

1 Supplementary Information

2 Identification of sulfate species and their influence on SCR

3 performance of Cu/CHA catalyst

4 *Wenkang Su, ^{*a,b} Zhenguo Li,^a Yani Zhang,^a Chenchen Meng,^b Junhua Li^{*a},*

5 ^a State Key Joint Laboratory of Environment Simulation and Pollution Control,

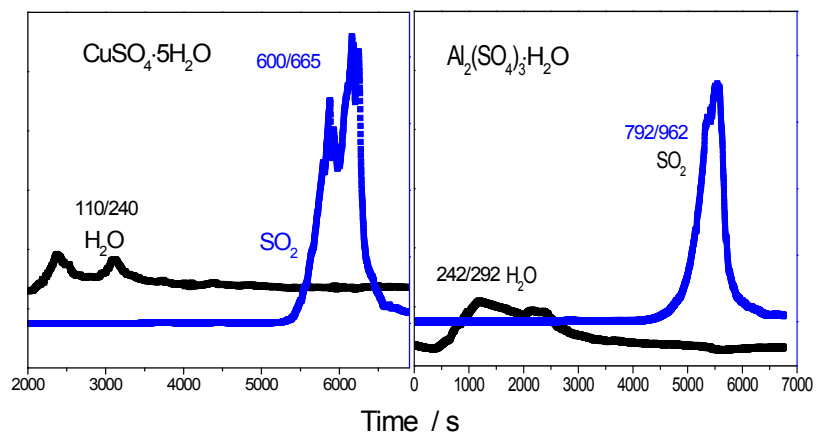
6 School of Environment, Tsinghua University, Beijing 100084, P. R. China

7 ^b Hebei Provincial Academy of Environmental Science, Shijiazhuang 050037 P. R.

8 China.

^{*a} Tel.: +86 10 62771093, E-mail address: lijunhua@tsinghua.edu.cn (J. Li).

^{*b} Tel.: +86 0311 89253587, E-mail address: 9510053@qq.com

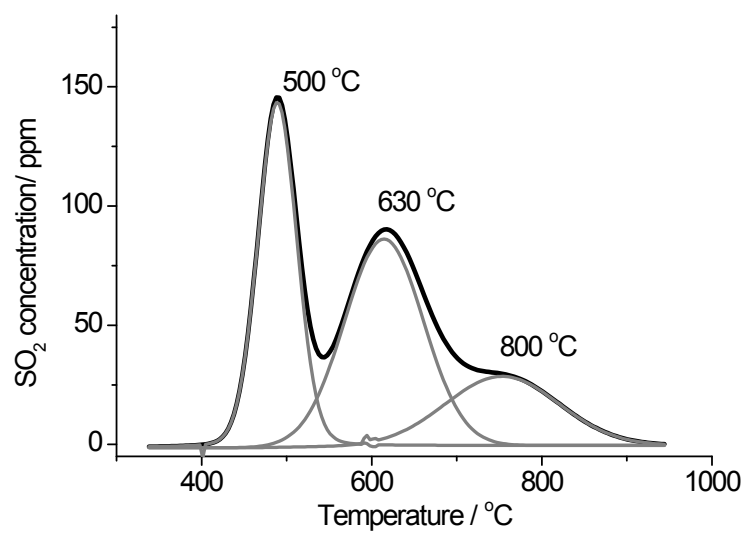


9

10 **Figure S1** MS signal of SO_2 and H_2O collected as a function of temperature-on-

11 stream during the decomposition of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ and $\text{Al}_2(\text{SO}_4)_3 \cdot \text{H}_2\text{O}$

12

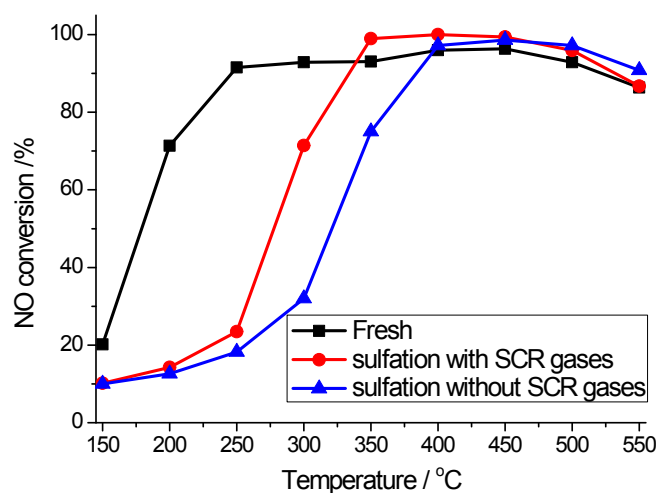


13

14 **Figure S2.** TPD profile of SO₄²⁻ radicals on H/SSZ-13 catalysts impregnated with

15 CuSO₄ solution

16



17

18 **Figure S3.** NO conversion as a function of temperature of fresh and sulfated 1.5 wt%

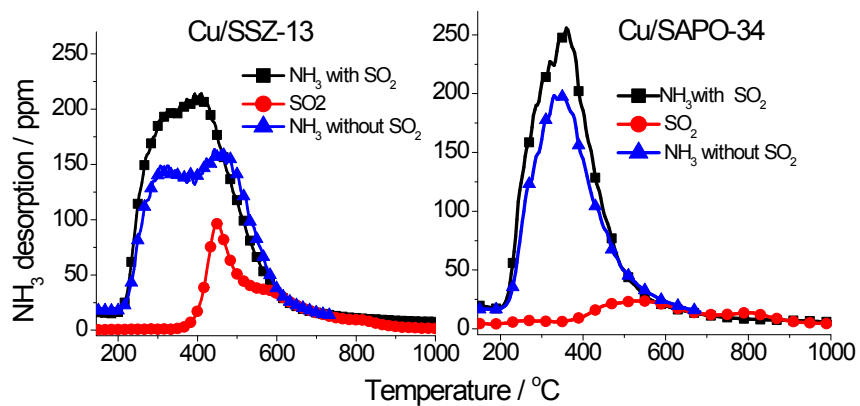
19 Cu/SSZ-13 catalysts Reaction conditions: 500 ppm NO, 500 ppm NH₃, 5 % O₂, 5 %

20 H₂O, balanced with N₂; GHSV: 170,000 h⁻¹. Sulfation conditions: 100 ppm SO₂, 5 %

21 O₂, 5 % H₂O, 500 ppm NO (if used), 500 ppm NH₃ (if used), balanced with N₂;

22 GHSV: 85,000 h⁻¹

23



24

25 **Figure S4.** TPD profile of SO₂ and NH₃ on Cu/SSZ-13 and Cu/SAPO-34 catalysts.

26 Sulfation conditions: 500 ppm NH₃, 500 ppm NO, 5% O₂, 5% H₂O, 100 ppm SO₂, 5%

27 O₂, 5% H₂O, T=200°C, GHSV=85,000 h⁻¹.