

Controllable stationary photocurrent generated from a bacteriorhodopsin/upconversion nanoparticles-based bionanosystem under NIR illumination

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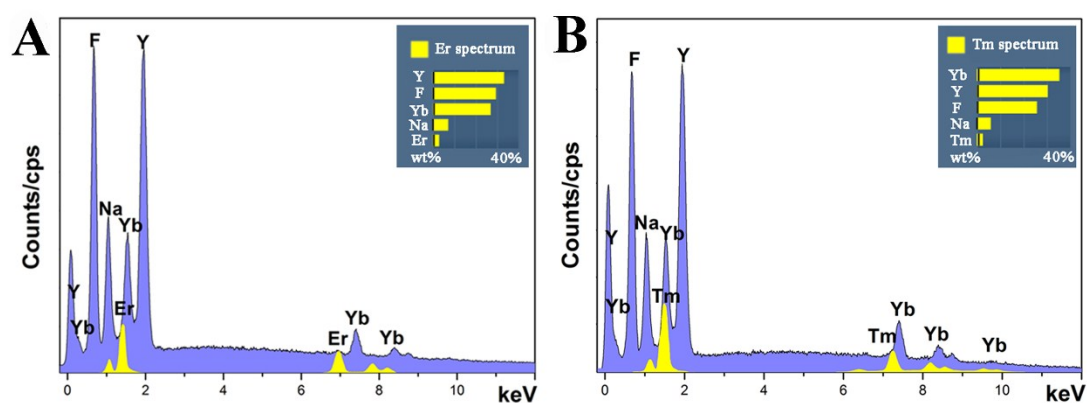


Figure S1. EDS spectra of NaYF₄:Yb, Er (A) and NaYF₄:Yb, Tm (B) upconversion nanoparticles.

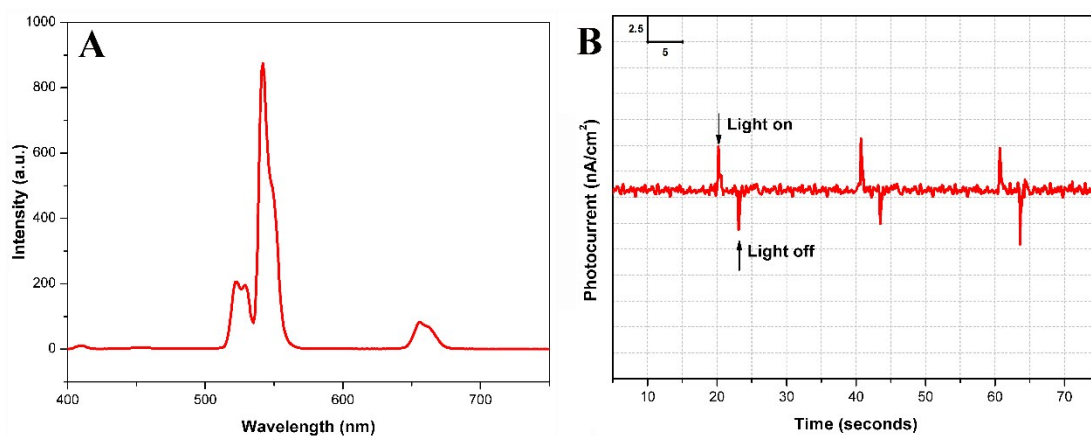


Figure S2. Photoluminescence spectrum of NaYF₄:Yb, Er suspension (A) and photocurrents of the bR/UCNPs bionanosystem prepared with NaYF₄:Yb, Er UCNPs (B).

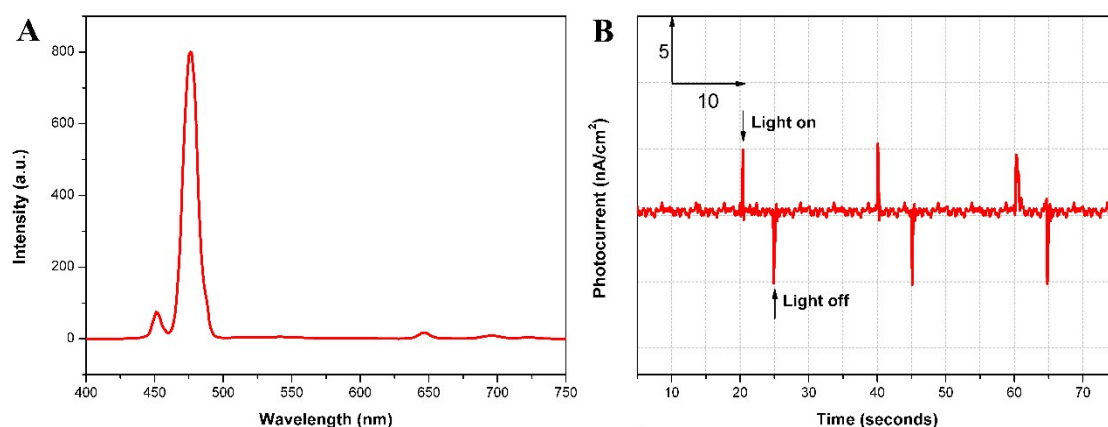


Figure S3. Photoluminescence spectrum of NaYF₄:Yb, Tm suspension (A) and photocurrents of the bR/UCNPs bionanosystem prepared with NaYF₄:Yb, Tm UCNPs (B).

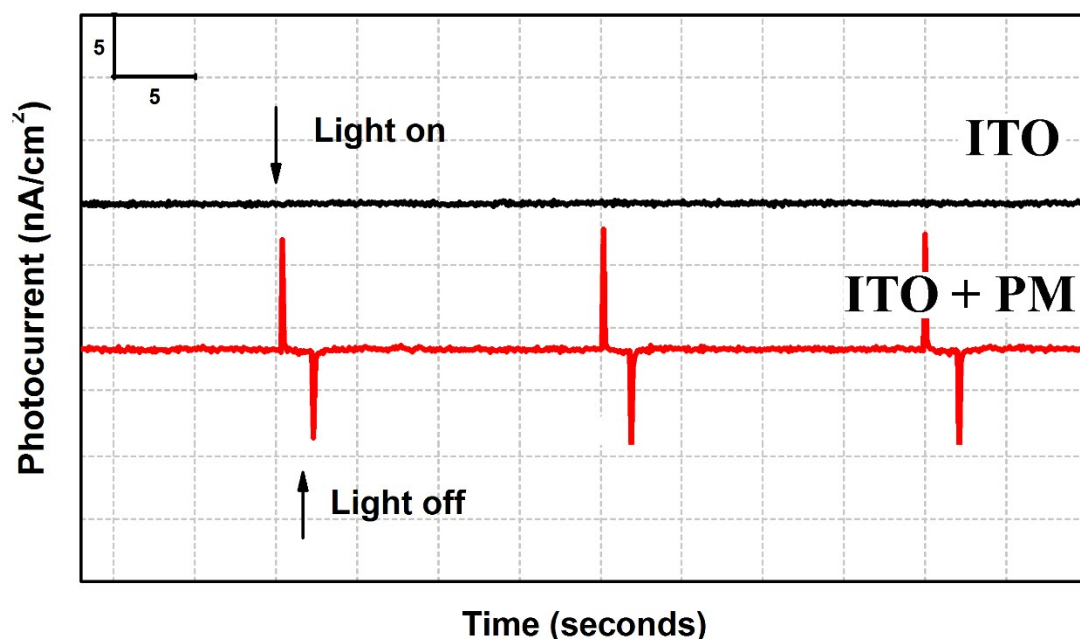


Figure S4. photocurrents of the ITO electrode and PM-deposited ITO electrode to green irradiation.