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## **Supplementary Information**

## Promotional effect of doping SnO2 into TiO2 over CeO2/TiO2 catalyst for

the selective catalytic reduction of NO by NH<sub>3</sub>

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Fig. S1 NO conversion of Ce/Ti<sub>x</sub>Sn<sub>1-x</sub> samples with different molar ratios of Ti/Sn. Reaction conditions: 500 ppm NO, 500 ppm NH<sub>3</sub>, 5 vol.% O<sub>2</sub>, GHSV=90,000 h<sup>-1</sup>.



Fig. S2. N<sub>2</sub> selectivity of CeO<sub>2</sub>, Tin, Ce/Sn, Ce/Ti, and Ce/TiSn samples. Reaction conditions: 500 ppm NO, 500 ppm NH<sub>3</sub>, 5 vol.% O<sub>2</sub>, GHSV=90,000 h<sup>-1</sup>.



Fig. S3. NO conversion of Ce/Ti and Ce/TiSn aged at 750 °C for 4 h. Reaction conditions: 500 ppm NO, 500 ppm NH<sub>3</sub>, 5 vol.% O<sub>2</sub>, GHSV=90,000 h<sup>-1</sup>.



Fig. S4. XRD patterns of  $Ti_x Sn_{1-x}$  supports (x=0-1).



Fig. S5. Competition adsorption model between  $NH_3$  and bridging nitrates.