

Supporting Information

A Simple and Efficient Strategy for Chemically Tailored g-C₃N₄ Photocatalyst

Xiaojuan Bai,^{ab} Shicheng Yan,^b Jiajia Wang,^b Li Wang,^a Wenjun Jiang,^a Songling

*Wu,^b Changpo Sun,^b Yongfa Zhu^{*a}*

Department of Chemistry, Beijing Key Laboratory for Analytical Methods and

Instrumentation, Tsinghua University, Beijing, China 100084

Corresponding author: E-mail: zhuyf@tsinghua.edu.cn; Fax: +86-10-62787601;

Tel: +86-10-62787601.

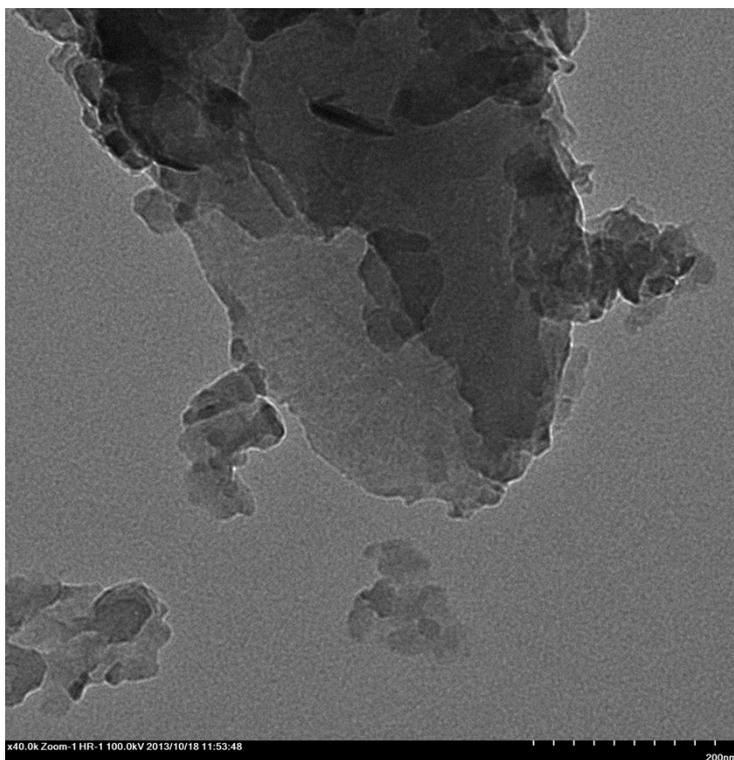


Figure S1. TEM image of bulk $g\text{-C}_3\text{N}_4$.

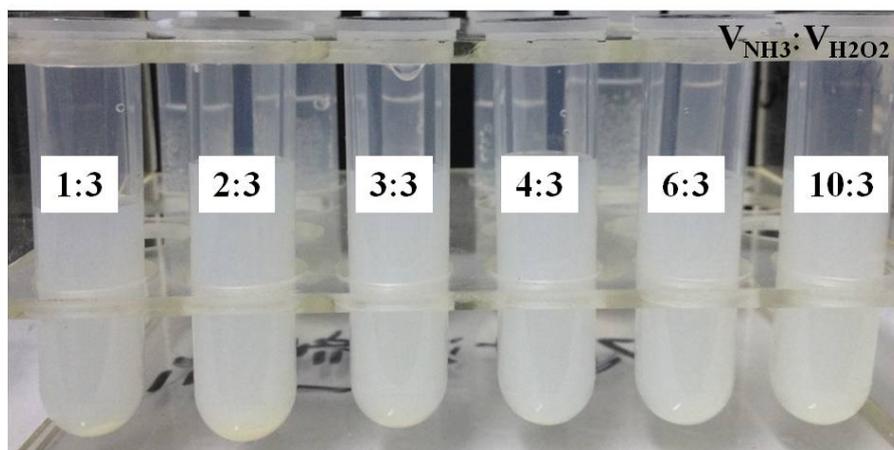


Figure S2. Dispersion photos of tailored $g\text{-C}_3\text{N}_4$ with different ratio of $\text{NH}_3/\text{H}_2\text{O}_2$ in aqueous media indicate their ultra-small sizes, without detectable aggregation after standing for even more than two weeks.

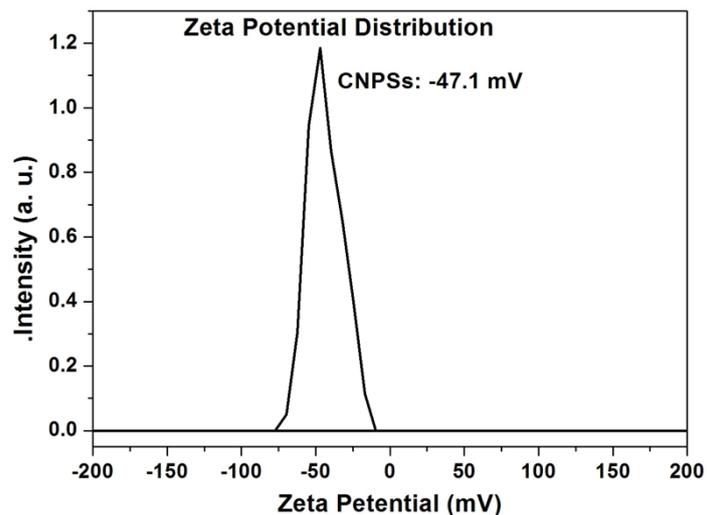


Figure S3. Zeta potential of CNPSs dispersed in water and the well dispersed CNPSs were negatively charged with zeta potential of about -47.1 mV.

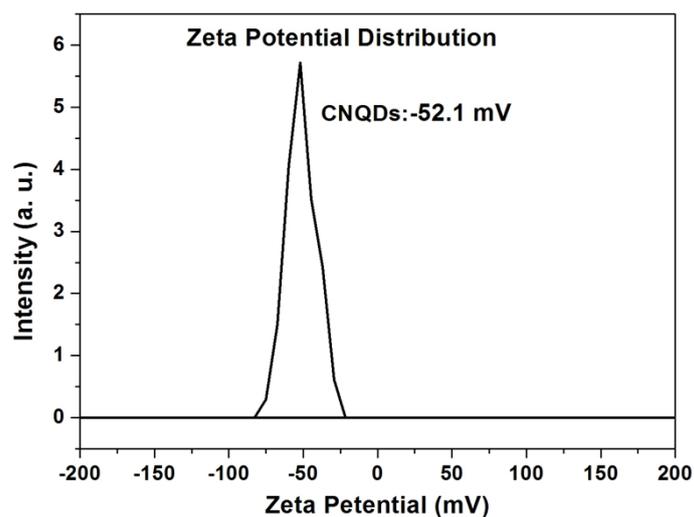


Figure S4. Zeta potential of CNQDs dispersed in water and the well dispersed CNQDs were negatively charged with zeta potential of about -52.1 mV.

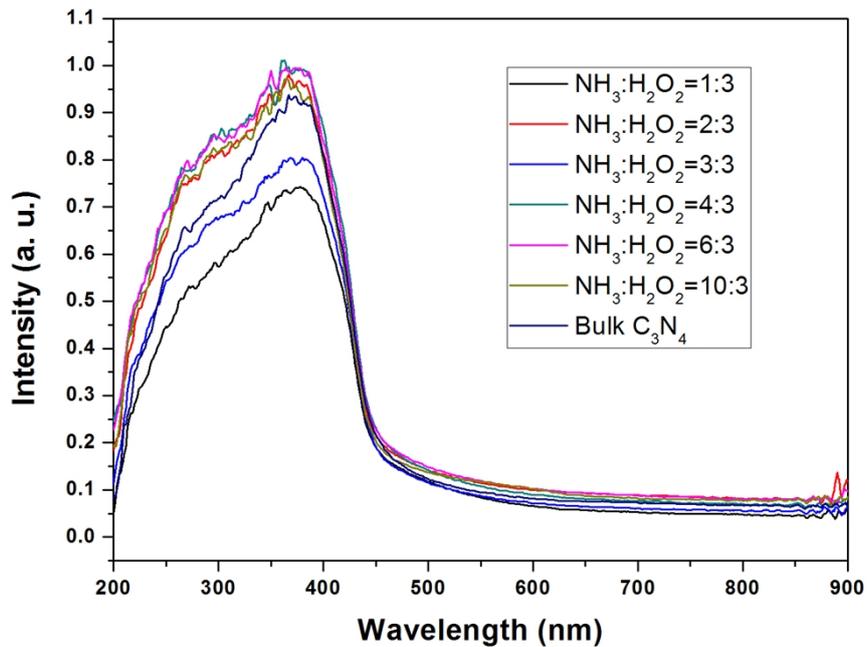


Figure S5. Diffuse reflectance absorption spectra of bulk $g\text{-C}_3\text{N}_4$ and tailored $g\text{-C}_3\text{N}_4$

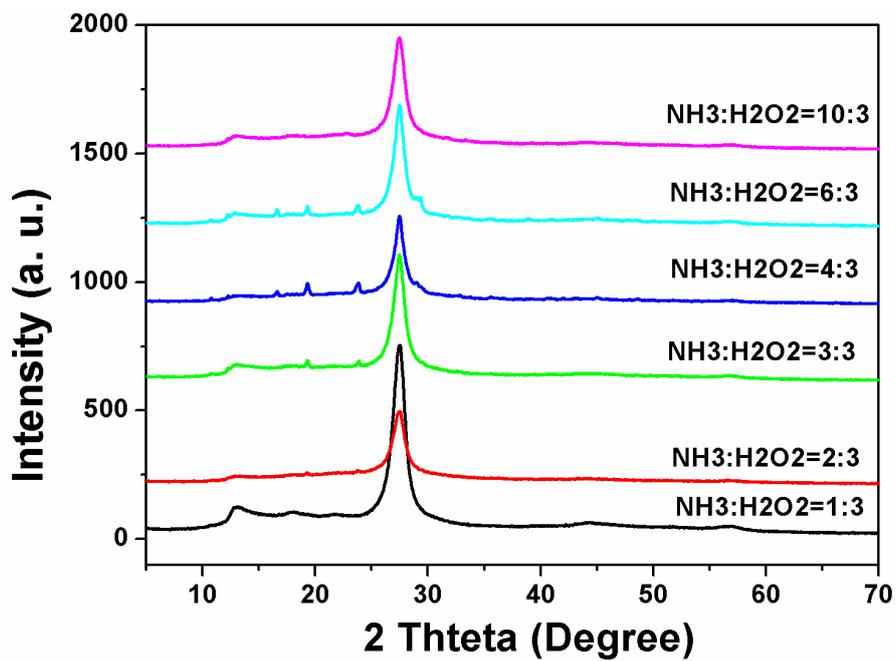


Figure S6 XRD pattern of tailored $g\text{-C}_3\text{N}_4$ by treatment of different $\text{NH}_3\text{:H}_2\text{O}_2$ volume ratio.

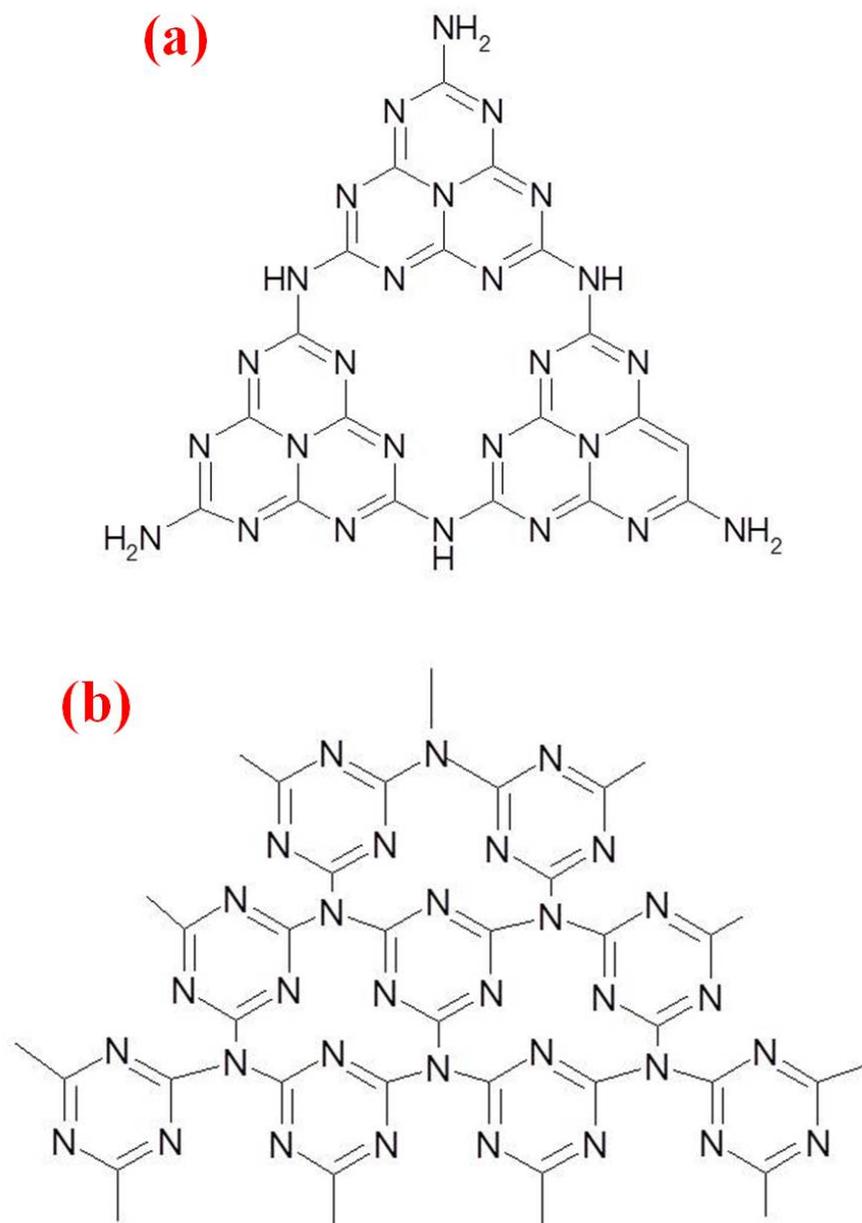


Figure S7 Scheme of (a) triazines and (b) heptazines based connection in g-C₃N₄.

Table S1. The elemental composition of bulk g-C₃N₄

Sample	C (%)	H (%)	N (%)
g-C ₃ N ₄	30.69	2.49	54.89