

Superior photocatalytic properties of phosphorous-doped ZnO nanocombs

Shufan Xie, Yangyang Liu, Zhenlu Chen, Xiaodong Chen and Xianying Wang*

School of Materials Science and Engineering, University of Shanghai for Science and Technology, Shanghai 200093, China.

*E-mail: xianyingwang@usst.edu.cn

Figure S1-S2

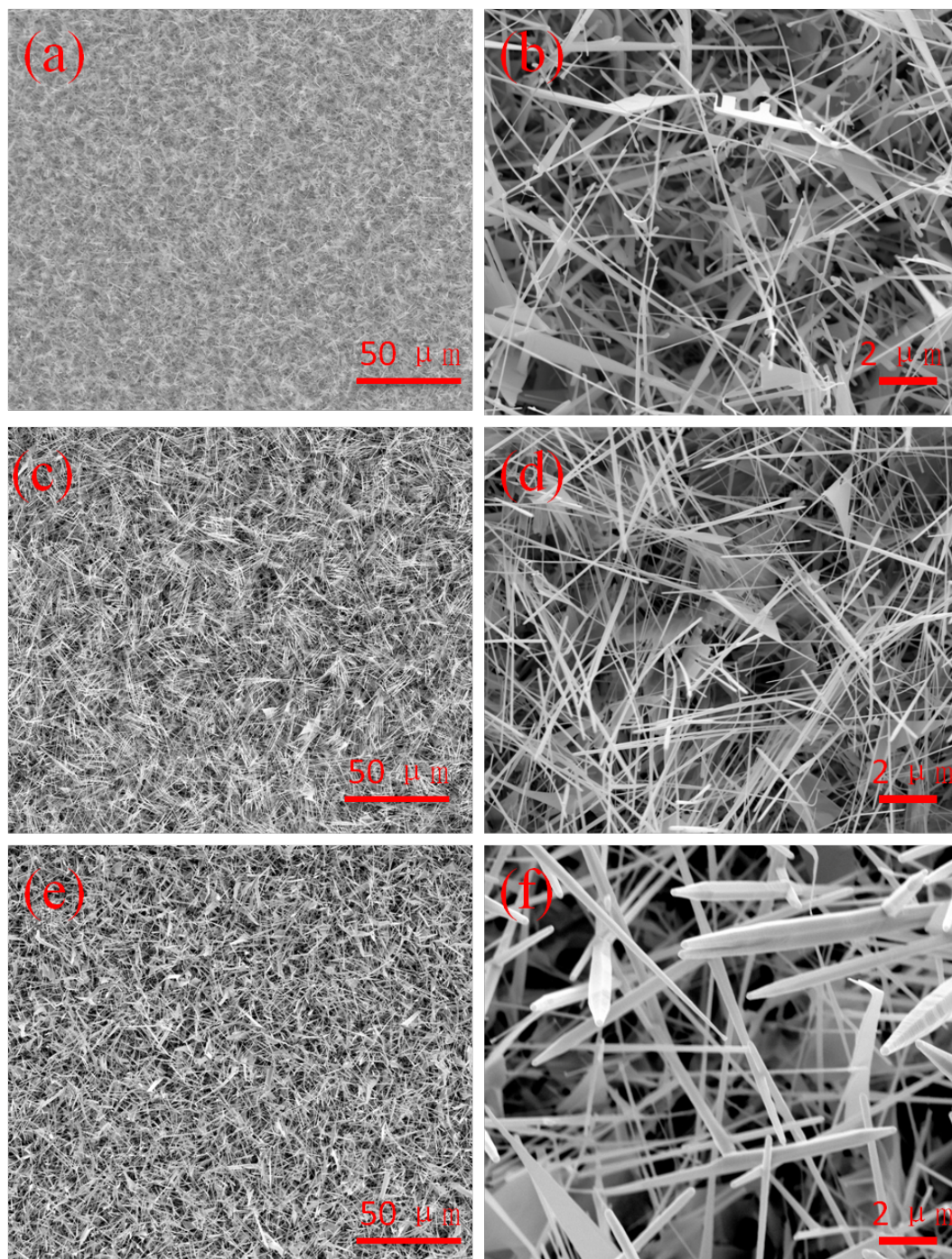


Fig.S1 A comparison of P-doped ZnO nanostructures grown under different oxygen flow rates of (a)-(b) 0 sccm, (c)-(d) 20 sccm, (e)-(f) 30 sccm, respectively. (a),(c) and (e) are low magnification images. (b), (d) and (f) are high magnification images. No comb-like structures were observed in these images.

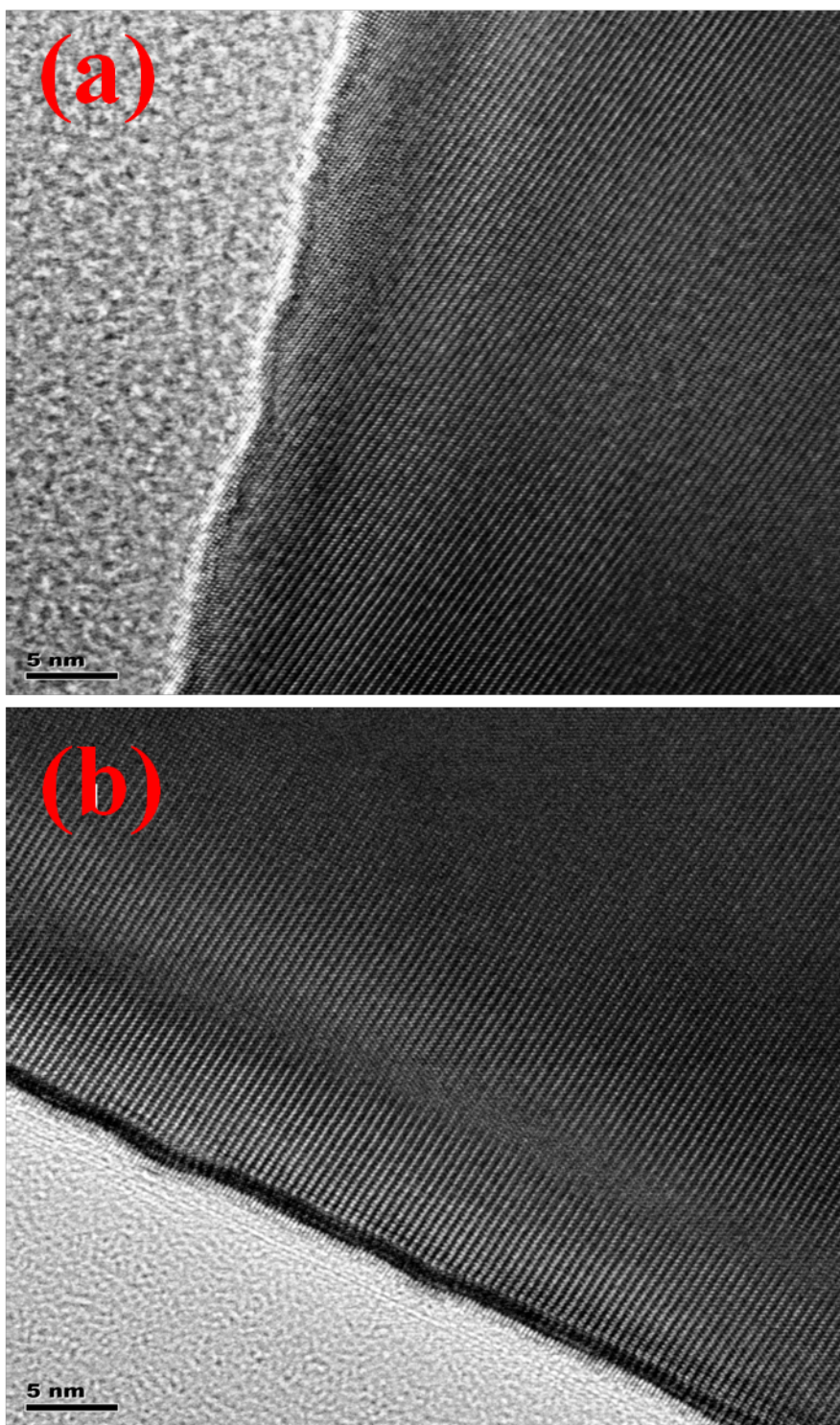


Fig.S2 HRTEM images taken from (a) the nanoribbon area, (b) the nanorod area.

Table 1: A summary of C/C_0 value at different time intervals when the amount of photocatalysts are 0 mg, 20 mg, 40 mg and 60 mg respectively. The measured data of C_0 is 1.820. “-60 mins” is corresponding to the time dark-stirring begins. “0 mins” is the time UV irradiation begins.

Amounts Time (mins)	0 mg	20 mg	40 mg	60 mg
-60	1	1	1	1
0	1.006	0.998	0.997	1.001
10	1.01357	0.9786	0.58875	0.15884
20	1.02374	0.87724	0.35012	0.03165
30	1.00436	0.69675	0.21027	0.02923
40	1.00727	0.6647	0.11149	0.01648
50	1.00775	0.65163	0.07726	0.01692
60	1.00097	0.57739	0.06161	0.01956