

Supporting Information for

Photoredox coupling of CO₂ reduction with benzyl alcohol oxidation over ternary metal chalcogenides (Zn_mIn₂S_{3+m}, m = 1–5) with regulable products selectivity

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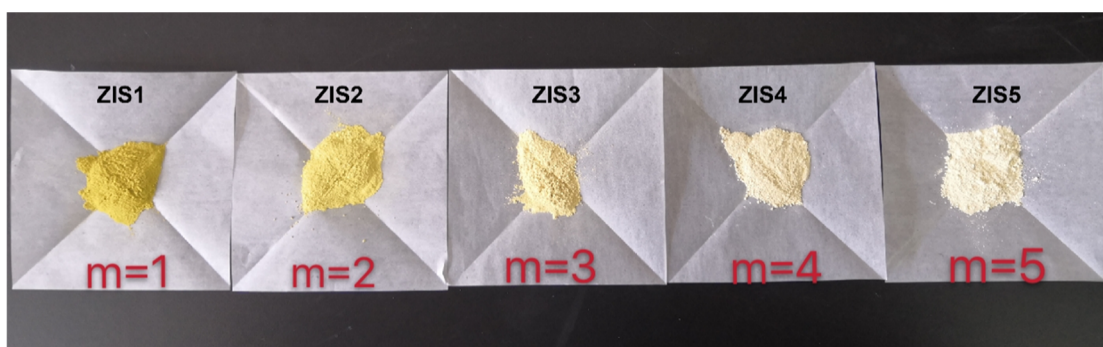


Figure S1. Macro images of ZIS samples.

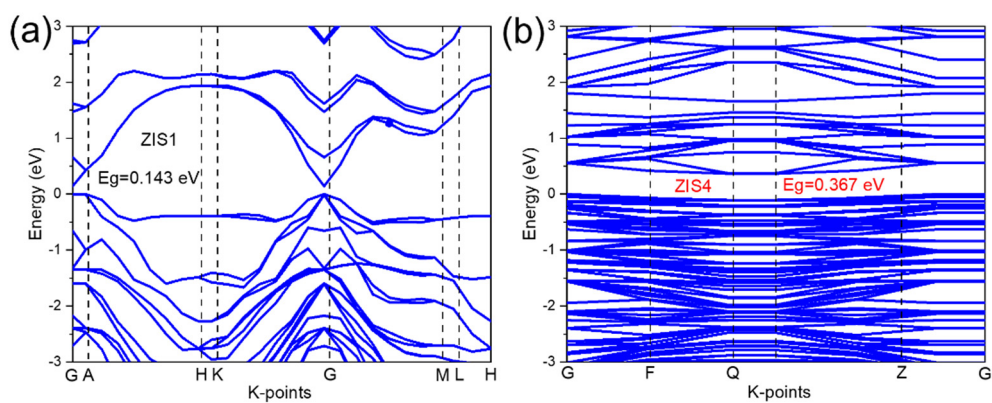


Figure S2. The band gap of (a) ZIS1 and (b) ZIS4 by DFT calculation.

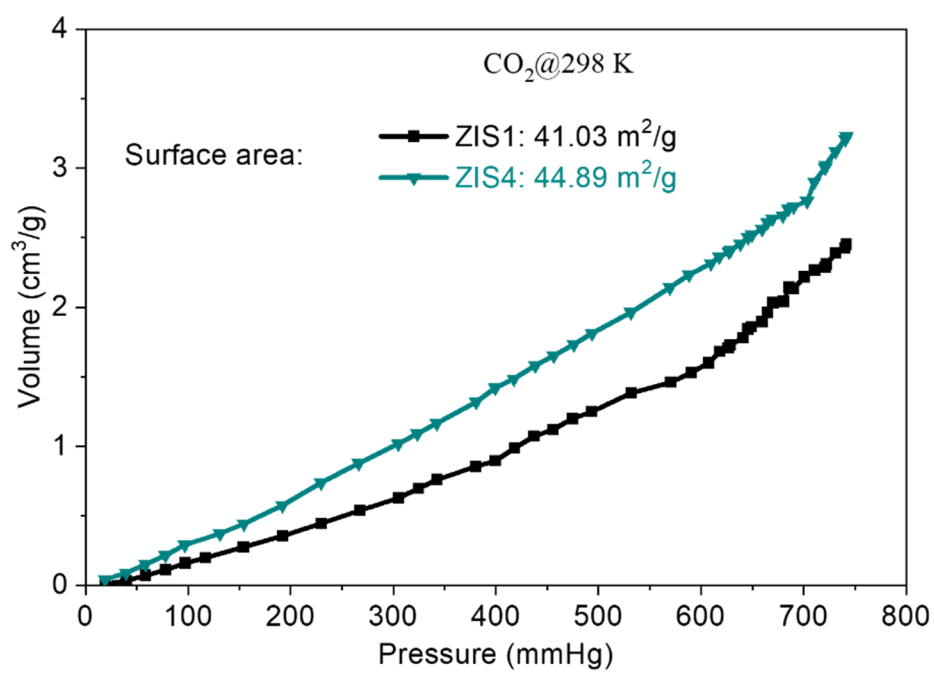


Figure S3. CO₂ adsorption-desorption isotherms of ZIS1 and ZIS4 samples.

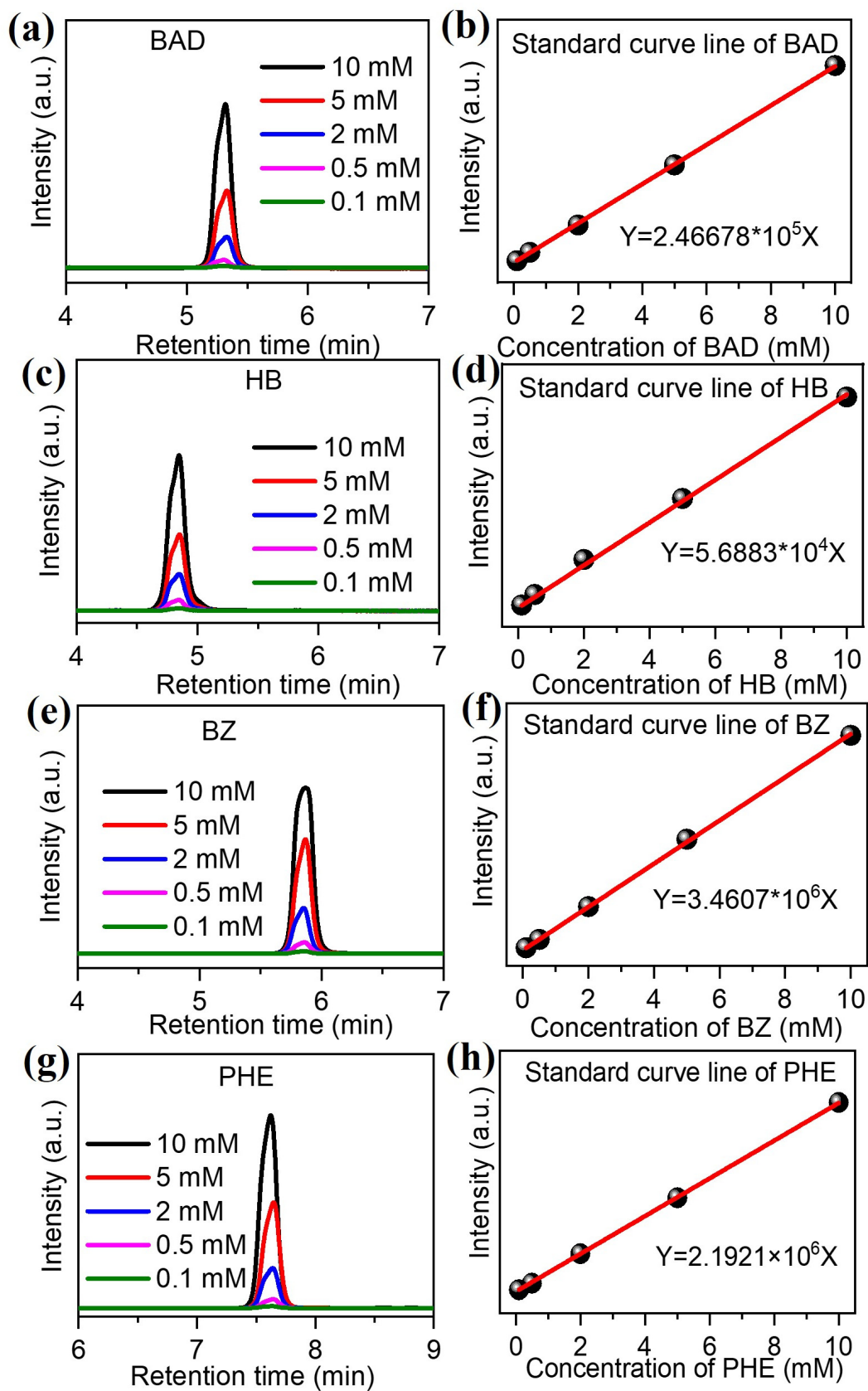


Figure S4. The HPLC spectra of (a) BAD, (c) HB, (d) BZ and (e) PHE; the corresponding standard curves of (b) BAD, (d) HB, (e) BZ and (h) PHE.

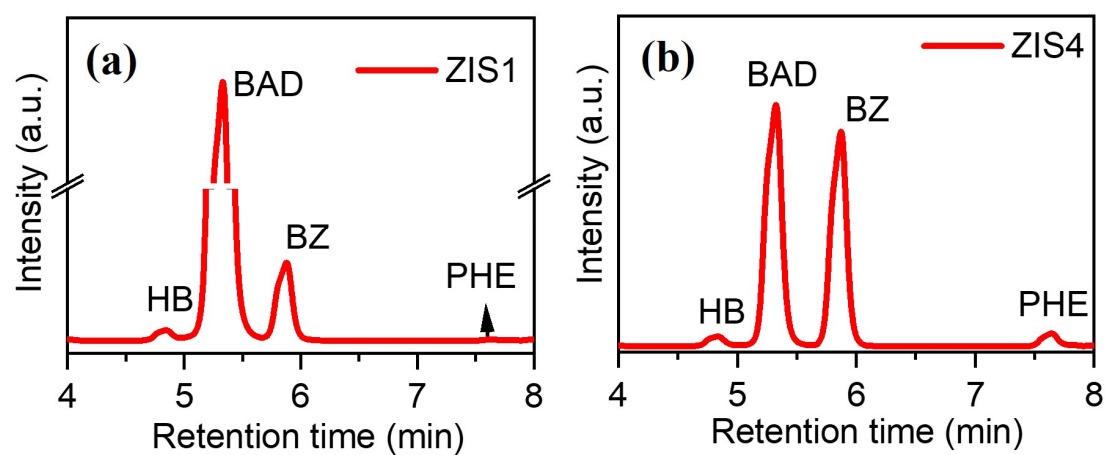


Figure S5. The HPLC spectra of products generated from (a) ZIS1 and (b) ZIS4.

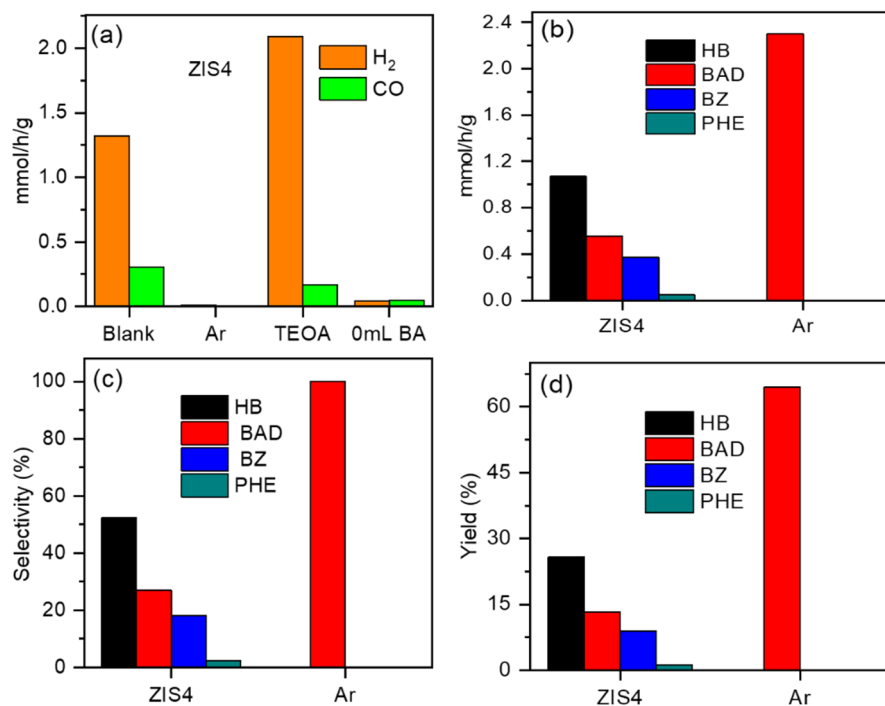


Figure S6. Controlling experiments over ZIS4 sample. (a) generation rate of H_2 and CO, (b) generation rate, (c) selectivity and (d) yield of products form BA oxidation.

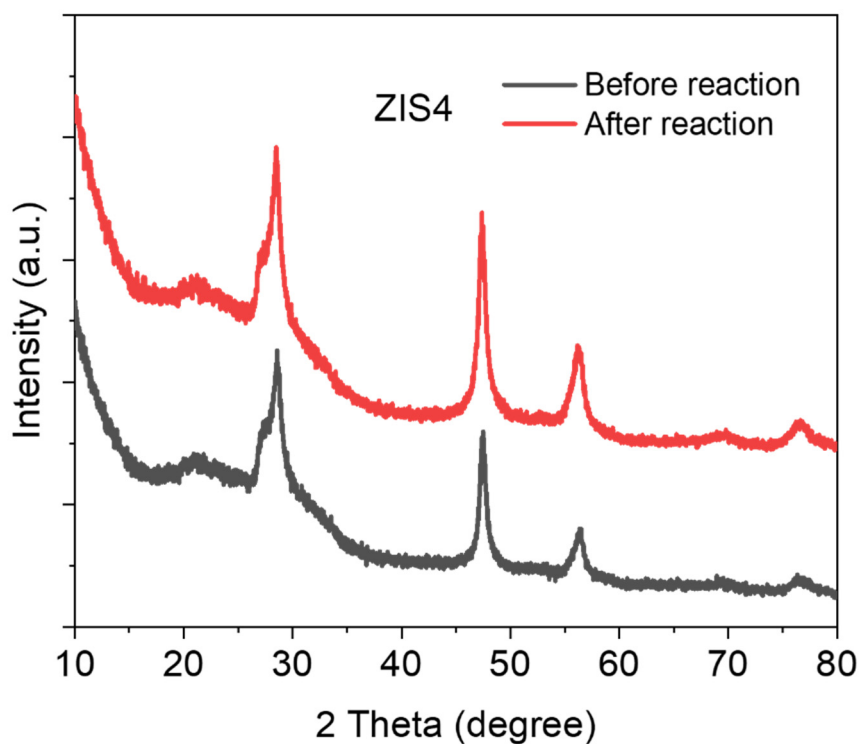


Figure S7. XRD patterns of ZIS4 before and after reaction.

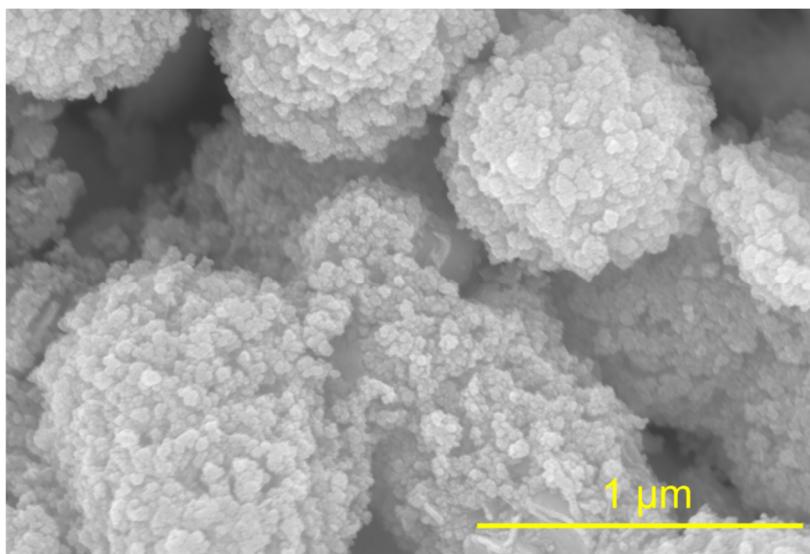


Figure S8. SEM image of ZIS4 after reaction.