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MDPI

Supporting Information

In Situ Coupling Carbon Defective C_3N_5 Nanosheet with Ag_2CO_3 for Effective Degradation of Methylene Blue and Tetracycline Hydrochloride

Guoyu Li [1], Genying Zeng [1], Zhangkai Chen [1], Jiaming Hong [1], Xiaodong Ji [1], Zhiqiang Lan [1], Xiaofei Tan [2,3], Meifang Li [1], Xinjiang Hu [1,*] and Chunfang Tang [1,*]

[1] College of Environmental Science and Engineering, Central South University of Forestry and Technology, Changsha 410004, China
[2] College of Environmental Science and Engineering, Hunan University, Changsha 410082, China
[3] Key Laboratory of Environmental Biology and Pollution Control, Hunan University, Ministry of Education, Changsha 410082, China
* Correspondence: xjhu@csuft.edu.cn (X.H.); cshntcf@163.com (C.T.)

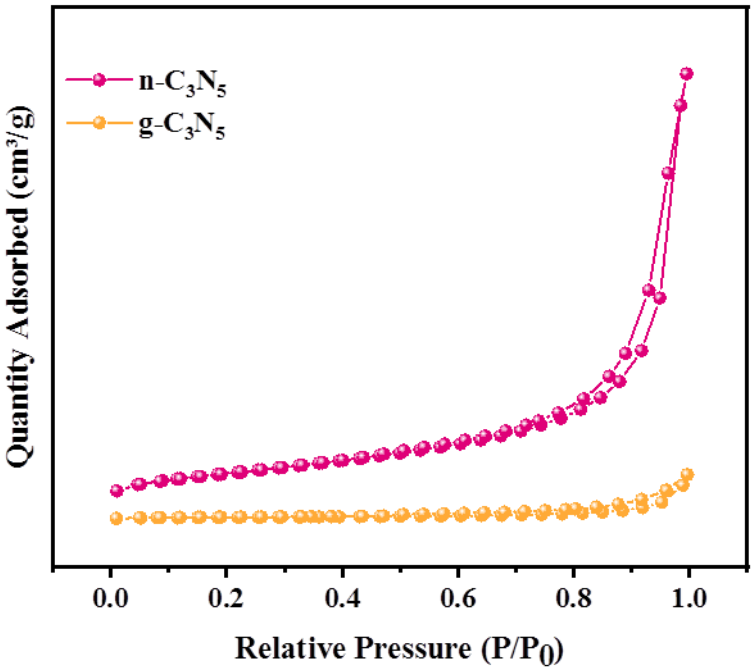

Figure S1. The N_2 adsorption-desorption isotherms of g-C_3N_5 and n-C_3N_5.

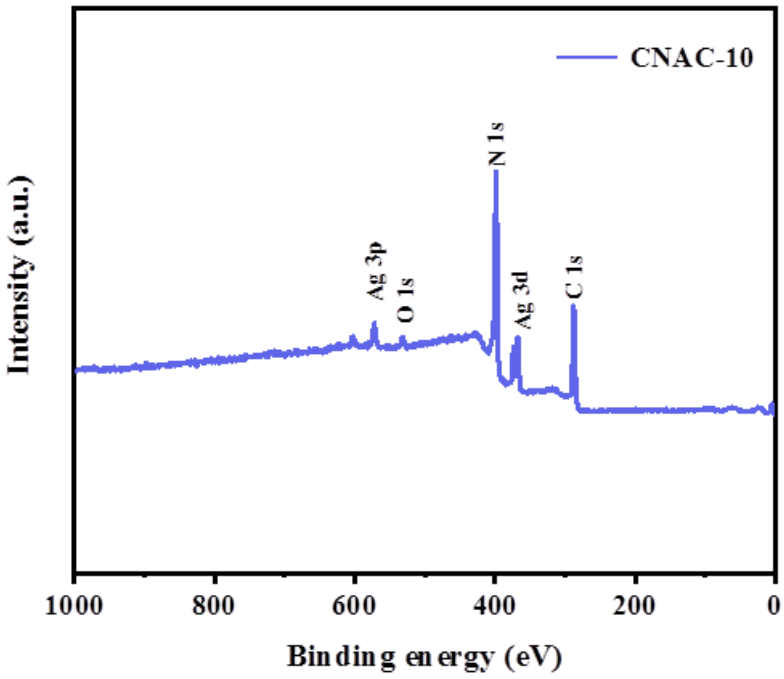

Figure S2. the XPS measurement spectra of the CNAC-10 composite.

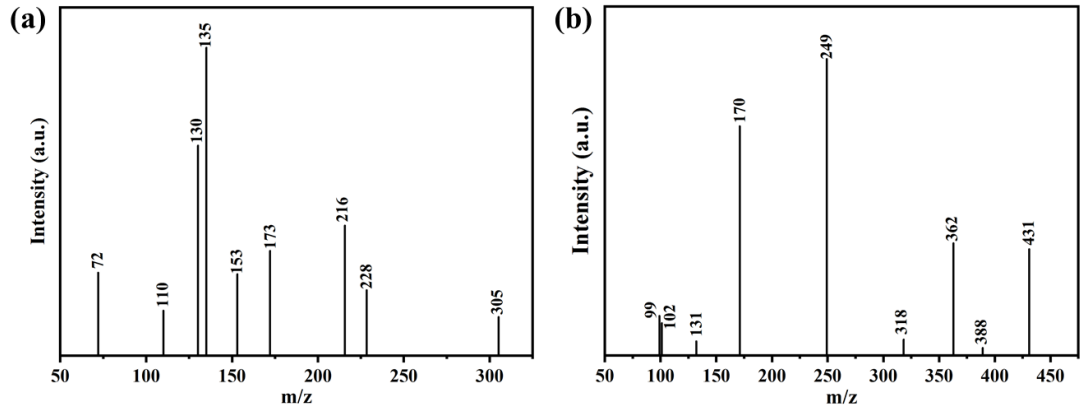

Figure S3. (**a**) m/z values of MB photodegradation at 90 min in the presence of CNAC-10 catalyst, (**b**) m/z values of TC-HCl photodegradation at 40 min in the presence of CNAC-10 catalyst.

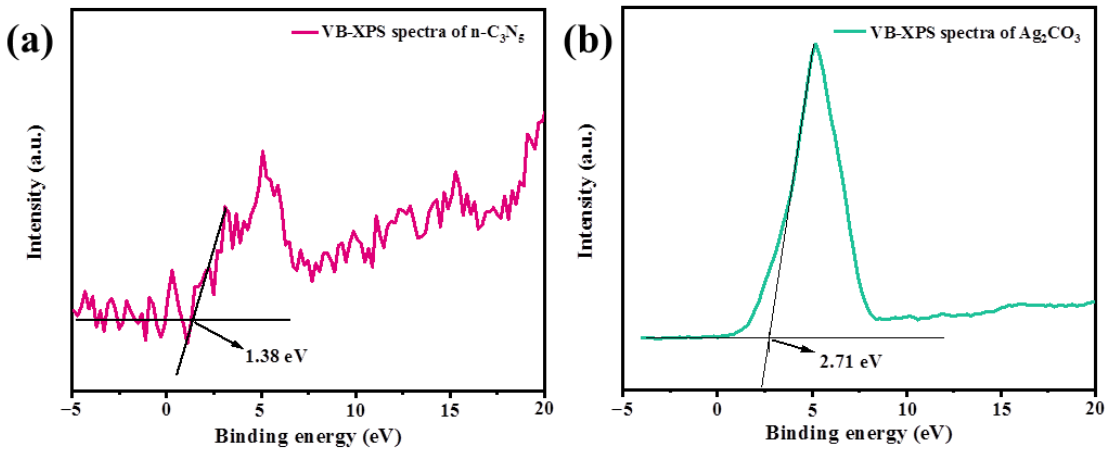

Figure S4. (**a**,**b**) The VB-XPS spectra of n-C_3N_5 and Ag_2CO_3, respectively.

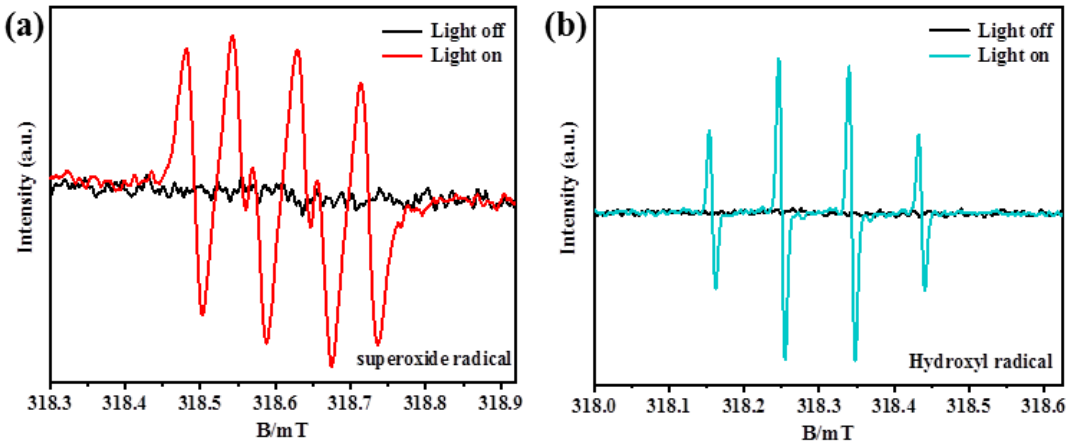

Figure S5. ESR signals of (**a**) $\bullet O_2^-$ and (**b**) •OH generated by CNAC-10.

Table S1. Comparation of the photocatalytic performance of photocatalyst composites.

photocatalyst	Contaminants	Photodegradation rate	Concentration of photocatalyst ($g \cdot L^{-1}$)	Ref.
n-C_3N_5/Ag_2CO_3	MB=60 mg/L	96.5% in 90 min	1	This work
n-C_3N_5/Ag_2CO_3	TC-HCl=50 mg/L	97.6% in 100 min	0.4	This work
Bi_2WO_6@C_3N_5	TC=20 mg/L	92.7% in 60 min	0.2	[1]
AgCl/g-C_3N_5	RhB=10 mg/L	85% in 60 min	1	[2]
Ag_3PO_4@g-C_3N_5	TC-HCl=20 mg/L	90.5% in 60 min	1	[3]
Bi_2WO_6@g-C_3N_5	TC=10 mg/L	99.8% in 60 min	0.4	[4]
Ag_2CO_3@g-C_3N_4	MB=10 mg/L	95.0% in 54 min	1	[5]

References:

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