
Supplementary Information

Ordered mesoporous TiO₂/SBA-15 confined Ce_xW_y catalyst for selective catalytic reduction of NO with NH₃

Yibo Mu^{a,b}, Xiaosheng Huang^b, Zhicheng Tang^{b**}, Qingchun Wang^{a*}

*(a. College of materials and metallurgical engineering, Inner Mongolia
university of science and technology, Baotou 014010, China*

*b. State Key Laboratory for Oxo Synthesis and Selective Oxidation, and National
Engineering Research Center for Fine Petrochemical Intermediates, Lanzhou
Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou, 730000, China)*

**Corresponding author:*

Tel.: +86–15184792170, Fax: +86–0472–5955961, E–mail address:

qingchun0221@126.com

***Corresponding author:*

Tel.: +86–931–4968083, Fax: +86–931–4968019, E–mail address:

tangzhicheng@licp.cas.cn (Z. Tang).

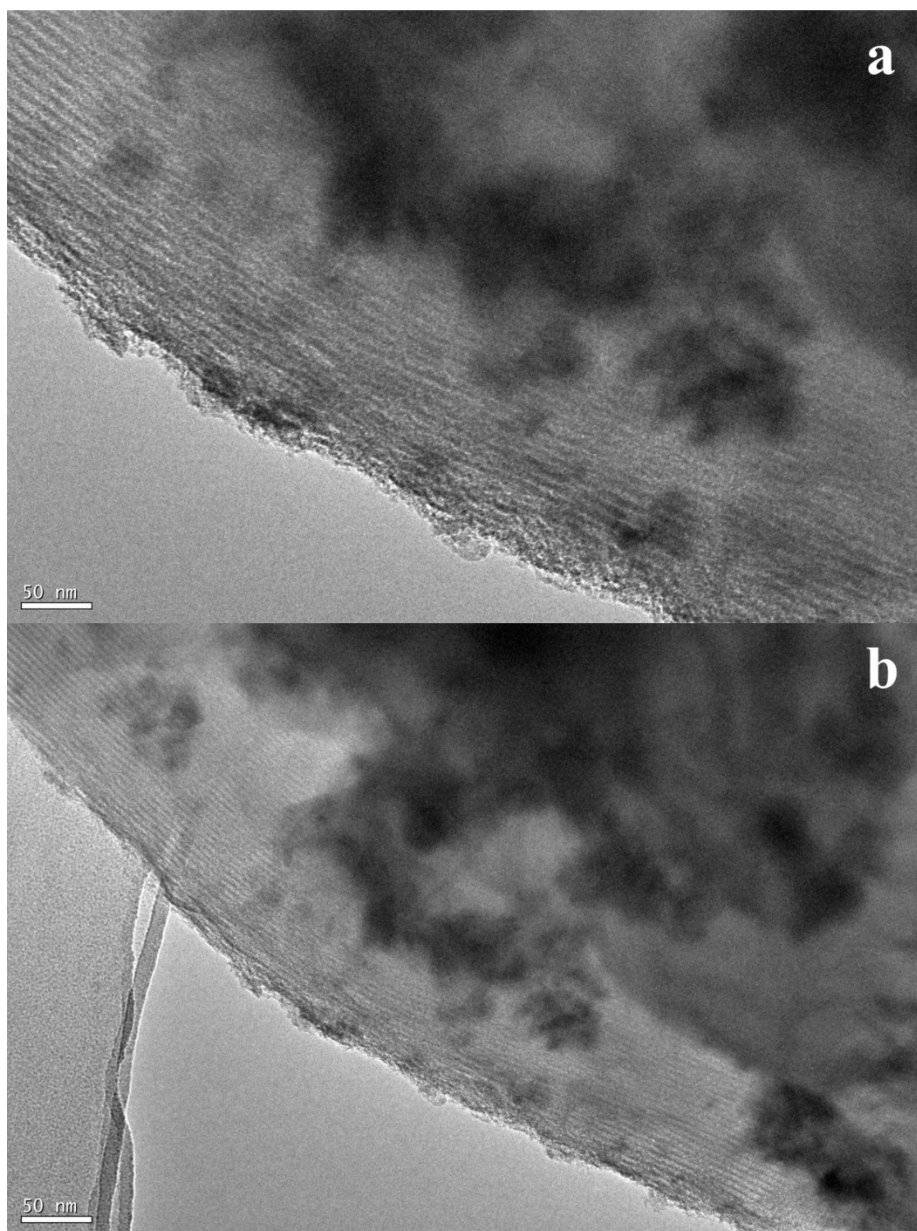


Figure S1. TEM image of the catalyst material: $\text{Ce}_{15}\text{W}_3/\text{TS-3}$.

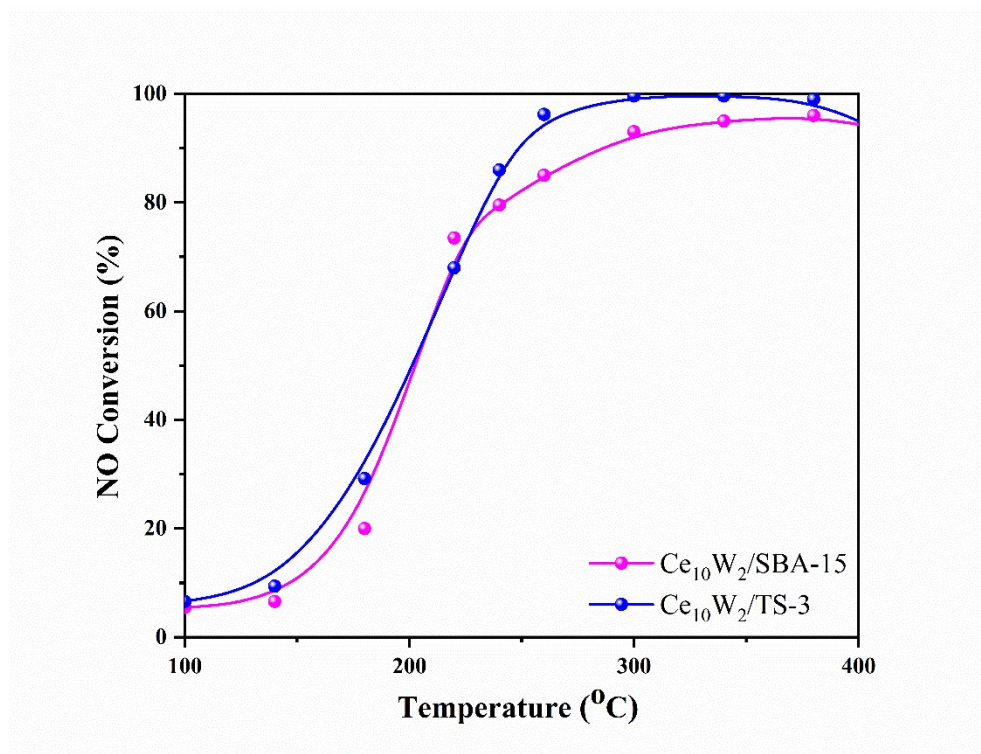


Figure S2. NO conversion of catalyst $\text{Ce}_{10}\text{W}_2/\text{SBA-15}$ and $\text{Ce}_{10}\text{W}_2/\text{TS-3}$ at GHSV = 30 000 h^{-1} .

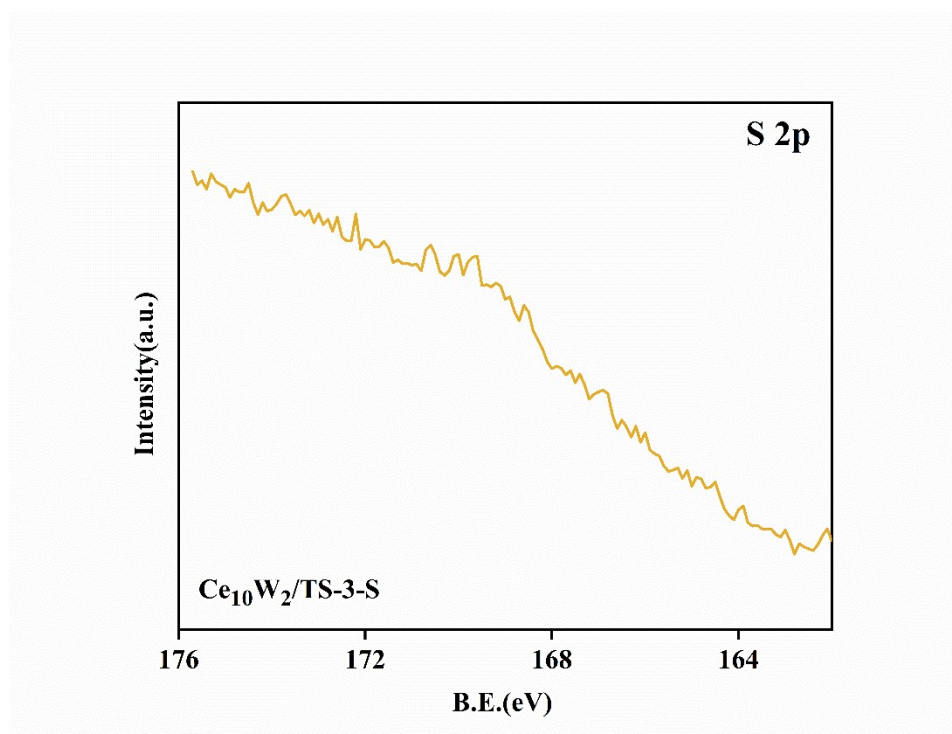


Figure S3. XPS spectrum of S 2p of $\text{Ce}_{10}\text{W}_2/\text{TS-3}$.

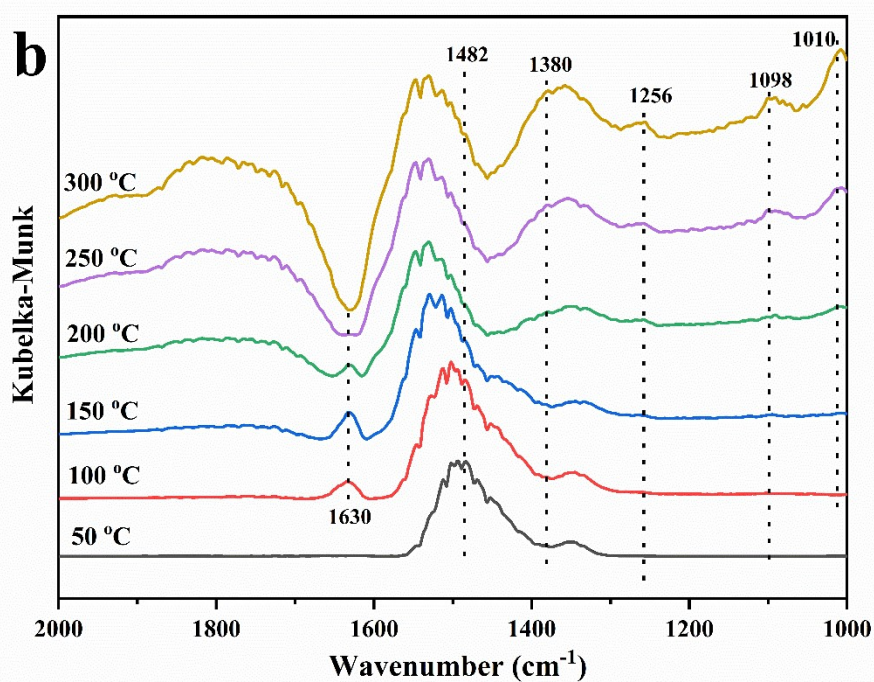
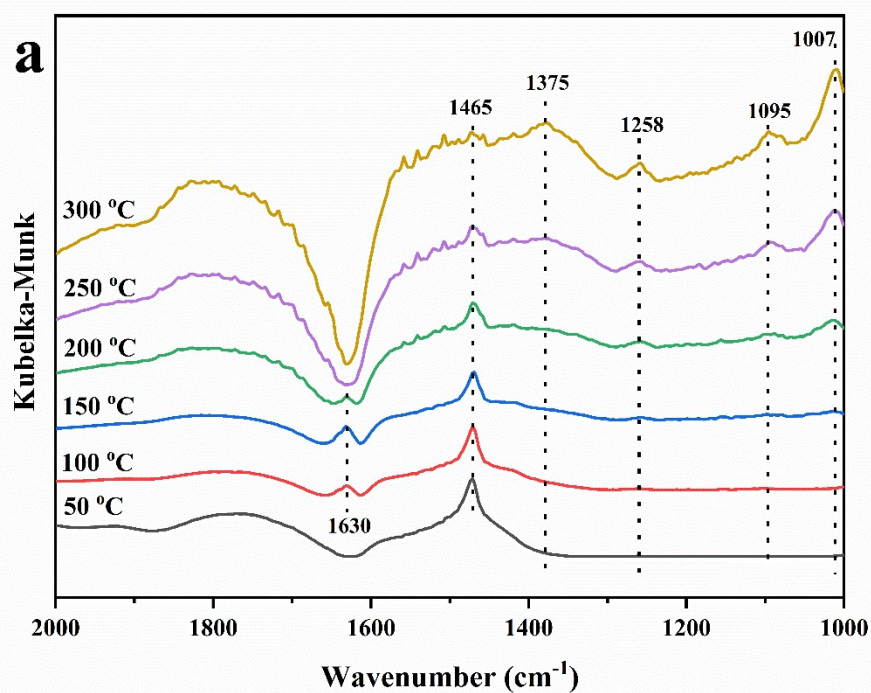


Figure S4. In situ DRIFTs spectra and the corresponding mapping results of NH_3 desorption exposed to a N_2 flow with temperature (a) and the $\text{NO} + \text{O}_2$ desorption exposed to a N_2 flow with temperature (b) over the $\text{Ce}_{10}\text{W}_2/\text{TS-3}$.

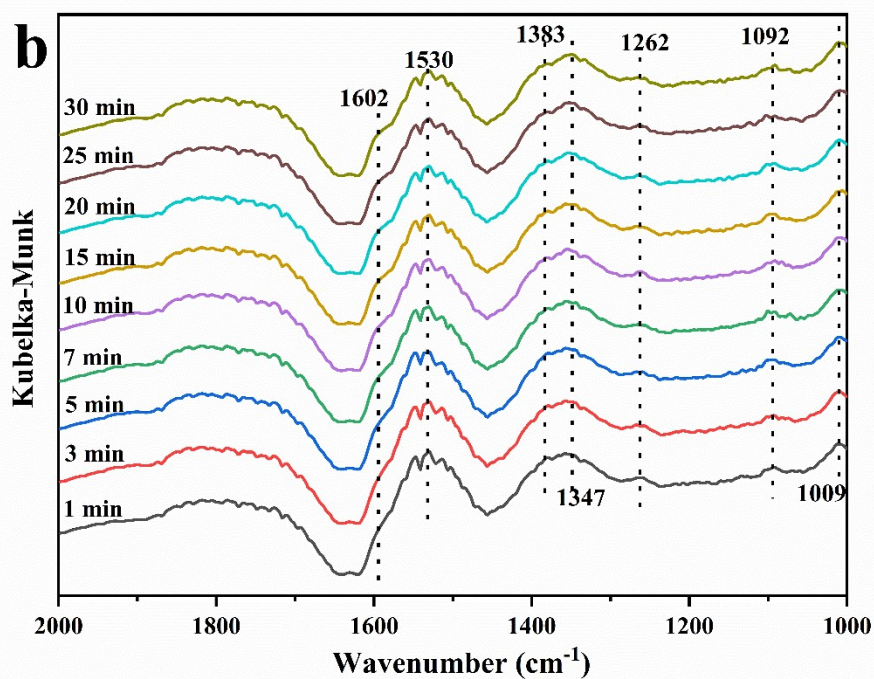
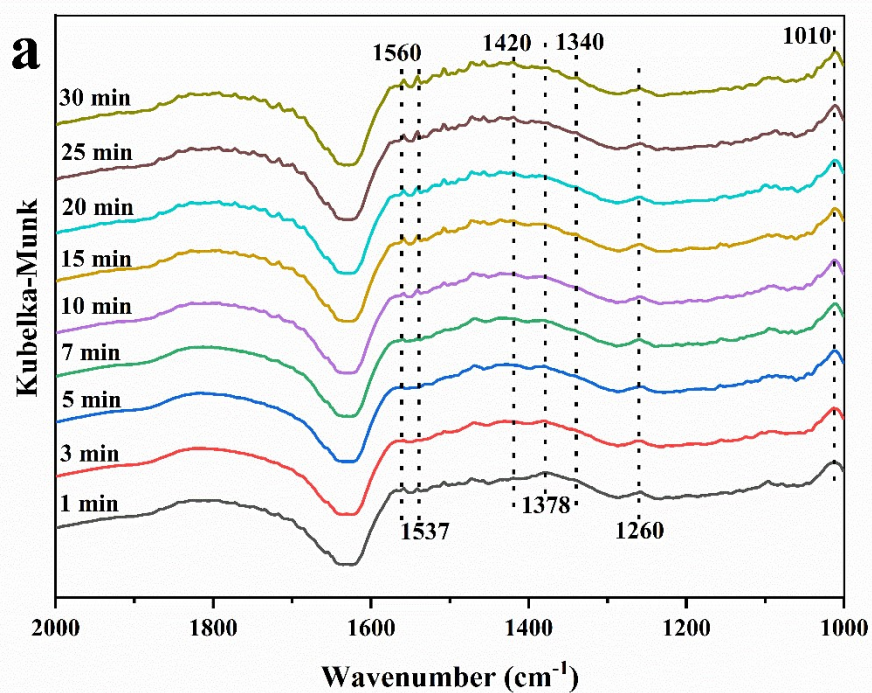


Figure S5. In situ DRIFTS spectra corresponding mapping results of NH_3 adsorption at 240°C exposed to a flow of 1 vol.% NH_3 (a) and $\text{NO} + \text{O}_2$ adsorption at 240°C exposed to a flow of 1 vol.% $\text{NO} + 3$ vol.% O_2 (b) over the $\text{Ce}_{10}\text{W}_2/\text{TS-3}$.