

# Supplementary Materials: Melioration of Electrical and Optical Properties of Al and B Co-Doped ZnO Transparent Semiconductor Thin Films

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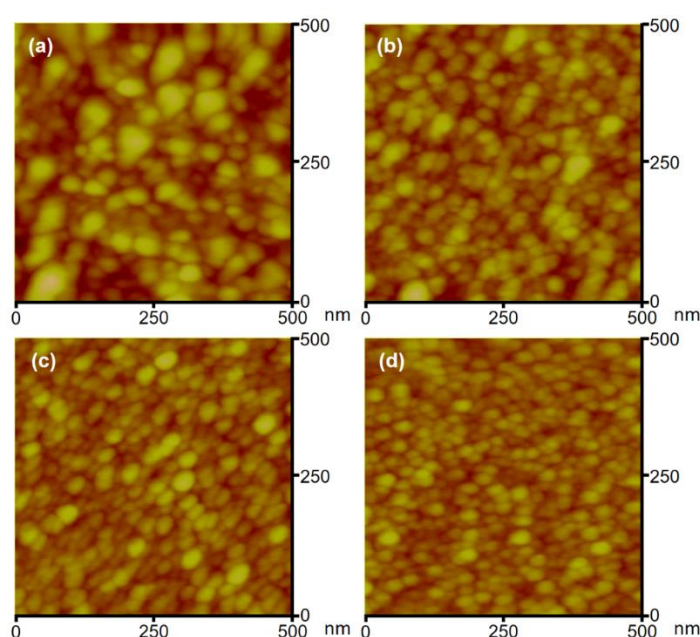
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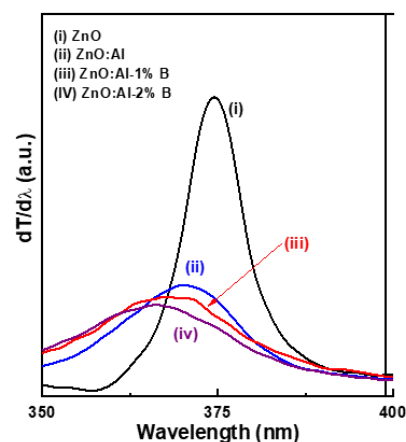
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**Figure S1.** 2-D topographical SPM images of ZnO-based thin films: (a) ZnO, (b) ZnO:Al, (c) ZnO:Al-1% B, and (d) ZnO:Al-2% B samples.



**Figure S2.** Plot of the first derivative of optical transmittance with respect to wavelength ( $dT/d\lambda$ ) versus wavelength in the near-UV region for the ZnO-based thin film samples.