

Supporting Information

Highly enhanced photocatalytic Cr(VI) reduction using In-doped Zn(O,S) nanoparticles

Lalisa Wakjira Duresa, Dong-Hau Kuo* Kedir Ebrahim Ahmed, Misganaw Alemu Zeleke, and Hairus Abdullah

Department of Materials Science and Engineering, National Taiwan University of Science and Technology, No. 43, Sec. 4, Keelung Road, Taipei 10607, Taiwan

*Corresponding author.

E-mail address: dhkuo@mail.ntust.edu.tw

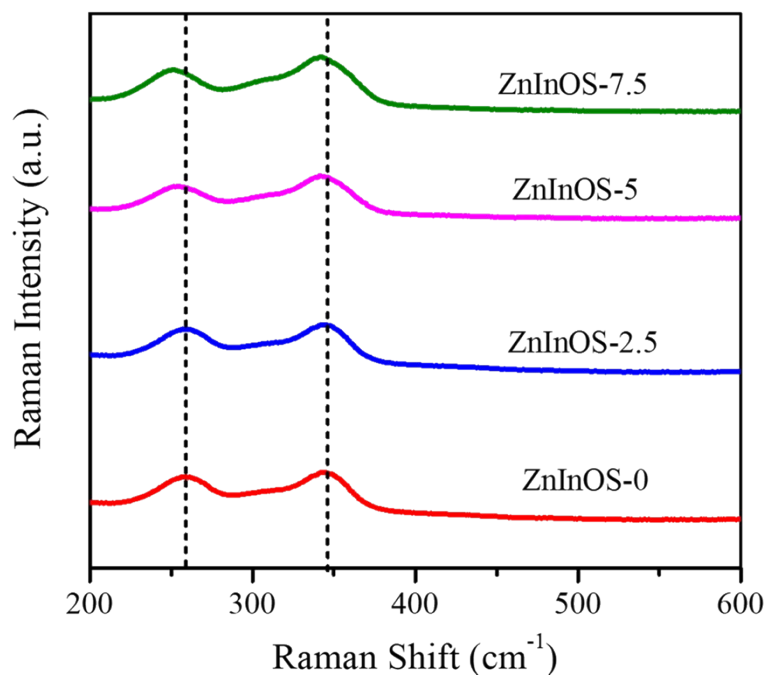


Fig. S1 Magnified Raman spectra of In-doped Zn(O,S) with different Indium contents

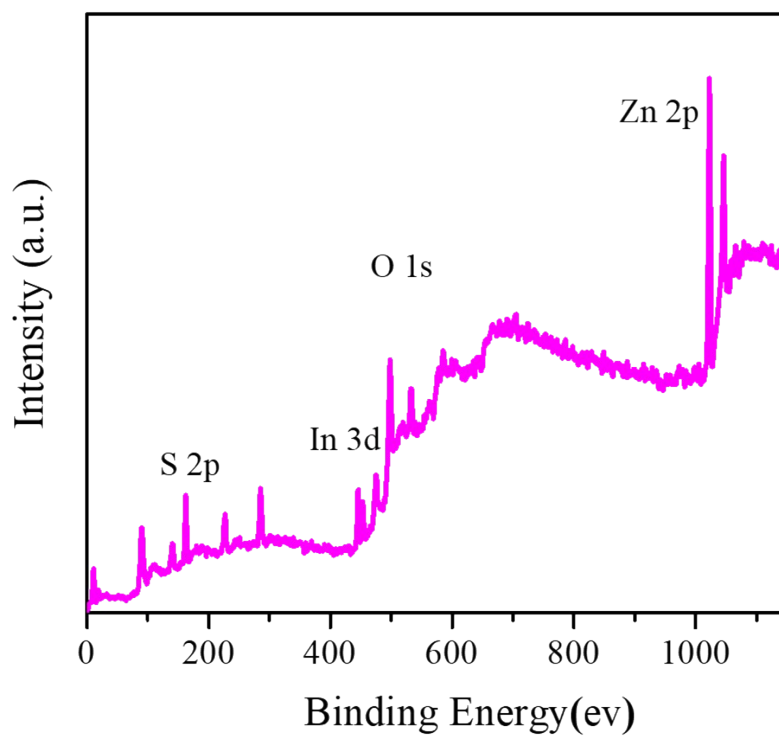


Fig. S2 XPS full Scan spectrum of the as-synthesized ZnInOS-5

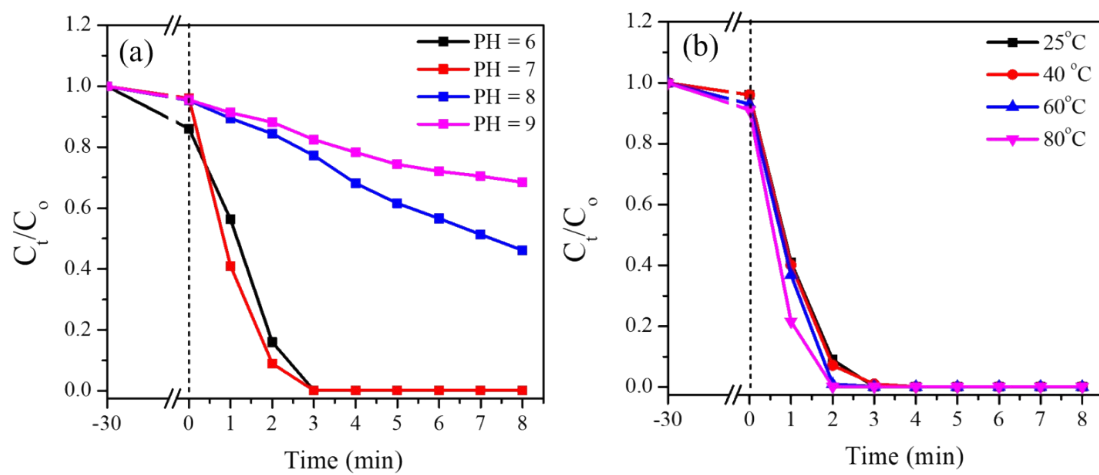


Fig. S3. The effect of (a) initial pH Values and (b) temperature on Photocatalytic Cr(VI) reduction by ZnInOS-5.

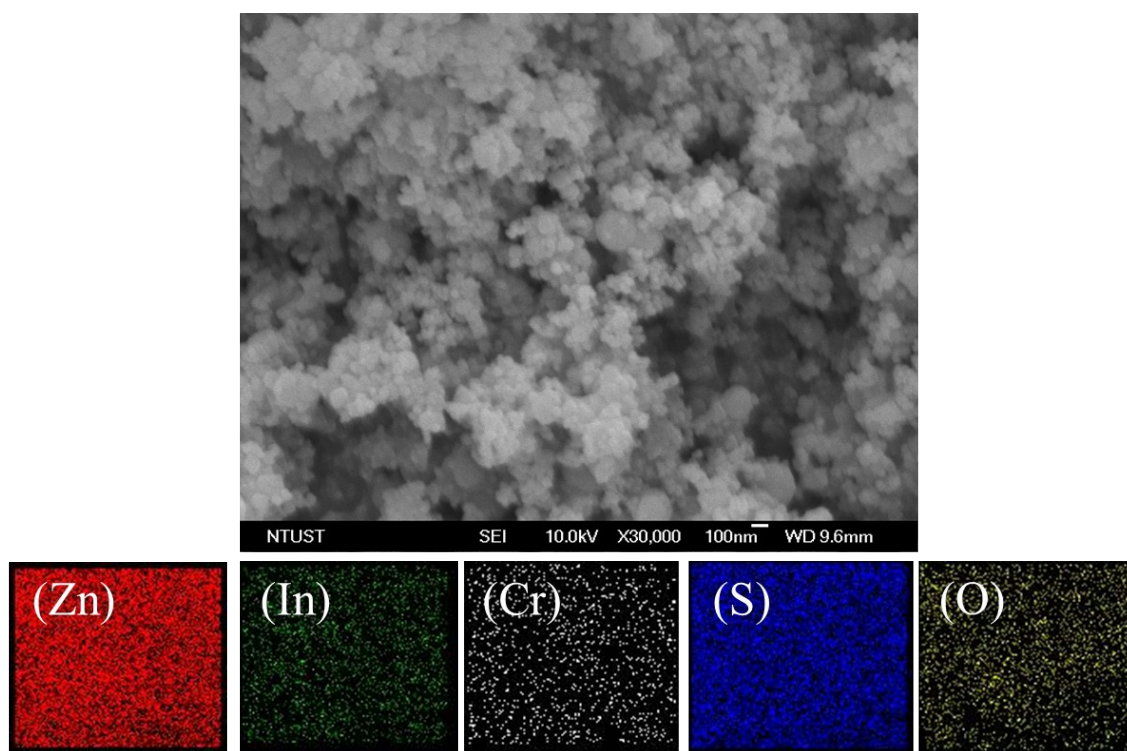


Fig. S4 FE-SEM image and elemental mapping of the regenerated ZnInOS-5 photocatalyst

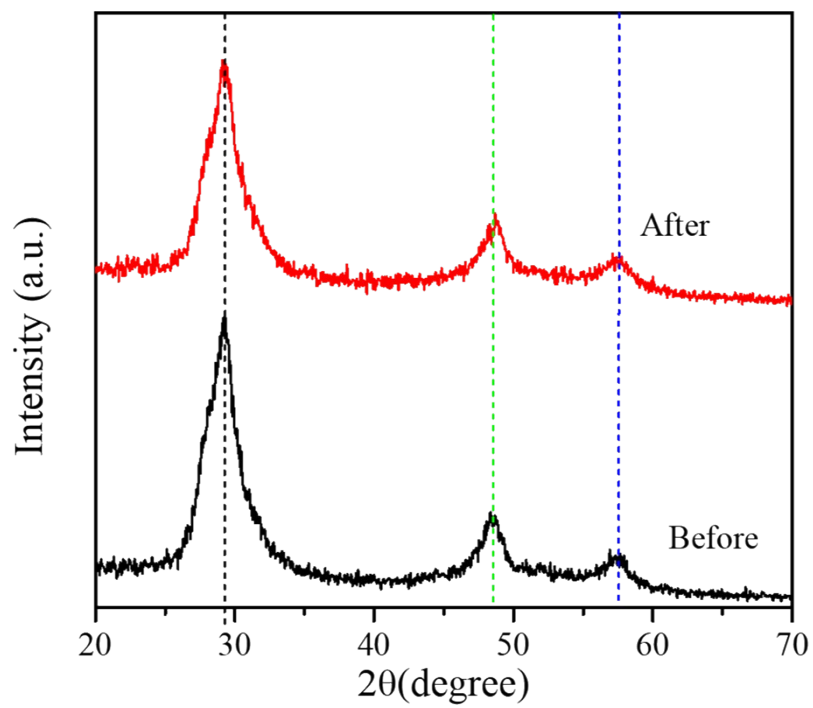


Fig. S5 XRD patterns of fresh and regenerated ZnInOS-5

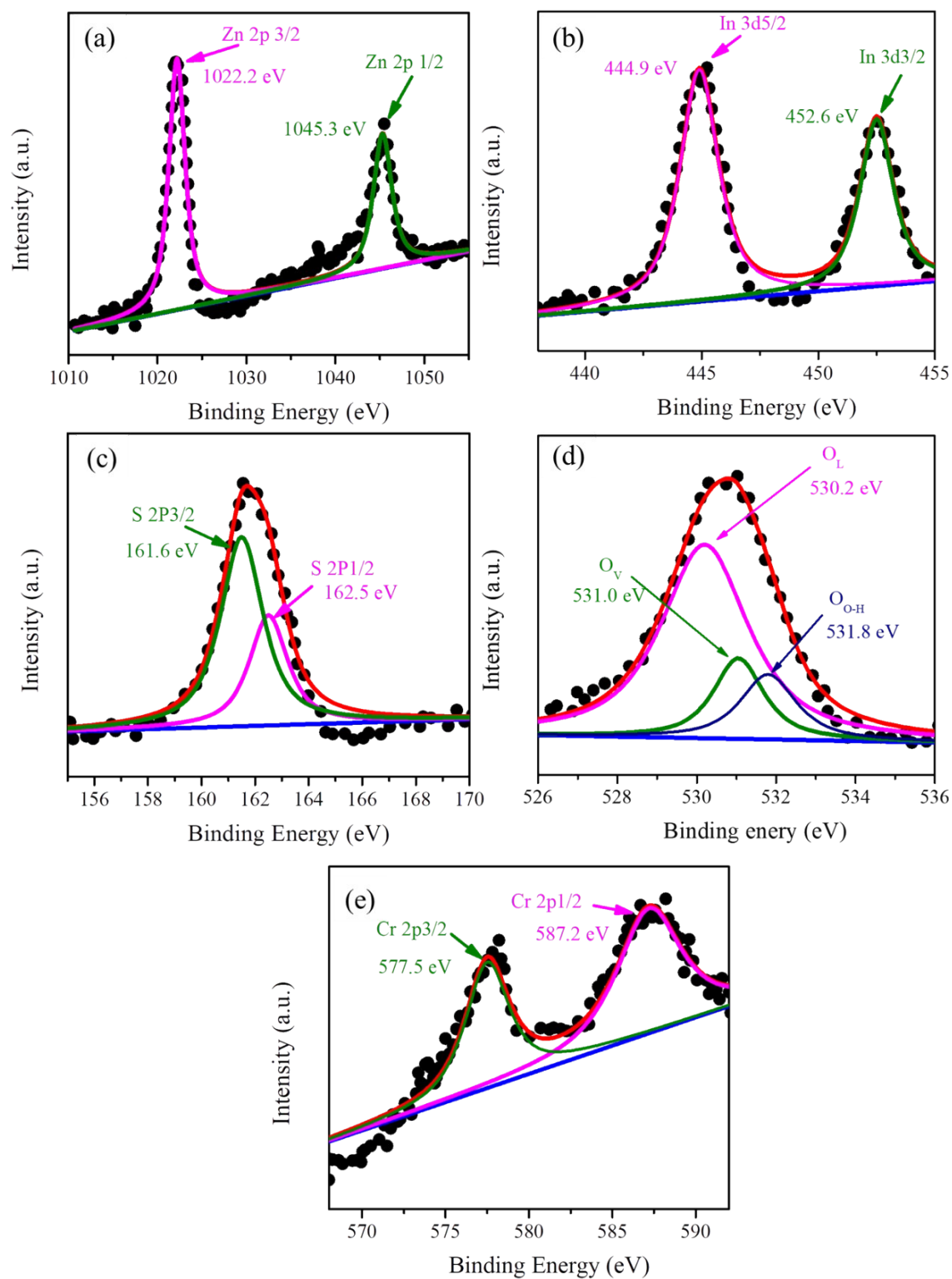


Fig. S6 (a) XPS full Scan spectrum of regenerated ZnInOS-5 and high resolution (b) Zn2p, (c) In3d, (d) S2p, and (e) O1s XPS spectra of regenerated ZnInOS-5 photocatalyst.

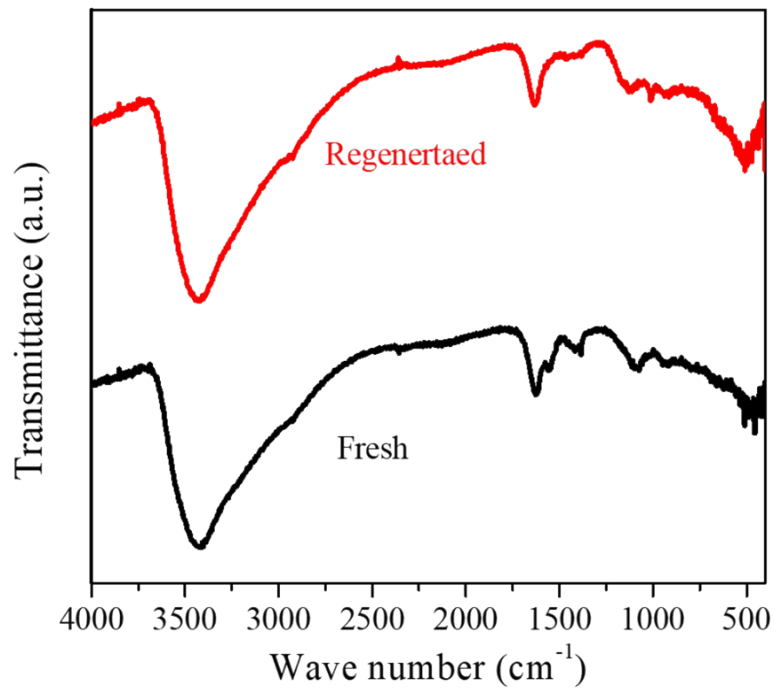


Fig. S7. FT-IR spectra of fresh and reused ZnInOS-5 photo-catalyst.