Electronic Supplementary Material (ESI) for Energy and Environmental Science


# Supporting Information

## Bacteriorhodopsin/$TiO_2$ Nanotube Arrays Hybrid System for Enhanced Photoelectrochemical Water Splitting

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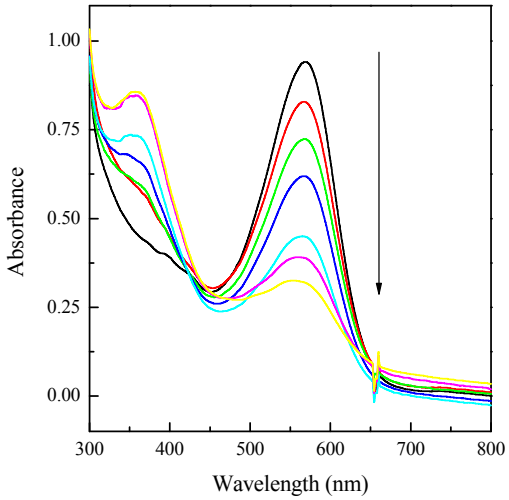


Fig. S1: Absorption spectra of bleached bR at different stages of regeneration with *all-trans* retinal

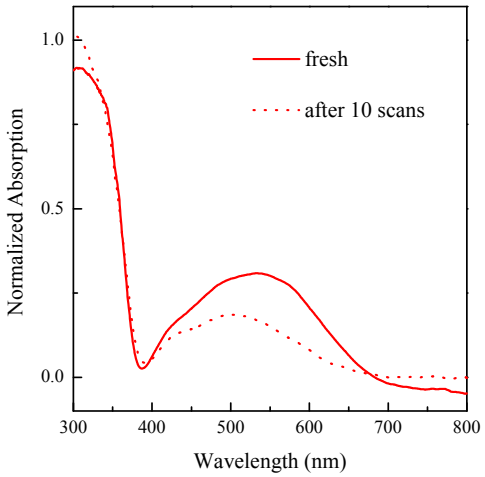


Fig. S2: Absorption spectra of bR/$TiO_2$ photoanode, prepared without linker, before and after 10 photoelectrochemical scans.

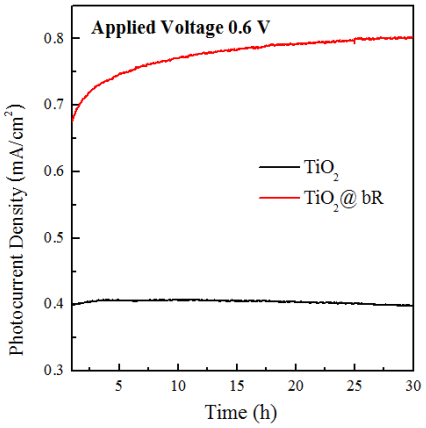


Fig. S3: Steady-state photocurrent measurements at a constant bias of 0.6 $V_{Ag/AgCl}$ in pH=7 solution under AM 1.5 G illumination (100 mW/cm$^2$) for pure and bR/$TiO_2$ photoanodes.

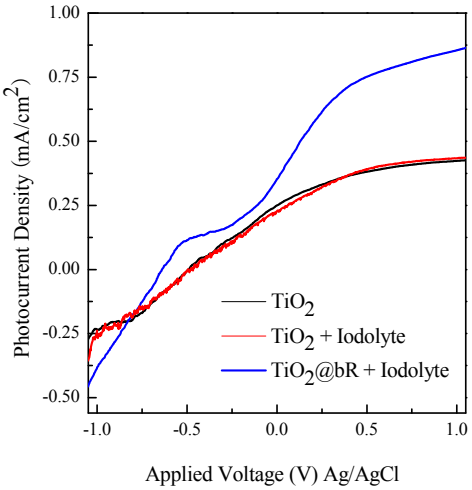


Fig. S4: Photocurrent density versus potential (I-V) in pH=7 buffer under AM 1.5 G illumination.