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Fig. S1 Thermal gravity analysis of TiO$_2$, 6.7% B-BT-E-1,4-E/TiO$_2$, 10% B-BT-E-1,4-E/TiO$_2$ and 16.7% B-BT-E-1,4-E/TiO$_2$

Fig. S2 N$_2$-adsorption-desorption isotherms of TiO$_2$, 16.7% B-BT-E-1,4-E/TiO$_2$ and B-BT-E-1,4-E
Fig. S3 XPS of 13.3% B-BT-1,4-E/TiO$_2$ and B-BT-1,4-E, (a) Ti 2p, (b) C 1s.

Fig. S4 AQY curve of 16.7% B-BT-1,4-E/TiO$_2$ and B-BT-1,4-E for H$_2$ production under different wavelength.

Fig. S5 Comparison of $^{13}$C-NMR and FTIR spectra of 10% B-BT-1,4-E/TiO$_2$ before and after photocatalytic H$_2$ evolution.
Fig. S6 Trapping measurement with different scavenger ($i$-PrOH→•OH, $K_2Cr_2O_7→e^-$, SOD→•O$_2^-$, TEOA→$h^+$) for photodegradation of sulfathiazole.

Fig. S7 PL spectra of TiO$_2$ and 13.3% B-BT-1,4-E/TiO$_2$ excited at 270 nm.