One-pot construction of Fe/ZSM-5 zeolites for the selective
catalytic reduction of nitrogen oxides by ammonia

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**Figure S1** Apparent color of Fe/ZSM-5-DS samples with different Fe loadings and 2.9%Fe/ZSM-5-WI
**Figure S2** FTIR spectra of EDTA-FeNa and as-synthesized Fe/ZSM-5-DS samples

**Figure S3** XRD patterns of H-ZSM-5 and Fe/ZSM-5-DS with different Fe loadings
**Figure S4** Low temperature nitrogen adsorption-desorption isotherms of H-ZSM-5 and Fe/ZSM-5 samples

**Figure S5** NOx conversion as a function of reaction temperature over various catalysts. Reaction conditions: NO =1000 ppm; NH$_3$ =1000 ppm; O$_2$ =10%; catalyst =0.4 g; GHSV =30,000 /h; SE: solid-state ion-exchange, LE: liquid-phase ion-exchange.
Figure S6 UV-vis-NIR spectra of hydrated 2.5%Fe/ZSM-5-DS catalyst before and after NH$_3$-SCR reaction at 623 K for 40 h. Reaction conditions: NO =1000 ppm; NH$_3$ =1000 ppm; O$_2$ =10%; SO$_2$ = 50 ppm; H$_2$O = 3%; catalyst =0.4 g; GHSV =30,000 /h