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. N$_2$ 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
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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;