Supplementary Materials: Photocatalytic Self-Cleaning Cotton Fabrics Coated by $Cu_2(OH)PO_4$ under Vis/NIR Irradiation

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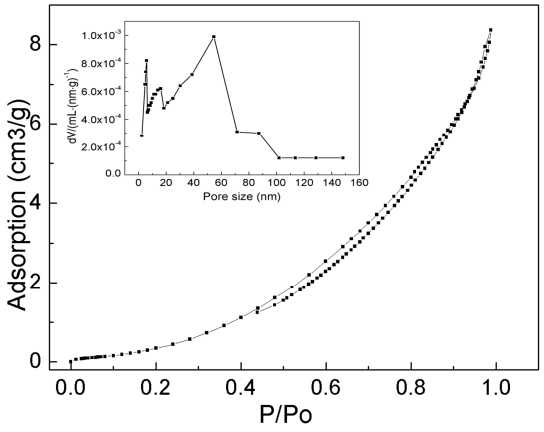

Figure S1. Nitrogen adsorption-desorption isotherm and pore size distribution of cotton fabrics.

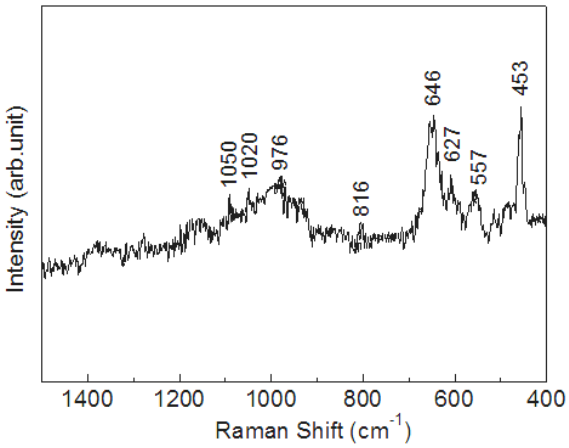

Figure S2. Raman spectra of the CHP-IP6 powers with various morphologies.

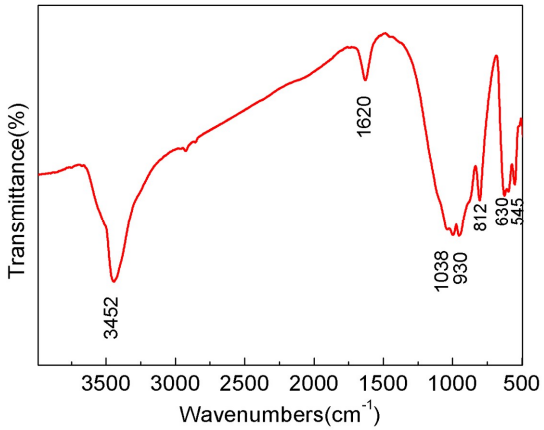

Figure S3. FTIR spectra of CHP-IP6.

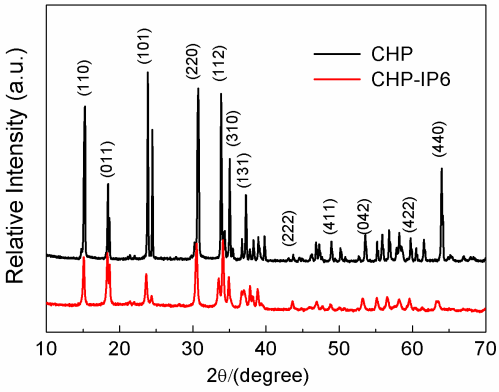

Figure S4. XRD patterns of CHP and CHP-IP6.

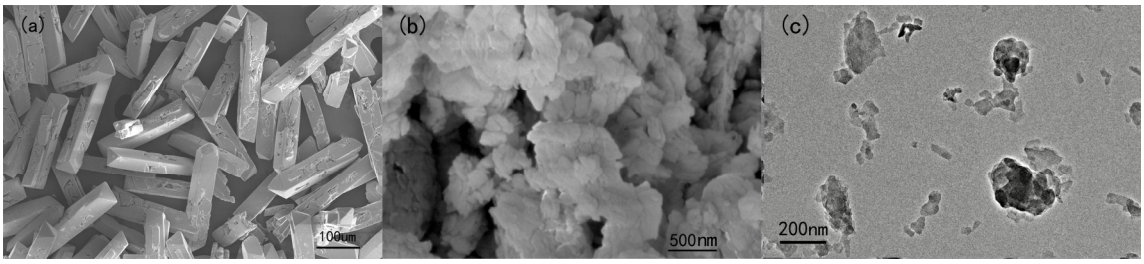

Figure S5. SEM images of (a) CHP, (b) CHP-IP6 and (c) TEM of CHP-IP6.

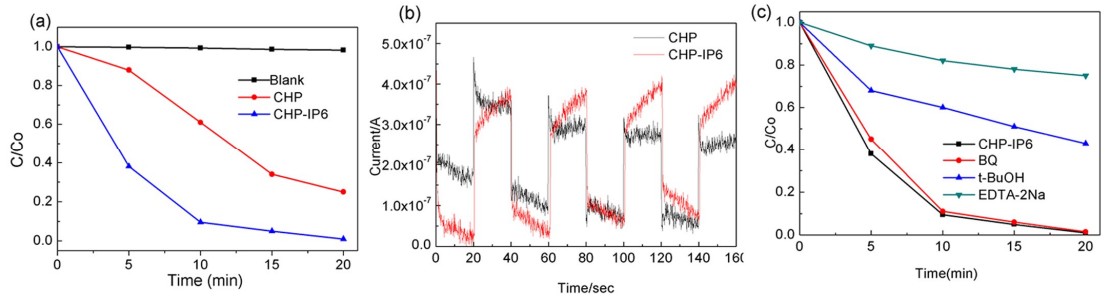

Figure S6. (**a**) Photocatalytic MB degradation under Vis-NIR irradiation; (**b**) transient photocurrent responses of CHP and CHP-IP6; (**c**) Fig. 7 effect of the different scavengers on RhB degradation for CHP-IP6 .

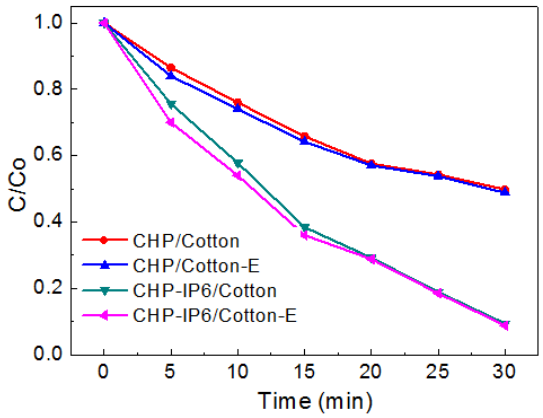

Figure S7. Photocatalytic MB under Vis-NIR (CHP-Cotton-E & HP-IP6-E tested after irradiation and 30min balance in the dark).

Table S1. The *K*/*S* values of the samples.

samples	K/S values After Different Irradiation Time				
	0 h	**3 h**	**6 h**	**9 h**	**12 h**
cotton fabric	9.38	9.24	9.02	8.87	8.66
CHP coated cotton fabirc	6.97	3.08	1.64	0.12	0.10
CHP-IP6 coated cotton fabirc	7.42	2.52	1.01	0.06	0.04