

Figure S1. Cross-section SEM image of the BiVO₄ film.

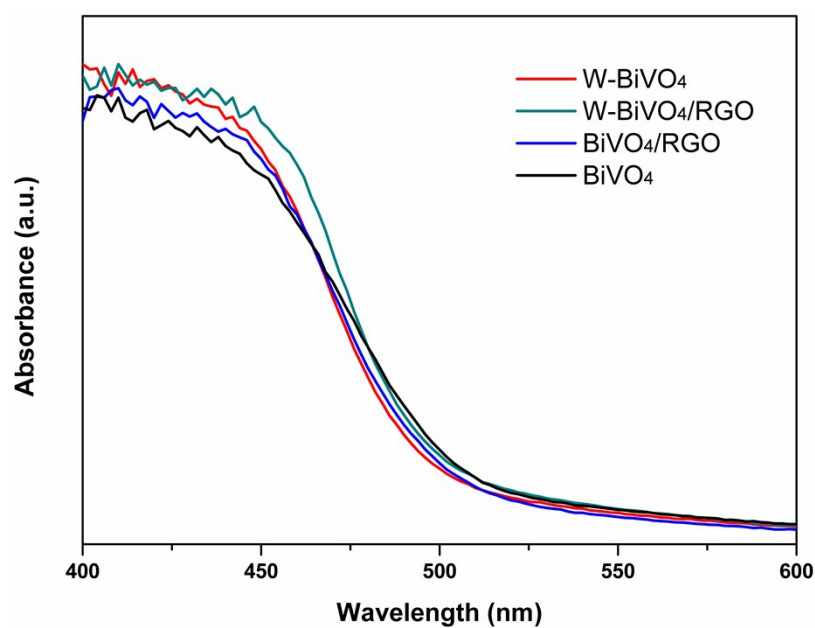


Figure S2. UV-Visible absorption spectrum of the pure and modified films.

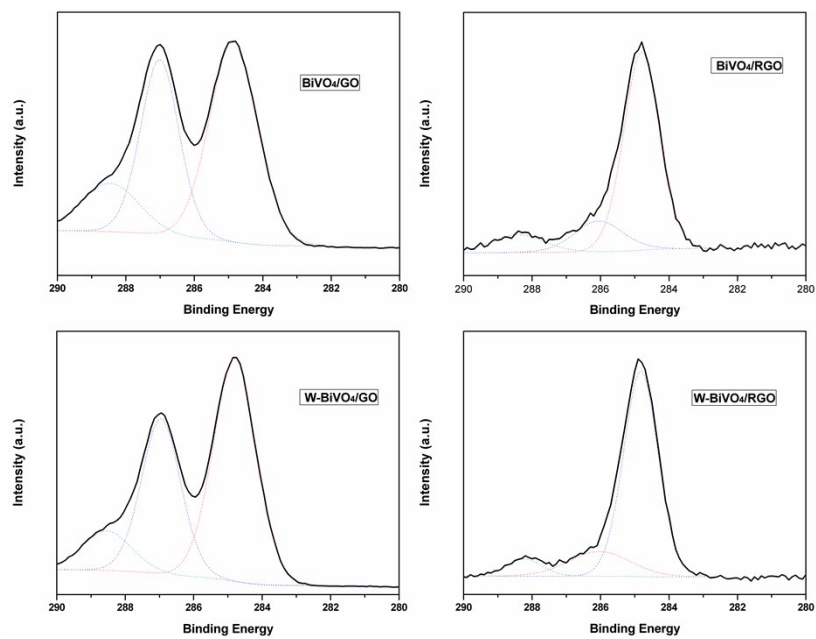


Figure S3. C 1s XPS spectra BiVO₄/GO, BiVO₄/RGO, W-BiVO₄/GO and W-BiVO₄/RGO

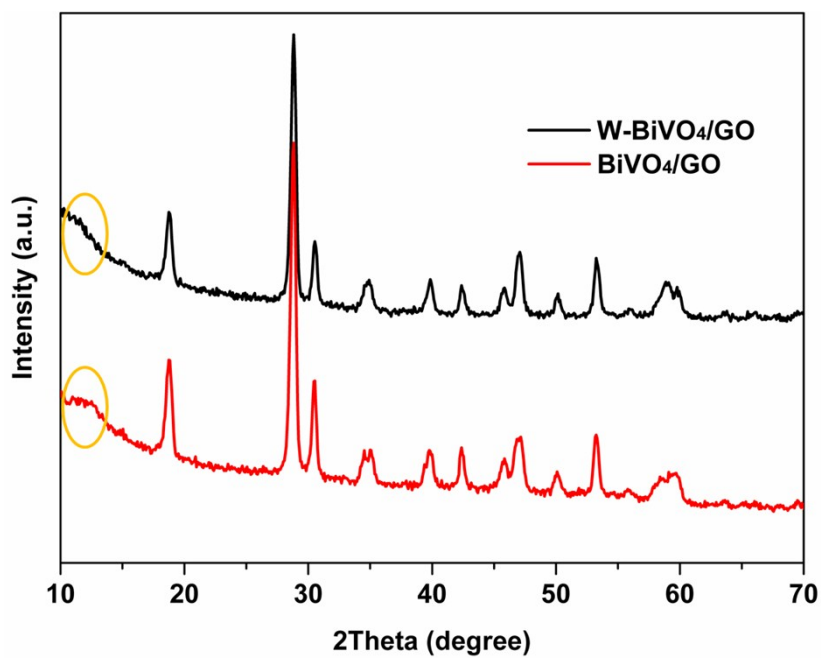


Figure S4. XRD patterns of BiVO₄/RGO and W-BiVO₄/RGO.

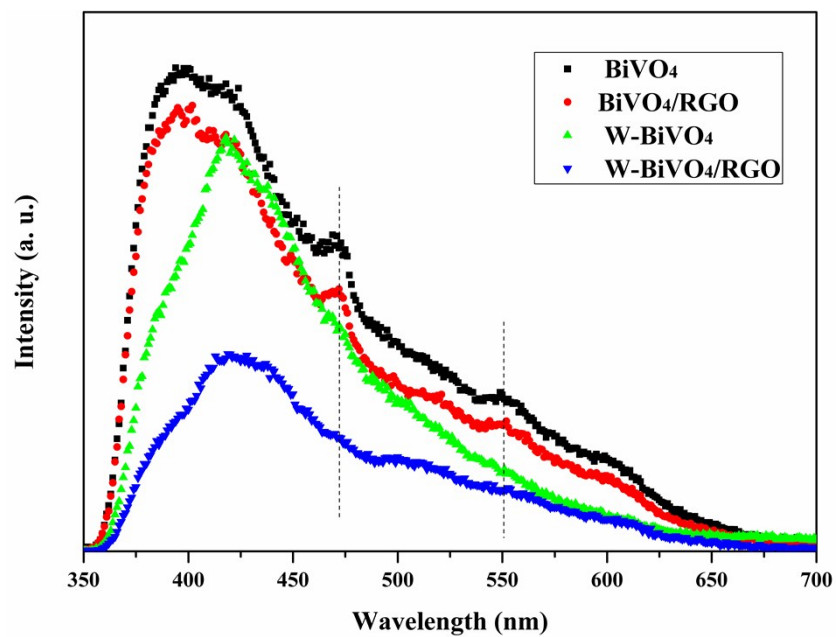


Figure S5. Photoluminescence spectra (PL) of BiVO_4 , W-BiVO_4 , BiVO_4/RGO and $\text{W-BiVO}_4/\text{RGO}$ with the excitation wavelength of 325 nm.