

Supplementary Information

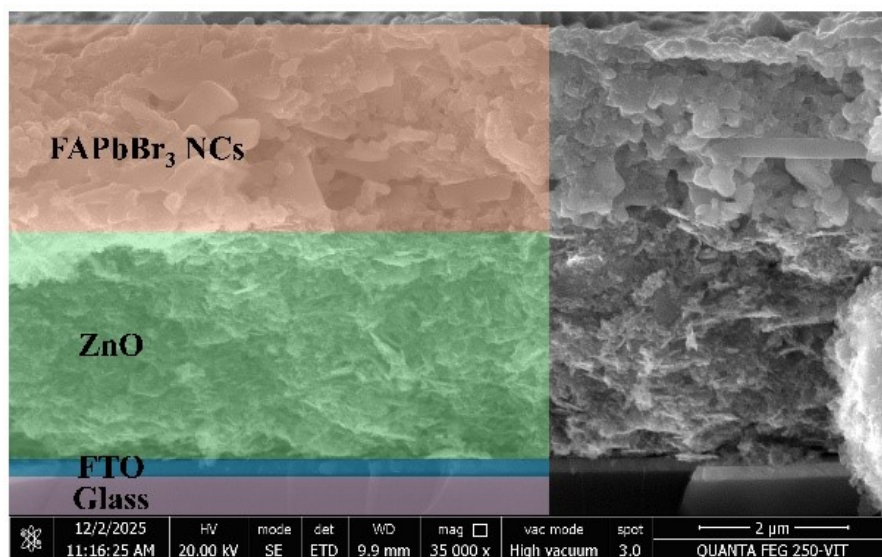


Fig. S1: Cross-sectional SEM analysis of the device

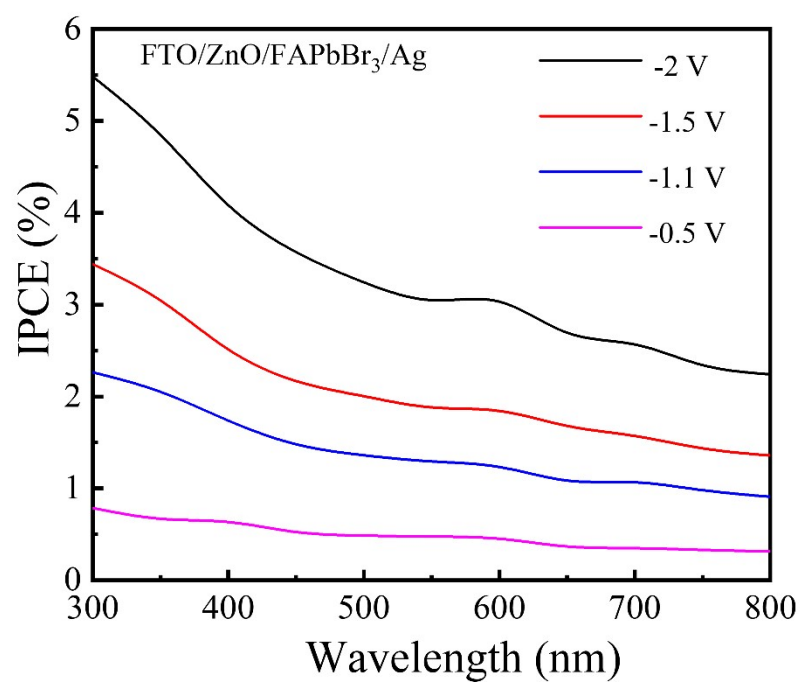


Fig. S2: Spectral response of the device (FTO/ZnO/FAPbBr₃/Ag)

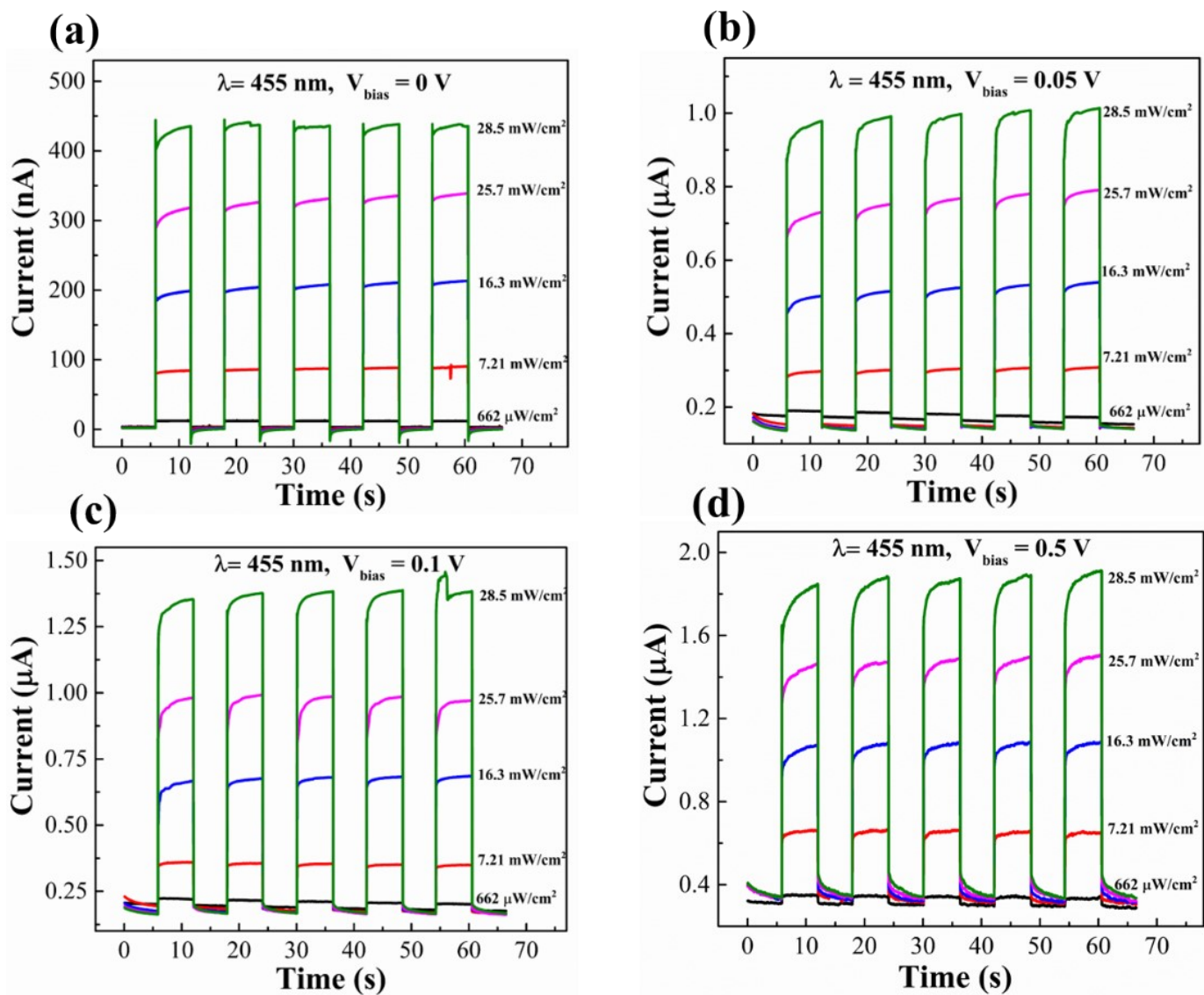


Fig. S3: Time-dependent photocurrent of $\text{FTO}/\text{ZnO}/\text{FAPbBr}_3/\text{Ag}$ with different intensities at low biasing voltage of (a) 0 V (b) 0.05 V (c) 0.1 V (d) 0.5 V at 455 nm

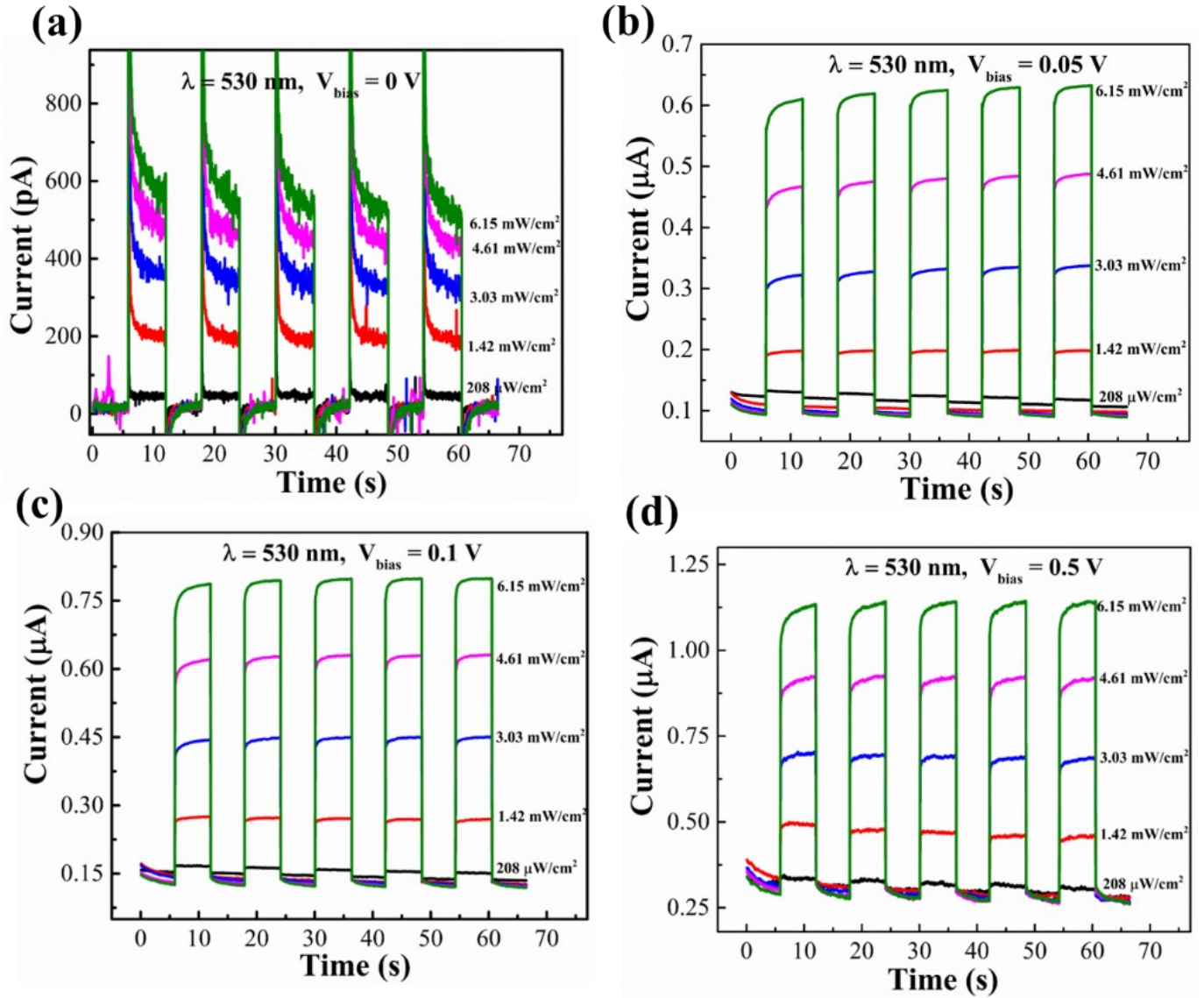


Fig. S4: Time-dependent photocurrent of $\text{FTO}/\text{ZnO}/\text{FAPbBr}_3/\text{Ag}$ with different intensities at low biasing voltage of (a) 0 V (b) 0.05 V (c) 0.1 V (d) 0.5 V at 530 nm