High Efficiency Visible Light Responsive Sulfide KSb_5S_8 Photo-catalyst with Layered Crystal Structure

Supporting Information

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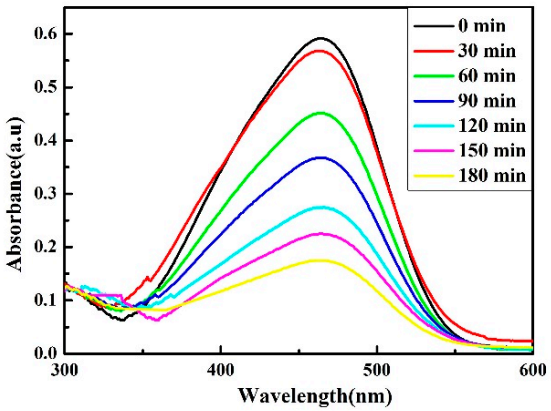

Figure S1. Uv-vis absorption of MO solution as function of irradiation time for KSb_5S_8.

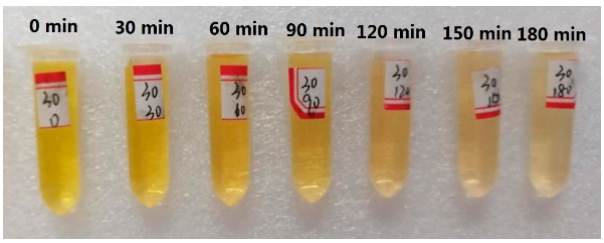

Figure S2. The photograph of MO solution for different irradiation time

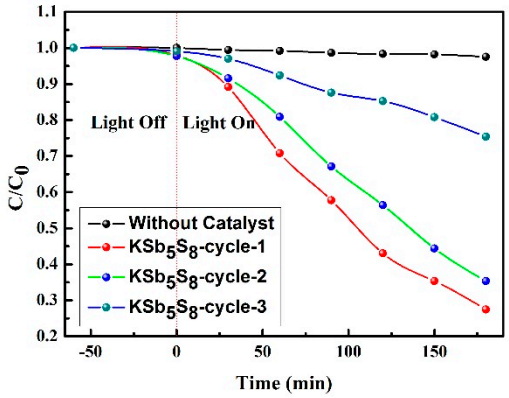

Figure S3. Cycling performance of KSb_5S_8 for the degradation of MO solution under visible light.

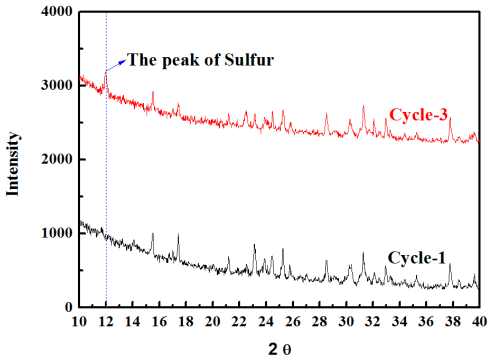

Figure S4. XRD patterns of KSb_5S_8 after the cycling performance of photocatalytic degradation of MO solution.

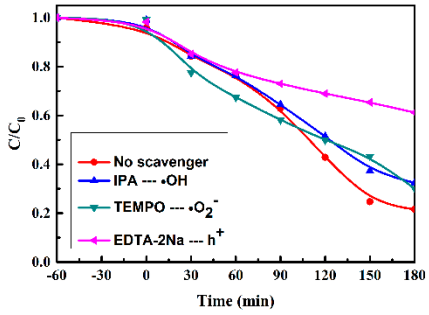

Figure S5. Photodegradation of MO solution with the additional scavenger under visible light.

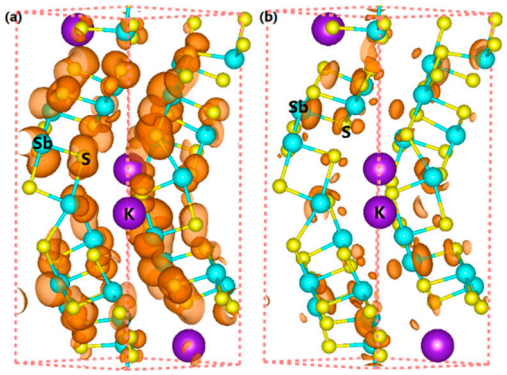

Figure S6. The iso-surface of charge density with given energy window of 0.2 eV from the top and bottom of the band edge (a) VBM (b) CBM (iso-surface value 0.002)

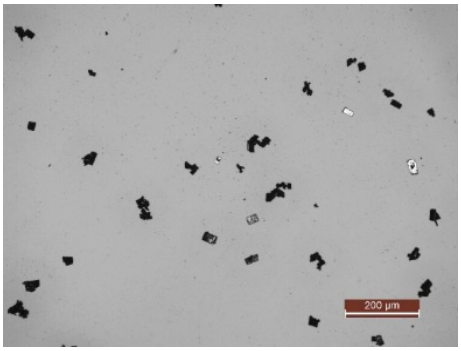

Figure S7. Optical microscopy image of KSb_5S_8 from hydrothermal preparation.