

Enhanced photocatalytic degradation of tetracycline hydrochloride by hollow nanofiber Ag @ ZnGa₂O₄/ ZnO with synergistic effects of LSPR and S-scheme interface engineering

Zhiyuan Chen, Wenhui Chen, Peipei Han, Jizhou Yang, Zhi Wan, Peng Hu,
Feng Teng and Haibo Fan*

School of Physics, Northwest University, Xi'an 710127, China

* Corresponding author: hbfan@nwu.edu.cn (H. B. Fan)

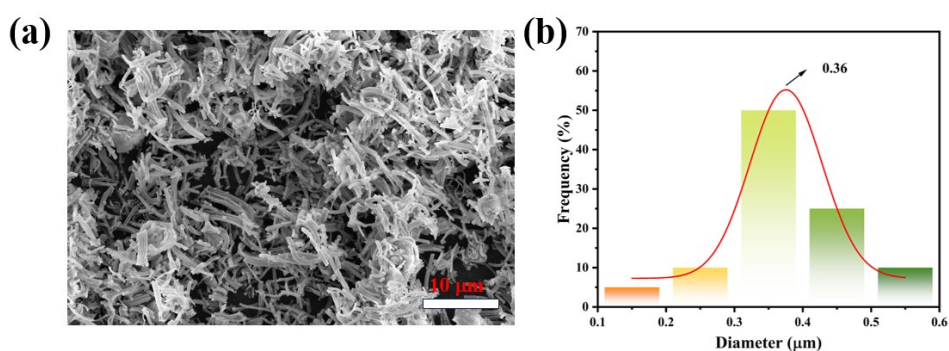


Figure.S1 (a) lower magnification SEM characterization, (b) particle size frequency distribution histogram

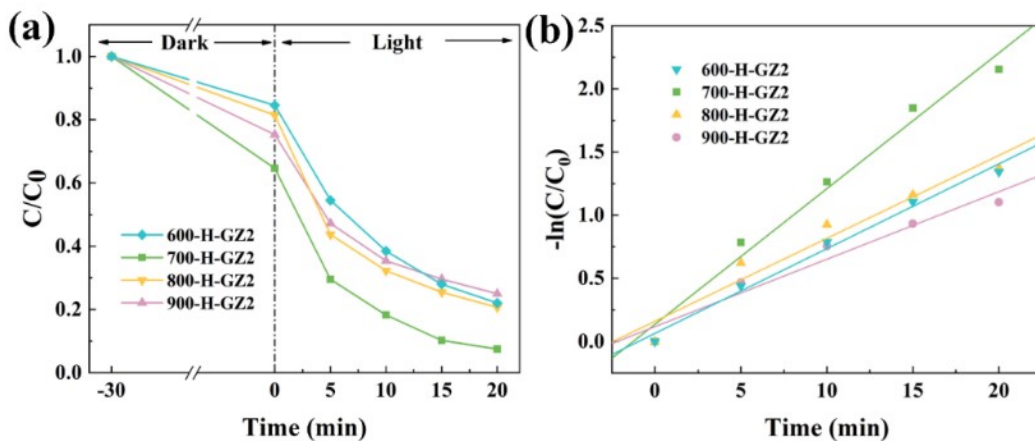


Figure.S2 Photocatalytic degradation diagrams of all samples at different annealing temperatures (a) and photocatalytic rate fitting diagram (b)

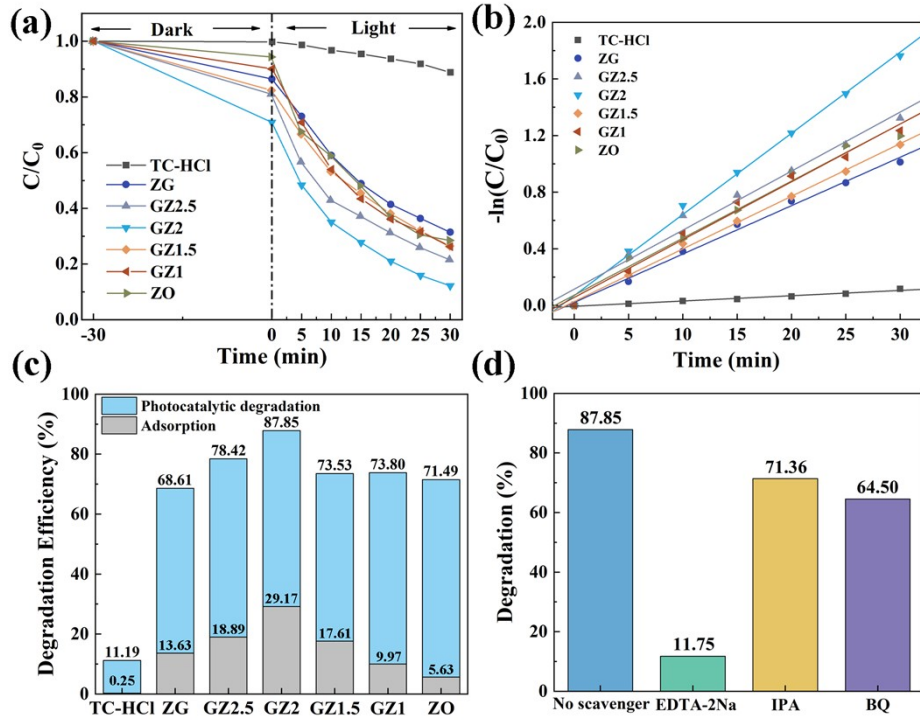


Figure.S3 Photocatalytic degradation diagram of $ZnGa_2O_4$ and ZnO with different proportions (a), photocatalytic rate fitting diagram (b), Histogram of degradation efficiency of TC-HCl of all samples (c), Capture experiment diagram of active species during degradation process (d)

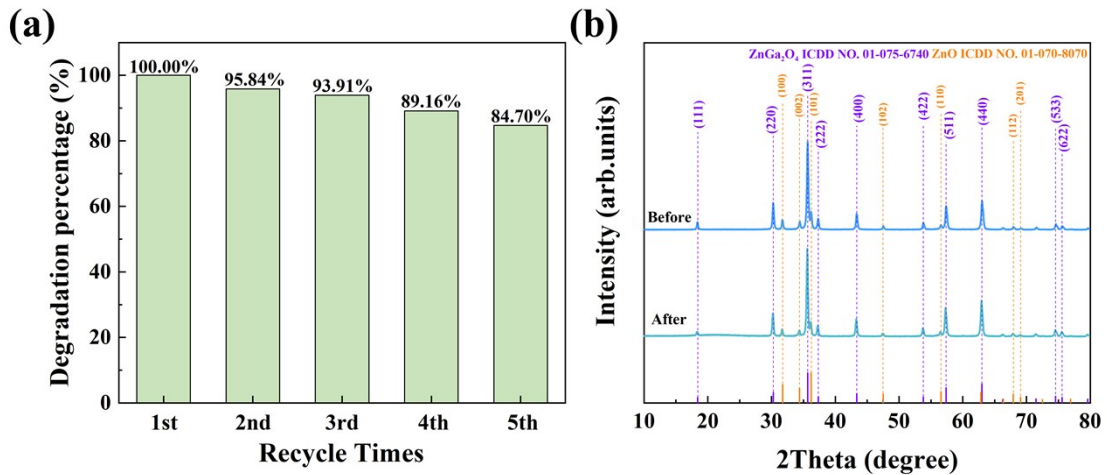


Figure.S4 Cyclic test of GZ2 under xenon lamp irradiation (a) and XRD pattern of GZ2 before and after cyclic test (b)

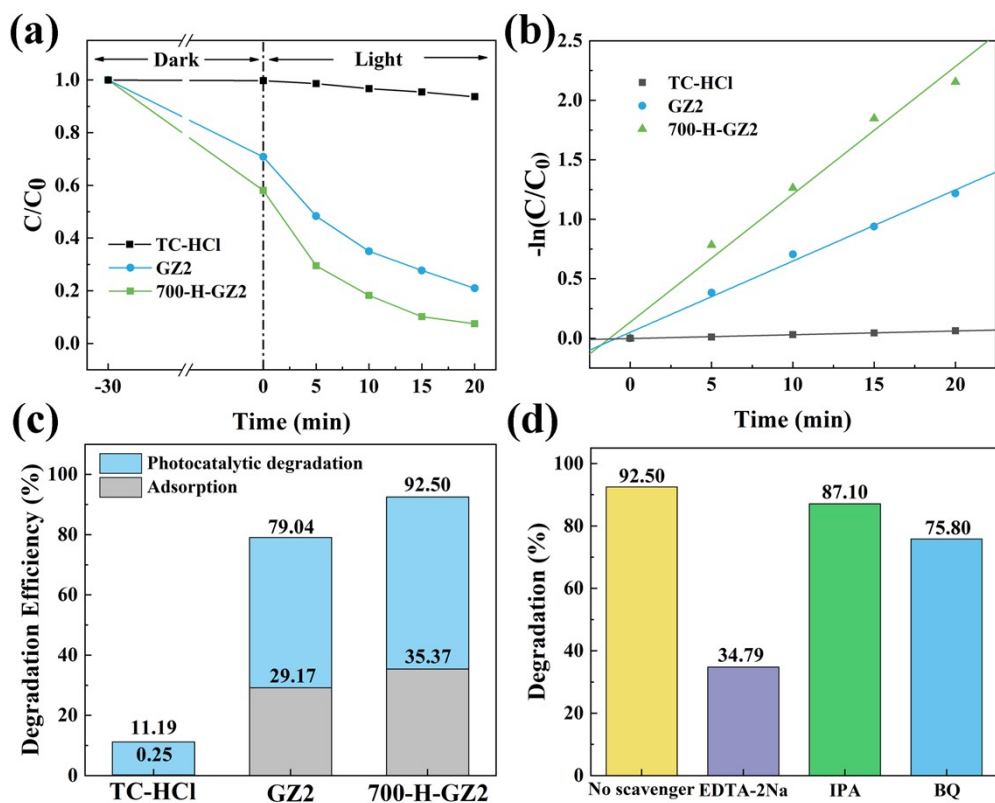


Figure.S5 Photocatalytic degradation diagram of different samples (a), photocatalytic rate fitting diagram (b), degradation efficiency diagram of TC-HCl degradation diagram of different samples (c) and Capture experiment diagram of degradation process of 700-H-GZ2 (d)

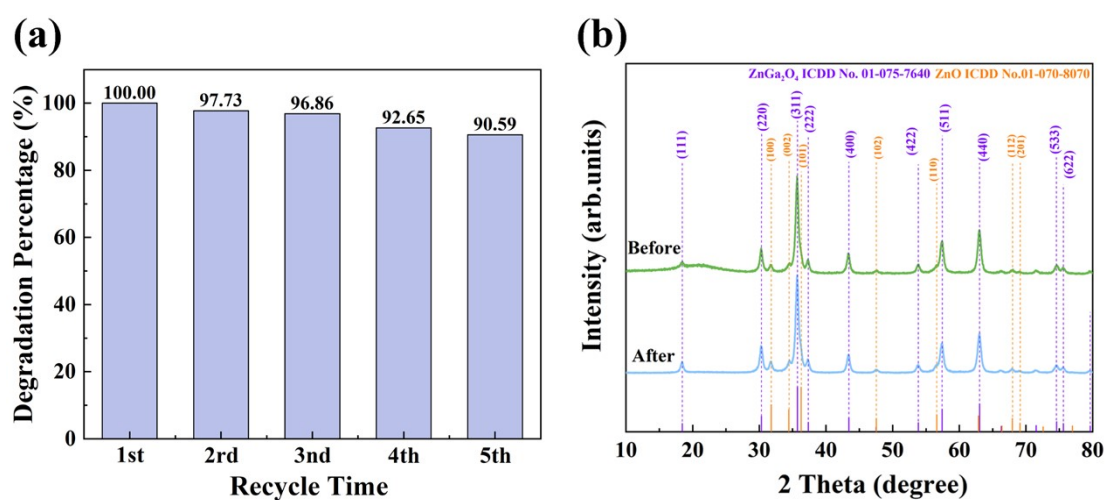


Figure.S6 Photocatalytic cycle of 700-H-GZ2 (a) and XRD pattern (b)