

## Supplementary information for

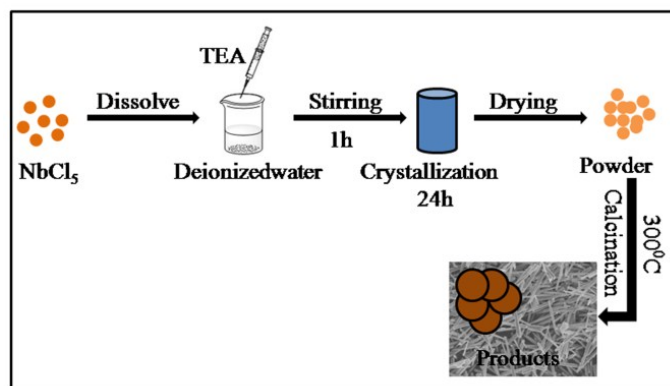
### Facile preparation of C, N co-modified Nb<sub>2</sub>O<sub>5</sub> nanostabbers with enhanced visible light photocatalytic activity

Jiao Xue, Runwei Wang,\* Zongtao Zhang and Shilun Qiu

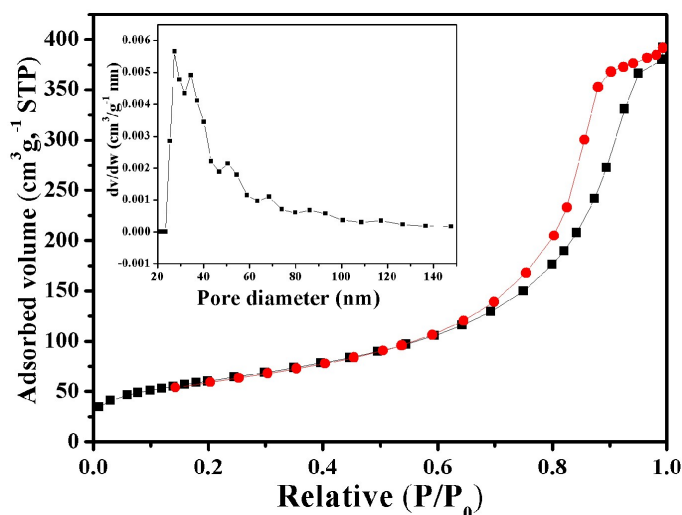
College of Chemistry and State Key Laboratory of Inorganic Synthesis and Preparative Chemistry

Jilin University, Changchun, 130012, People's Republic of China

Email: rwwang@jlu.edu.cn

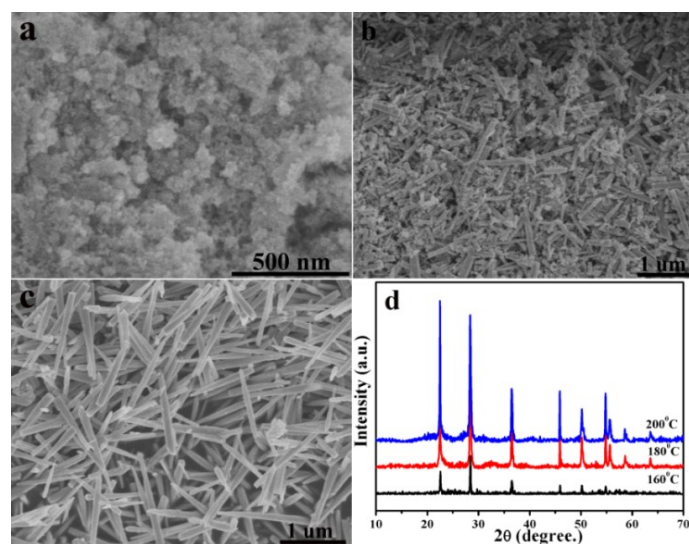


**Figure S1.** Synthesis process of C, N co-modified Nb<sub>2</sub>O<sub>5</sub> nanostabbers.

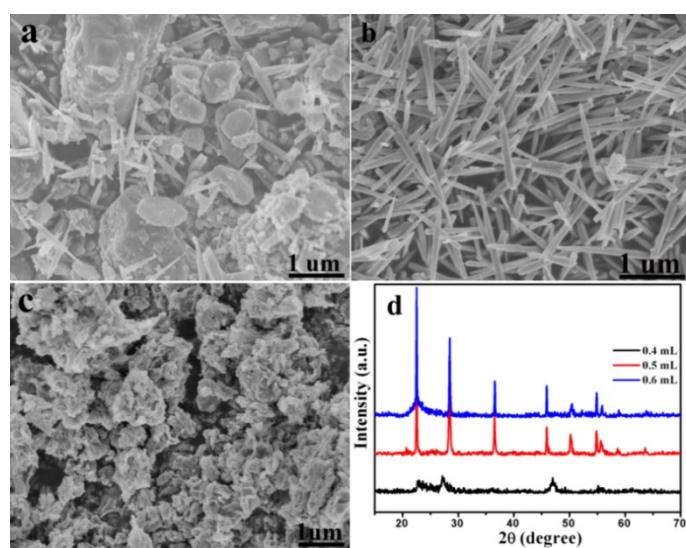


**Figure S2.** N<sub>2</sub> adsorption and desorption isotherms of the Nb<sub>2</sub>O<sub>5</sub> nanostabbers (insert is the plot of pore size distribution).

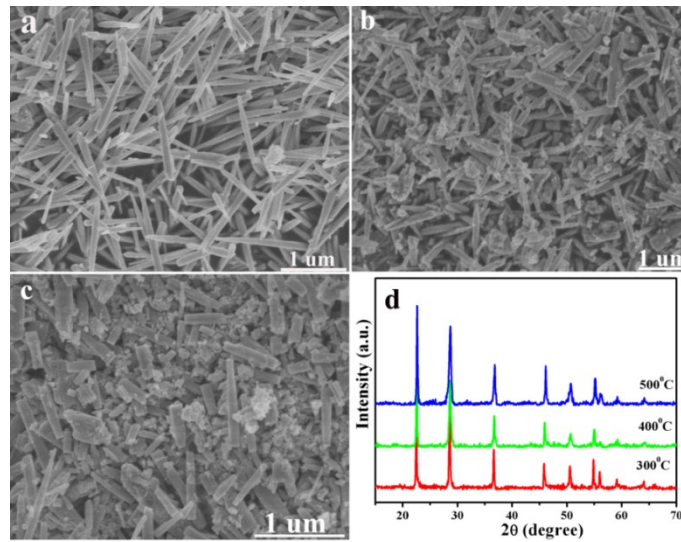
## Formation mechanism



**Figure S3.** The formation process of Nb<sub>2</sub>O<sub>5</sub> nanostabbers and SEM images of the samples synthesized at (a)160 °C, (b)180 °C, (c) 200 °C and (d) the corresponding XRD patterns of the as-prepared samples.



**Figure S4.** SEM images of as-prepared sample with different amount of TEA: (a) 0.4 mL (b) 0.5 mL (c) 0.6 mL and (d) the corresponding XRD patterns of the Nb<sub>2</sub>O<sub>5</sub> nanostabbers.



**Figure S5.** SEM images of as-prepared sample with different calcination temperature (a: 300 °C, b: 400 °C, c: 500 °C) and (d) the corresponding XRD patterns of the Nb<sub>2</sub>O<sub>5</sub> nanostabbers.