

## Electronic supplementary Information

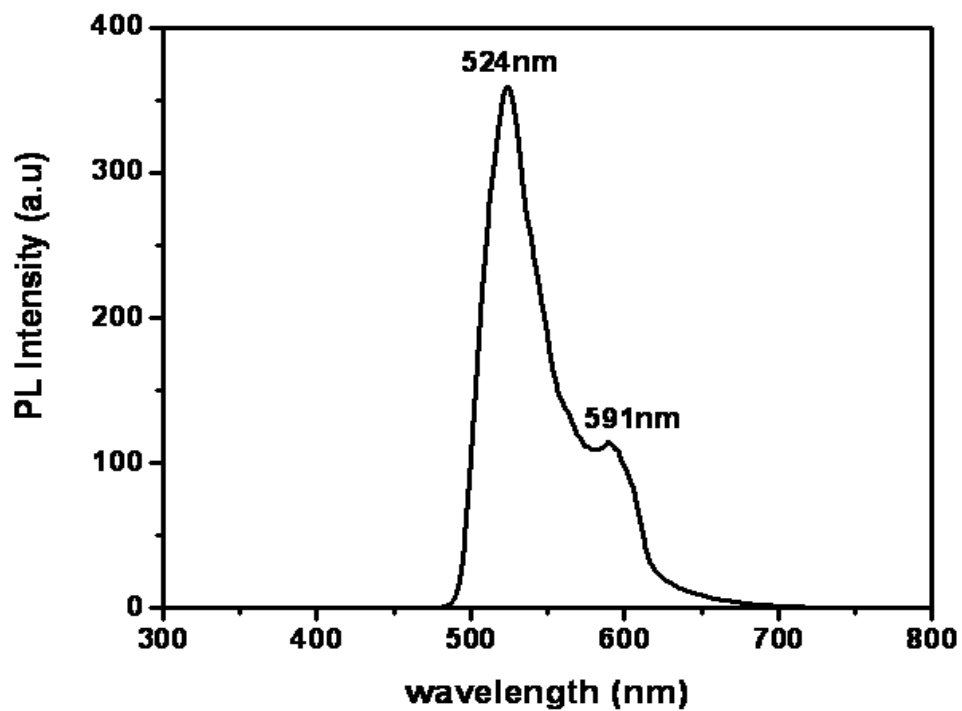


Fig. SI-1: Photoluminescence spectra of TEA assisted ZnIn<sub>2</sub>S<sub>4</sub> nanoplates (S3) obtained after excitation at 450 nm.

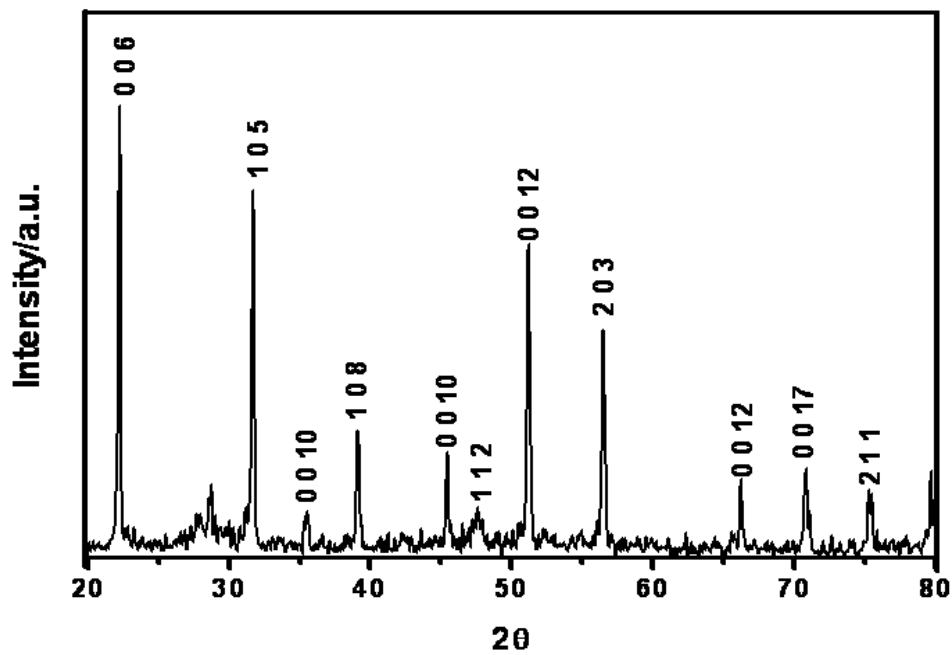
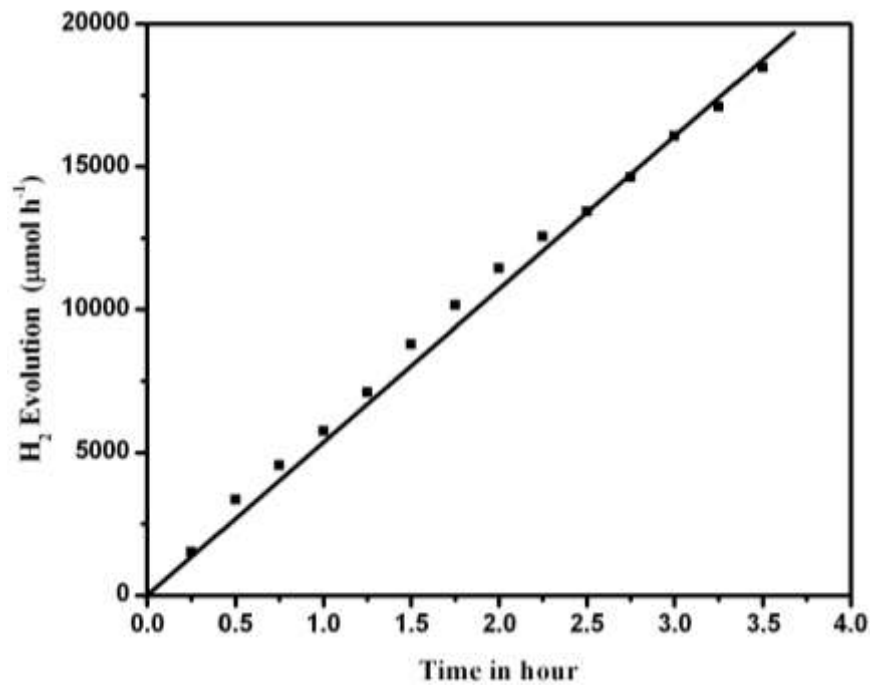


Figure SI-2. XRD spectra obtained after photocatalysis of TEA assisted  $\text{ZnIn}_2\text{S}_4$  nanoplates (S3).



**Fig.SI-3: A graph of hydrogen evolution in  $\mu\text{mol}$  Vs Time in hour obtained for the catalyst S3**