Supplementary Information

Improvement of Photocatalytic Activity of Surfactant Modified In_2O_3 towards Environmental Remediation

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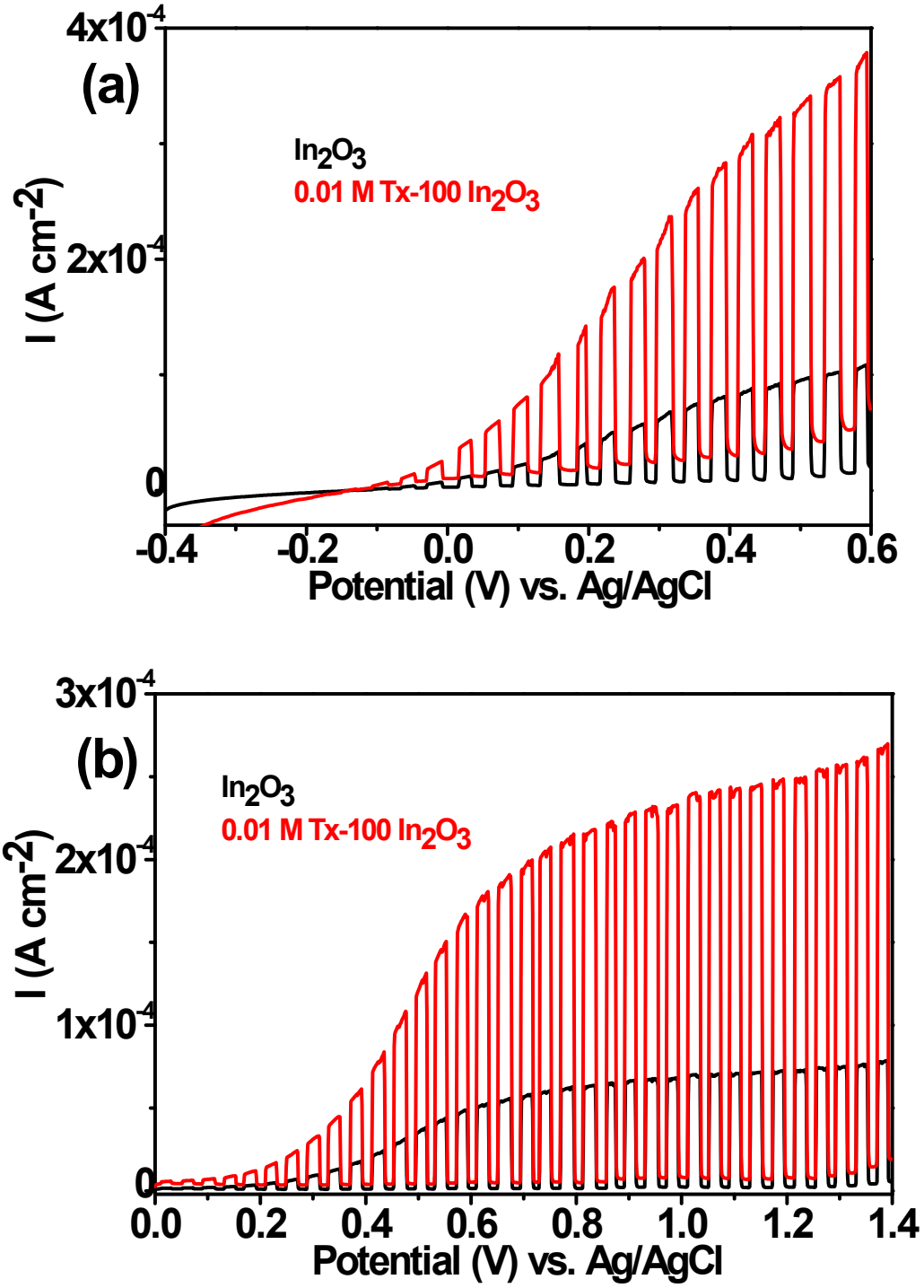

Fig S1(a, b) : Linear sweep voltammograms of pure and 0.01 M TX-100 modified In_2O_3films for (a) SO_3^{2-}oxidation in presence of 0.1M SO_4^{2-} and (b) water oxidation in presence of 0.1M SO_4^{2-} solution under Visible light illumination.

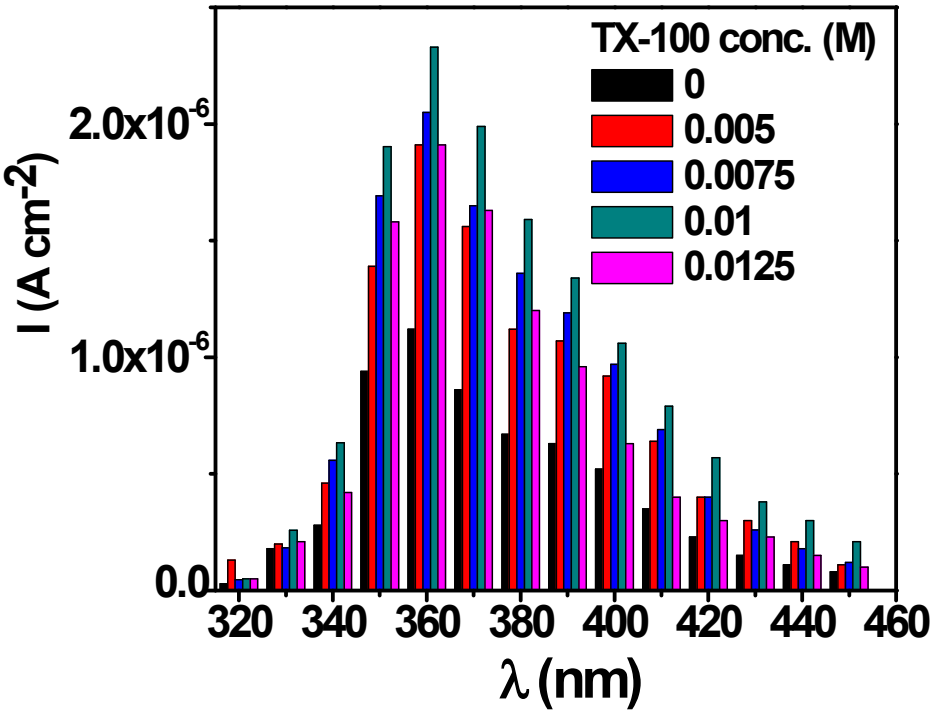

Fig S2: Comparative Action spectra of pure and Tx-100 modified In_2O_3 thin film. Electrolyte used: 0.1 M Na_2SO_4 (pH7, PBS); scan rate 0.010 V/s. Illumination 35 mW cm^{-2}.

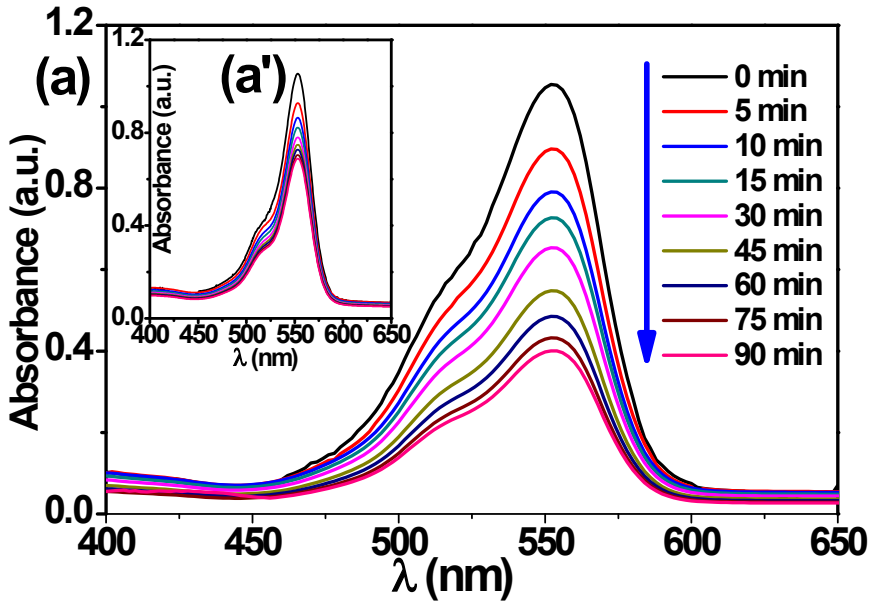

Fig S3:UV-visible absorbance plot for photocatalytic degradation of Rhodamine-B using**(a)**0.01 M TX-100 modified In_2O_3 nano powder&**(a')**pure In_2O_3 nano powder**(inset)**.

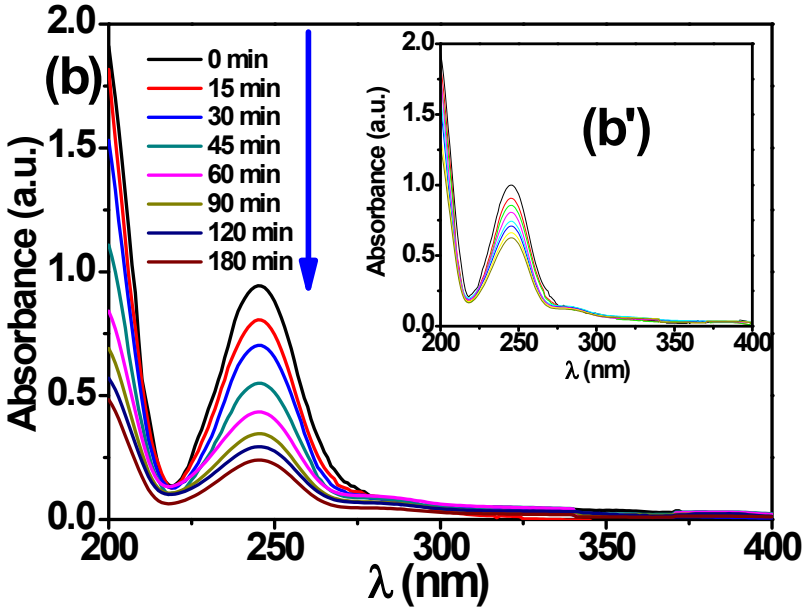

Fig S3:UV-visible absorbance plot for photocatalytic degradation of Acetophenone using**(b)**0.01 M TX-100 modified In_2O_3 nano powder&**(b')**pure In_2O_3 nano powder**(inset)**.

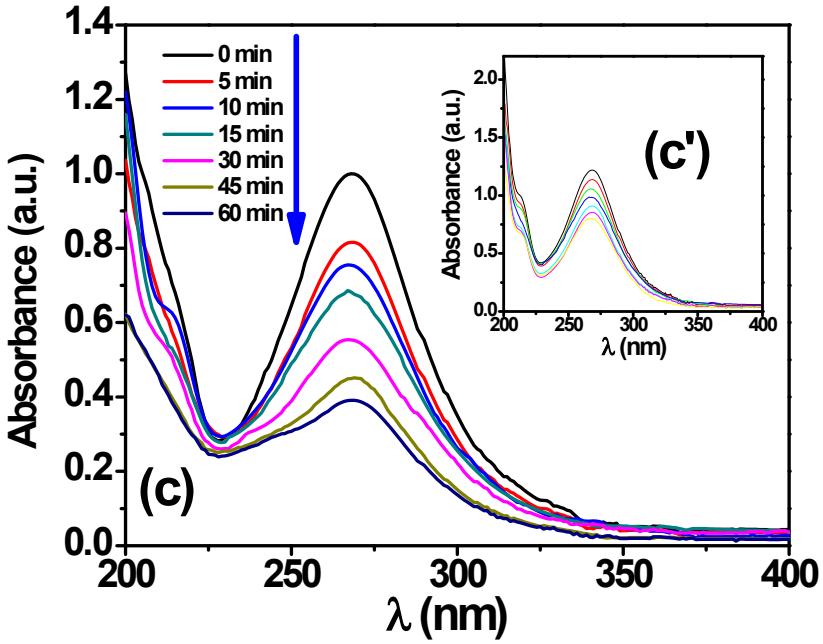

Fig S3:UV-visible absorbance plot for photocatalytic degradation of Nitrobenzene using**(c)**0.01 M TX-100 modified In_2O_3 nano powder&**(c')**pure In_2O_3 nano powder**(inset)**.

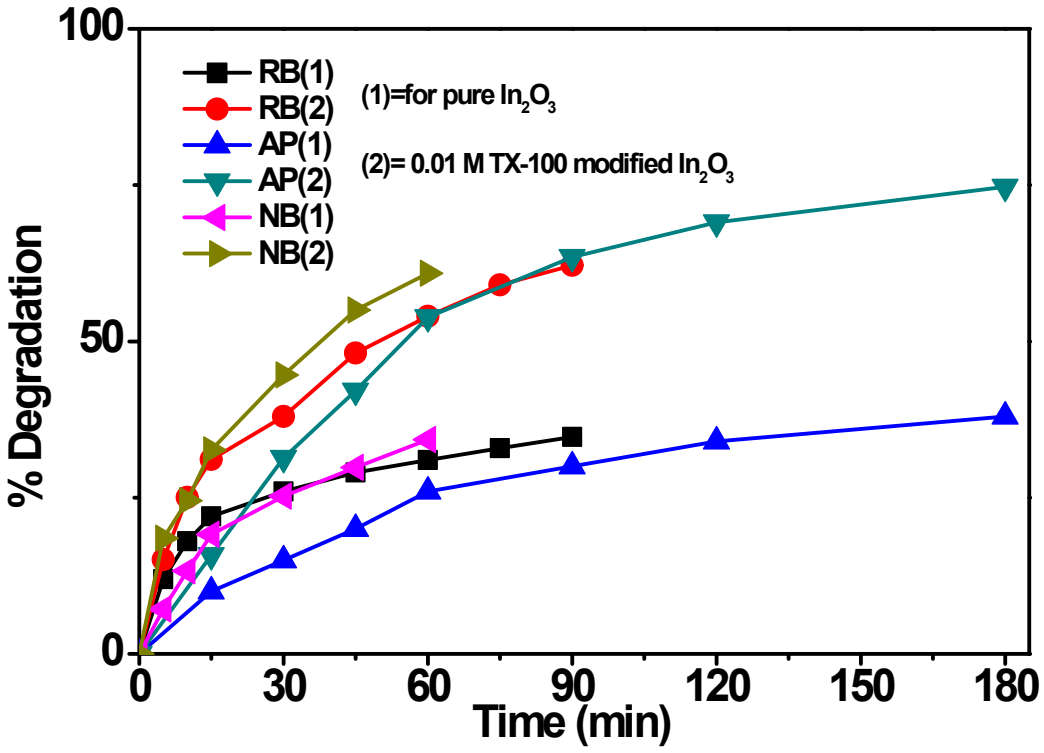

Fig S4: Comparison plot of % degradation of organic substrates against irradiation time for pure and 0.01 M TX-100 modified In_2O_3 thin films.