Supplementary Information

Hydrothermal stability enhancement by sequential ion-exchange of rare earth metals on Fe/BEA zeolites used as NO reduction catalysts

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**Figure S1**

![UV-Vis spectra of alkali (a) and alkali earth (b) doped Fe/BEA.](image)

**Fig. S1** UV-Vis spectra of alkali (a) and alkali earth (b) doped Fe/BEA.
Fig. S2  XRD spectra of Fe/BEA and Fe-Nd/BEA for fresh and aged samples (a) and comparison of [104] intensity of α-Fe₂O₃ phase (b). XRD was performed under Cu-Kα radiation using a Rigaku Rint-TTR X-ray diffractometer. For wide-range measurements to record the spectra in Fig. S2a, a scanning speed was 3 °/min and a measurement interval was 0.02 °. For narrow-range measurements to estimate the [104] peak intensity in Fig. S2b, a scanning speed was 0.5 °/min and a measurement interval was 0.01 °.