

Electronic Supplementary Information

Pyrochlore-Like $K_2Ta_2O_6$ Synthesized from Different Methods as Efficient Photocatalysts for Water Splitting

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Electronic Supplementary Information for:

- (S1) X-ray diffraction patterns of the SG1 and HT1 $K_2Ta_2O_6$ catalysts;
- (S2) PL emission spectra of the SG, SG1, HT, and HT1 $K_2Ta_2O_6$ catalysts from the
excitation line at 230 nm.

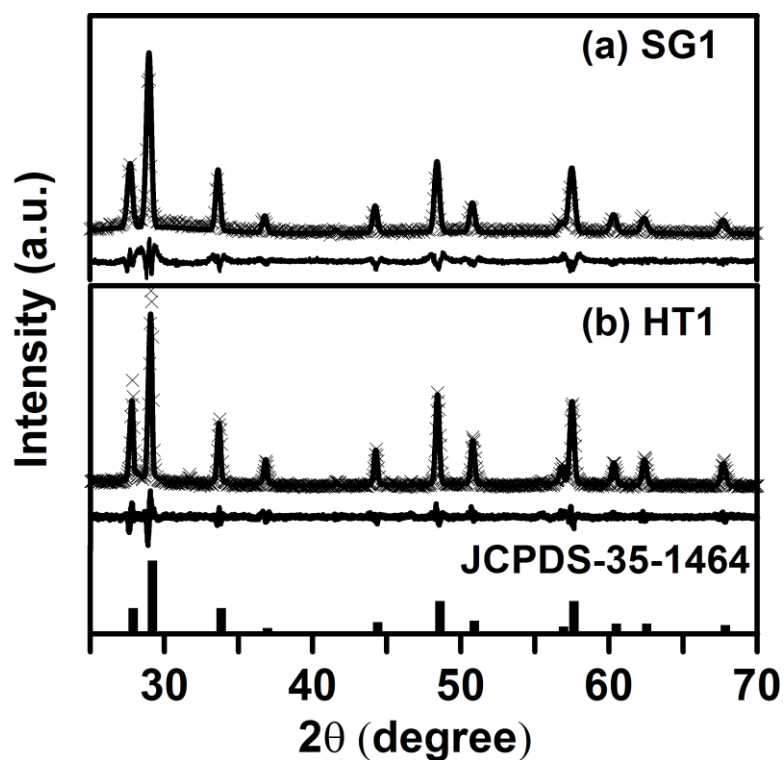


Fig. S1 X-ray diffraction patterns of (a) the SG1 $K_2Ta_2O_6$ powder and (b) HT1 $K_2Ta_2O_6$ powder. Both the observed (cross) and Rietveld-refinement simulated (line) XRD profiles are shown in this figure. The difference between the observed and simulated data is shown at the bottom of each XRD profile. The reliability factors are $R_{wp} = 0.1121$ and $R_p = 0.1062$ for SG1, $R_{wp} = 0.1274$ and $R_p = 0.1135$ for HT1. The bottom of this figure shows the documented XRD pattern of $K_2Ta_2O_6$ (JCPDS 35-1464).

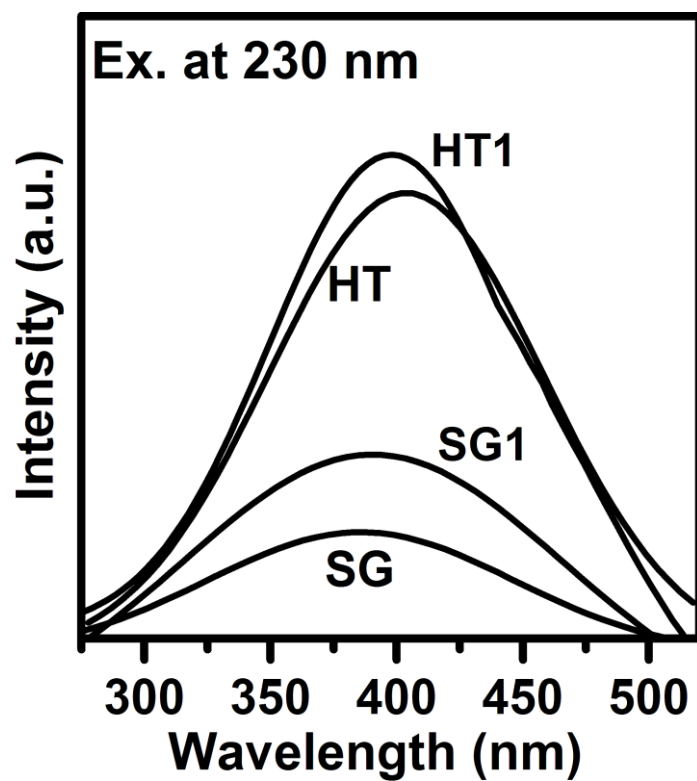


Fig. S2 Photoluminescence emission spectra of the SG, SG1, HT, and HT1 $K_2Ta_2O_6$ catalysts measured at 77 K from the excitation line at 230 nm.