

## Supplementary Information

Low Temperature Solution-Processed High Performance Photodiode

Based on Si/ZnO Core/Shell Structure

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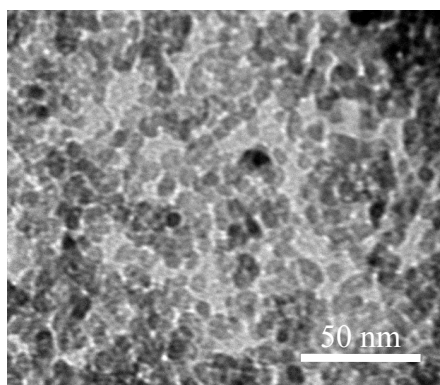


Fig. S1 The TEM image of ZnO nanoparticles.

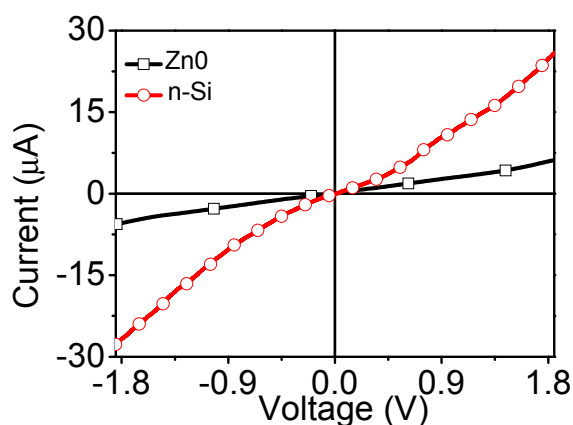


Fig. S2 The I-V Ohmic contact characteristics of Cu/ZnO and In:Ga/n-Si junctions, respectively.

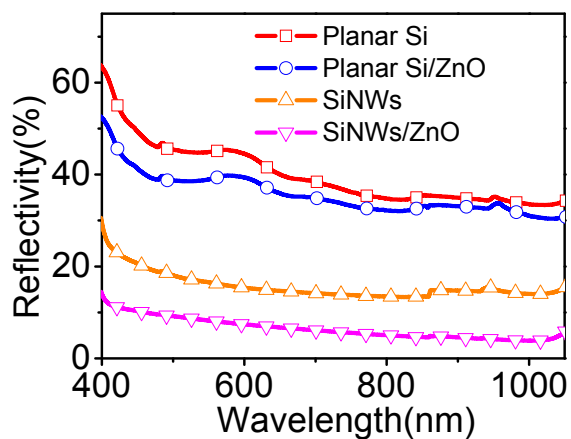


Fig. S3 The reflectance spectra of bare planar silicon substrate, planar silicon substrate coated with ZnO nanoparticles, SiNWs on silicon substrate and SiNWs on silicon substrate coated with ZnO nanoparticles, respectively

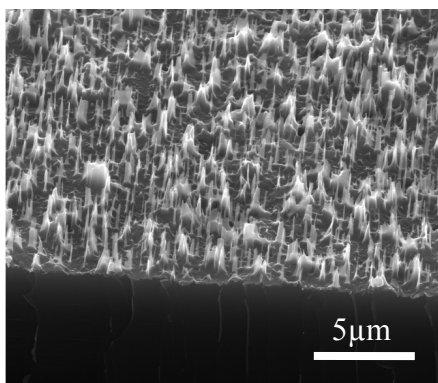


Fig. S4 The SEM of the Si/ZnO (spin-coated film) heterojunction.