

Supplementary Information

Promotion Effect of Fe in Mordenite Zeolite on Carbonylation of Dimethyl Ether to Methyl Acetate

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Fig.S1. XRD peaks of hkl (150) for FeHMOR samples

Fig.S2. IR spectra in the framework vibration region of FeHMOR samples

Fig.S3. UV-Vis spectra of FeNaMOR samples

Fig.S4. Difference spectra of the UV-Vis reflectance spectra between HMOR and NaMOR with various Fe content

Fig.S5. N₂ adsorption isotherms of FeHMOR samples

Fig.S6. GC-MS chromatograms of the organic materials retained in FeHMOR catalysts after DME conversion for 12h.

Fig.S7. Structure of mordenite unit-cell viewed down the c-axis

Fig.S8. ³¹P MAS NMR spectra of TMPO-adsorbed FeHMOR samples

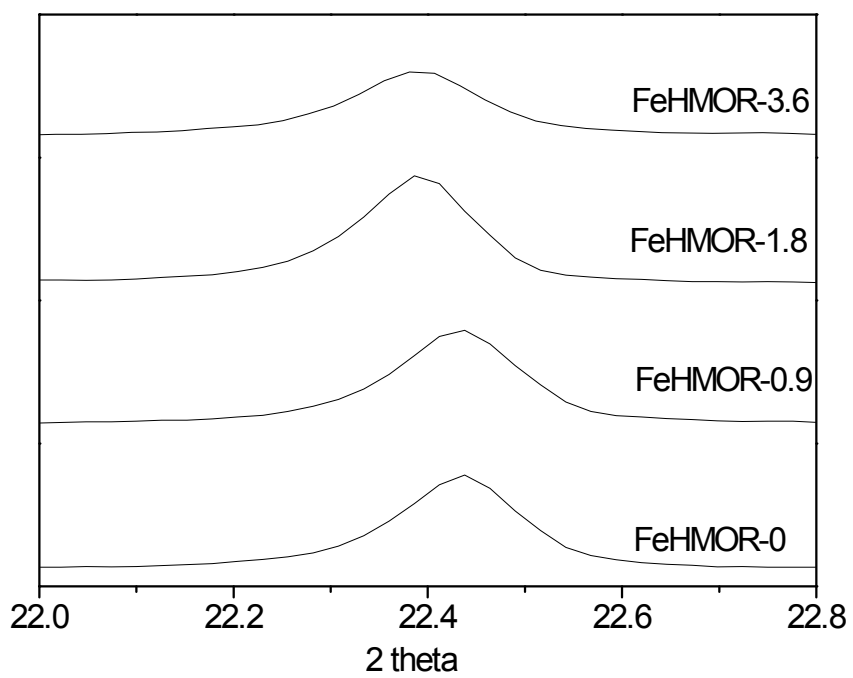


Fig.S1. XRD peaks of hkl (150) for FeHMOR samples

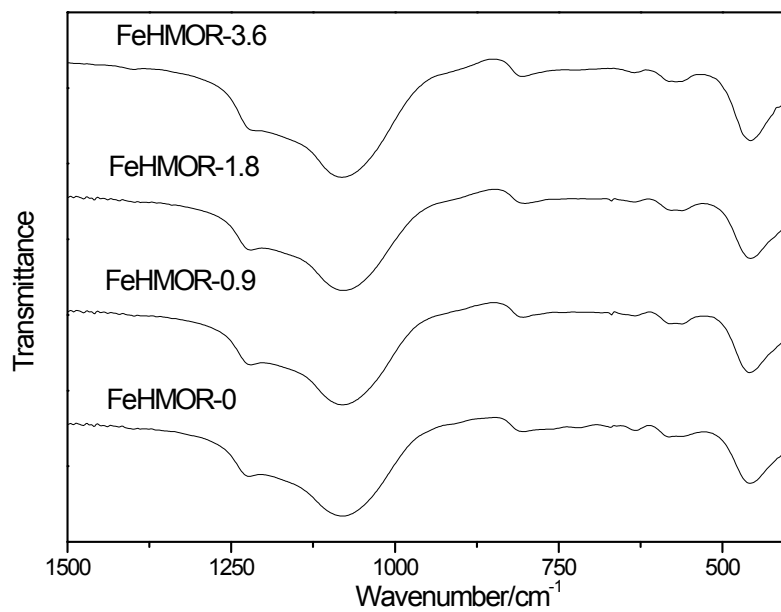


Fig. S2. IR spectra in the framework vibration region of FeHMOR samples

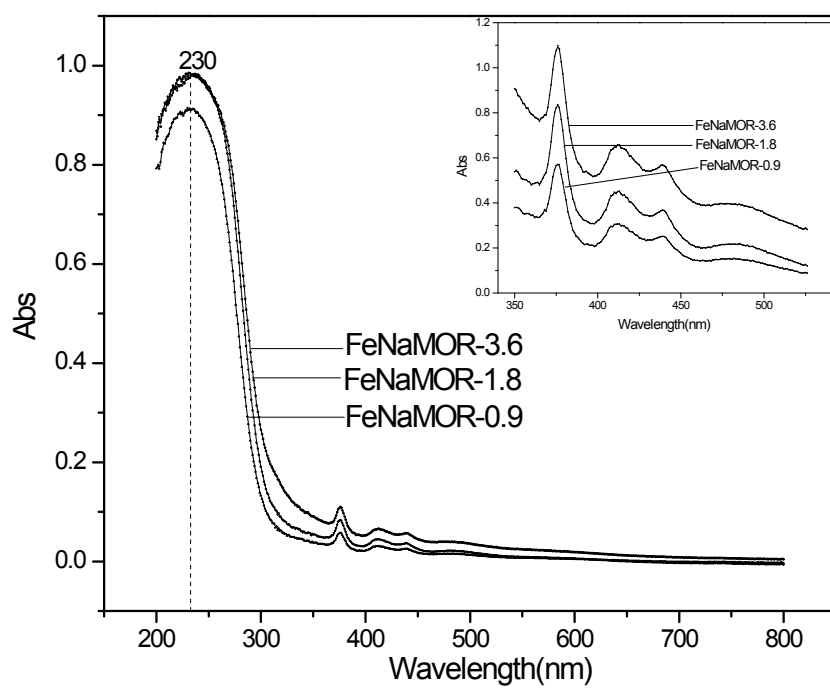


Fig.S3. UV-Vis spectra of FeNaMOR samples

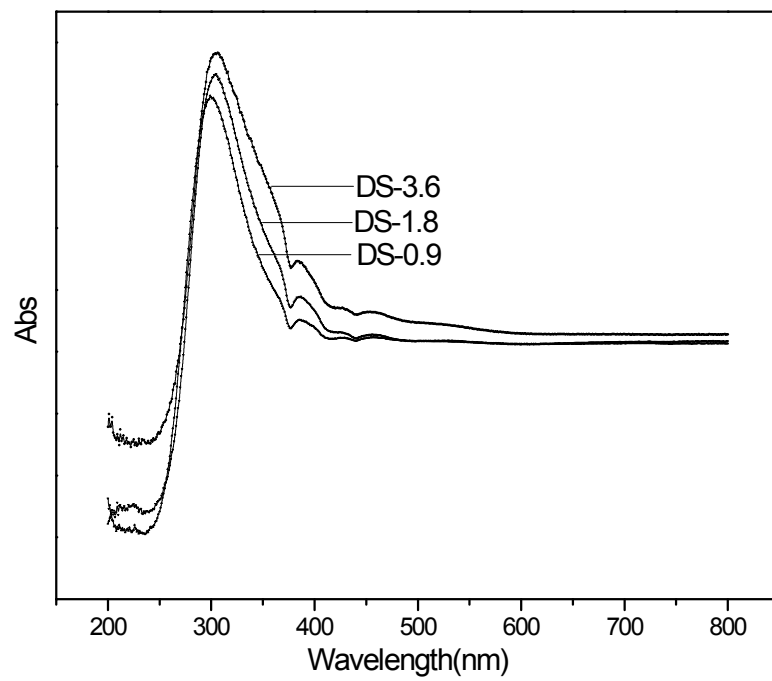


Fig. S4. Difference spectra of the UV-Vis reflectance spectra between HMOR and NaMOR with various Fe content

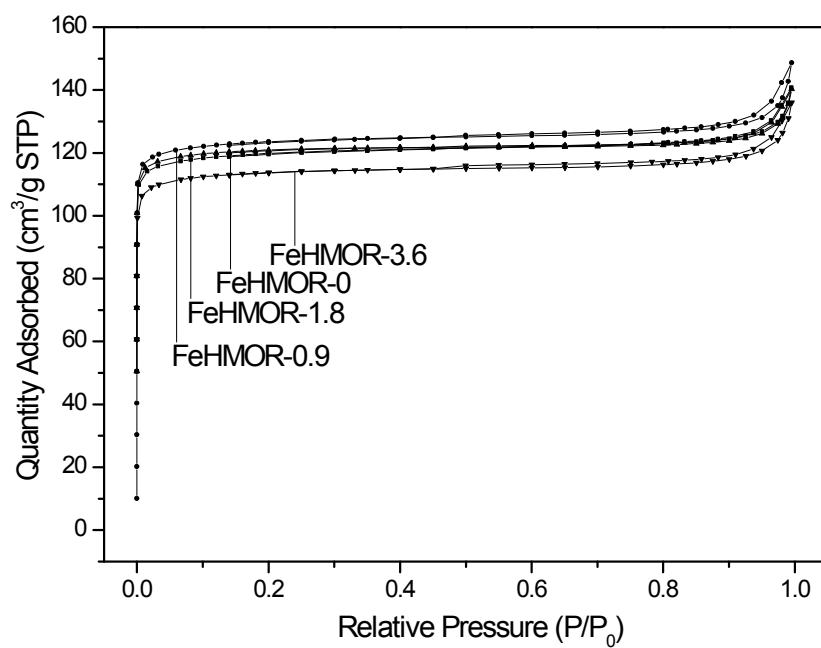


Fig.S5. N₂ adsorption isotherms of FeHMOR samples

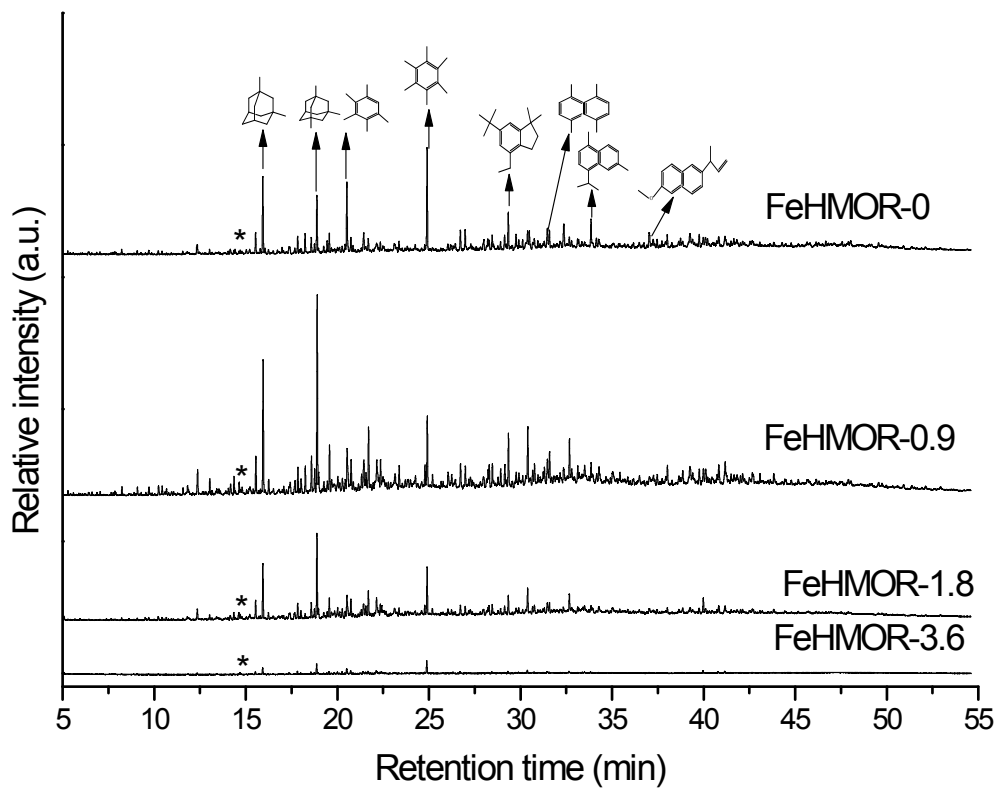


Fig.S6. GC-MS chromatograms of the organic materials retained in FeHMOR catalysts after DME conversion for 12h.

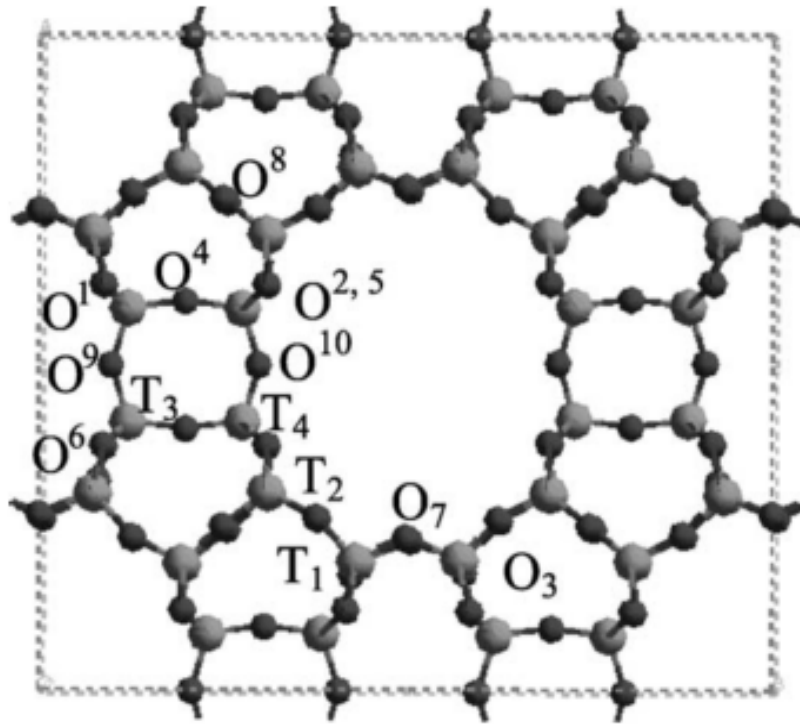


Fig.S7. Structure of mordenite unit-cell viewed down the c-axis

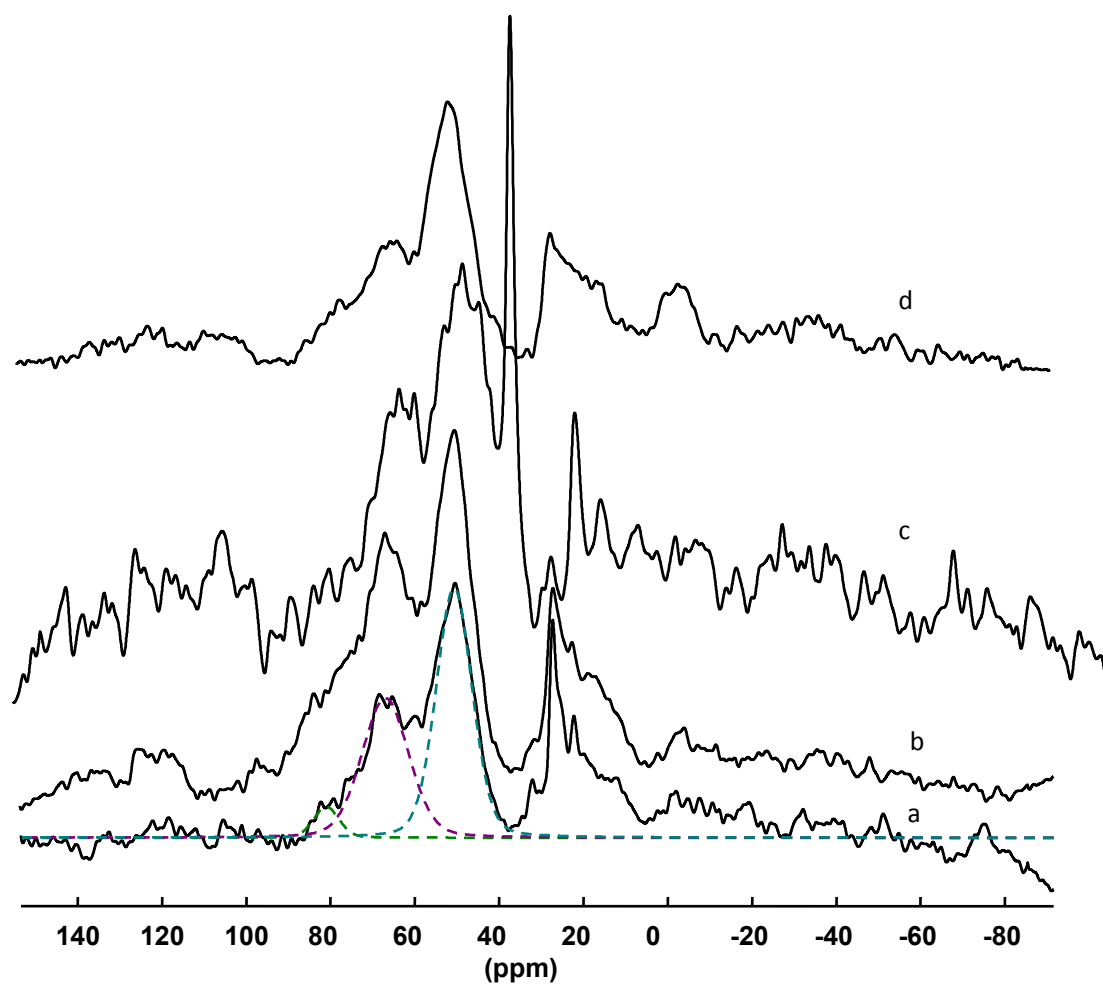


Fig.S8. ^{31}P MAS NMR spectra of TMPO-adsorbed FeHMOR samples
a: FeHMOR-0; b: FeHMOR-0.9; c: FeHMOR-1.8; d: FeHMOR-3.6;