Supporting information:

The promotional role of Ce in Cu/ZSM-5 and in situ surface reaction

for selective catalytic reduction of NO_x with NH₃

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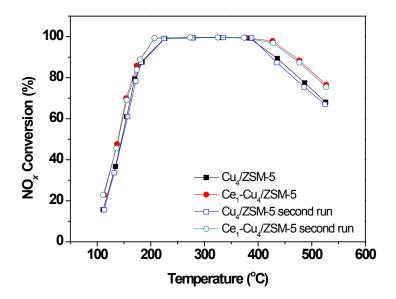


Fig. S1. NO_x conversion over Cu/ZSM-5 and Ce_x-Cu₄/ZSM-5 catalysts for the NH₃-SCR reaction on the first and second runs. (Reaction conditions: 0.2g catalyst, the reactant gas of 500 ppm NO/500 ppm NH₃/5%O₂/Ar balanced, GHSV = 55000 h⁻¹). When the first run was finished at about 550 °C, the catalyst was cooled down to room temperature and then evaluated its NH₃-SCR activity for the second run.

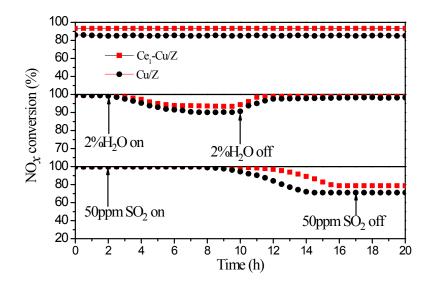


Fig. S2. Effect of SO₂ and H₂O on the catalytic activities of Cu₄/ZSM-5 and Ce₁-Cu₄/ZSM-5 catalysts for SCR reaction at 450 °C. (Reaction conditions: 0.2 g catalyst, 500 ppm NO, 500 ppm NH₃, 5% O₂, Ar to balance, GHSV=55000h⁻¹)