Supplementary Information

Bismuth MOFs derived BiOBr/\(\text{Bi}_{24}\text{O}_{31}\text{Br}_{10}\) heterojunctions with enhanced visible-light photocatalytic performance

Ganghong Huang\textsuperscript{ab}, Zishun Li\textsuperscript{ab}, Kun Liu\textsuperscript{*ab}, Xuekun Tang\textsuperscript{ab}, Jing Huang\textsuperscript{ab} and Guofan Zhang\textsuperscript{*a}

a. School of Minerals Processing and Bioengineering, Central South University, Changsha 410083, China. E-mail: kliu@csu.edu.cn, csuzhangguofan01@163.com
b. Hunan Key Laboratory of Mineral Materials and Application, Central South University, Changsha 410083, China.

![XRD patterns of 400°C sample](Fig. S1)

![SEM images of BiOBr/\(\text{Bi}_{24}\text{O}_{31}\text{Br}_{10}\) (500°C)](Fig. S2)

Fig. S1 XRD patterns of 400°C sample

Fig. S2 SEM images of BiOBr/\(\text{Bi}_{24}\text{O}_{31}\text{Br}_{10}\) (500°C)
Fig. S3 The adsorption curve of RhB in the dark over different samples.

Fig. S4 Photocatalytic degradation of TC (TC: 20 mg/L, catalyst dosage: 50 mg) over BiOBr/Bi$_{2}$O$_{3}$Br$_{10}$ (450°C) under visible light.

Fig. S5 SEM images of BiOBr/Bi$_{24}$O$_{31}$Br$_{10}$ (450°C) after 4 reuse cycles (the magnification of (a, b, c) is 5 KX, 10 KX, and 15KX respectively).
Fig. S6 The ESR spectra of DMPO-•OH adducts over BiOBr/Bi$_{24}$O$_{31}$Br$_{10}$ (450°C) in the dark and under visible-light irradiation.