

**SO₂ poisoning behaviors of Ca-Mn/TiO₂ catalysts for selective catalytic
reduction of NO with NH₃ at low temperature**

Qingqing Tian^{1,2}, Hongfeng Liu^{1,2}, Weiyuan Yao^{1,2}, Yan Wang^{1,2}, Yue Liu^{1,2*}, Zhongbiao
Wu^{1,2}, Haiqiang Wang^{1,2}, Xiaole Weng^{1,2}

¹Department of Environmental Engineering, Zhejiang University, Hangzhou 310058, PR China

²Zhejiang Provincial Engineering Research Center of Industrial Boiler & Furnace Flue-gas Pollution Control,
Hangzhou 310058, PR China

*Corresponding author. Tel.: +86-571-87953088; Fax: +86-571-87953088.

E-mail: yueliu@zju.edu.cn (Y. Liu)

Full postal address: Department of Environmental Engineering, Zijingang Campus, Zhejiang
University, Yuhangtang Road 388, Hangzhou 310058, PR China.

Table. S1. Physical properties of Mn/TiO₂ and Ca(0.1)-Mn/TiO₂ before and after SCR reaction in the presence of SO₂.

Samples	BET surface area (m ² /g)	Pore volume (×10 ⁻² cm ³ /g)	Pore diameter (nm)
Fresh Mn/TiO ₂	46.78	15.94	9.30
Used Mn/TiO ₂	45.64	15.01	8.87
Fresh Ca(0.1)-Mn/TiO ₂	84.77	19.91	6.57
Used Ca(0.1)-Mn/TiO ₂	84.37	18.90	6.87

Table. S2. Surface atomic contents of Mn/TiO₂ and Ca(0.1)-Mn/TiO₂ before and after SCR reaction.

Catalysts	Surface Atomic Concentrations (%)				
	Mn	Ti	O	Ca	S
Fresh Mn/TiO ₂	10.98	19.30	69.72	—	—
Used Mn/TiO ₂	11.55	15.25	70.34	—	2.87
Fresh Ca(0.1)-Mn/TiO ₂	10.65	17.44	69.57	2.34	—
Used Ca(0.1)-Mn/TiO ₂	8.80	18.89	69.59	1.40	0.89