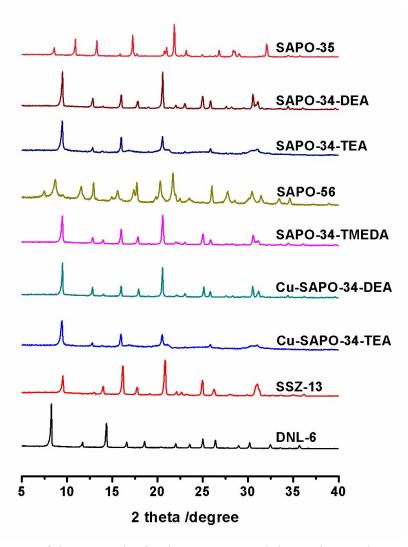
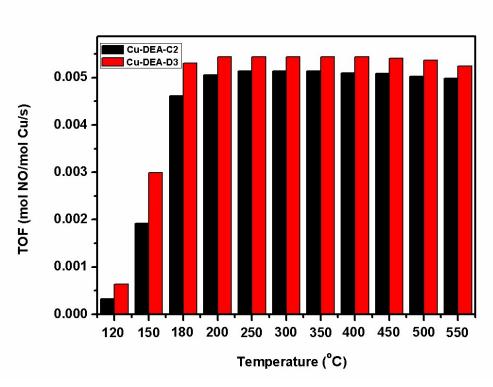
## Supporting information

Direct  $\text{Cu}^{2+}$  ion-exchanged into as-synthesized SAPO-34 and its catalytic application in the selective catalytic reduction of NO with  $\text{NH}_3$ 

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**Fig. S1** XRD patterns of the as-synthesized precursors and the Cu ion-exchanged samples. Cu-SAPO-34-DEA and Cu-SAPO-34-TEA are the samples Cu-DEA-D5 and Cu-TEA-D2 in Table 1 respectively.



**Fig. S2** The TOF ( $mol_{NO}/mol_{Cu}/s$ ) of the catalysts calculated from the standard NH<sub>3</sub>-SCR reaction with the feed gas of 500 ppm NH<sub>3</sub>, 500 ppm NO, 5% O<sub>2</sub>, and 5% H<sub>2</sub>O with N<sub>2</sub> as the balance. The volume hourly space velocity was 180,000 h<sup>-1</sup>.