

## Electronic Supplementary Information

### Enhanced Performance of Silver@Titania Plasmonic Photoanode in Dye-Sensitized Solar Cells

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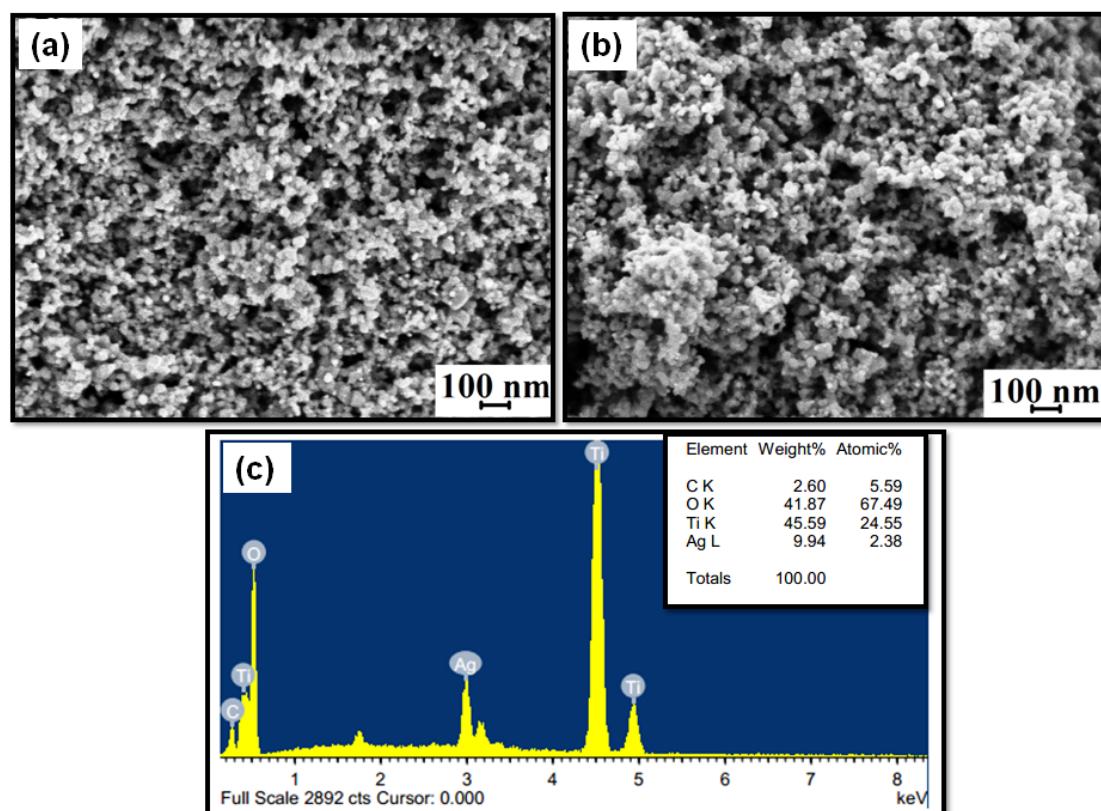
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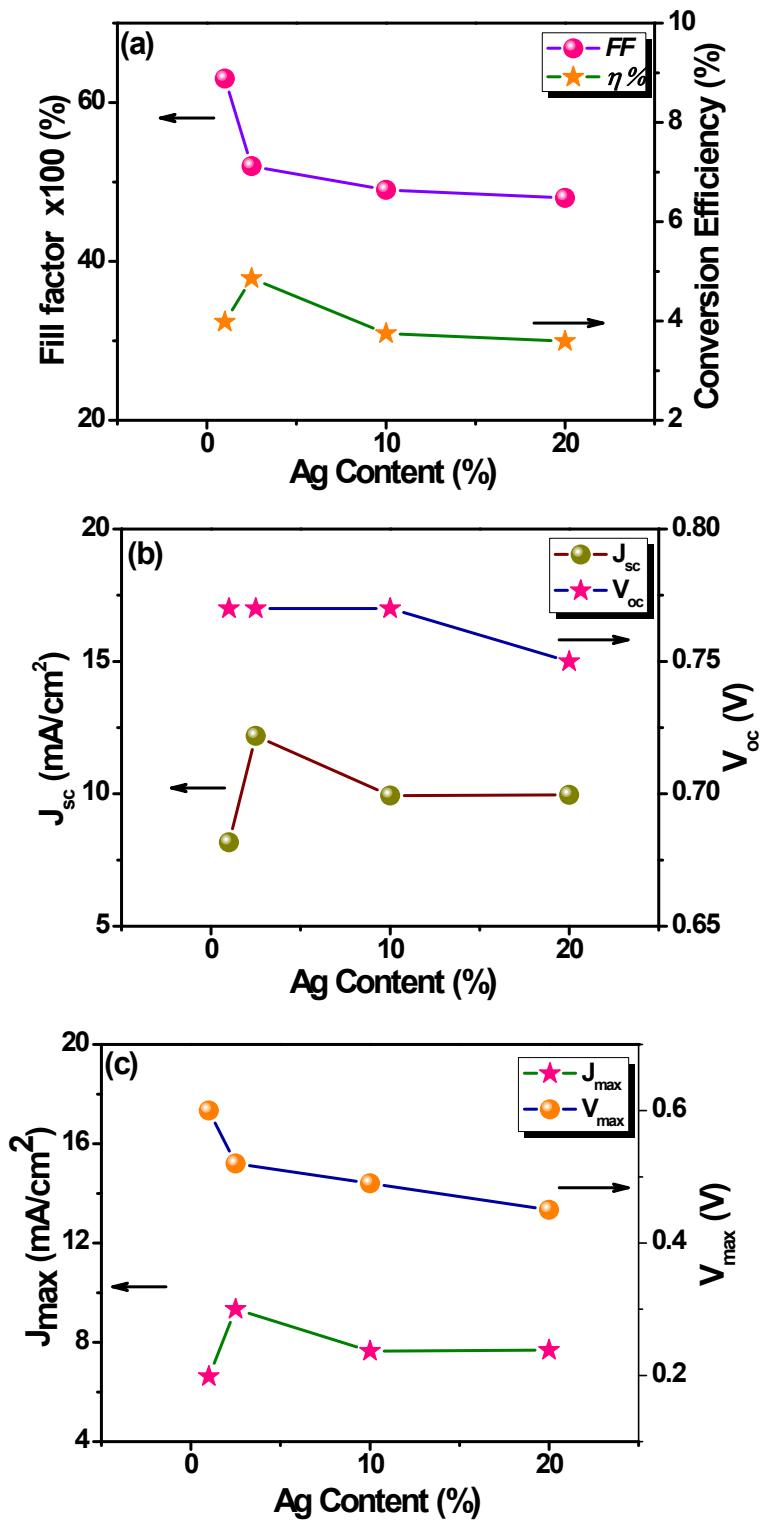
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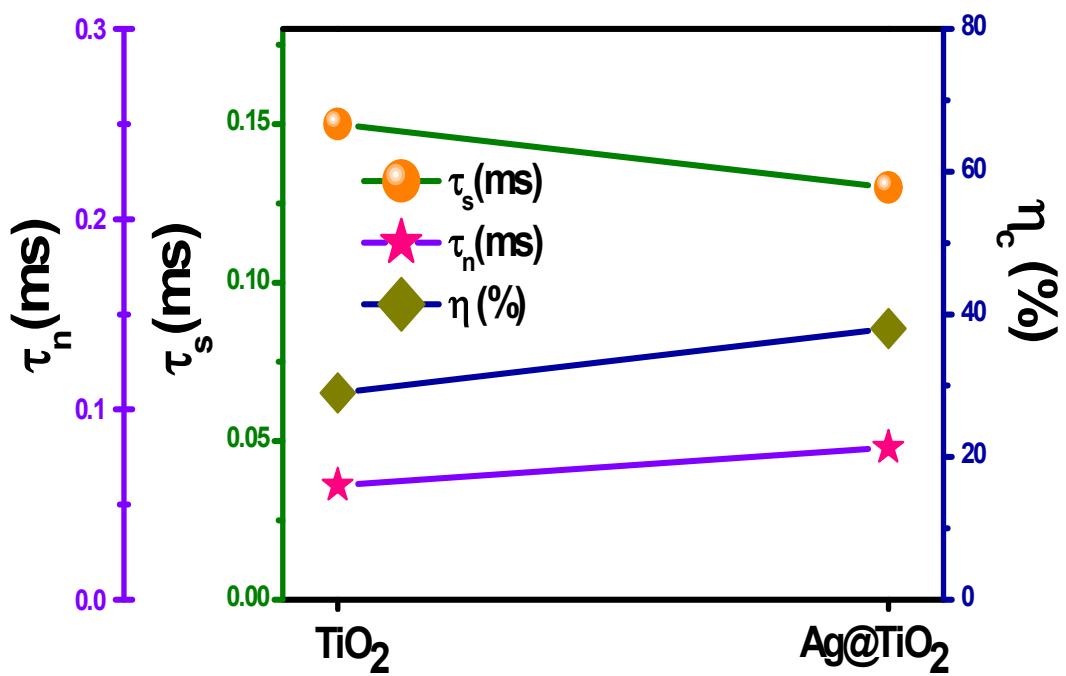
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**Fig. S1** FESEM images of (a) TiO<sub>2</sub>, (b) Ag@TiO<sub>2</sub> and (c) EDX analysis of Ag@TiO<sub>2</sub> nanocomposite.



**Fig. S2.** Plots of (a) Fill factor (FF) and power conversion efficiency ( $\eta$ ), (b) short-circuit current density ( $J_{sc}$ ) and open-circuit voltage ( $V_{oc}$ ) and (c) maximum photocurrent density ( $J_{max}$ ) and maximum photovoltage ( $V_{max}$ ) with different Ag content for the Ag@TiO<sub>2</sub> nanocomposites based DSSCs.



**Fig S3.** Electron lifetime, electron transport time and charge collection efficiency of the TiO<sub>2</sub> and Ag@TiO<sub>2</sub> nanocomposite modified photoanode based DSSCs.