

Supporting information

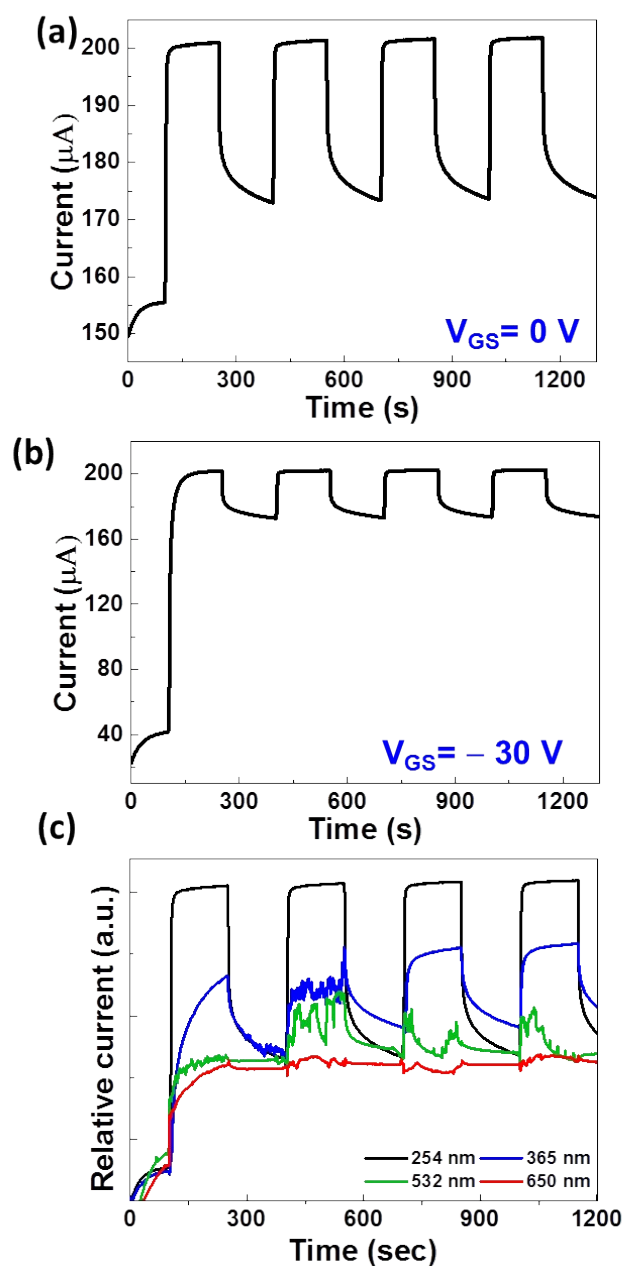


Figure S1 Time-dependent photoresponse of the fabricated photodetector different applied bias of 0 V (a) and -30 V (b). (c) Time-dependent photoresponse of the fabricated photodetector under various illumination conditions (254, 365, 532 and 650 nm light exposure)

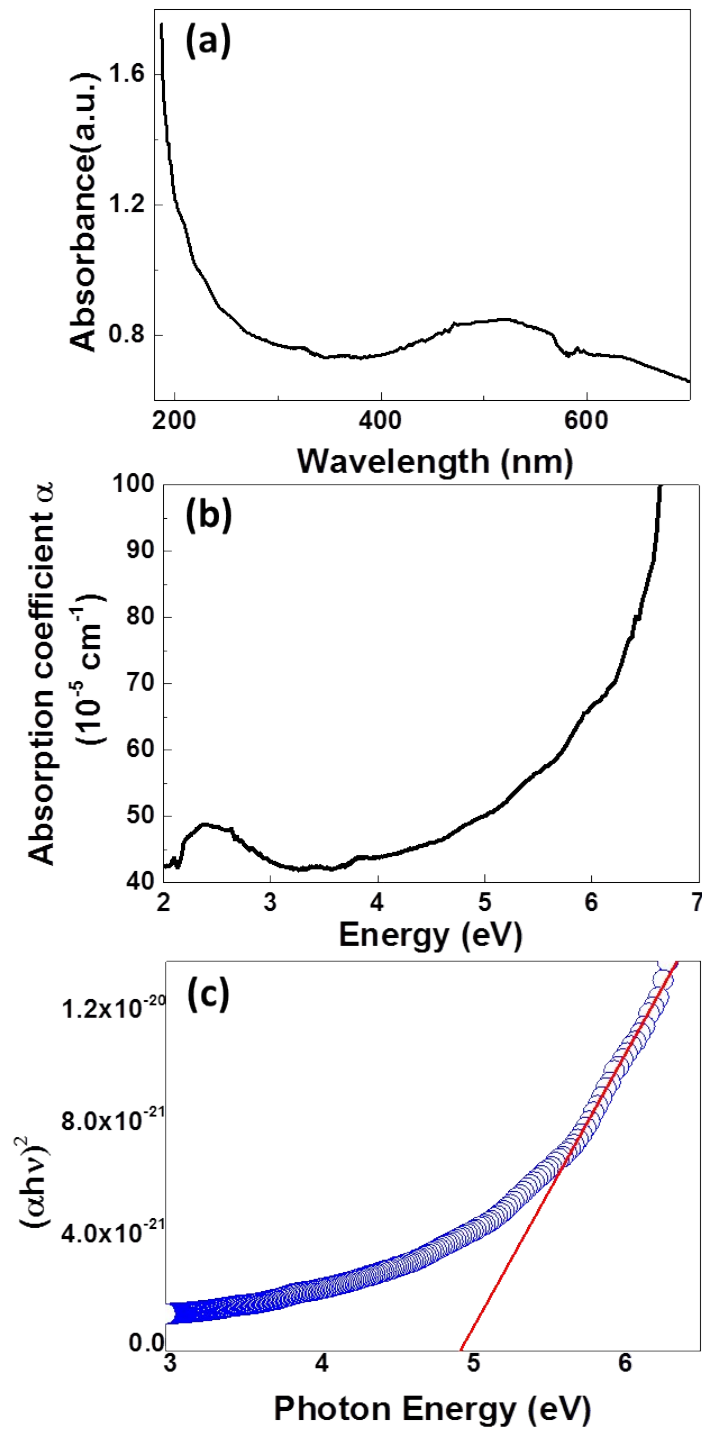


Figure S2 Optical properties of freestanding $\beta\text{-Ga}_2\text{O}_3$ sample (a) absorbance spectrum (b) absorption coefficient (c) optical band-gap

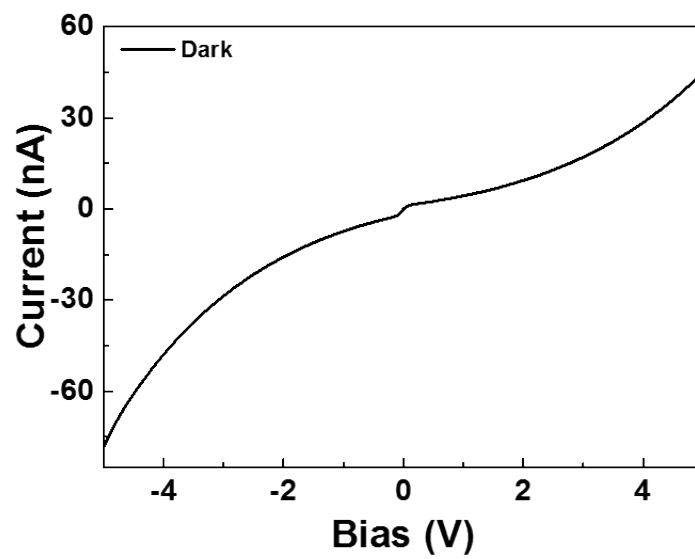


Figure S3 Current-voltage characteristics between the Cr/Au electrodes deposited on β -Ga₂O₃ microbelt

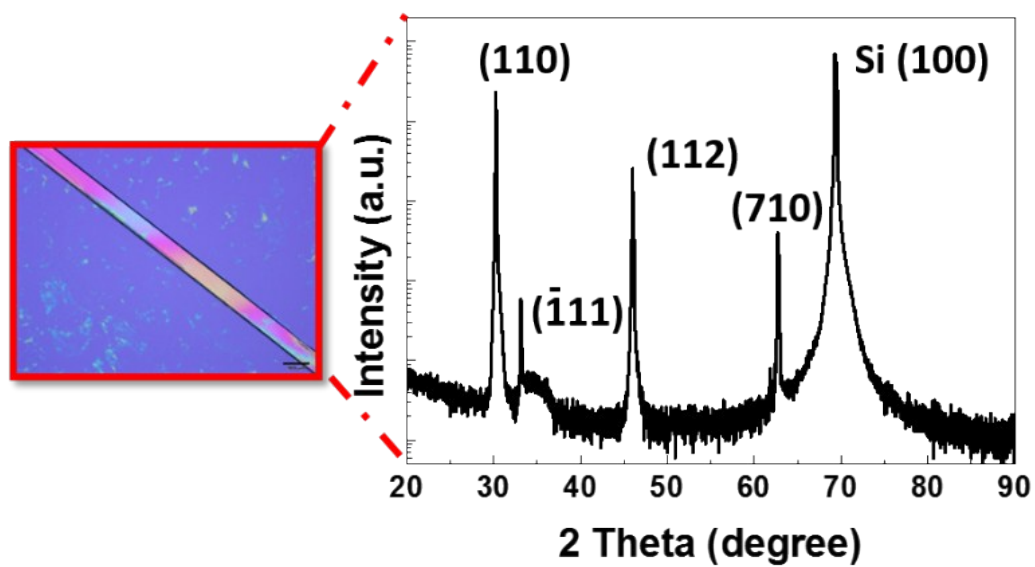


Figure S4 XRD result from large β - Ga_2O_3 micro-belt on SiO_2/Si substrate