Supporting Information for

Deleterious Effects of Non-framework Al Species on the Catalytic Performance of ZSM-5 Crystals Synthesized at Low Temperature

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List of Figures

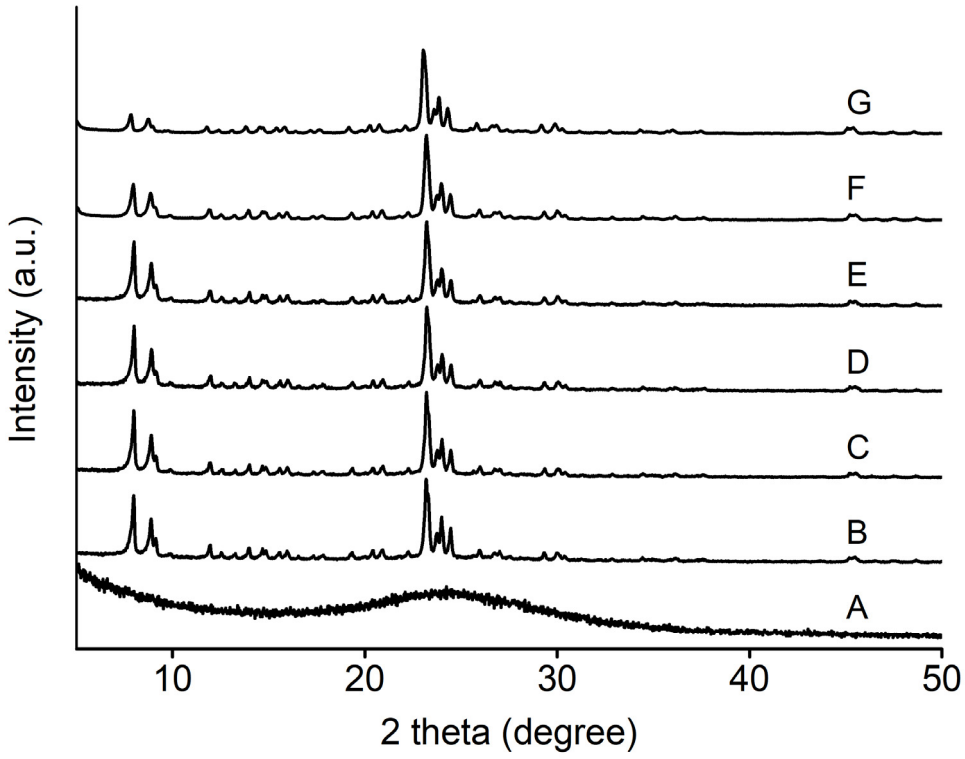

Figure S1. Powder X-ray diffraction (XRD) patterns of as-made ZSM-5 samples prepared with different sol gel Si/Al ratios: (A) Z20, (B) Z30, (C) Z50, (D) Z75, (E) Z100, (F) Z22-1, and (G) Z22-2. The XRD patterns are offset along the y-axis for visual clarity.

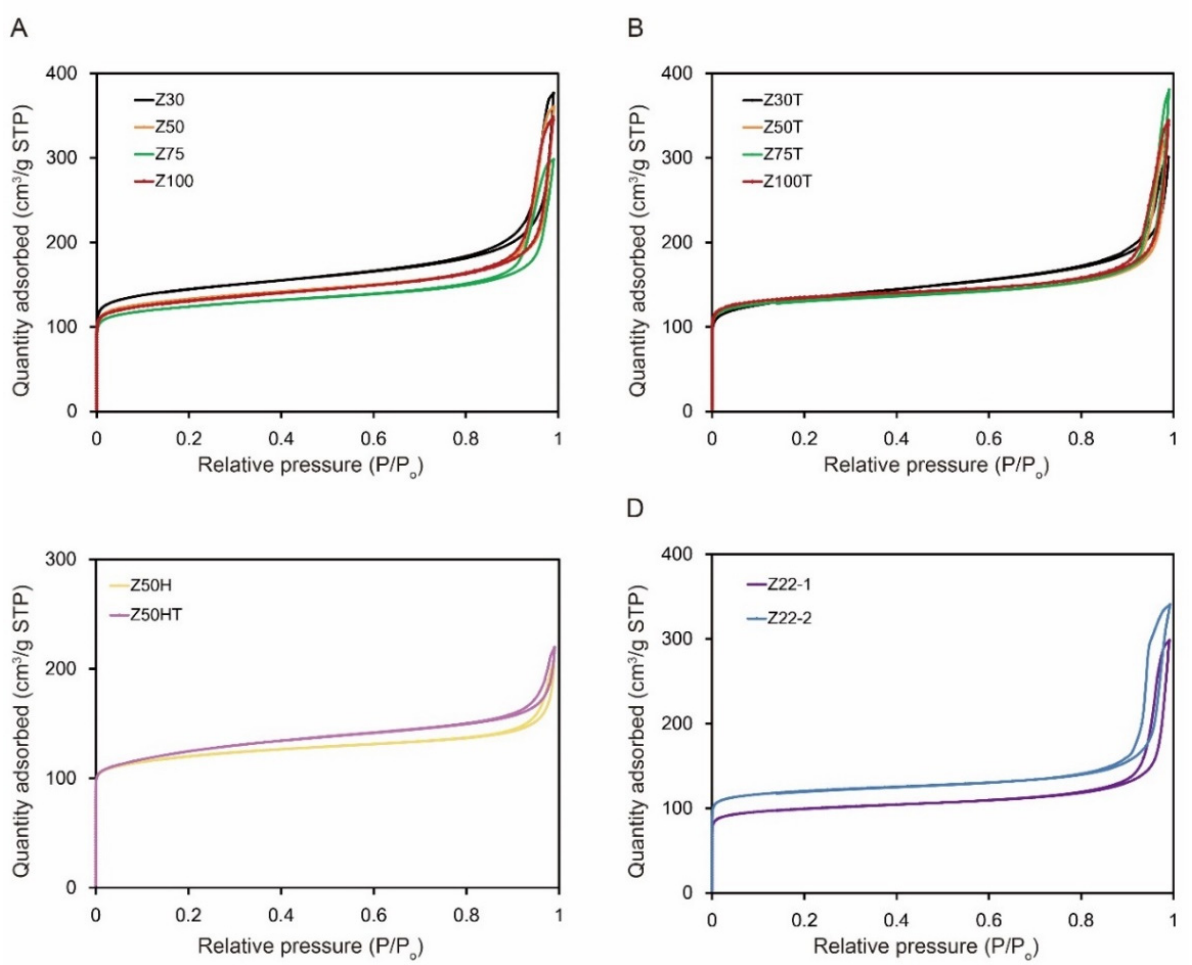

Figure S2. Nitrogen adsorption/desorption isotherms of calcined ZSM-5 samples: (A) Z30 (black), Z50 (yellow), Z75 (green), and Z100 (red); (B) Z30T (black), Z50T (yellow), Z75T (green), and Z100T (red); (C) Z50H (yellow) and Z50HT (pink); and (D) Z22-1 (purple) and Z22-2 (blue).

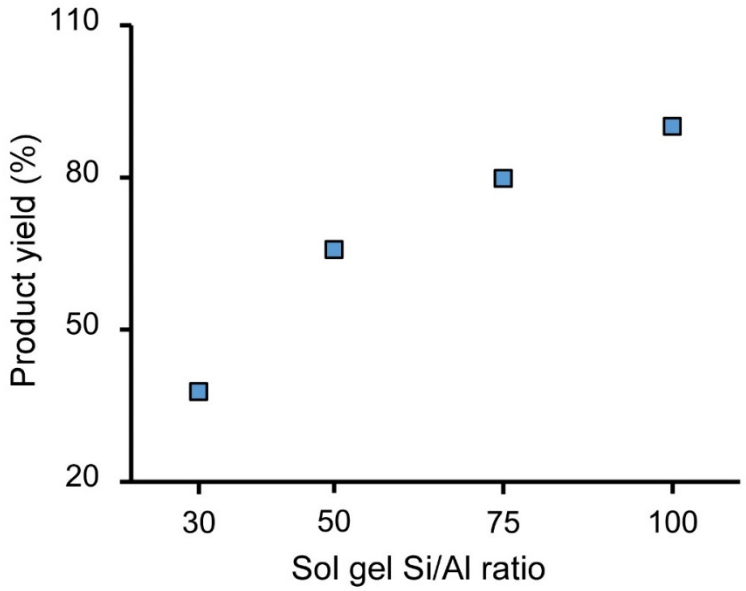

Figure S3. The approximate mass (yield) of collected ZSM-5 solid products from syntheses of varying sol gel Si/Al ratio. These samples correspond to as-synthesized (i.e. uncalcined) Z30, Z50, Z75, and Z100. The samples contain residual OSDA and water.

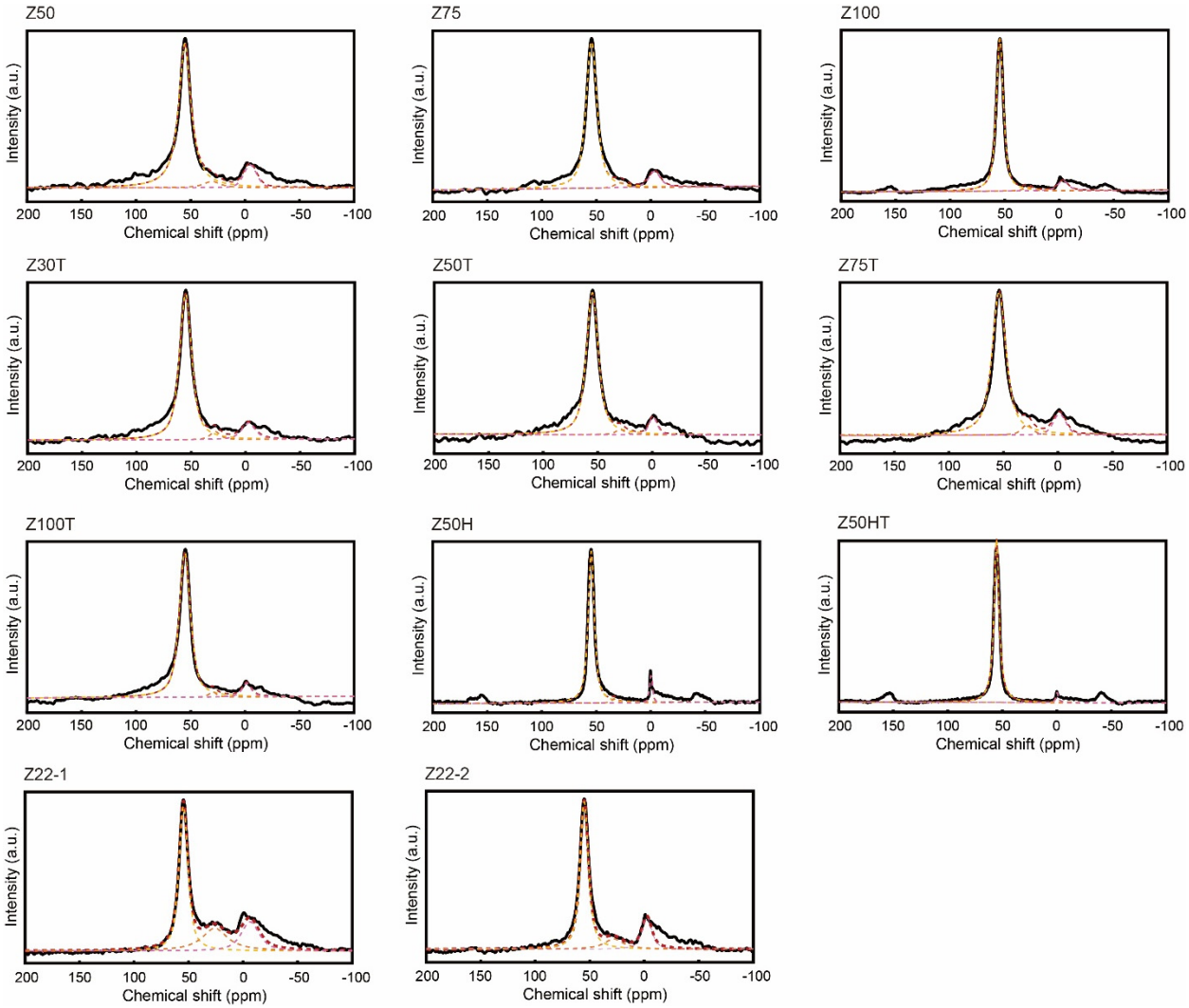

Figure S4. Deconvolution curve fittings of the ^{27}Al MAS NMR spectra of H-Z50, H-Z75, H-Z100, H-30T, H-50T, H-75T, H-100T, H-50H, H-50HT, Z22-1, and Z22-2. Each sample is labeled above the respective NMR data.