Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Anchoring $ZnIn_2S_4$ nanosheets on ZSM-5 for boosting photocatalytic Cr(VI) reduction

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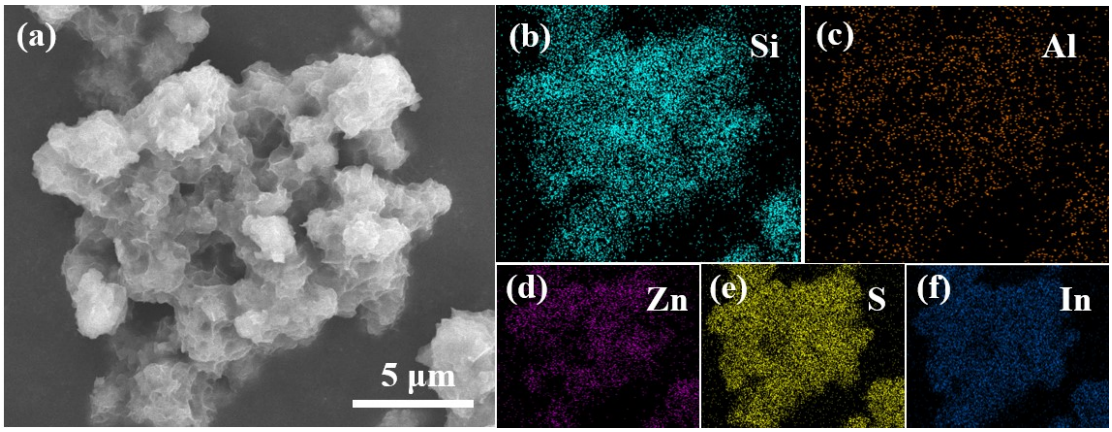

Fig. S1 (a) SEM image of Z5@ZIS-100 and corresponding elemental mapping images of (b) Si, (c) Al, (d) Zn, (e) S and (f) In.

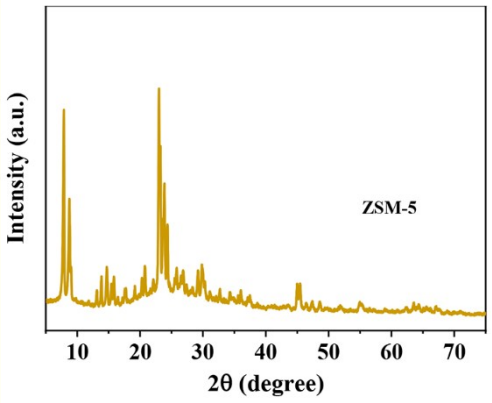

Fig. S2 XRD patterns of ZSM-5

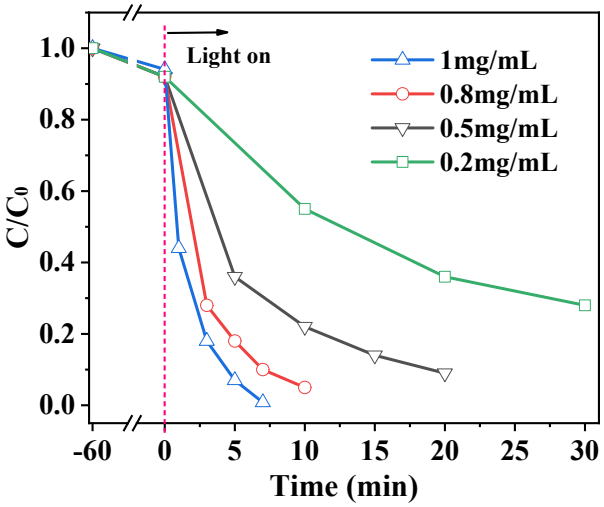

Fig. S3 The catalytic Cr(VI) reduction performances over Z5@ZIS-100 with different catalyst loadings

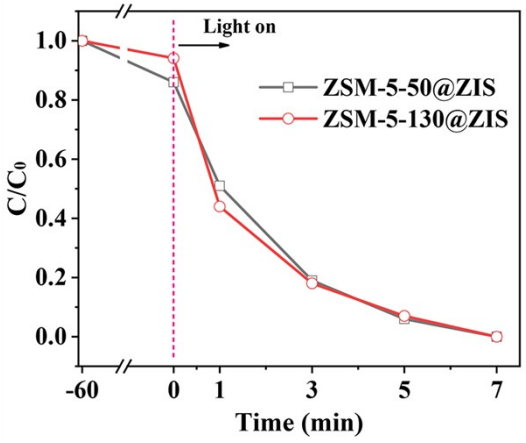

Fig. S4 Photocatalytic performance of ZSM-5-x@ZIS composite for Cr(VI) reduction with the initial Cr(VI) concentration of 30 mg/L (x indicates for the Si/Al ratio of ZSM-5 used for the construction of ZSM-5@ZIS composite).

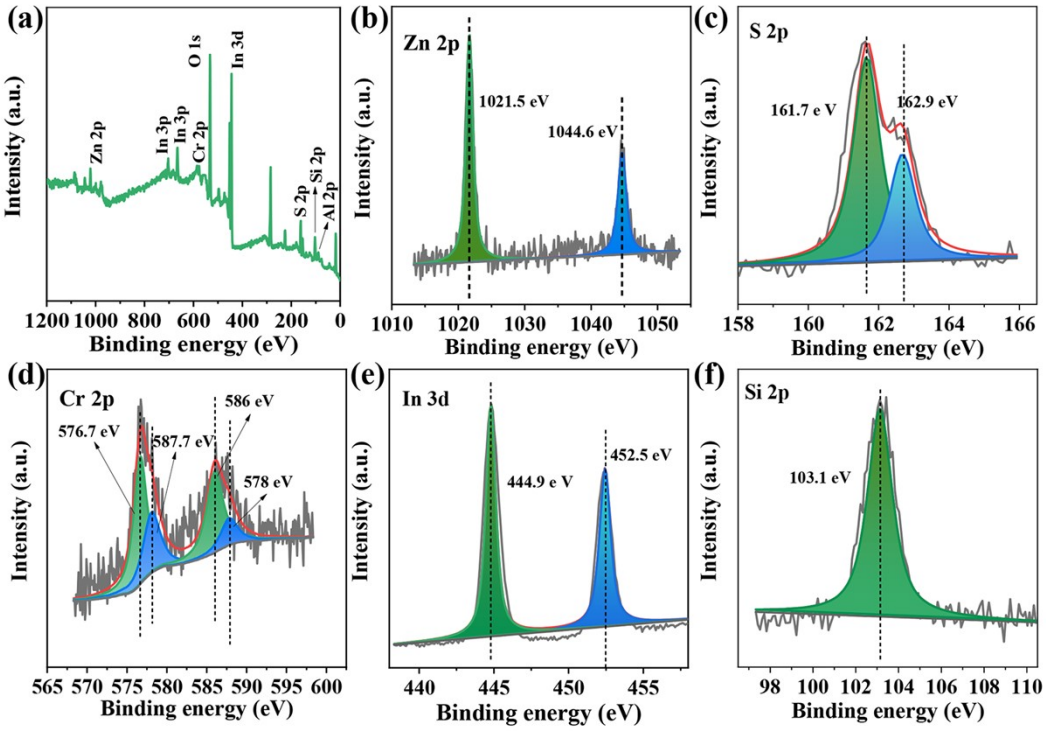

Fig. S5 XPS spectra of recycled Z5@ZIS-100: (a) survey scan spectra and high-resolution XPS spectra of (b) Zn 2*p*, (c) S 2*p*, (d) Cr 2*p*, (e) In 3*d*, and (f) Si 2*p*.

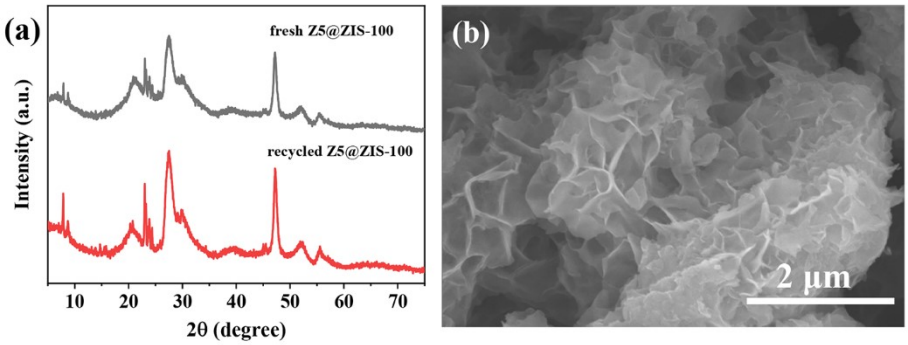

Fig. S6 (a) XRD patterns of fresh Z5@ZIS-100 and recycled Z5@ZIS-100. (b) SEM image of recycled Z5@ZIS-100.

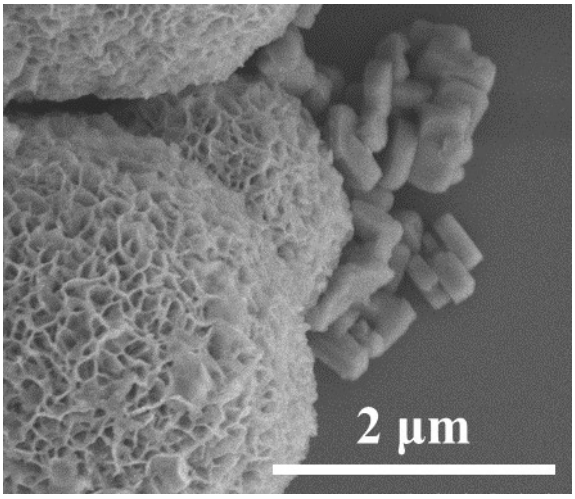

Fig. S7 SEM image of m-Z5@ZIS-100

Table S1. pH value change of Cr(VI) solution before and after catalyst additions

Catalyst	pH
without catalyst	5.0
Z5@ZIS-50	4.9
Z5@ZIS-100	4.9
Z5@ZIS-150	4.8
Z5@ZIS-200	4.8
ZIS	4.8