

Supporting information

***In situ* Nanostructuring Hybrid ZnO@CdS Nanowalls for Inverted Polymer
Solar Cells**

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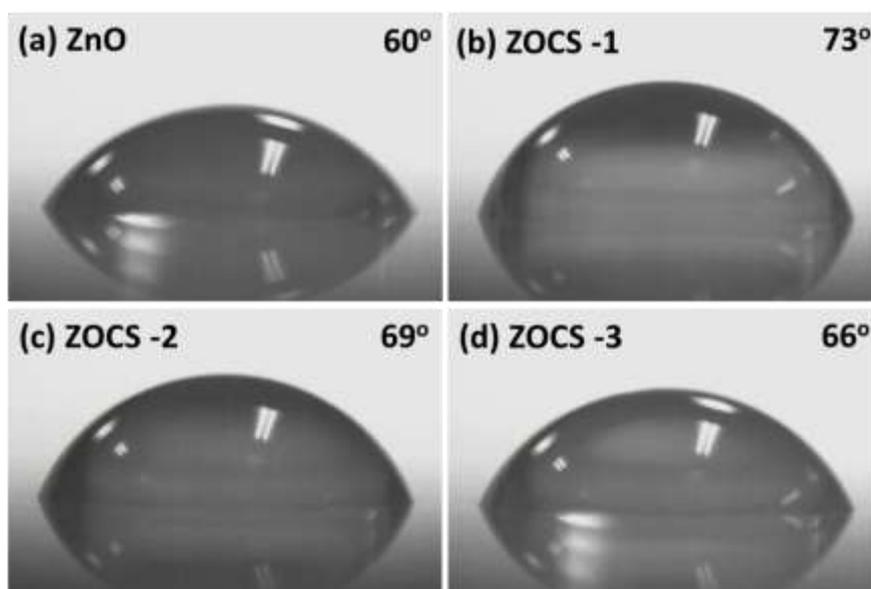


Figure S1 The water contact angle measurements of bare ZnO nanowall and hybrid ZOCS nanowalls with various CdS-layer thicknesses.

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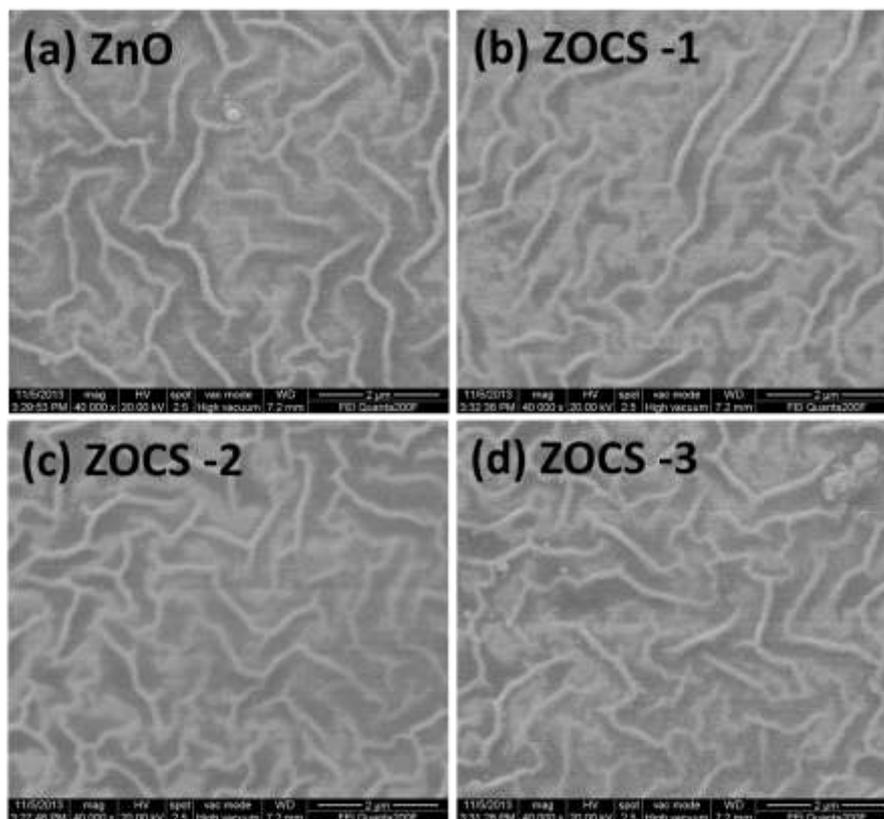


Figure S2 SEM images of bare ZnO nanowall and hybrid ZOCS nanowalls with various CdS-layer thicknesses.

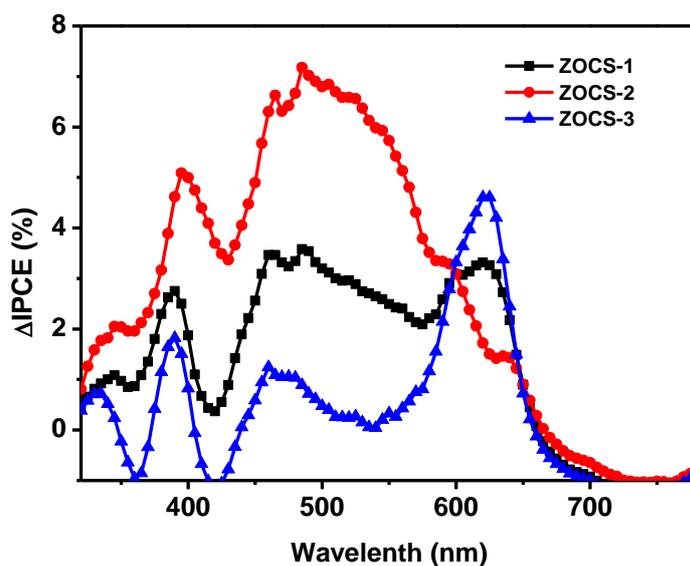


Figure S3 Comparison of enhanced IPCE changes caused by *in situ* growth CdS layer on ZnO nanowall, polymer solar cells based on bare ZnO nanowall is a reference device.

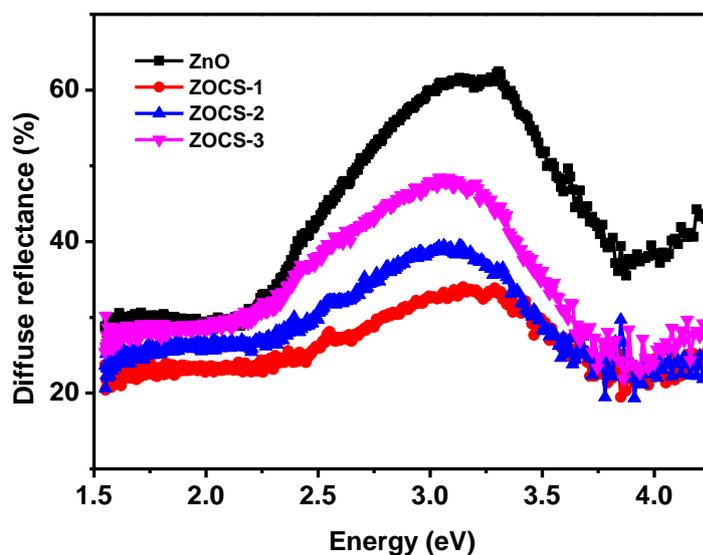


Figure S4 Diffuse reflectance spectra of ITO/ZnO nanowall and ITO/ZOCS nanowalls with various CdS-layer thicknesses.

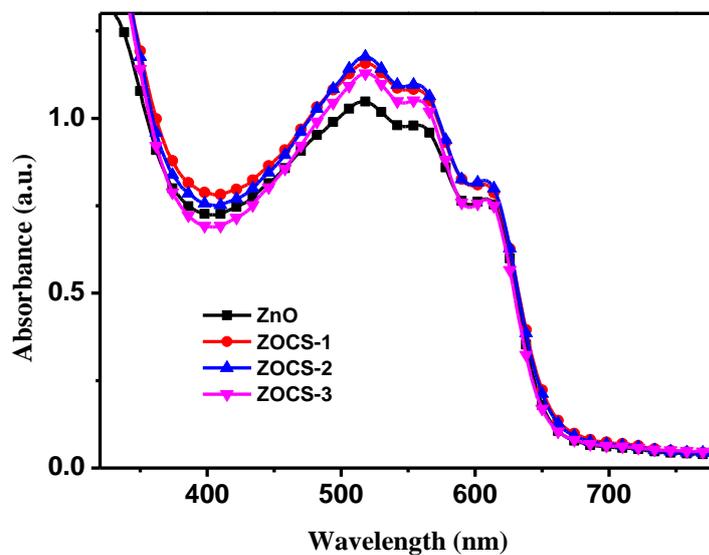


Figure S5 Absorption spectra of P3HT:PCBM active layer on bare ZnO nanowall and hybrid ZOCS nanowalls with various CdS-layer thicknesses.

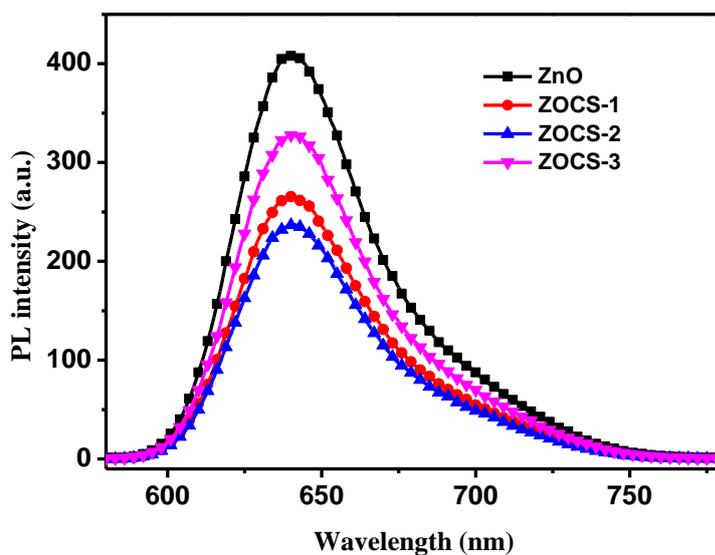


Figure S6 Photoluminescence spectra of P3HT:PCBM active layer on bare ZnO nanowall and hybrid ZOCS nanowalls with various CdS-layer thicknesses.

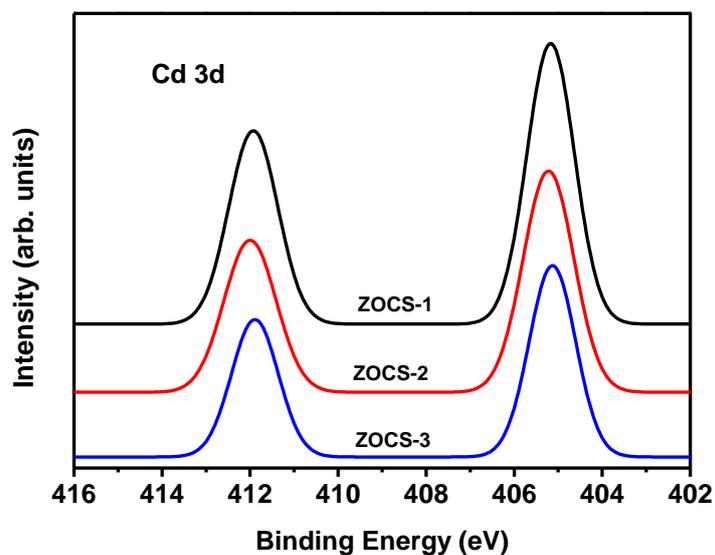


Figure S7 XPS data of Cd 3d for the hybrid ZOCS nanowalls with various thicknesses of CdS layers.

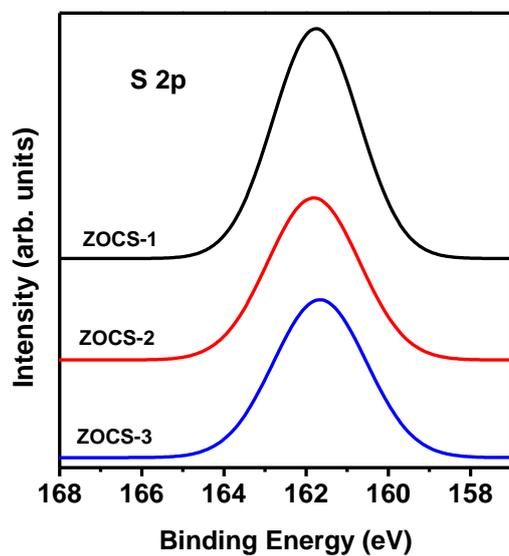


Figure S8 XPS data of S 2p for the hybrid ZOCS nanowalls with various thicknesses of CdS layers.