Electronic Supplementary Information (ESI)

Efficient and rapid transformation of high silica CHA zeolite from FAU zeolite in the absence of water solvent

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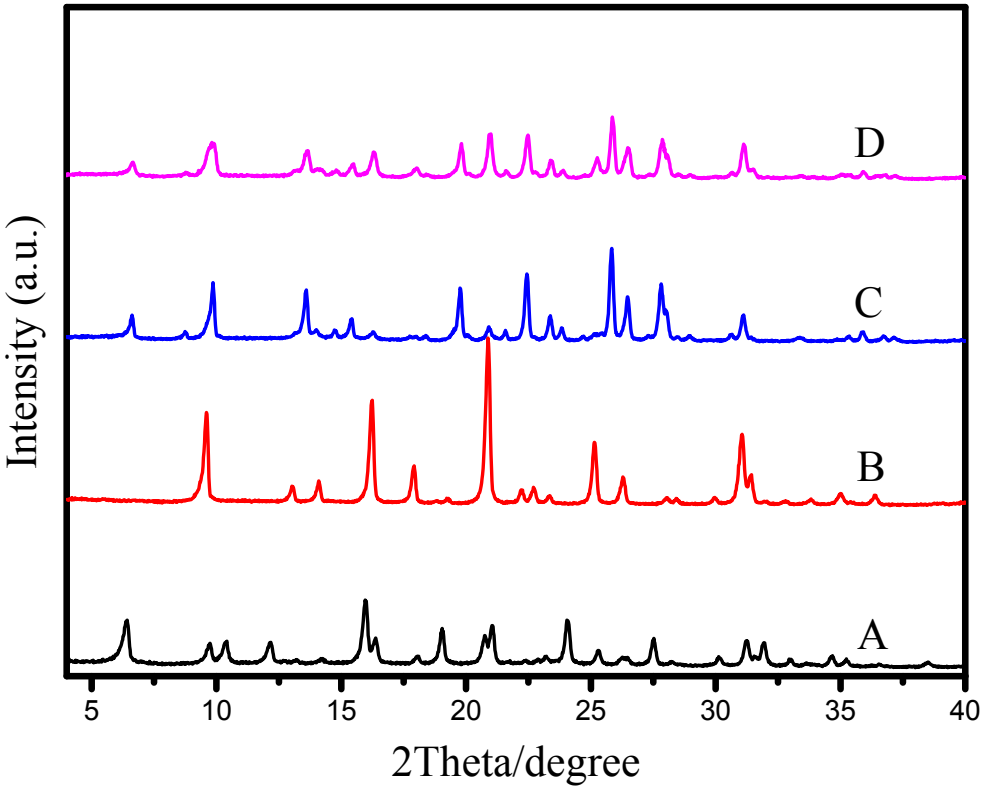

Fig. S1 XRD patterns of the samples prepared with different $NaOH/SiO_2$ at (A) 0.11, (B) 0.13, (C) 0.18, and (D) 0.22, respectively.

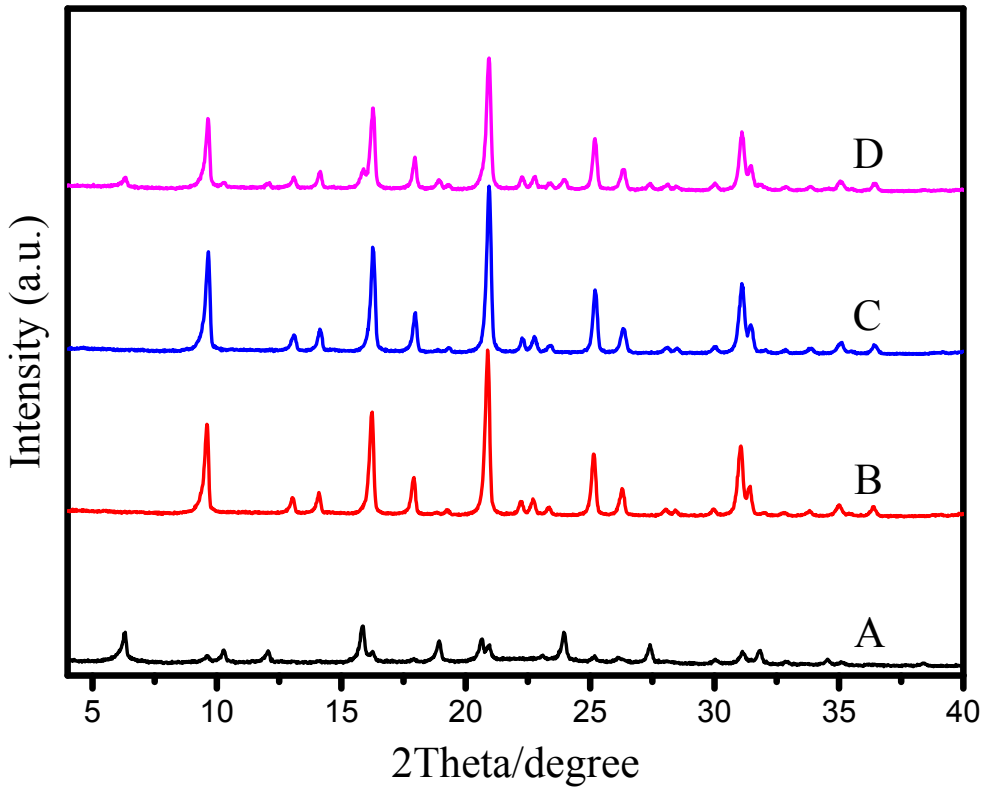

Fig. S2 XRD patterns of the samples prepared with different DMCHA/SiO_2 at (A) 0.11, (B) 0.14, (C) 0.18, and (D) 0.22, respectively.

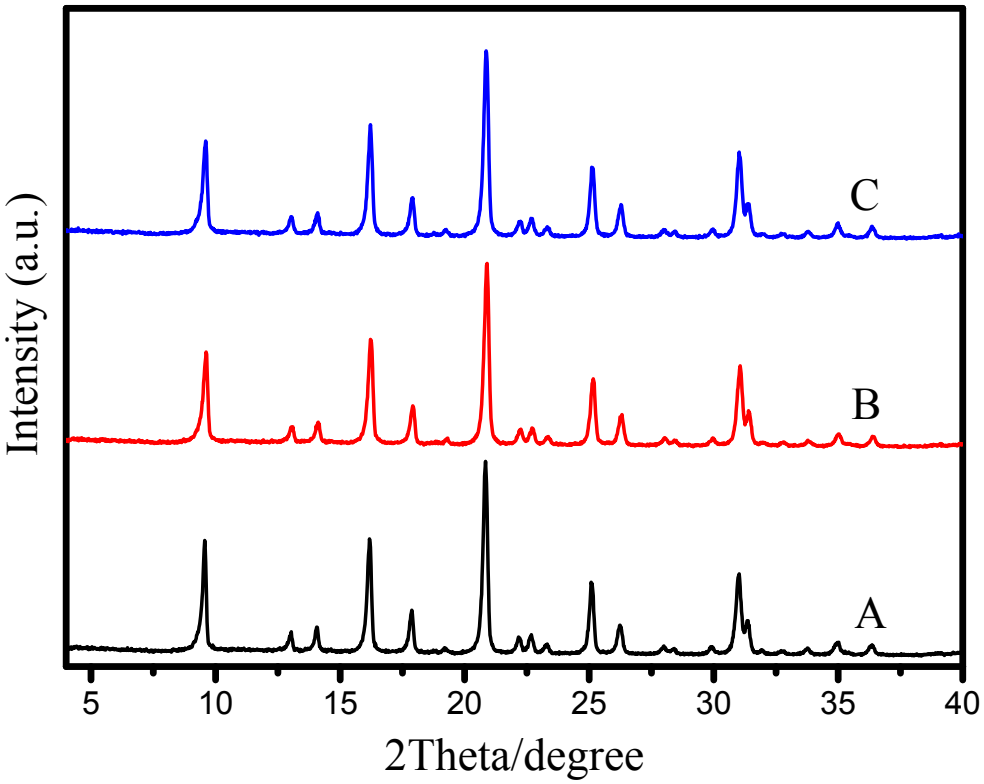

Fig. S3 XRD patterns of the samples prepared at different temperature at (A) 140 °C for 7 days, (B) 150 °C for 3 days, and (C) 160 °C for 2 days, respectively.

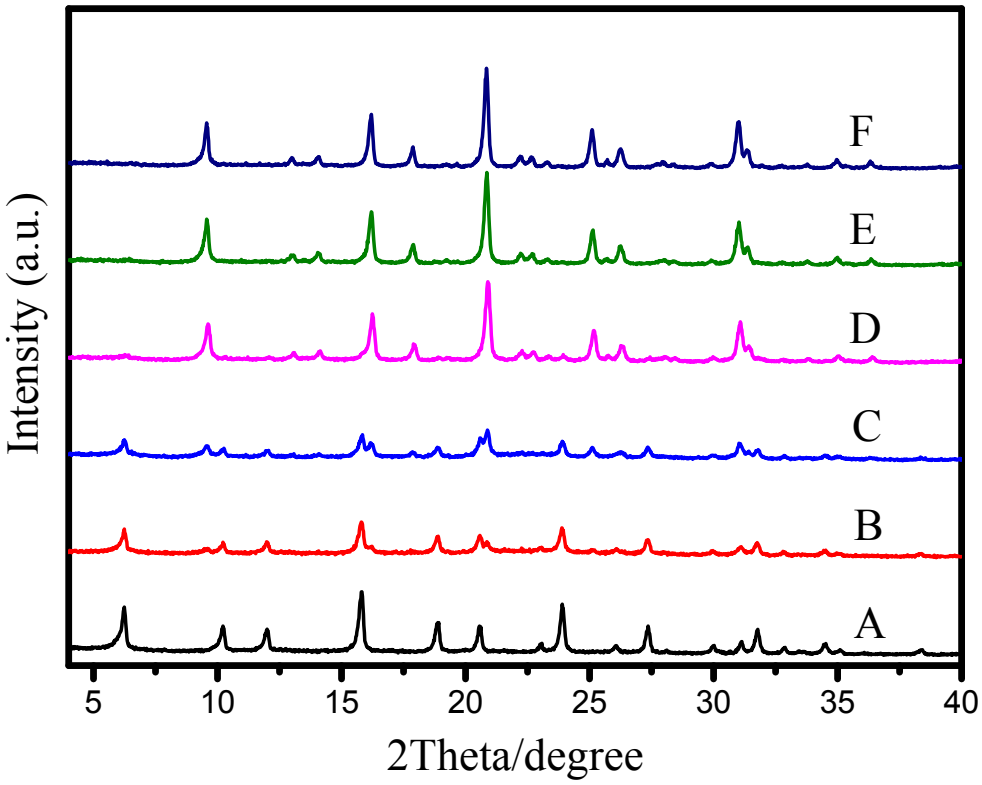

Fig. S4 XRD patterns of CHA-ST synthesized in the absence of CHA seeds at 150 °C for (A) 0, (B) 2, (C) 3, (D) 5, (E) 6, and (F) 7 days, respectively.

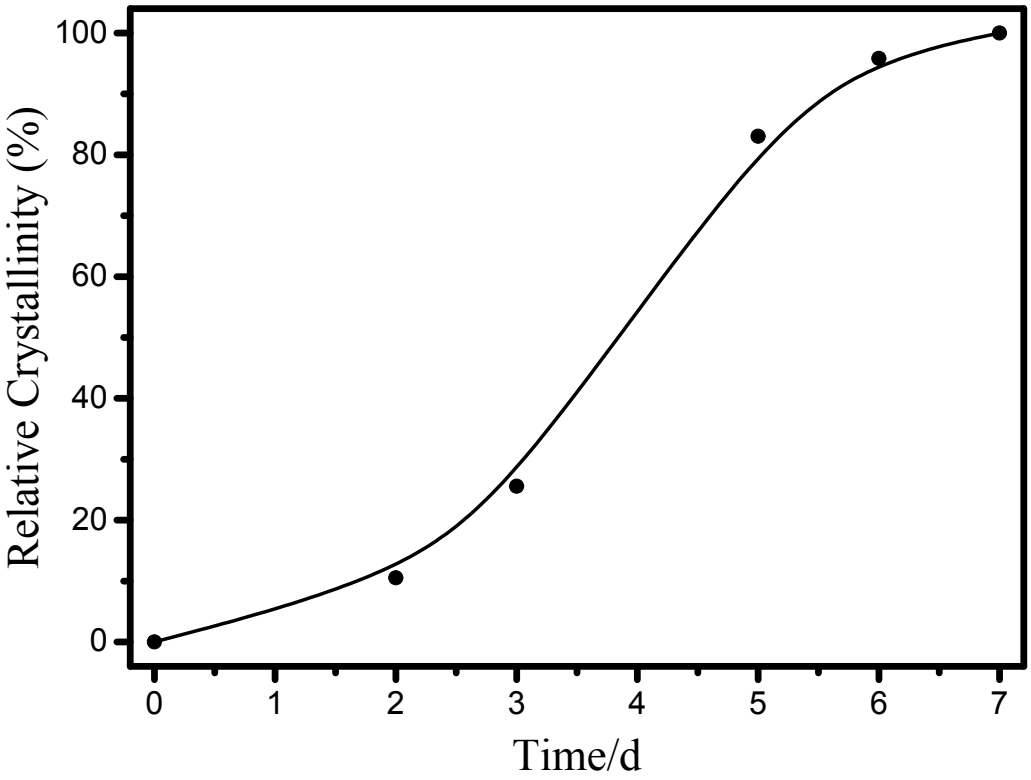

Fig. S5 The dependence of crystallinity on the time in the synthesis of CHA-ST without addition of CHA seeds at 150 °C.

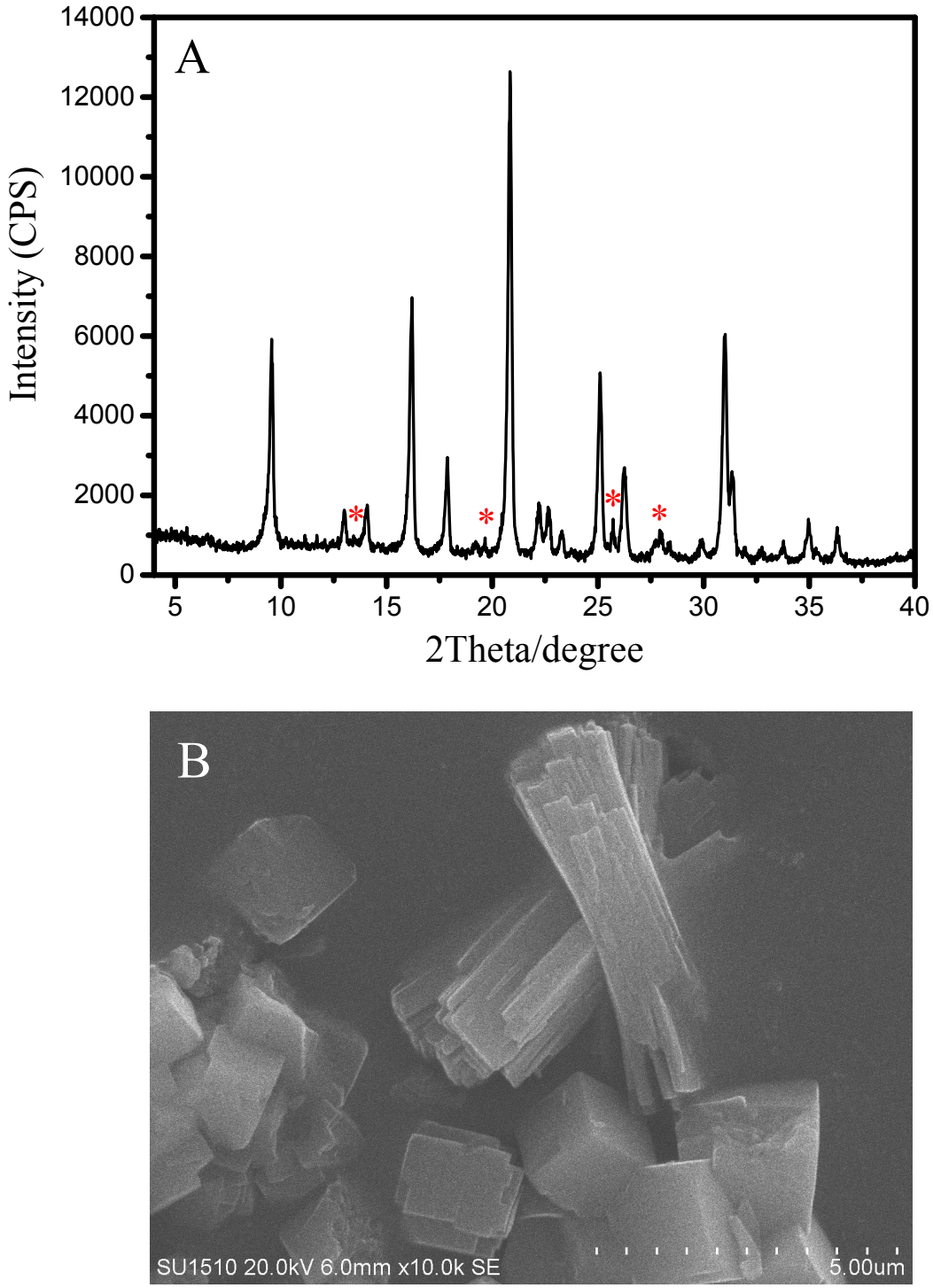

Fig. S6 (A) XRD pattern (impurity of MOR labelled with an asterisk) and (B) SEM image of CHA-ST without addition of CHA seeds at 150 °C for 7 days.

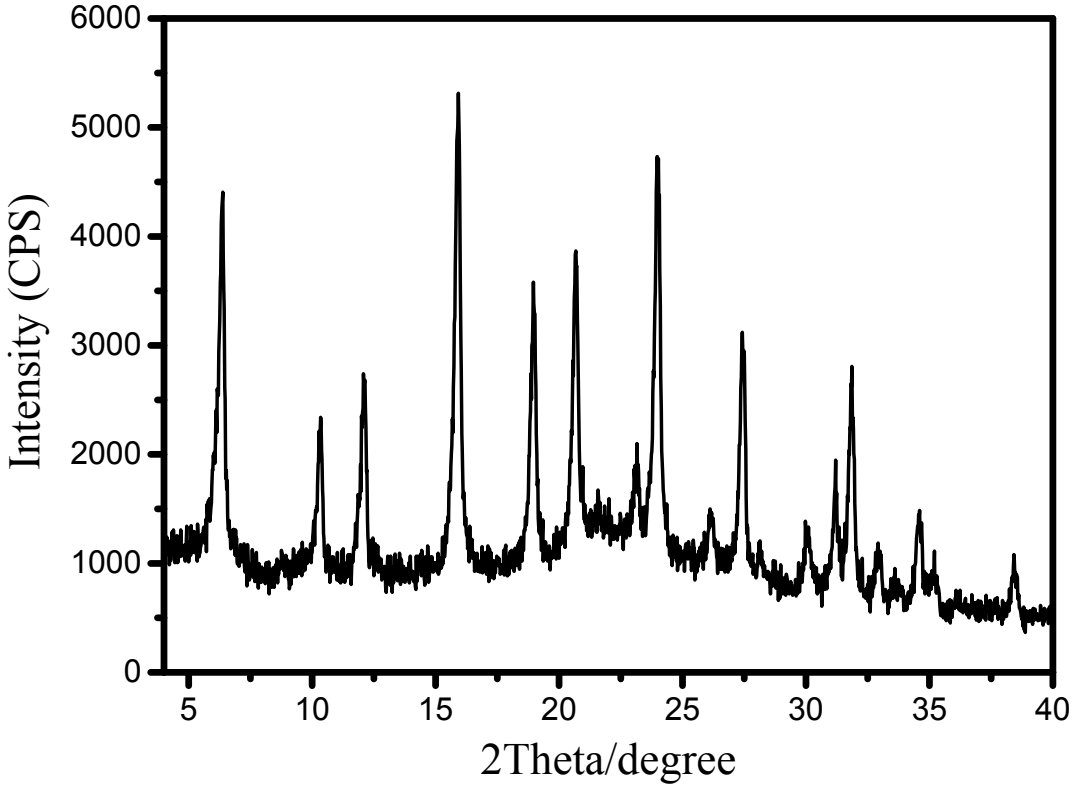

Fig. S7 XRD pattern of CHA-ST without addition of CHA seeds at 180 °C for 6 days.

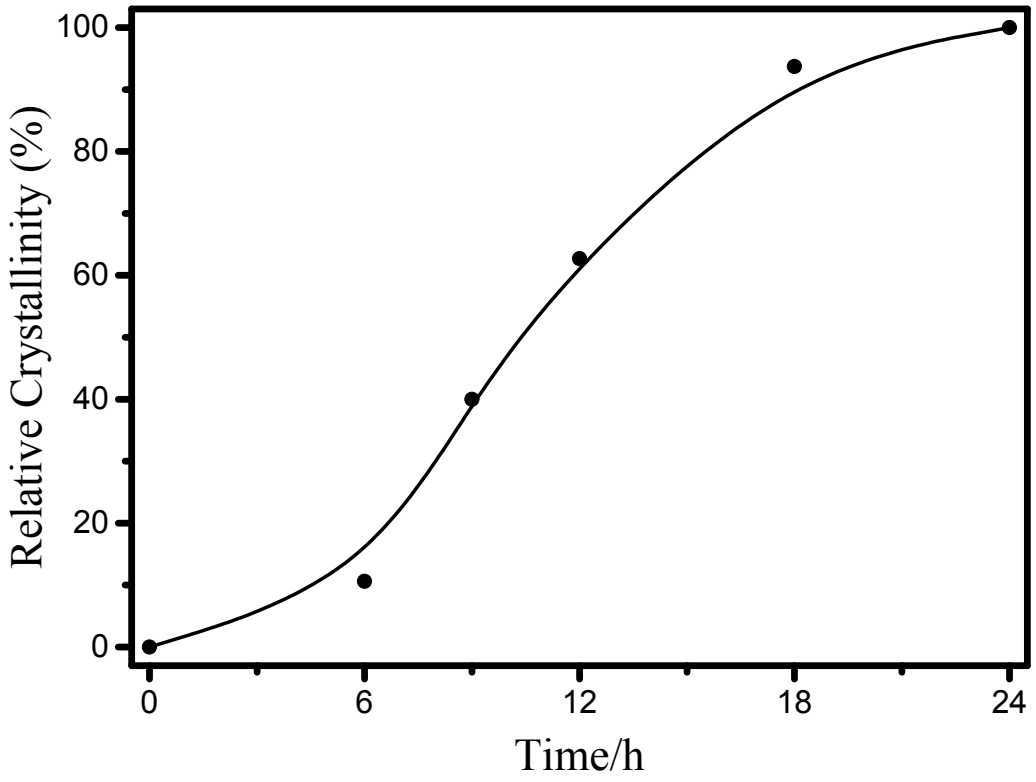

Fig. S8 The dependences of crystallinity on the time of CHA-ST synthesized in the presence of CHA seeds at 180 °C.

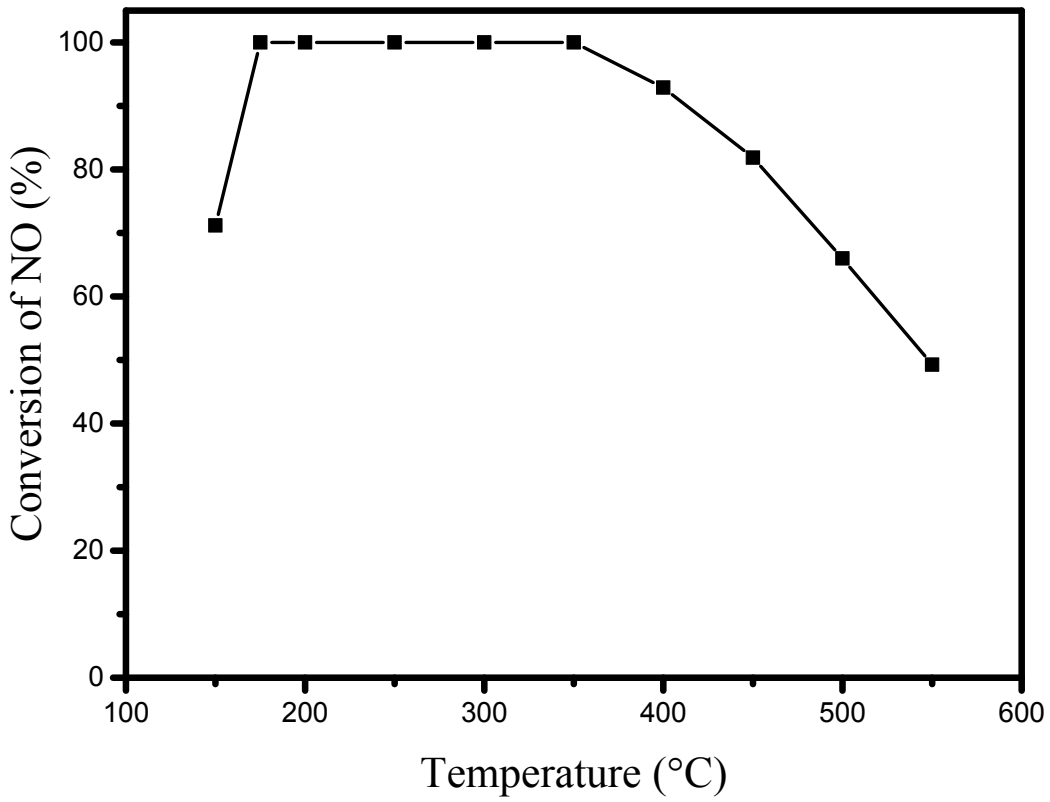

Fig. S9 Dependence of NO conversion on temperature in NH_3-SCR over the Cu-CHA (benchmark) zeolite supplied by BASF SE.