

Supporting information

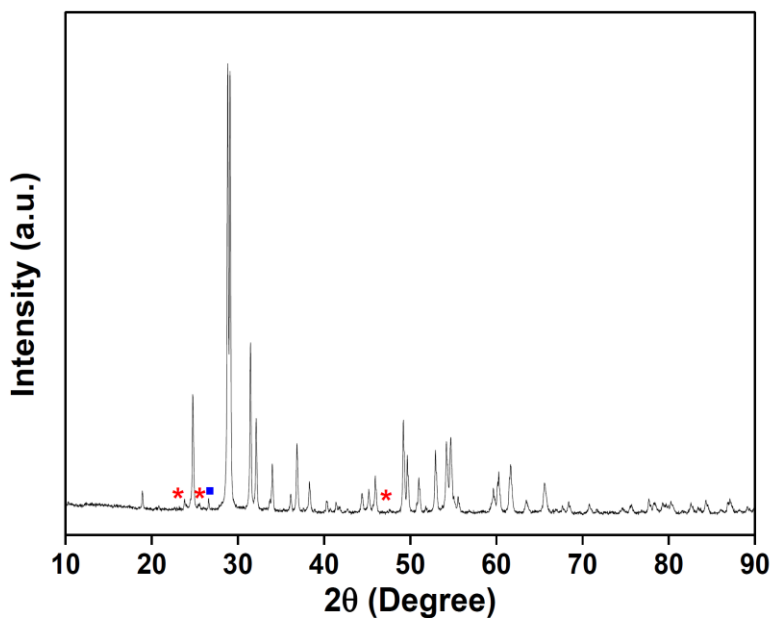


Fig. S1 XRD patterns of SnNb_2O_6 synthesized by solid state synthesis at 600 °C for 10 h. Star shows peaks corresponding to remaining Nb_2O_5 and square shows SnO_2 .

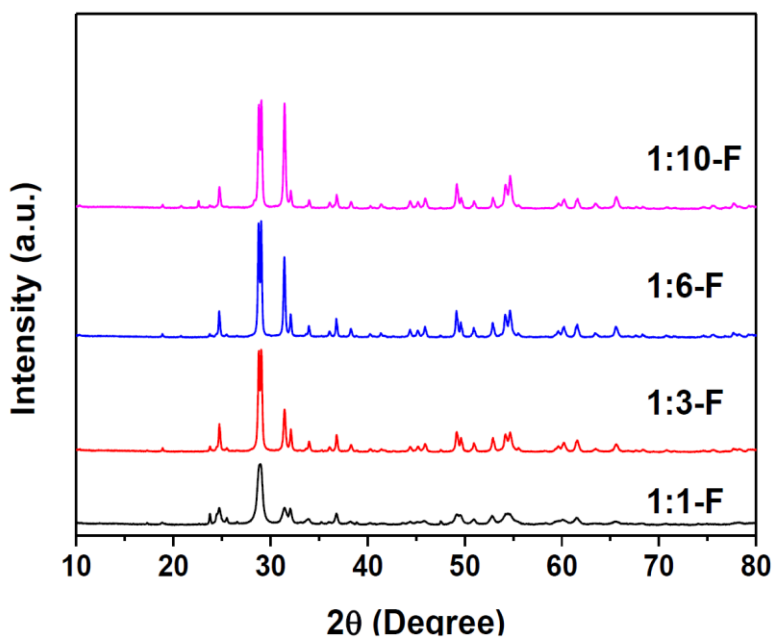


Fig. S2 XRD patterns of SnNb_2O_6 synthesized by molten salt flux method at 500 °C for 10 h with different ($\text{SnO}, \text{Nb}_2\text{O}_5 : \text{SnCl}_2$) ratios, a) 1:1, b) 1:3, c) 1:6, d) 1:10.

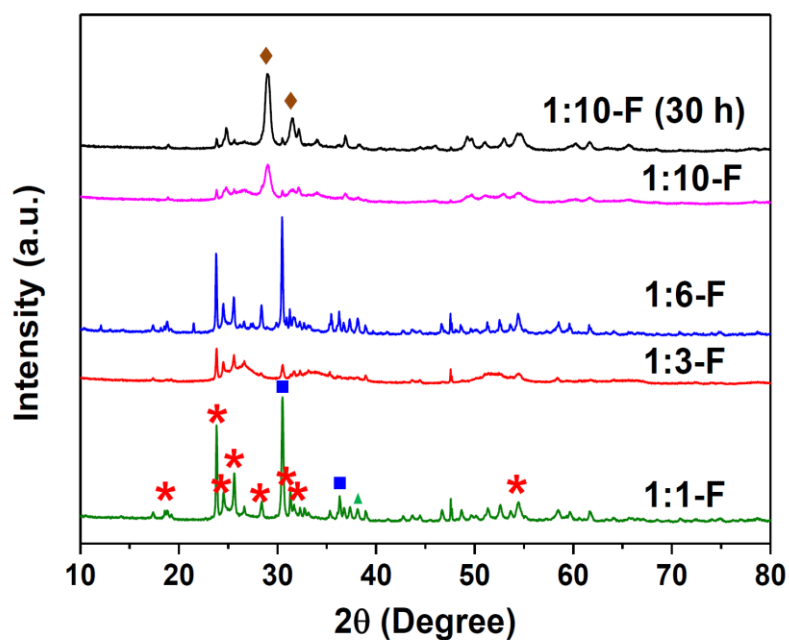


Fig. S3 XRD patterns of SnNb_2O_6 synthesized by molten salt flux method at 300 °C for 10 h with $(\text{SnO}, \text{Nb}_2\text{O}_5 : \text{SnCl}_2)$ ratios of a) 1:1, b) 1:3, c) 1:6, d) 1:10 for 10 h. and the sample synthesized for 30 h e) 1:10-F for 30 h (* Nb_2O_5 , ■ SnO_2 , ▲ Sn , ◆ SnNb_2O_6).

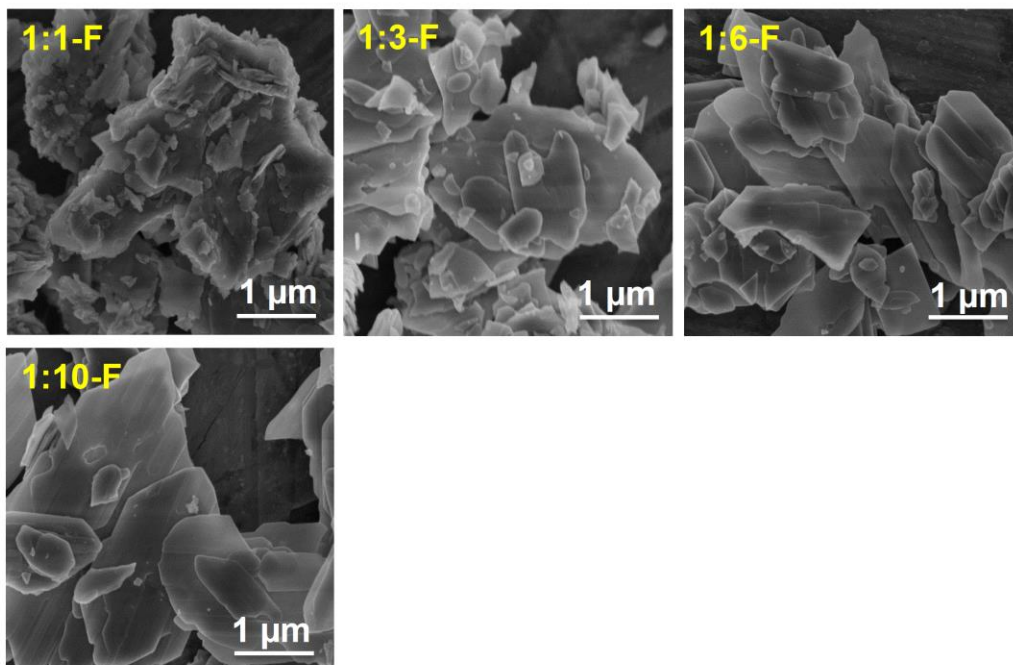


Fig. S4 SEM images of SnNb_2O_6 synthesized by molten salt flux method with $(\text{SnO}, \text{Nb}_2\text{O}_5 : \text{SnCl}_2)$ ratios of a) 1:1, b) 1:3, c) 1:6, d) 1:10 at 500 °C.

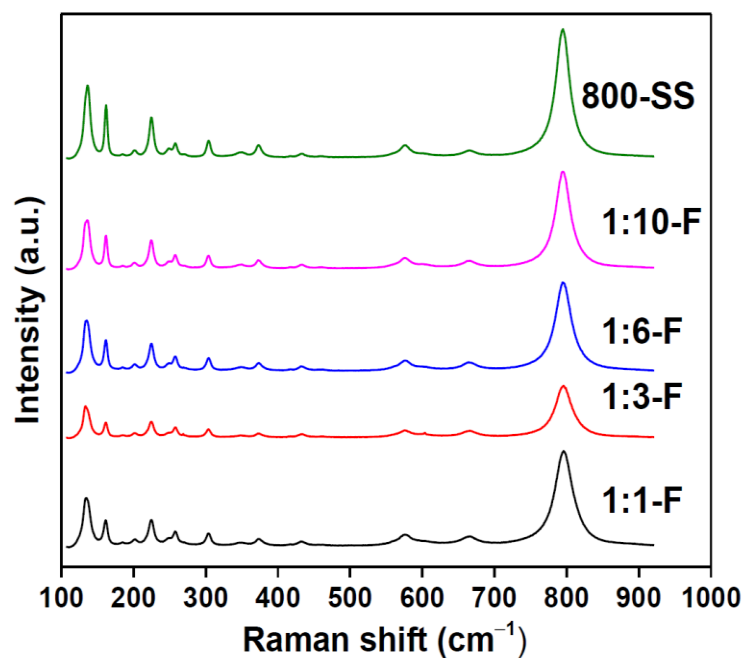


Fig. S5 Raman spectra of SnNb_2O_6 synthesized by molten salt flux method with $(\text{SnO}, \text{Nb}_2\text{O}_5 : \text{SnCl}_2)$ ratios of a) 1:1, b) 1:3, c) 1:6, d) 1:10 and of the sample prepared by solid state method e) 800-SS.

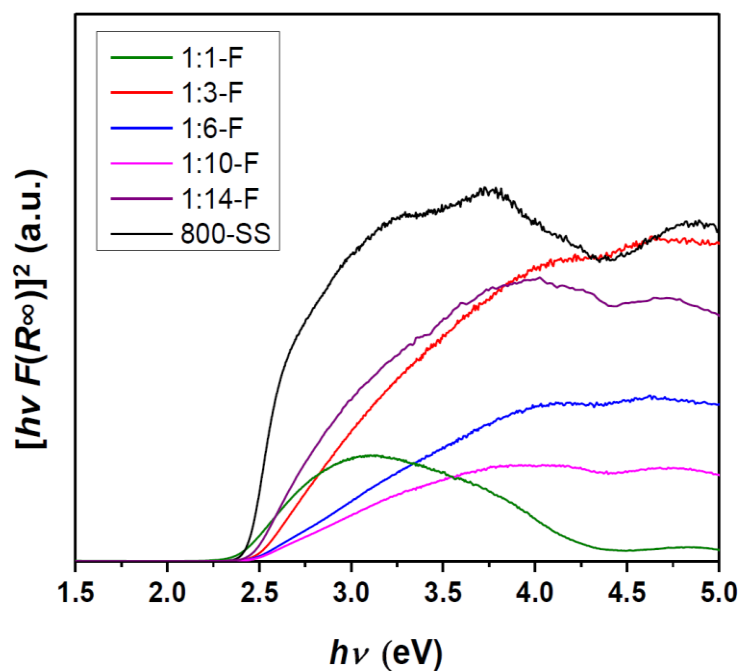


Fig. S6 Tauc's plots of SnNb_2O_6 synthesized by the molten salt flux method with $(\text{SnO}, \text{Nb}_2\text{O}_5 : \text{SnCl}_2)$ ratios of a) 1:1, b) 1:3, c) 1:6, d) 1:10 at 600 °C and of the sample prepared by solid state method e) 800-SS.

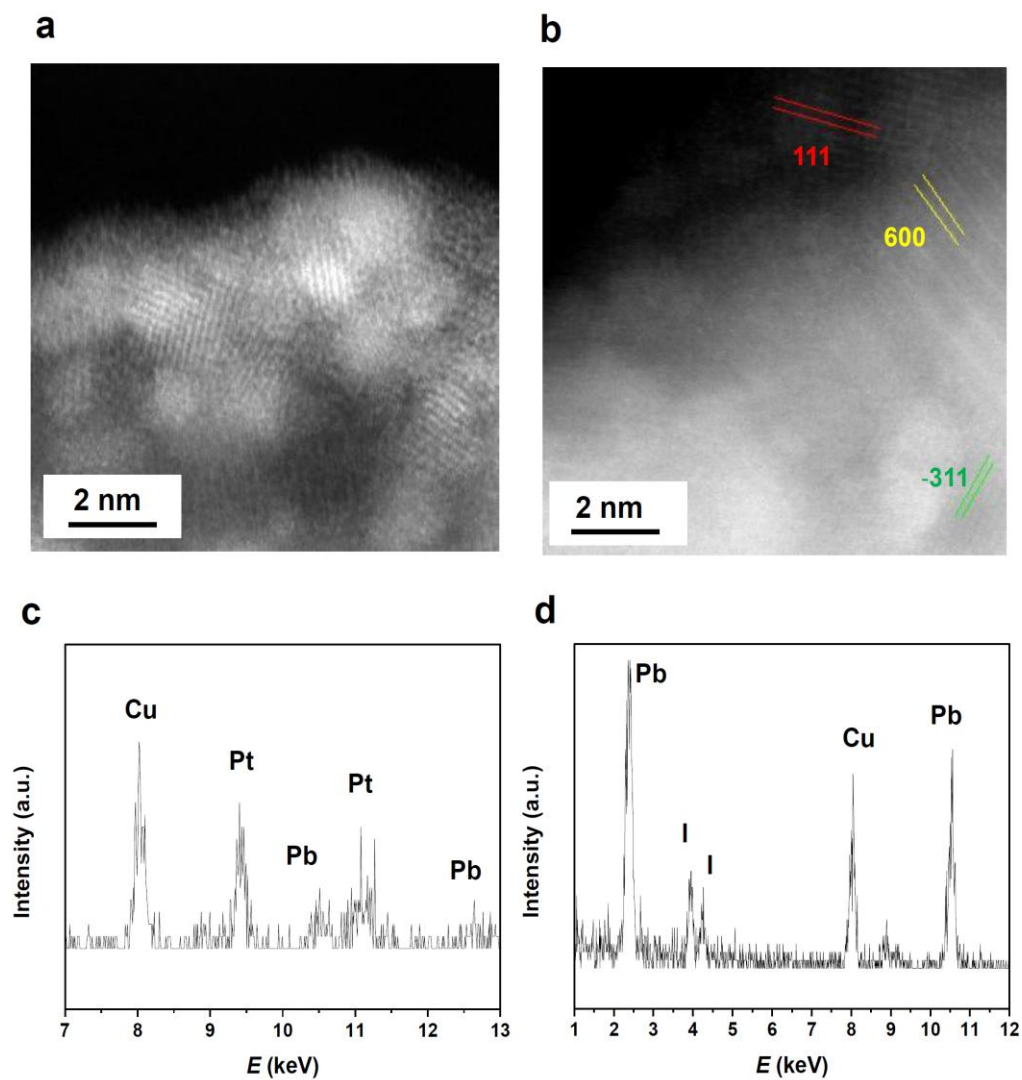


Fig. S7 HRTEM images of a) 1:10-F sample deposited with Pt and PbO_x and b) with PbO_x only, and (c,d) the corresponding EDAX spectra.

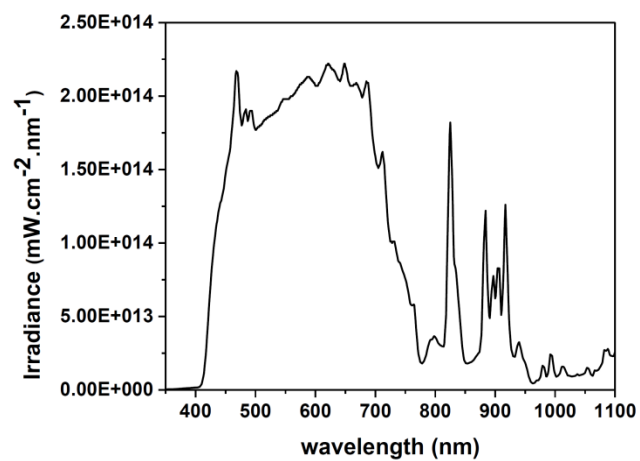


Fig. S8 Photon irradiance as a function of wavelength used in photocatalytic activity tests.

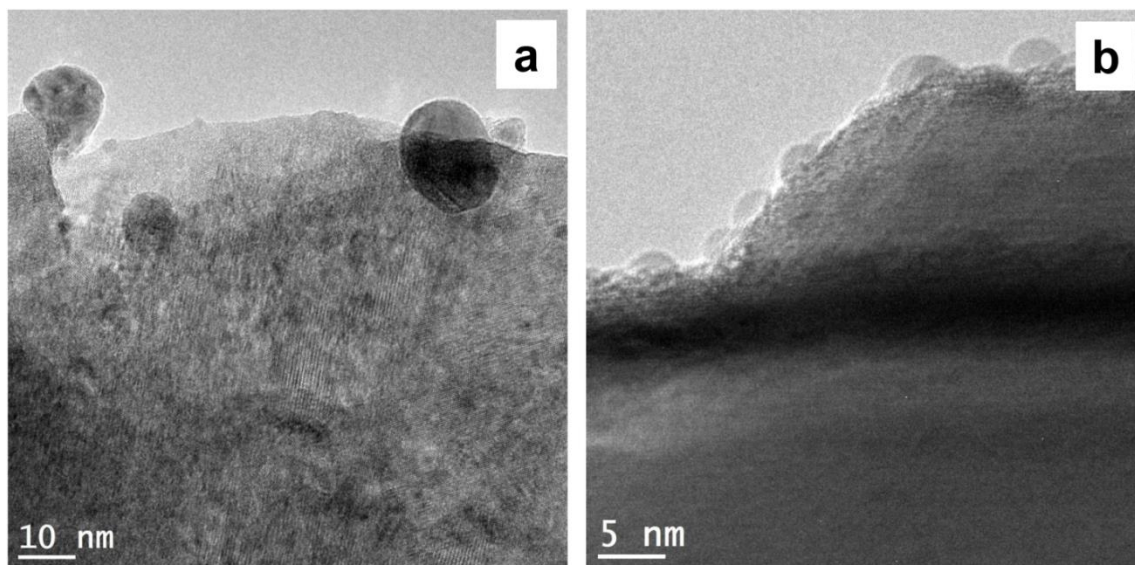


Fig. S9 HRTEM images of the 800-SS sample deposited with a) Ag and b) PbO_x.