

## Electronic Supplementary Material

### Construction of hollow $\text{In}_2\text{S}_3/\text{CdIn}_2\text{S}_4$ heterostructure with high efficiency for Cr(VI) reduction

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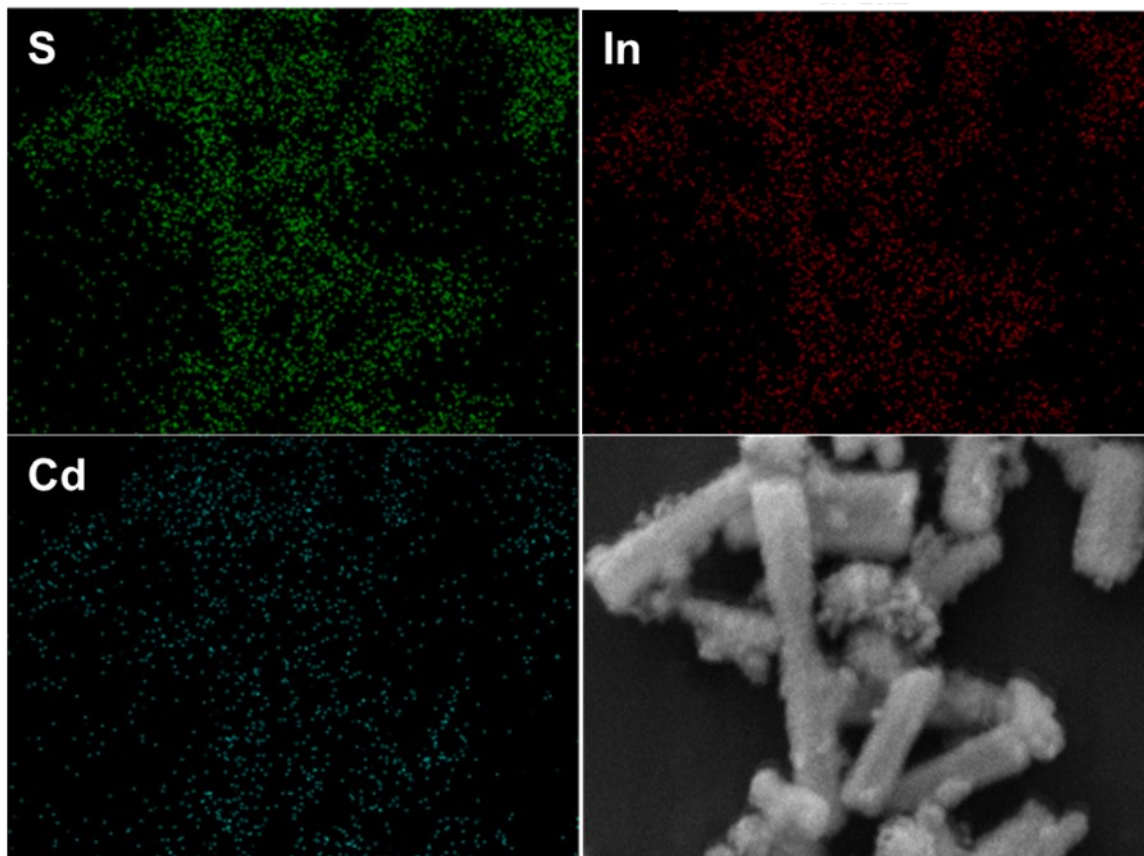
**S2.** Photoluminescence spectra of  $\text{In}_2\text{S}_3$  and IS/CIS-5,10 and  $\text{CdIn}_2\text{S}_4$ .

**S3.** SEM image of IS/CIS-10-AF.

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**Table S1.** The content of ions ( $\text{Cd}^{2+}$ ,  $\text{In}^{3+}$  and  $\text{Cr}^{3+}$ ) after every cycling photocatalytic reduction of Cr(VI) using IS/CIS-10 sample.

**S1.** Mapping image of IS/CIS-10.



**Figure S1.** Mapping image of IS/CIS-10.

S2. Photoluminescence spectra of  $\text{In}_2\text{S}_3$  and IS/CIS-5,10 and  $\text{CdIn}_2\text{S}_4$ .

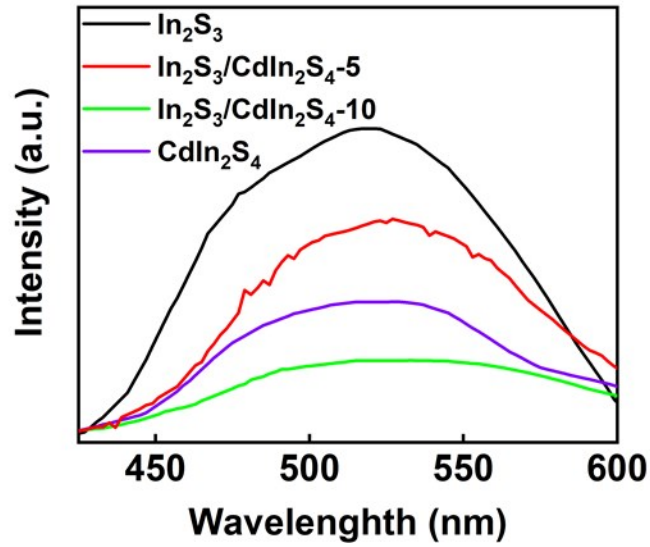


Figure S2. Photoluminescence spectra of  $\text{In}_2\text{S}_3$  and IS/CIS-5,10 and  $\text{CdIn}_2\text{S}_4$ .

S3. SEM image of IS/CIS-10-AF.

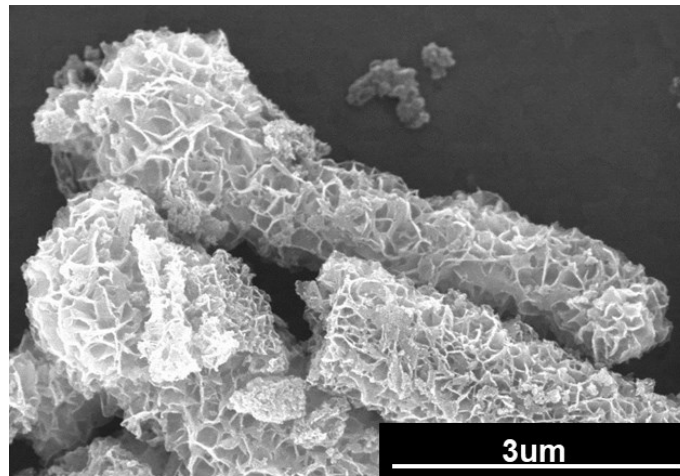
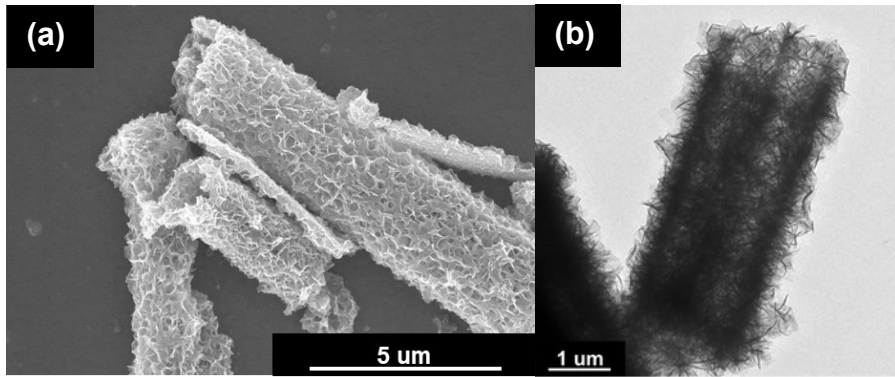


Figure S3. SEM image of IS/CIS-10-AF.

#### S4. SEM and TEM image of CdIn<sub>2</sub>S<sub>4</sub>



**Figure S4.** SEM and TEM images of CdIn<sub>2</sub>S<sub>4</sub>.

**Table S1**

The content of ions (Cd<sup>2+</sup>, In<sup>3+</sup> and Cr<sup>3+</sup>) after every cycling photocatalytic reduction of Cr(VI) using IS/CIS-10 sample.

Times	1	2	3	4	5
Cd <sup>2+</sup> (mg/L)	0.003275	0.003261	0.002371	0.002819	0.003817
In <sup>3+</sup> (mg/L)	0.002674	0.003613	0.003112	0.004671	0.002716
Cr <sup>3+</sup> (mg/L)	0.003912	0.004347	0.002919	0.002518	0.002996