Electronic Supplementary Information (SI)

Cu(dppf) complexes can be synthesized from Cu-exchanged solids and enable a quantification of the Cu-accessibility by ^{31}P MAS NMR spectroscopy

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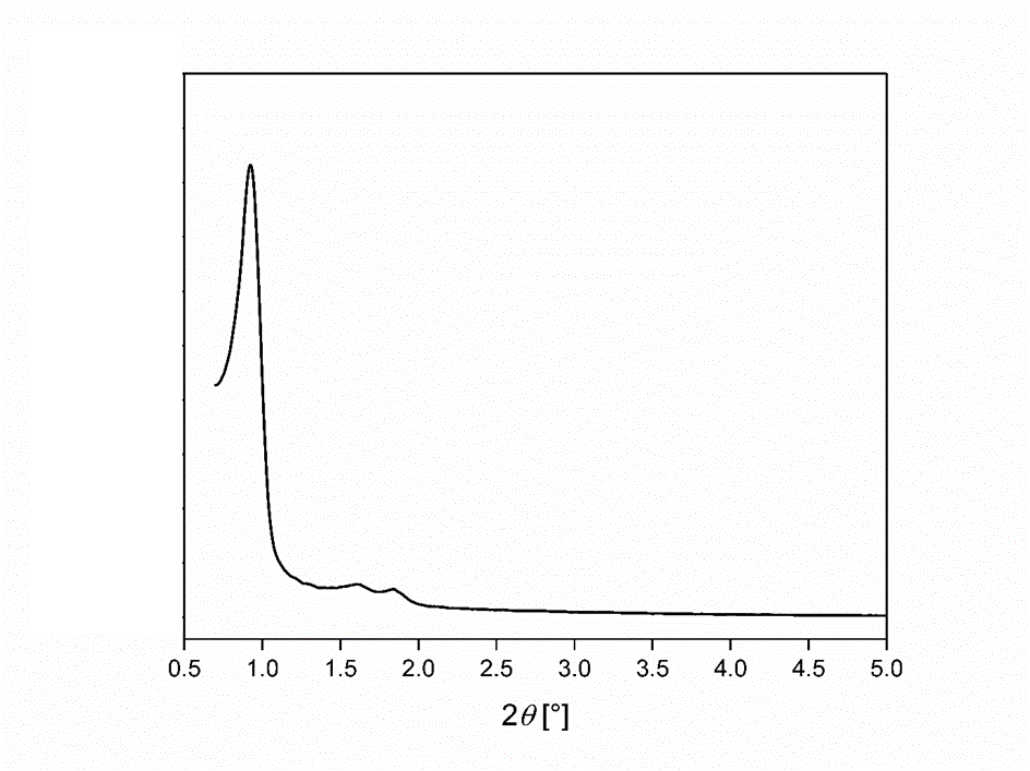

Figure S1: Small angle X-ray powder diffraction patterns of the mesoporous SBA-15.

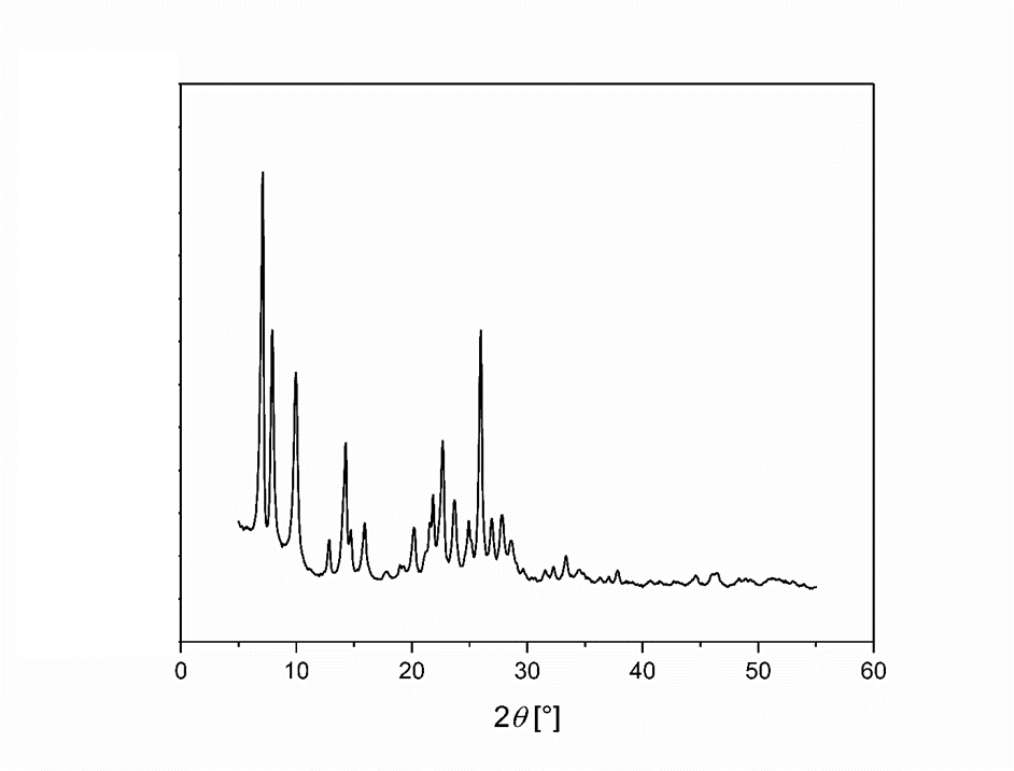

Figure S2: X-ray powder diffraction patterns of the microporous H-MCM-22 zeolite.

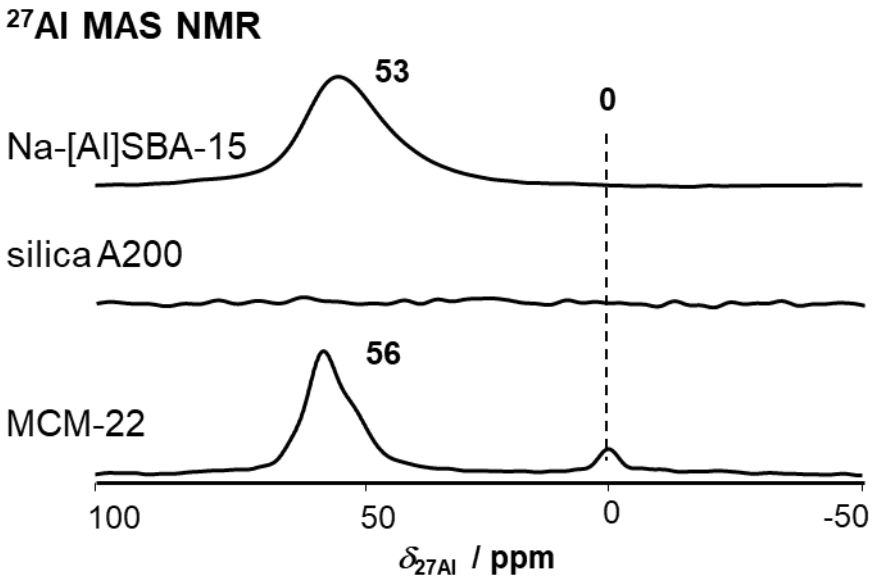

Figure S3: ^{27}Al MAS NMR spectra of Na-[Al]SBA-15, silica A200, and MCM-22.

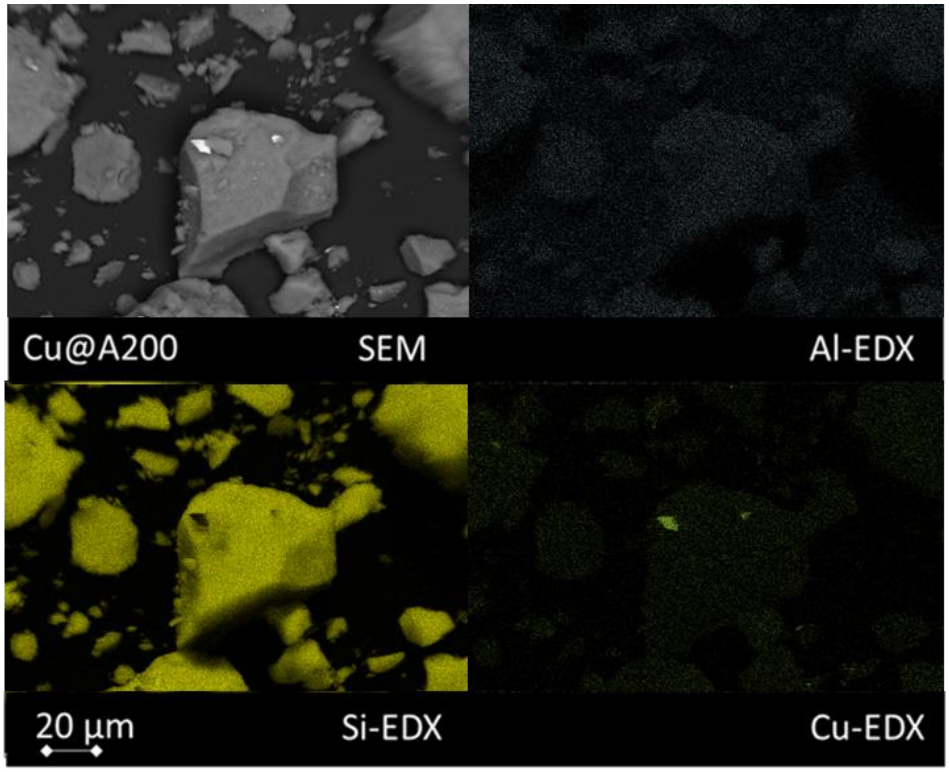

Figure S4: SEM (BSE-detector) and EDX screenings on Cu@ A200.

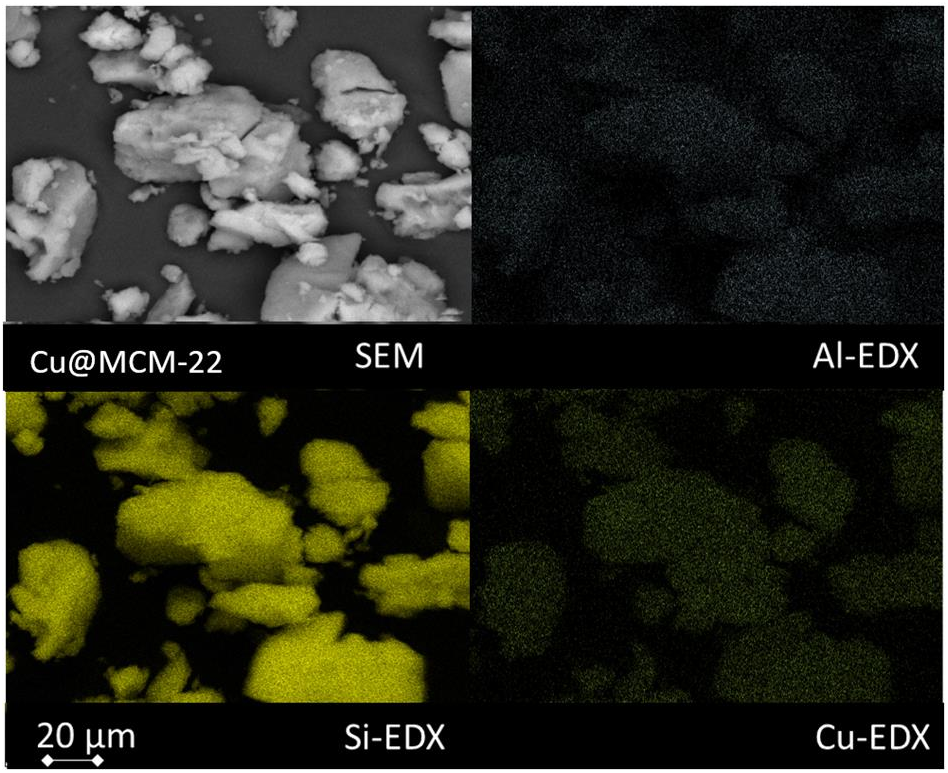

Figure S5: SEM and EDX on Cu-MCM-22.

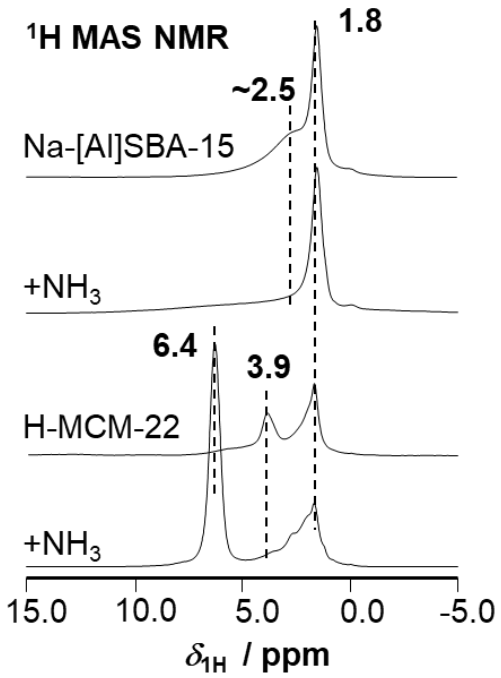

Figure S6: ^{1}H MAS NMR spectra of Na-[Al]SBA-15 and H-MCM-22 before and after loading NH_3.

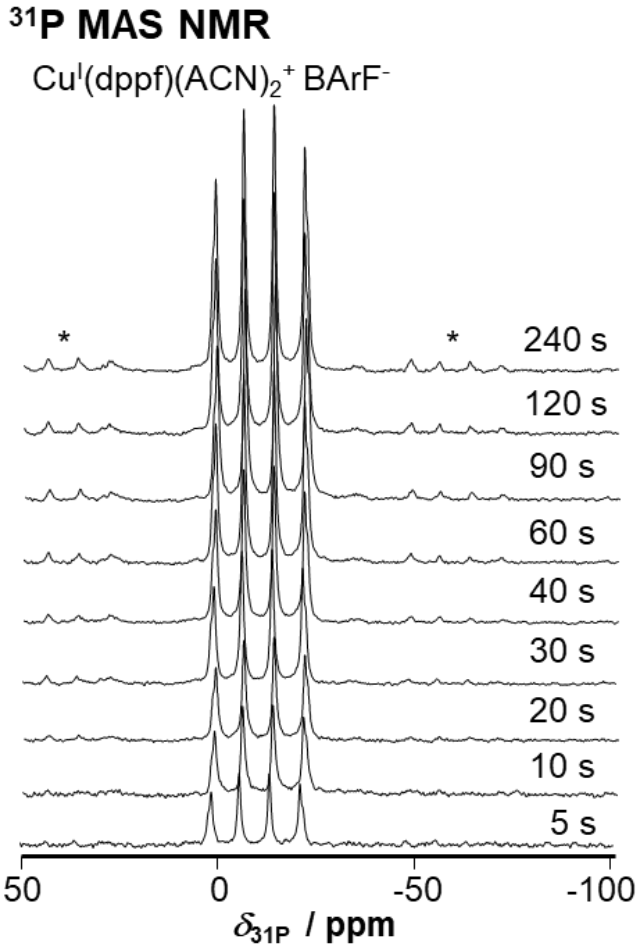

Figure S7: ^{31}P MAS NMR spectra recorded using high-power decoupling (hpdec) by varying the delay time between scans for pure Cu^{I}(dppf) complex shows constantly increasing intensity due to long T_1 relaxation times.

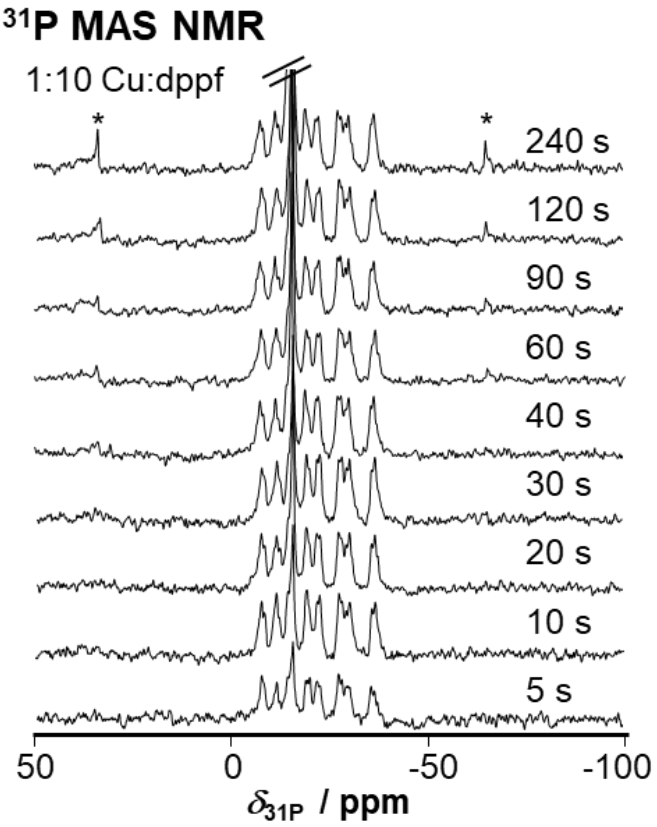

Figure S8: ^{31}P MAS NMR spectra recorded using high-power decoupling (hpdec) by varying the delay time between scans for Cu^{I}(dppf) complex in ion exchange position shows constant intensity after 10 s delay time.

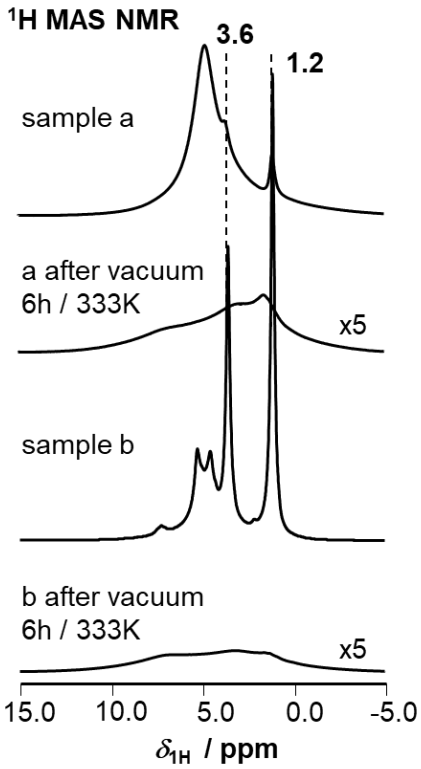

Figure S9: ^{1}H MAS NMR spectra of two samples (a and b) before (top) and after (bottom) removing adsorbed ethanol (peaks at chemical shifts δ_{1H} = 3.6 and 1.2 ppm). Removal of the solvent in vacuum is immanent to measure the correct solid mass.