

Electronic Supplementary Information for Dalton Transactions

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Supporting Information for

“Cd_{1-x}Zn_xO [0.05 ≤ x ≤ 0.26] Synthesized by Vapor-diffusion Induced Hydrolysis and Co-nucleation from Aqueous Metal Salt Solutions”

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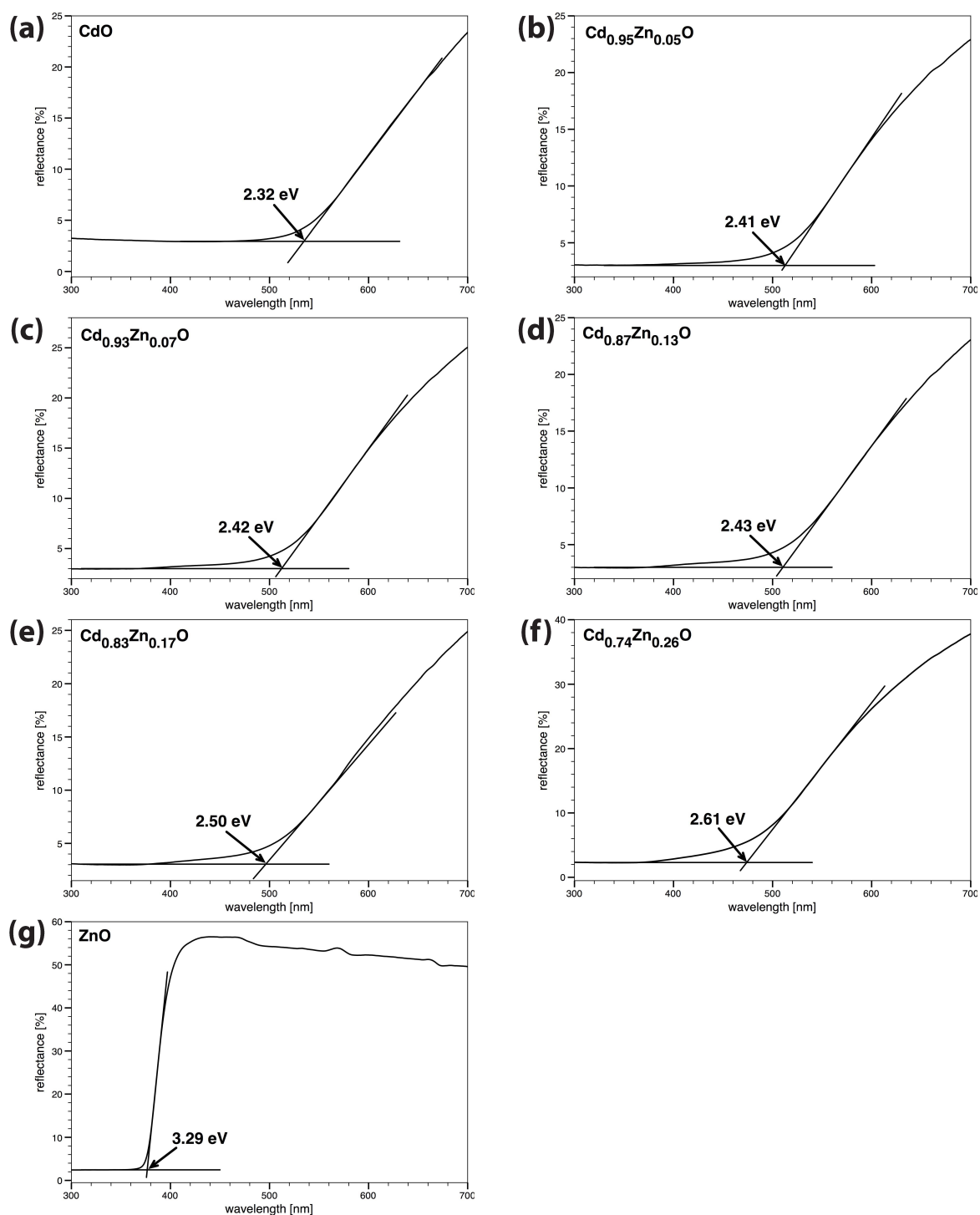


Figure S1. UV/Vis spectra for a) CdO (2.32 eV), b) Cd_{0.95}Zn_{0.05}O (2.41 eV), c) Cd_{0.93}Zn_{0.07}O (2.42 eV), d) Cd_{0.87}Zn_{0.13}O (2.43 eV), e) Cd_{0.83}Zn_{0.17}O (2.50 eV), f)

$\text{Cd}_{0.74}\text{Zn}_{0.26}\text{O}$ (2.61 eV) and g) ZnO (3.29 eV). Tangents indicate method for determination of band gap of the nanostructured materials.

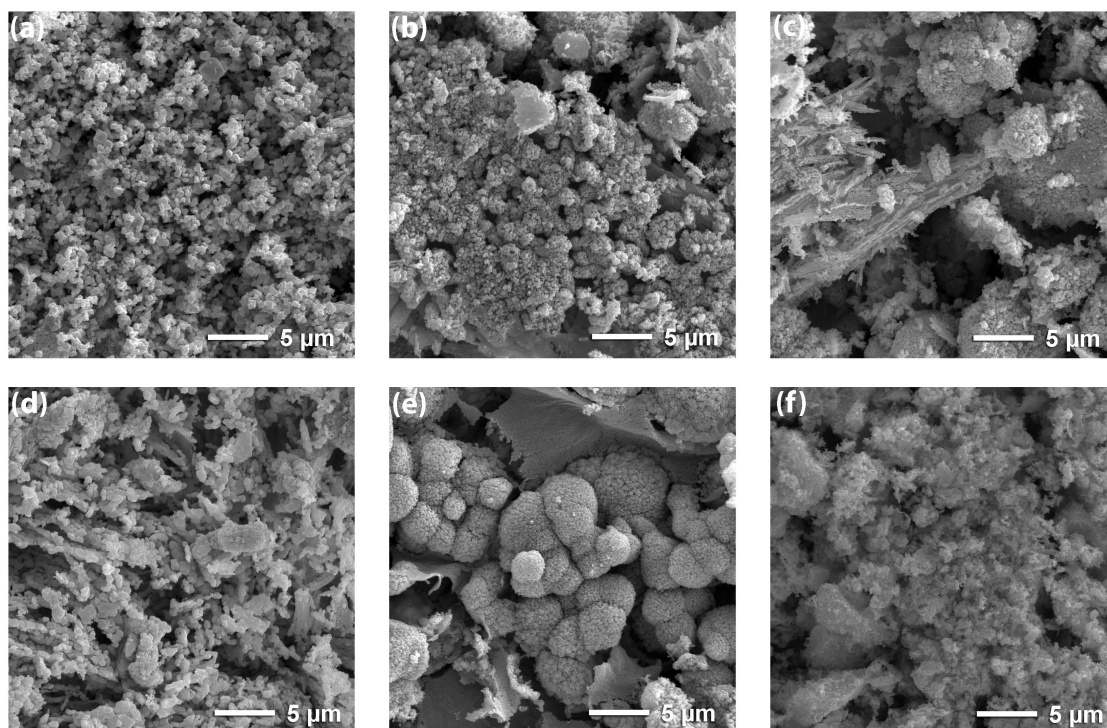


Figure S2. Scanning electron microscopy images of a) CdO , b) $\text{Cd}_{0.95}\text{Zn}_{0.05}\text{O}$, c) $\text{Cd}_{0.93}\text{Zn}_{0.07}\text{O}$, d) $\text{Cd}_{0.87}\text{Zn}_{0.13}\text{O}$, e) $\text{Cd}_{0.83}\text{Zn}_{0.17}\text{O}$, and f) $\text{Cd}_{0.74}\text{Zn}_{0.26}\text{O}$ illustrating the inhomogeneous morphology on the micrometer scale for these bimetallic oxide materials.

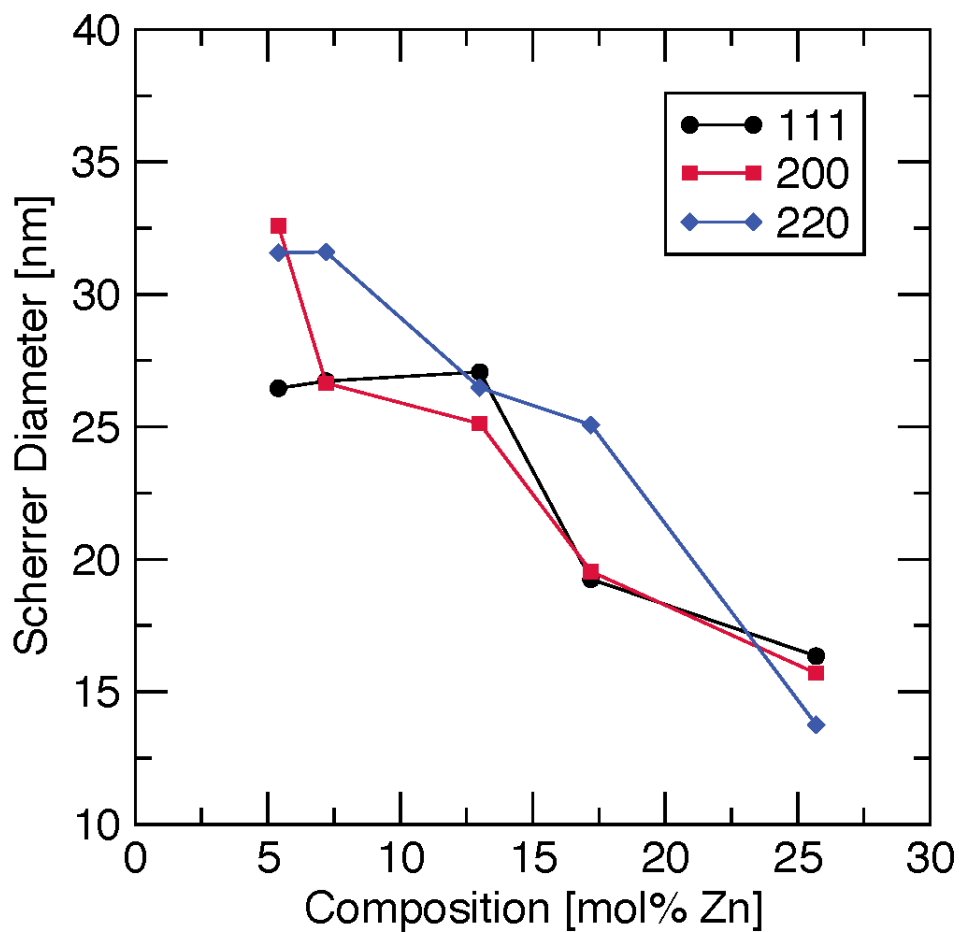


Figure S3. Crystalline correlations lengths of the Cd^{2+} -containing cubic phase in the mixed metal oxide samples $\text{Cd}_{0.95}\text{Zn}_{0.05}\text{O}$, $\text{Cd}_{0.93}\text{Zn}_{0.07}\text{O}$, $\text{Cd}_{0.87}\text{Zn}_{0.13}\text{O}$, $\text{Cd}_{0.83}\text{Zn}_{0.17}\text{O}$, and $\text{Cd}_{0.74}\text{Zn}_{0.26}\text{O}$ as determined from the X-ray reflections 111, 200, and 220, respectively, using the Scherrer formula.