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Supporting Information (ESI†)

Porous metal–organic framework MIL-100(Fe) catalyst as an efficient catalyst for selective catalytic reduction of NO_x with NH_3

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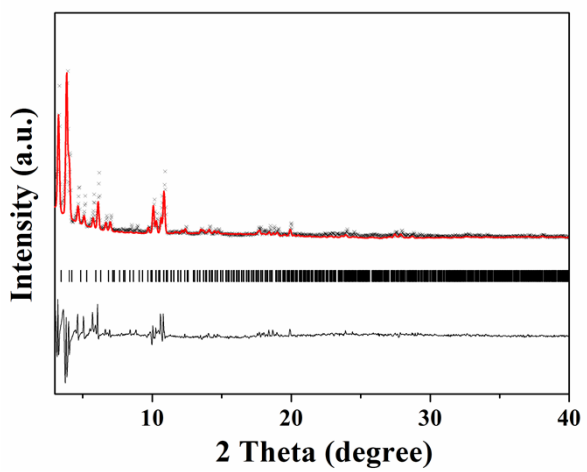

Figure S1 Rietveld refinement plot for as-synthesized MIL-100(Fe) in the space group *Fd-3m* (NO. 227).

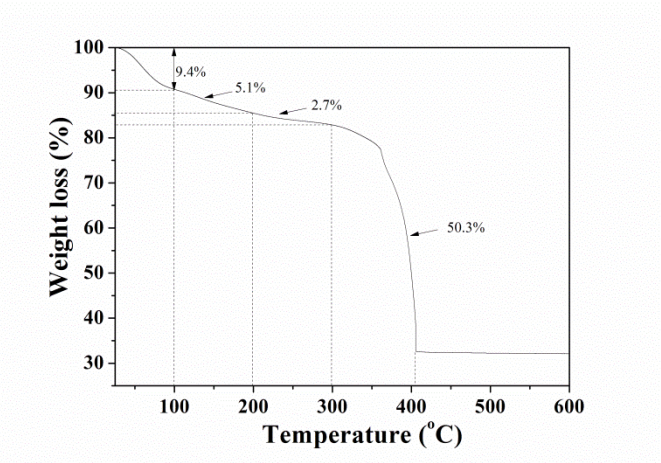

Figure S2 TGA under air (5 °C /min heated rate) of MIL-100(Fe).

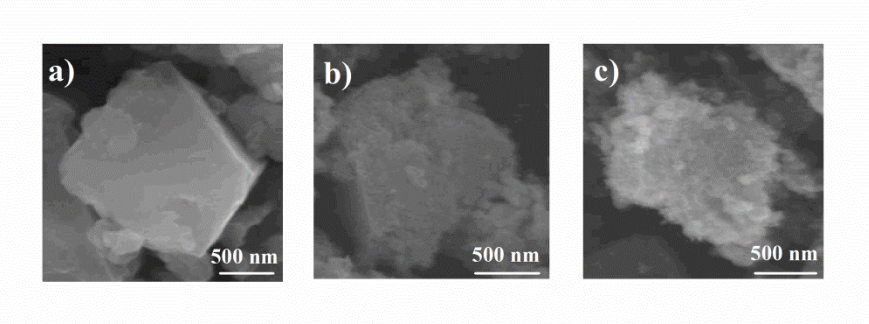

Figure S3 SEM image of MIL-100(Fe) after catalytic activity test at a) 300 ^{o}C ; b) 325 ^{o}C; c) 350 ^{o}C.

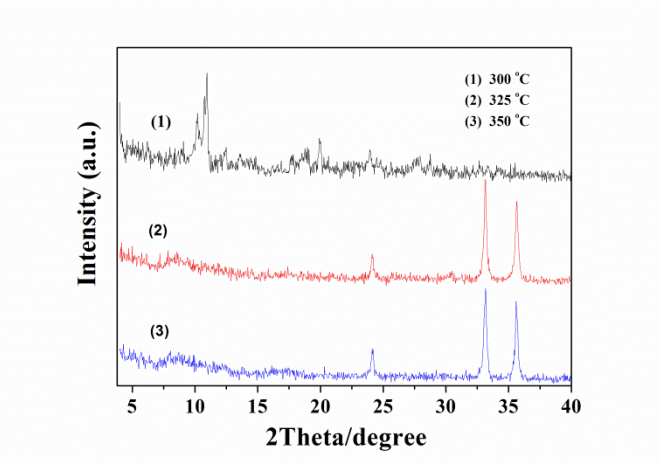

Figure S4 Powder X-ray diffraction pattern of MIL-100(Fe) after catalytic activity test at a) 300 °C; b) 325 °C; c) 350 °C.

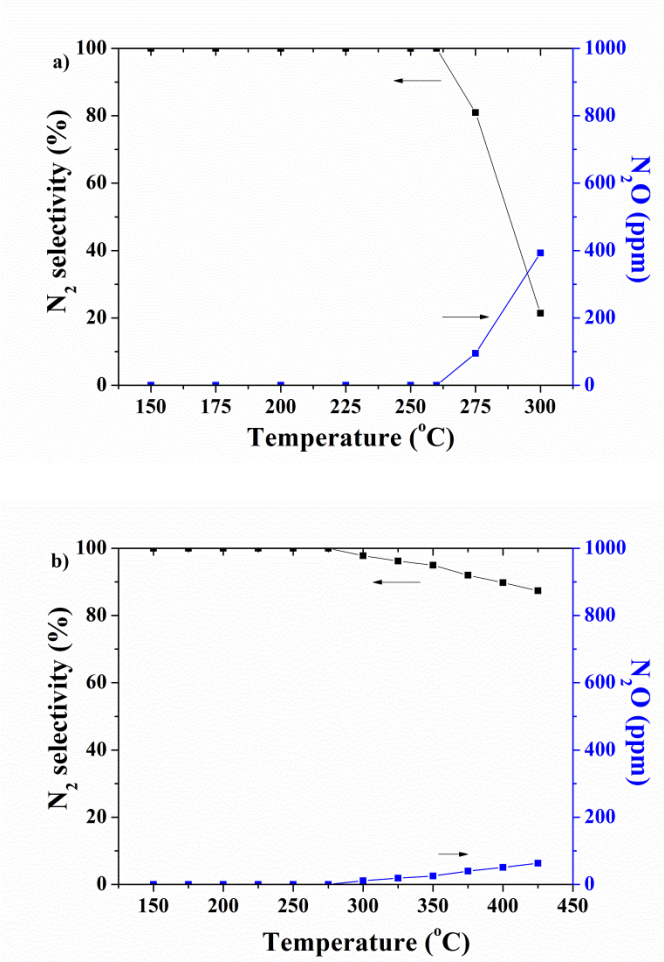

Figure S5 a) N_2 selectivity and N_2O formation of MIL-100(Fe) catalyst; b) N_2 selectivity and N_2O formation of V_2O_5-WO_3/TiO_2 catalyst. Reaction condition: [NH_3] = 500 ppm, [NO_x]= 500 ppm, [O_2]= 4%, N_2 balance and GHSV=30,000 h^{-1}.

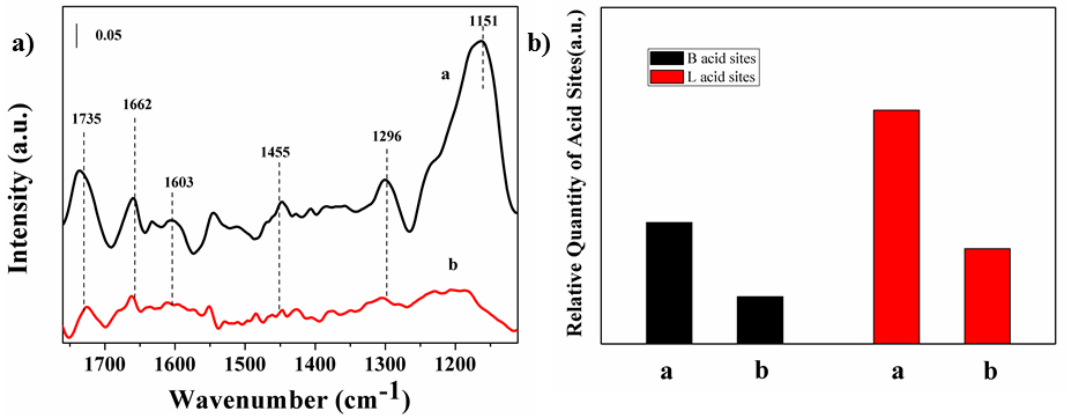

Figure S6 a) comparison of NH_3 adsorption over MIL-100(Fe) catalysts before (a) and after durability test with SO_2 and H_2O (b) at 250 °C; b) relative quantity of acid sites over these MIL-100(Fe) catalysts.