Supplementary Material

Design of a dual-function photocatalyst for cracking water to produce hydrogen and degradation of o-phenylphenol

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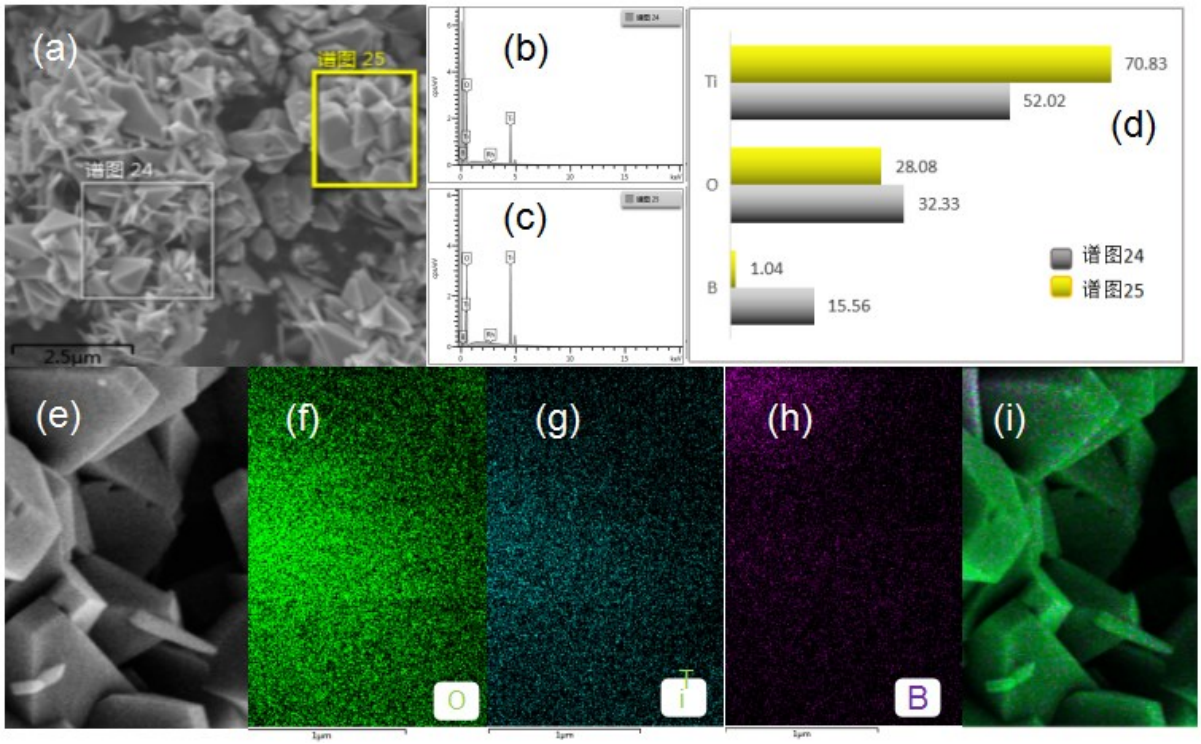

Fig. S1. Characterization of the synthesized catalysts. (a) SEM of B-TiO_2. (b-d) EDX spectrum of B-doping TiO_2 catalysts. (e-i) EDX mapping images of the B-doping TiO_2 catalysts.

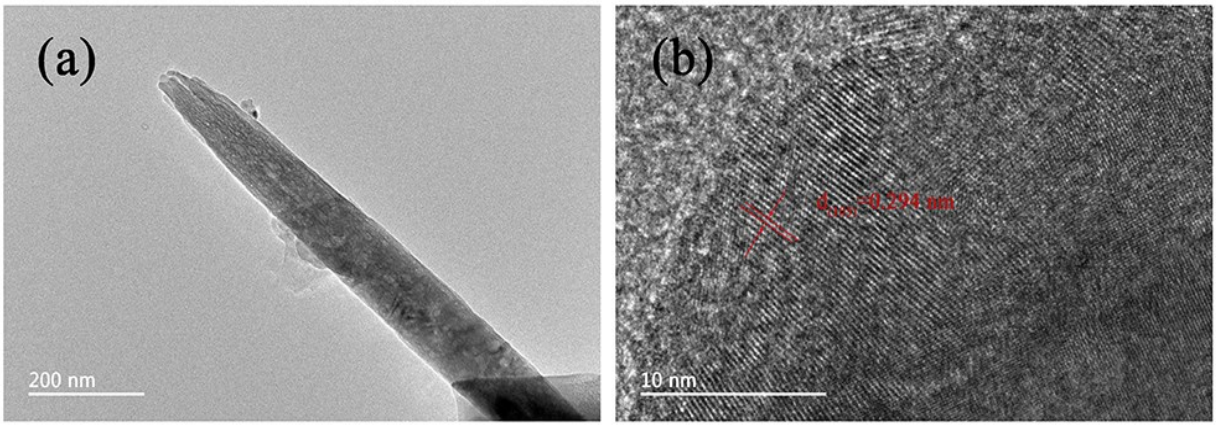

Fig. S2. The TEM images of B-TiO_2

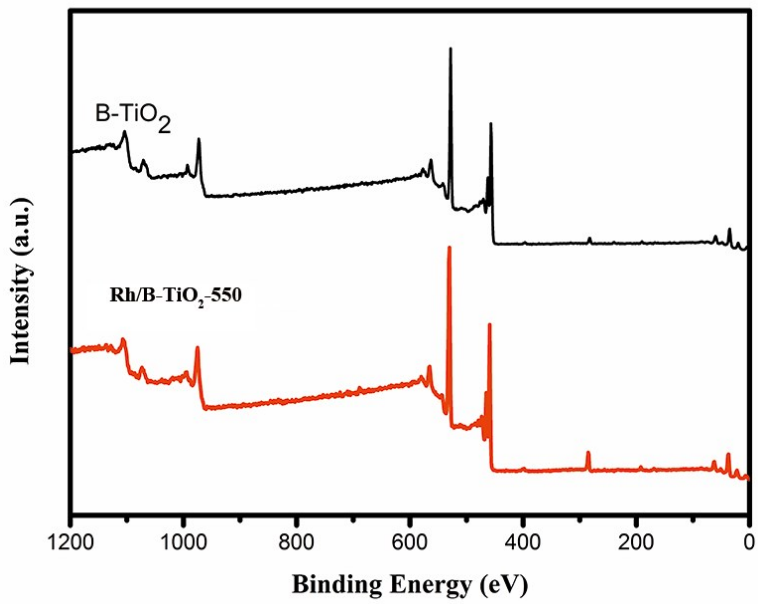

Fig. S3. XPS survey spectra of the B-TiO_2 and Rh/B-TiO_2-550.

Table S1 XPS analyzes the element composition and content of catalysts

Atomic %	B-TiO_2	Rh/B-TiO_2
Ti	23.10	26.54
O	59.56	62.36
B	4.03	4.76
Rh	0	0.45
C	12.86	5.89

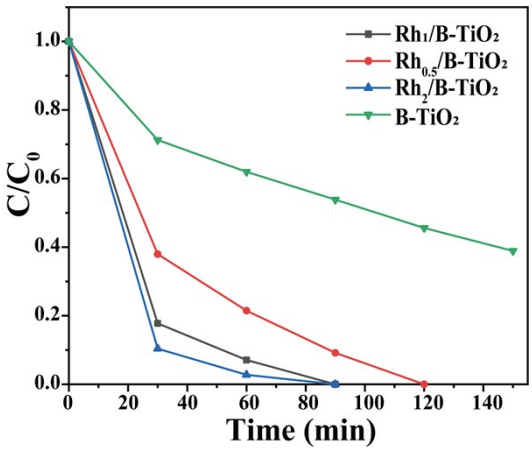

Fig.S4 Comparison of photocatalytic degradation of o-phenylphenol with different Rh loadings (without filter)

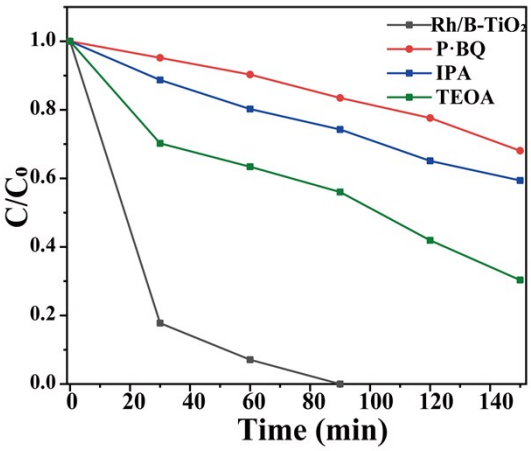

Fig.S5 The active species trapping experiment of degrading o-phenylphenol with $Rh/B\text{-}TiO_2$ (without filter)