Metal-Exchange of ZIF-8 and ZIF-67 nanoparticles with Fe(II) for enhanced photocatalytic performance

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Supporting Information

Figure S1: SEM images of (a) ZIF-67(Co), (b) nZIF-67(Co/Fe), (c) nZIF-8(Zn), (d) nZIF-8(Zn/Fe) synthesized in deionized H$_2$O.
Figure S2: EDX plot of Fe-exchanged (a) ZIF-8(Zn/Fe) and (b) ZIF-67(Co/Fe).

Figure S3: EDX-mapping of nZIF-8(Zn) [Top row] and nZIF-67(Co) [Bottom row].
Figure S4: The particle size distribution of (a) nZIF-8(Zn), (b) nZIF-8(Zn/Fe), (c) nZIF-67(Co) and (d) nZIF-67(Co/Fe) measured in diameter (nm).

Figure S5: (a) FTIR spectra and (b) XPS spectrum of Fe-exchanged nZIFs after exposure to the atmosphere for several days.
Figure S6: The first-order kinetics of RBBR degradation in the presence of nZIF-67(Co), nZIF-67(Co/Fe), nZIF-8(Zn) and nZIF-8(Zn/Fe).

Figure S7: UV-vis spectra of RBBR degradation in the presence of (a) nZIF-8(Zn/Fe), (b) nZIF-67(Co/Fe), (c) nZIF-8(Zn) and (d) nZIF-67(Co).