In Situ NMR of SAPO-34 Crystallization

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Supplementary Materials

Figure 1S. *In Situ* ^{27}Al NMR spectra recorded during synthesis of trigonal SAPO-34 (x-scale increase between each scan = 1.9 ppm).

Figure 2S. *In Situ* ^{31}P NMR signal recorded during synthesis of trigonal SAPO-34 (x-scale increase between each scan = 0 ppm).

Figure 3S. *In Situ* ^{31}P NMR spectra recorded during the cooling stage at (a) 320K and b) 300K after synthesis of trigonal SAPO-34 in the NMR tube, and (c) *ex Situ* ^{31}P NMR spectrum of the mother liquid after synthesis in a 50 mL stainless-steel autoclave.

Figure 4S. *In Situ* ^{19}F NMR spectra recorded during synthesis of triclinic $\text{AlPO}_4\text{-34}$ from a gel (x-scale increase between each scan = 0 ppm).

Figure 5S. *In Situ* ^{27}Al NMR spectra recorded during synthesis of triclinic $\text{AlPO}_4\text{-34}$ from a gel (x-scale increase between each scan = 0 ppm).

Figure 6S. *In Situ* ^{31}P NMR spectra recorded during synthesis of triclinic $\text{AlPO}_4\text{-34}$ from a gel (x-scale increase between each scan = 0 ppm).