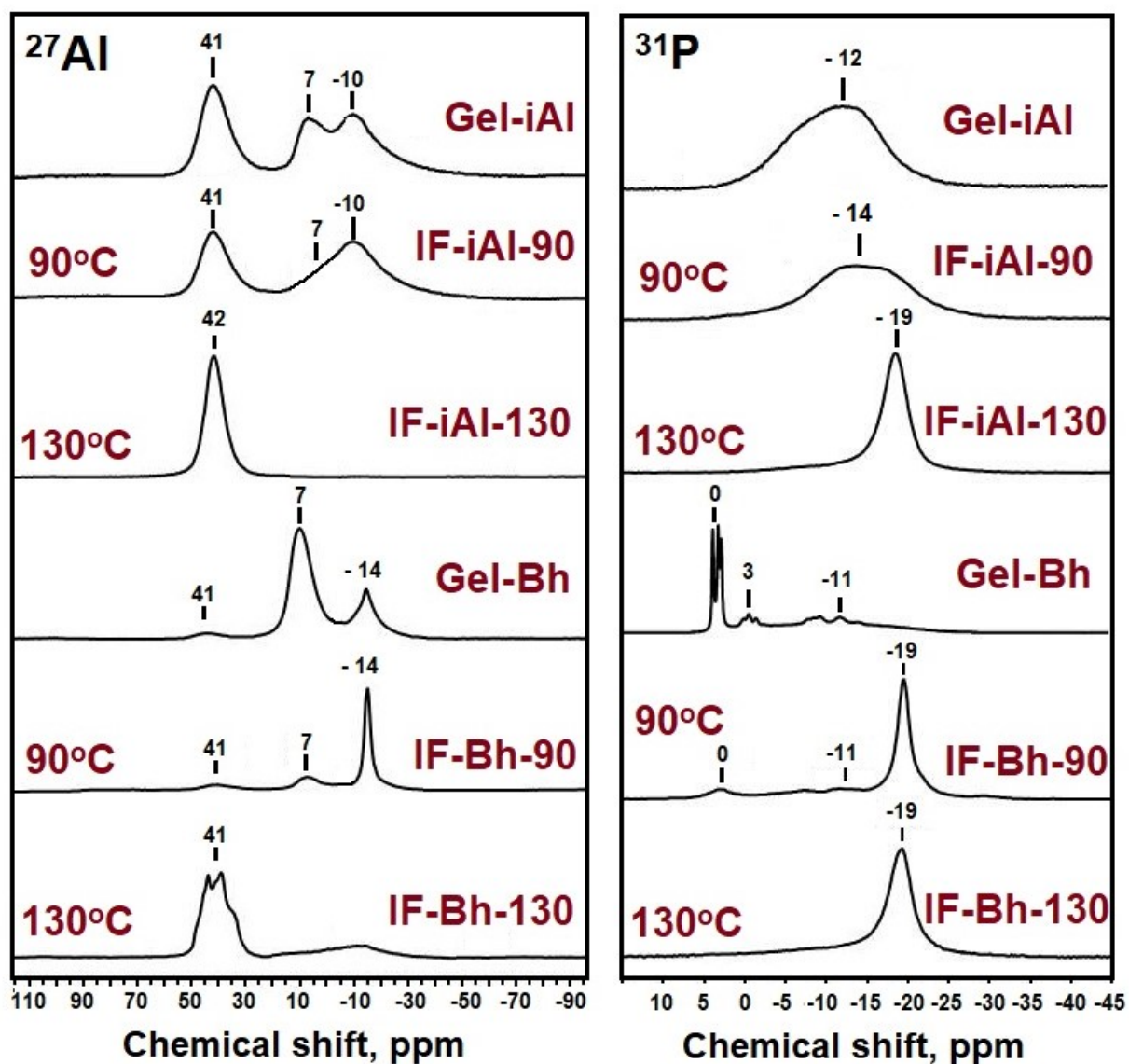


Fig. 2 MAS NMR ^{27}Al and ^{31}P spectra of initial gels and intermediate phases.

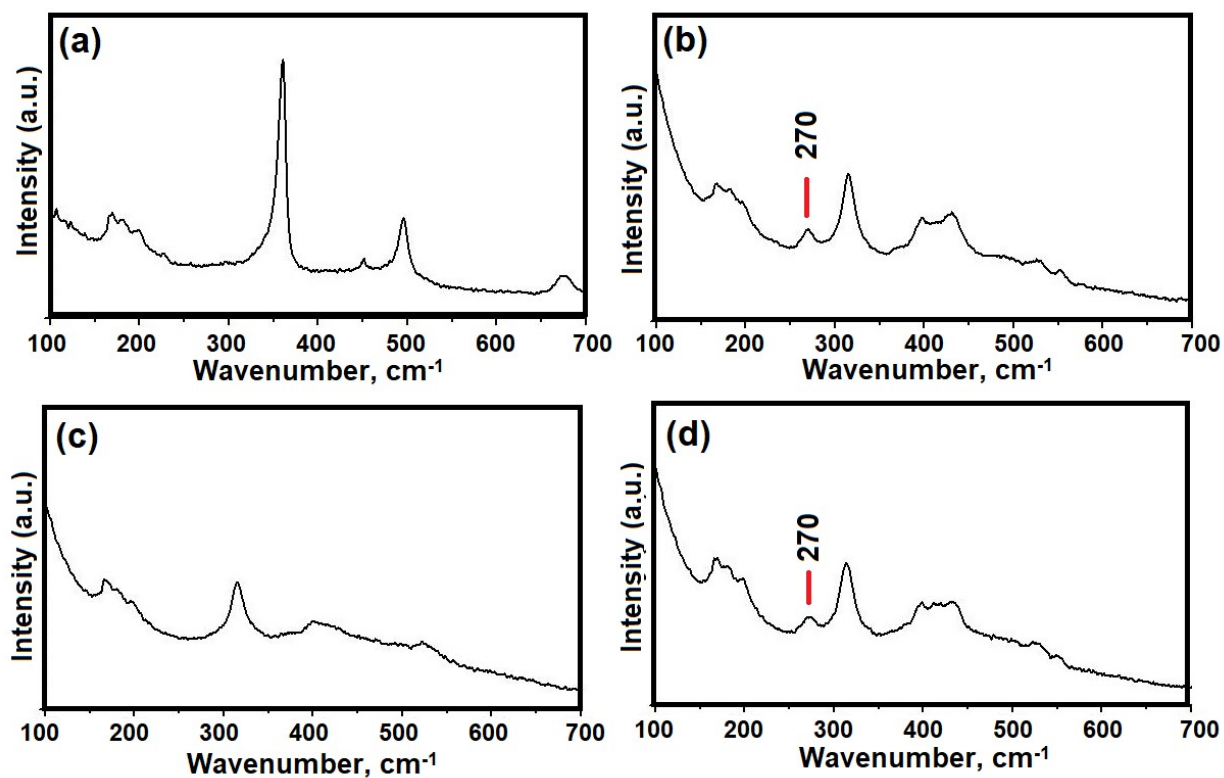


Fig. 3 Raman spectra of intermediate phases: (a) - Sample IF-Bh-90; (b) Sample IF-Bh-130; (c) Sample IF-iAl-90; (d) - Sample IF-iAl-130

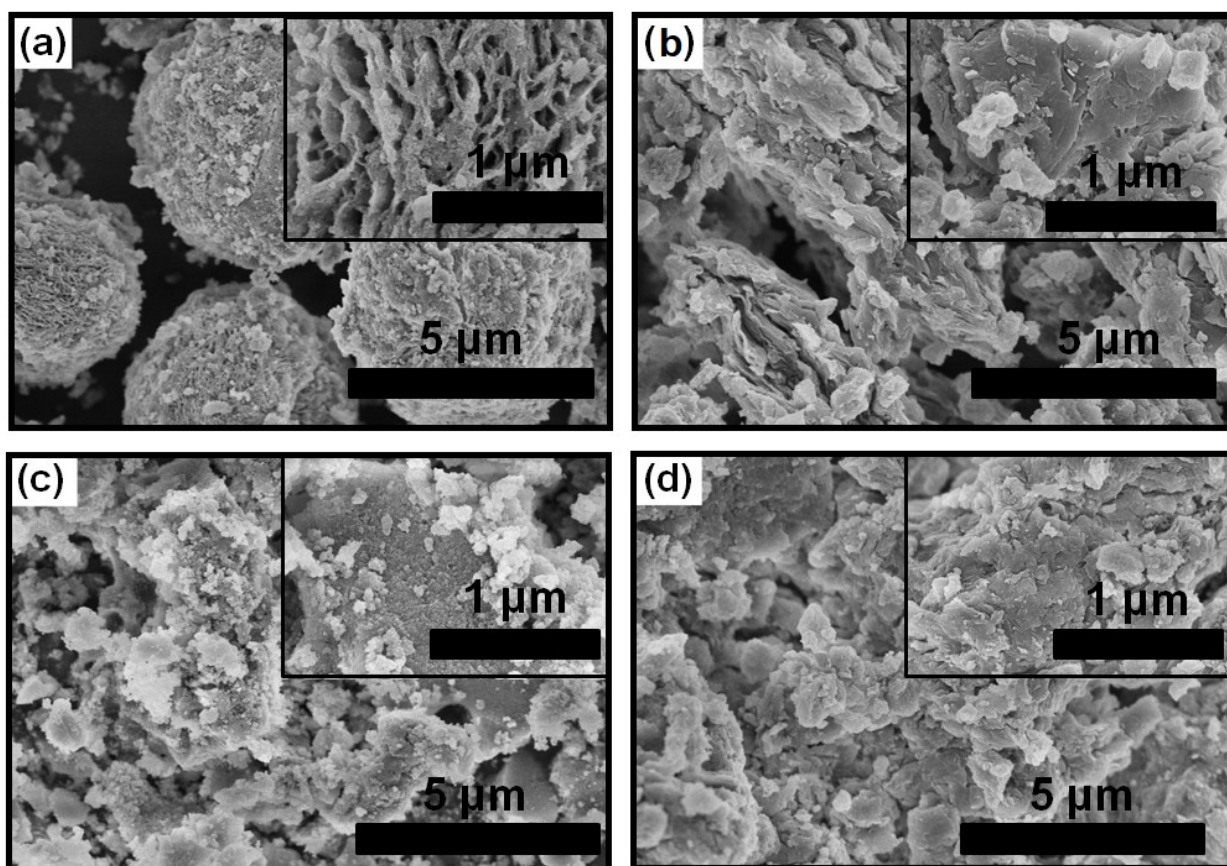


Fig. 4 SEM images of intermediate phases: (a) Sample IF-Bh-90; (b) Sample IF-Bh-130; (c) Sample IF-iAl-90; (d) Sample IF-iAl-130

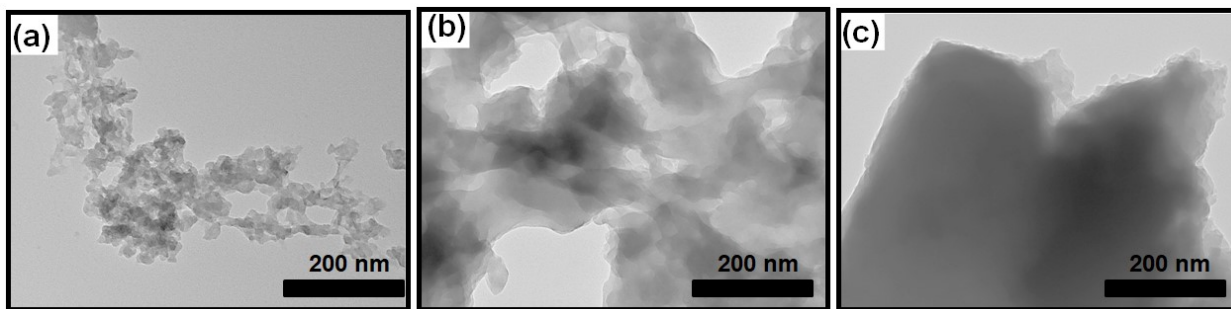


Fig. 5 TEM images of intermediate phases: (a) Sample IF-iAl-90; (b) Sample IF-iAl-130; (c) Sample IF-Bh-130.

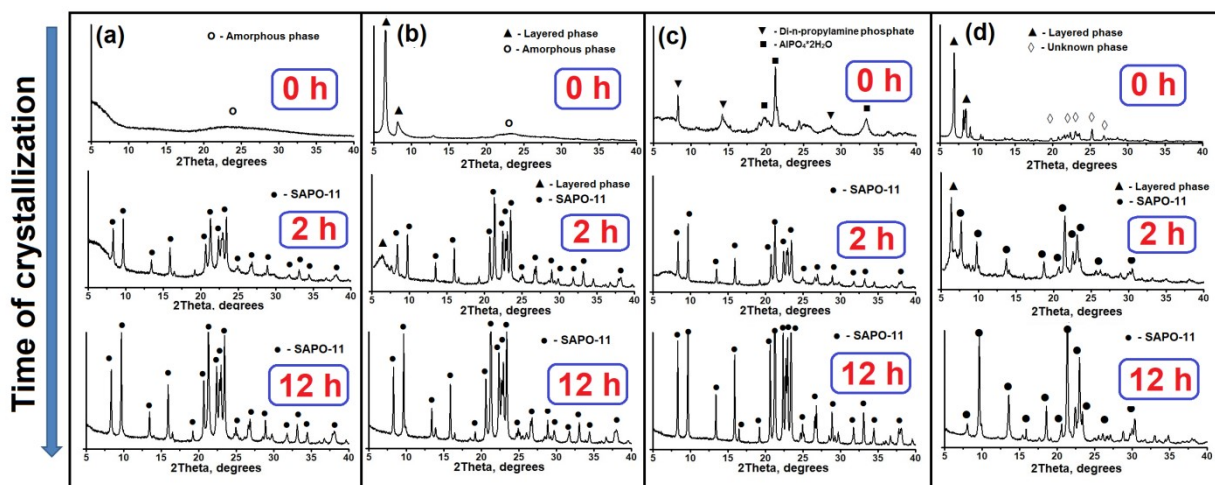


Fig. 6 X-ray patterns of crystallization products of intermediate phases: (a) - Crystallization of the intermediate phase IF-iAl-90; (b) - Crystallization of the intermediate phase IF-iAl-130; (c) - Crystallization of the intermediate phase IF-Bh-90; (d) - Crystallization of the intermediate phase IF-Bh-130

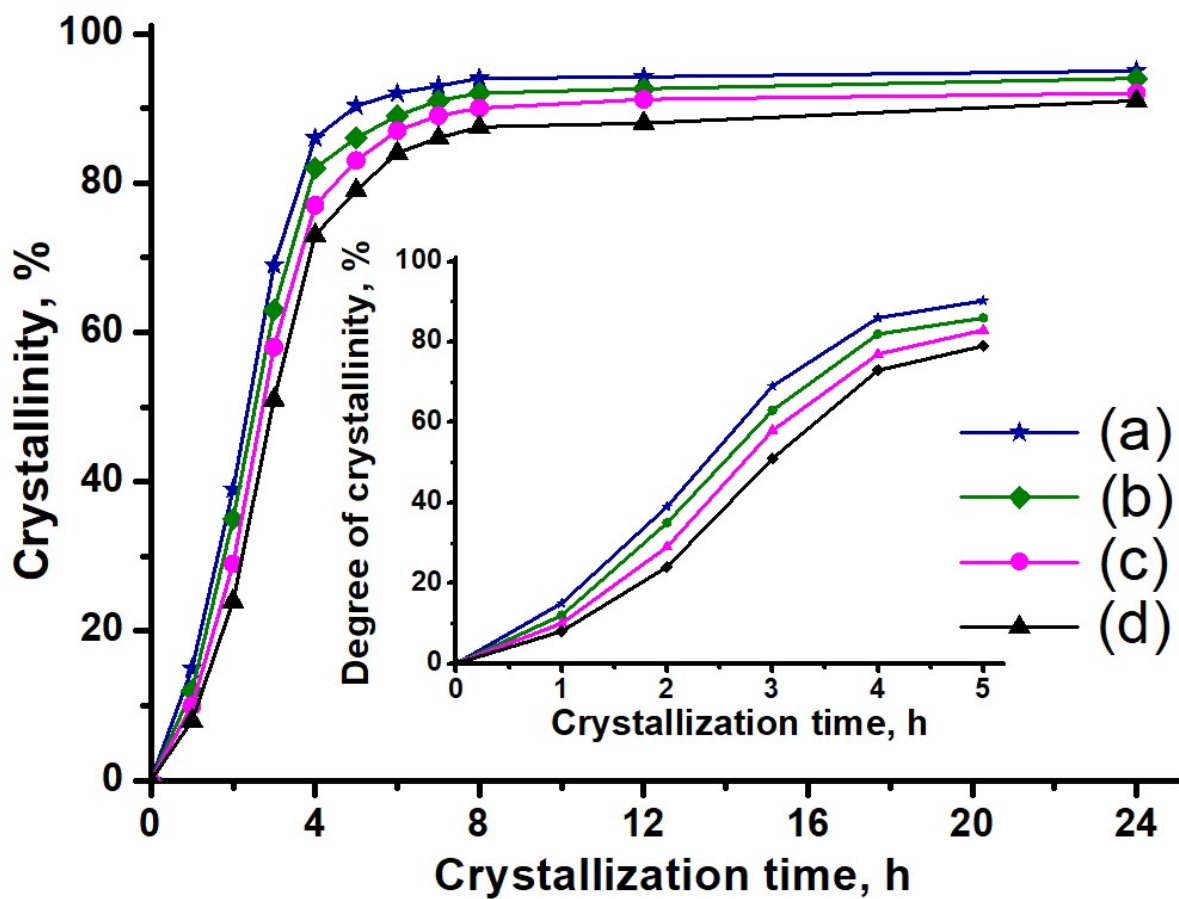


Fig. 7 Crystallinity as a function of time for SAPO-11: (a) - Sample SAPO-11-iAl-130; (b) - Sample SAPO-11-Bh-130; (c) - Sample SAPO-11-iAl-90; (d) - Sample SAPO-11-Bh-90. *Inset:* degree of crystallinity of samples up to 5 h representing the nucleation and initial stage of crystallization of the samples.

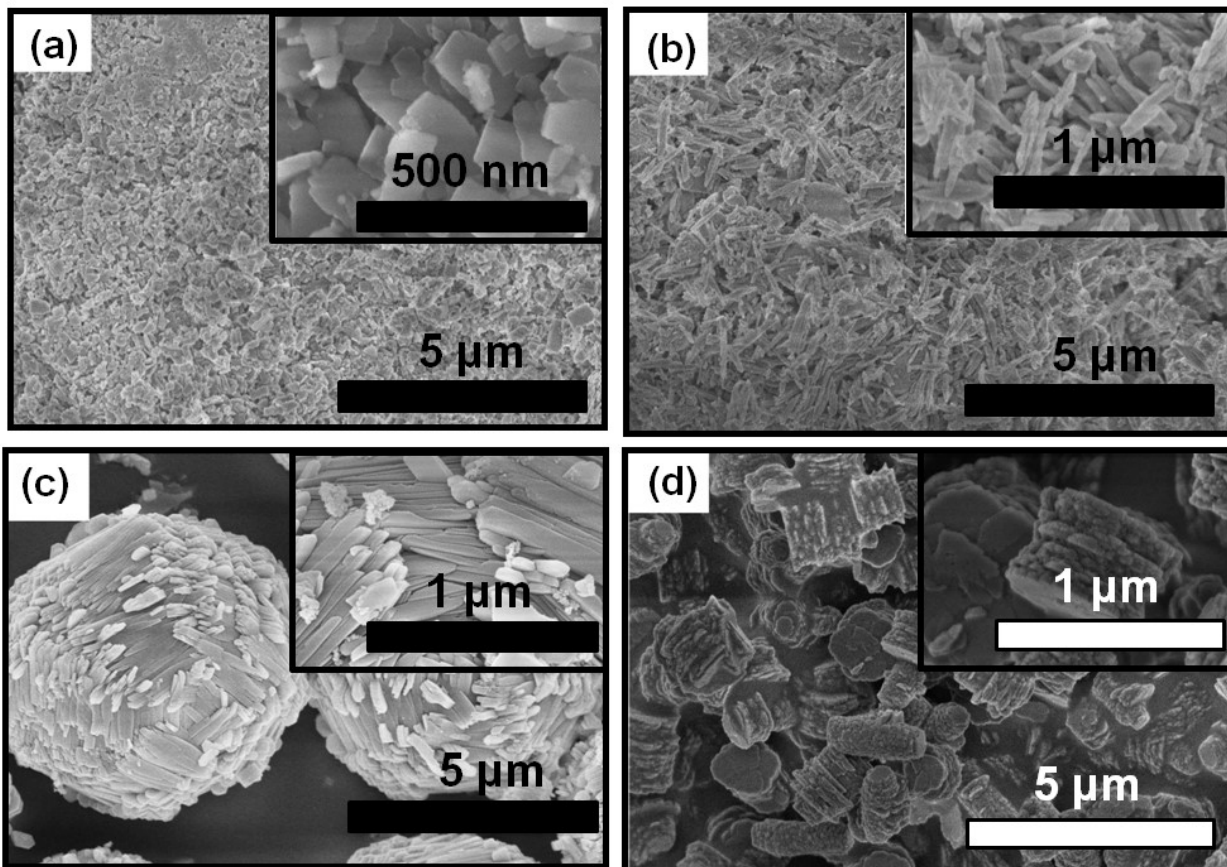


Fig .8 SEM images of molecular sieves: (a) Sample SAPO-11-Bh-90; (b) Sample SAPO-11-Bh-130; (c) Sample SAPO-11-iAl-90; (d) Sample SAPO-11-iAl-130

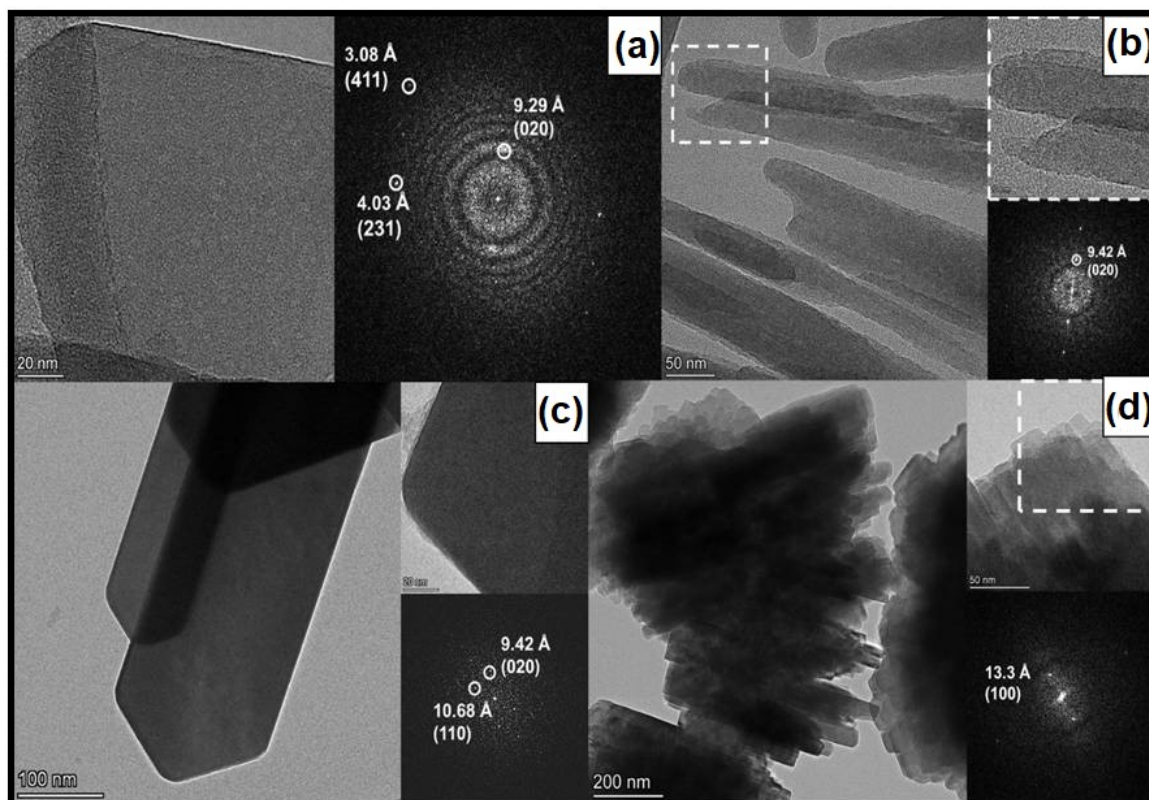


Fig. 9 TEM and corresponding FFT images of molecular sieves: (a) Sample SAPO-11-Bh-90; (b) Sample SAPO-11-Bh-130; (c) Sample SAPO-11-iAl-90; (d) Sample SAPO-11-iAl-130

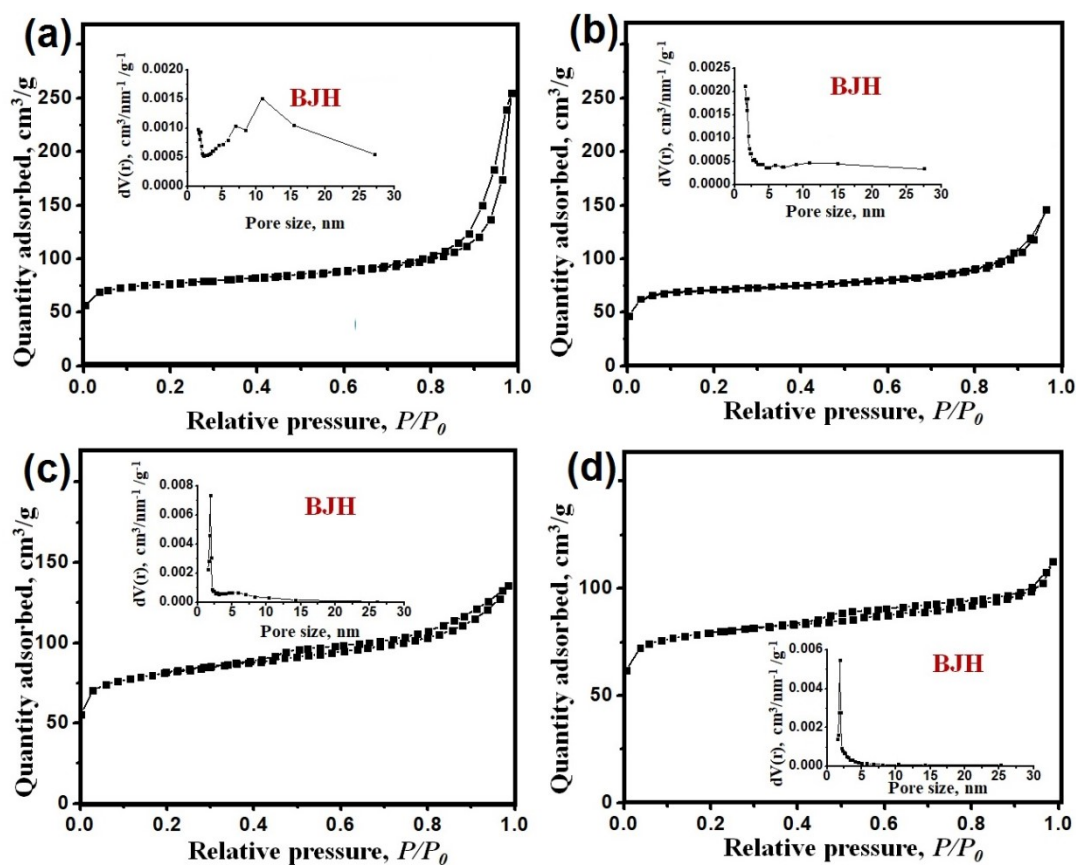


Fig. 10 Nitrogen adsorption–desorption isotherms and pore size distribution of molecular sieves: (a) Sample SAPO-11-Bh-90; (b) Sample SAPO-11-Bh-130; (c) Sample SAPO-11-iAl-90; (d) Sample SAPO-11-iAl-130

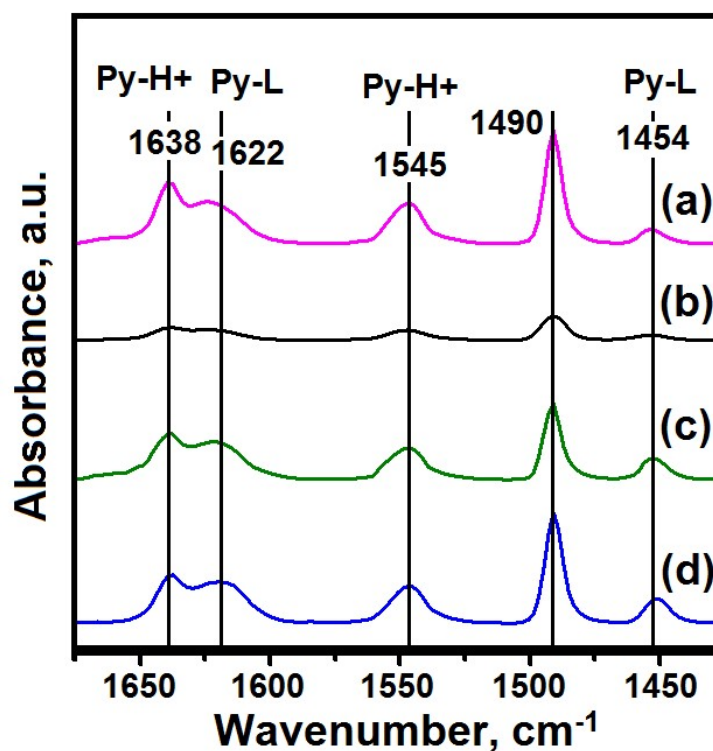


Fig. 11 IR spectra of adsorbed pyridine for SAPO-11: (a) Sample SAPO-11-Bh-90; (b) Sample SAPO-11-Bh-130; (c) Sample SAPO-11-iAl-90; (d) Sample SAPO-11-iAl-130

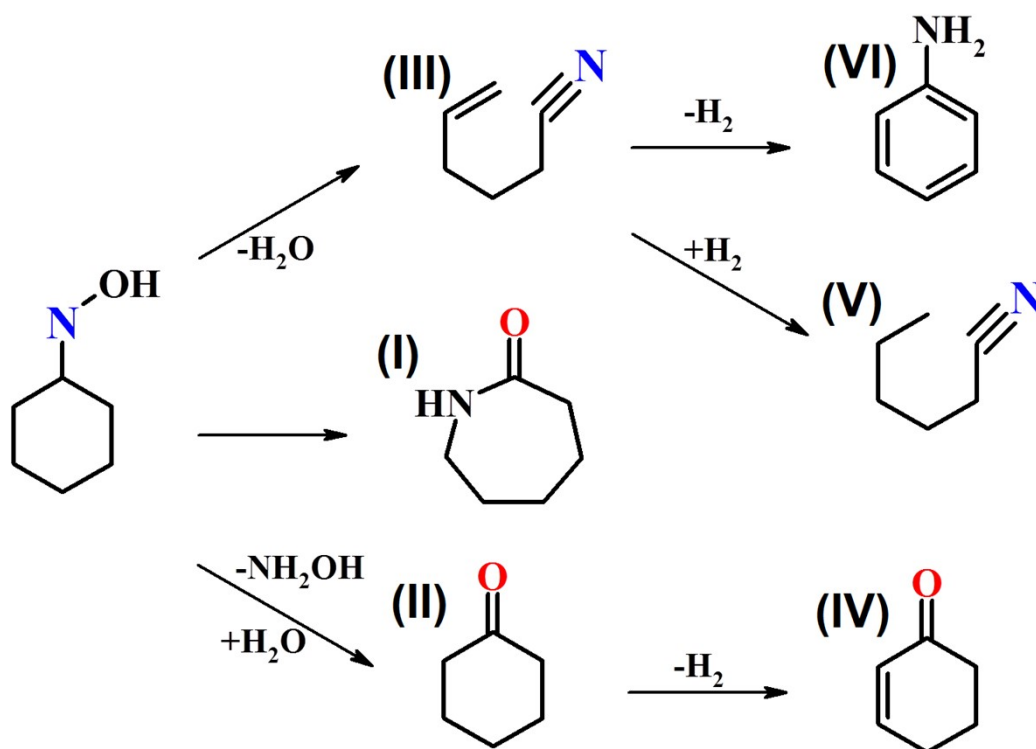


Fig. 12 Scheme of reactions of cyclohexanone oxime on acidic heterogeneous catalysts

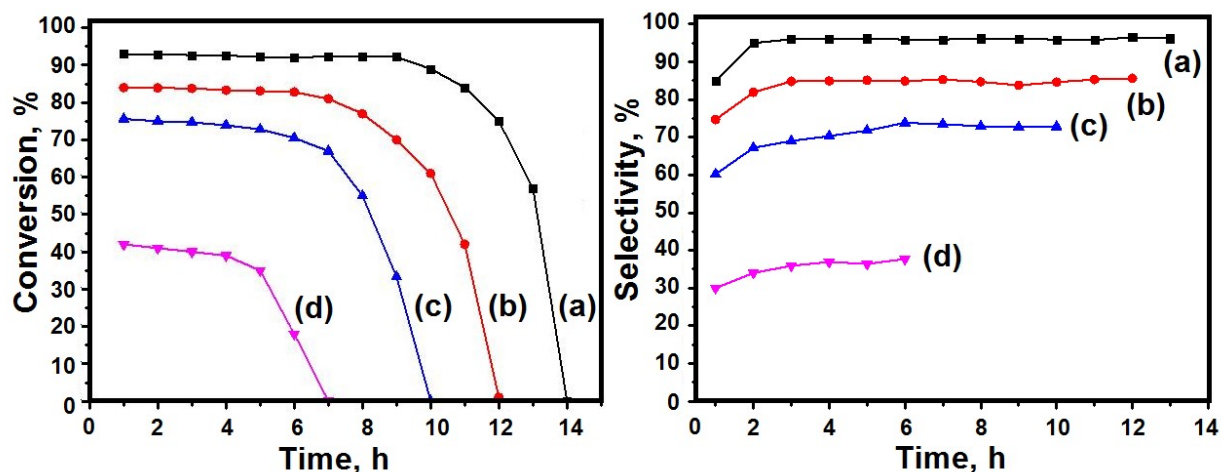


Fig. 13 Isomerization of cyclohexanone oxime on SAPO-11: (a) - Sample SAPO-11-iAl-130; (b) - Sample SAPO-11-Bh-90; (c) - Sample SAPO-11-iAl-90; (d) - Sample SAPO-11-Bh-130

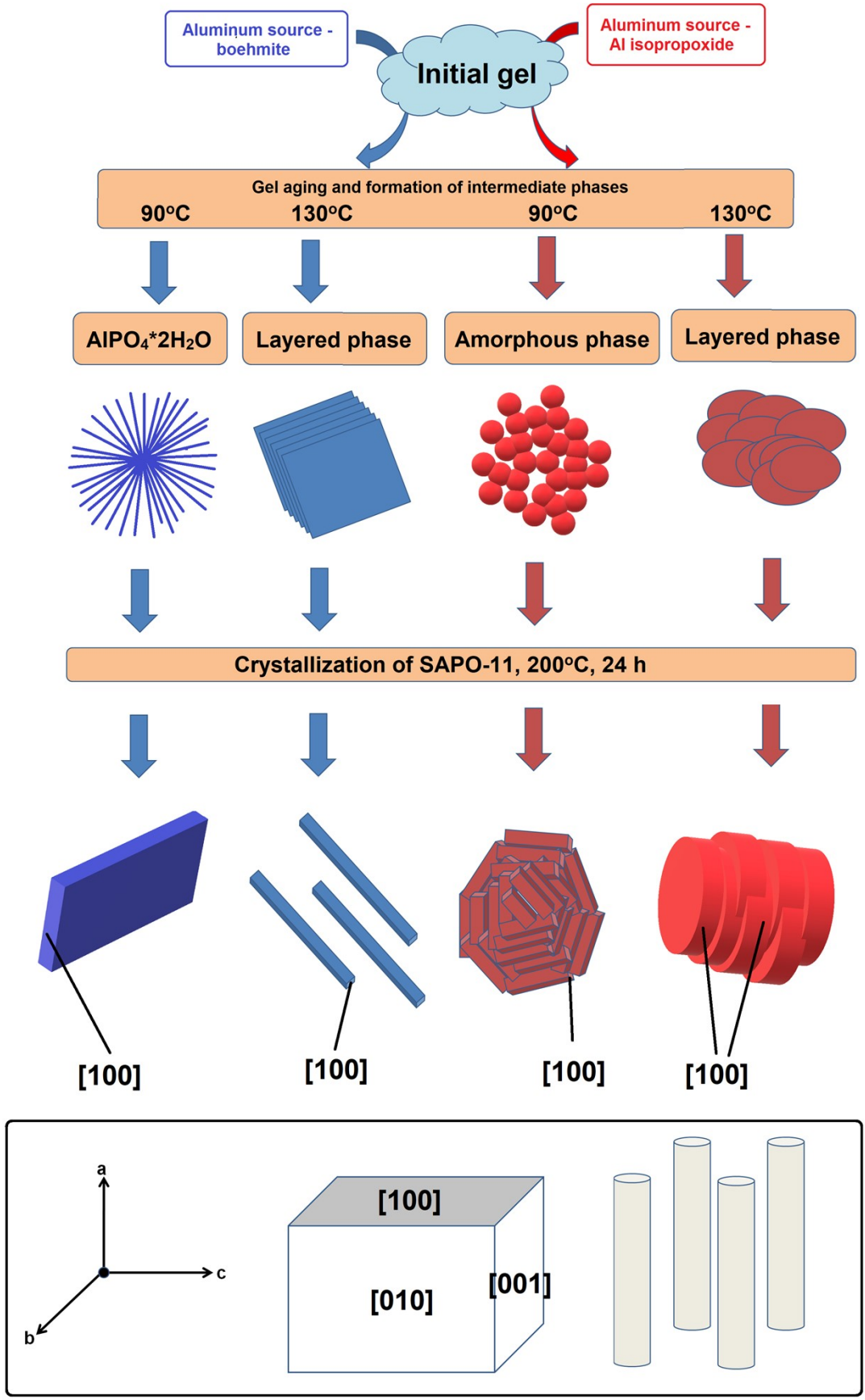


Fig. 14 Stages of crystallization of SAPO-11 molecular sieves using intermediate phases