applied sciences
Supplementary Material

Construction of Ag_3PO_4/SnO_2 Heterojunction on Carbon Cloth with Enhanced Visible Light Photocatalytic Degradation

Min Liu [1,*], Guangxin Wang [2], Panpan Xu [2,*], Yanfeng Zhu [3] and Wuhui Li [3]

[1] School of Electrical Engineering, Henan University of Science and Technology, Luoyang 471023, China
[2] Research Center for High Purity Materials, School of Materials Science and Engineering, Henan University of Science and Technology, Luoyang 471023, China; wgx58@126.com
[3] School of Materials Science and Engineering, Henan University of Science and Technology, Luoyang 471023, China; zyf2273@163.com (Y.Z.); fxcszx_haust@163.com (W.L.)
* Correspondence: liumin1086@163.com (M.L.) xupanpan213@163.com (P.X.); Tel.: +86-379-6562-7697

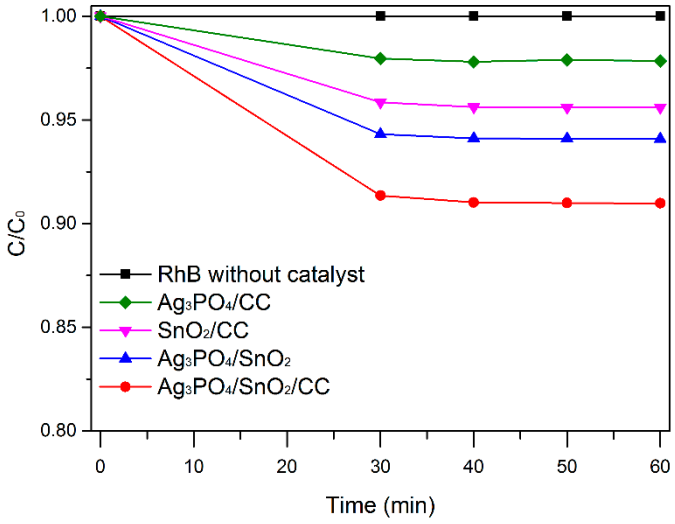

Figure S1. The adsorption ability of the as-synthesized samples in the dark.

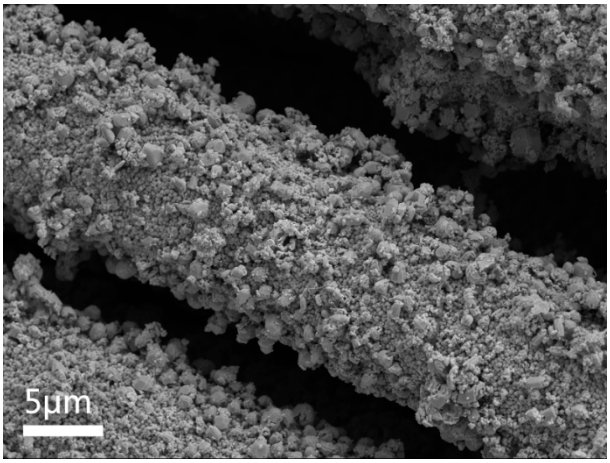

Figure S2. The SEM image of $Ag_3PO4/SnO_2/CC$ after photocatalysis.

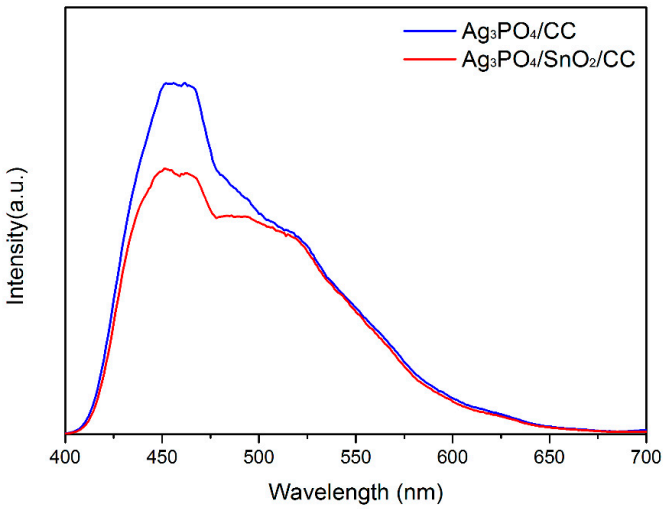

Figure S3. PL spectra of Ag_3PO_4/CC and Ag_3PO_4/SnO_2/CC.

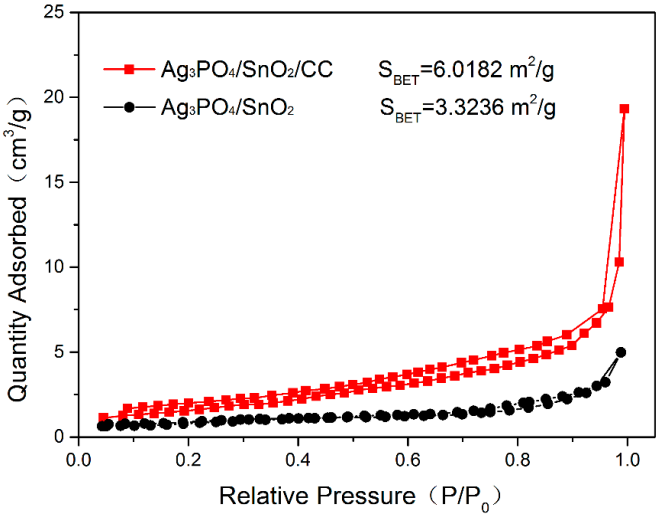

Figure S4. Nitrogen adsorption-desorption isotherms of Ag_3PO_4/SnO_2 and Ag_3PO_4/SnO_2/CC.

Table S1. Photocatalytic performance comparison of this work versus the previous published results.

Catalysts	Mass loading (mg)	contaminant	Degradation rate /illumination time	Ref.
Ag_3PO_4/ SnO_2	20 (Ag_3PO_4/ SnO_2)	Tetracycline (20 mg/L)	74%/60min	37
CC@SnS_2/SnO_2	15 (SnS_2/SnO_2)	Cr(VI) (10 mg/L)	98.67%/60 min	58
CC@MoS_2-Ag_3PO_4	2.63(MoS_2)+2.52（Ag_3PO_4）	RhB(5 mg/L)	96%/80min	59
Ag_3PO_4/ SnO_2/CC	30.6(SnO_2)+8.2（Ag_3PO_4）	RhB ($4x10^{-5}$ mol/L)	95.9%/70 min	This paper
Ag_3PO_4/ SnO_2/CC	30.6(SnO_2)+8.2（Ag_3PO_4）	MB ($5x10^{-5}$ mol/L)	96.6%/70 min	This paper

1. Zhang, G.; Chen, D.; Li, N.; Xu, Q.; Li, H.; He, J.; Lu, J. SnS_2/SnO_2 heterostructured nanosheet arrays grown

on carbon cloth for efficient photocatalytic reduction of Cr (VI). *J. Colloid Interface Sci.* **2018**, *514*, 306–315.

2. Li, F.; Zhang, G.; Song, Y. Preparation and photocatalytic mechanism of Ag_3PO_4/SnO_2 Composite Photocatalyst. *Nano* **2019**, *14*, 1950092
3. Cui, Z.; Sun, Y.; Zhang, Z.; Xu, M.; Xin, B. Facile synthesis and photocatalytic activity of Ag_3PO_4 decorated MoS_2 nanoflakes on carbon fiber cloth. *Mater. Res. Bull.* **2018**, *100*, 345–352.