Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2020

The Supporting Figures Caption

Fig. S1 The TEM images of ZnO nanowalls: (a) TEM and (b) HRTEM.

Fig. S2 The XRD patterns of the ZnO nanowalls morphology at the different steps: (a) Step 1,

(b) *Step 2*, (c) *Step 3* and (d) *Step 4*.

Fig. S3 FT-IR transmittance spectra of the products after step1 and step 2: (a) step1 and (b) step1.

Fig. S4 The XRD patterns of the ZnO nanowalls at the different dipping times.

Fig. S5 The XRD patterns of the ZnO nanowalls at the different growth time.

Fig. S6 The solution after step 3.

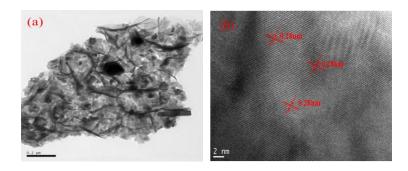
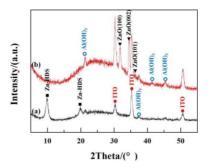


Fig. S1



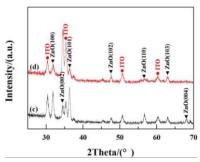


Fig. S2

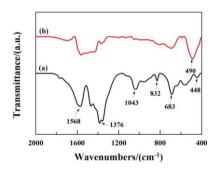


Fig. S3

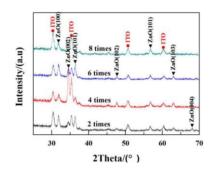


Fig. S4

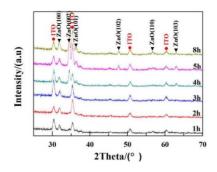


Fig. S5

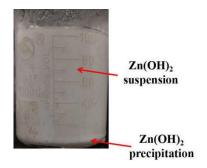


Fig. S6