Supporting Information

**Synthesis of Bi$_2$MoO$_6$/Bi$_4$V$_2$O$_{11}$ heterojunction photocatalyst with enhanced visible-light-driven photocatalytic activity**

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**Fig. S1.** XRD patterns of pristine Bi$_2$MoO$_6$, Bi$_4$V$_2$O$_{11}$ and BMV-28, BMV-46, BMV-64 composite samples.
Fig. S2. SEM images of (a) BMV-28, (b) BMV-46 and BMV-64 composite samples.

Fig. S3. (a) Full survey spectra and (b) C 1s spectra of BMV-55 composite.
Fig. S4. Photocatalytic degradation plots of MB in the absence of H$_2$O$_2$ over pristine Bi$_2$MoO$_6$, Bi$_4$V$_2$O$_{11}$, BMV-55 composite samples.
Fig. S5. Fitting curves using 3-exponential model and resulting of kinetic parameters; (a) as-fabricated pristine Bi$_2$MoO$_6$, (b) Bi$_4$V$_2$O$_{11}$ and (c) BMV-55 composite samples.