

Supporting information

# Synthesis of Highly Efficient (0D/1D) Z-scheme CdS-NPs@ZnO-NRs Visible-light-driven Photo(electro)catalyst for PEC Oxygen Evolution Reaction and Removal of Tetracycline

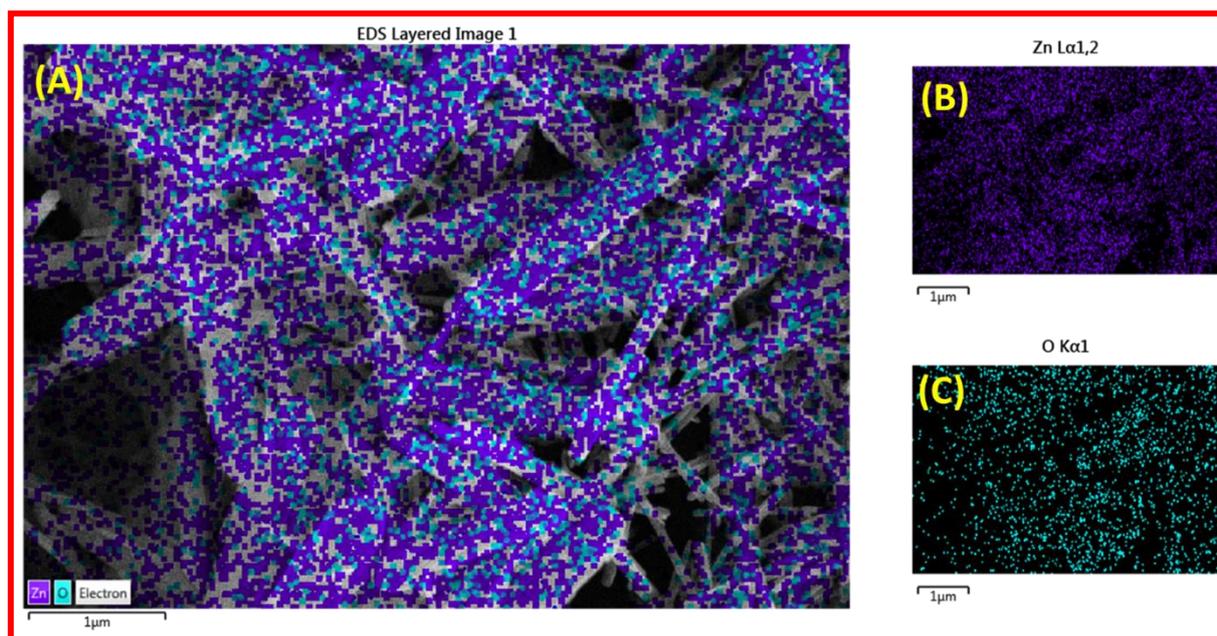
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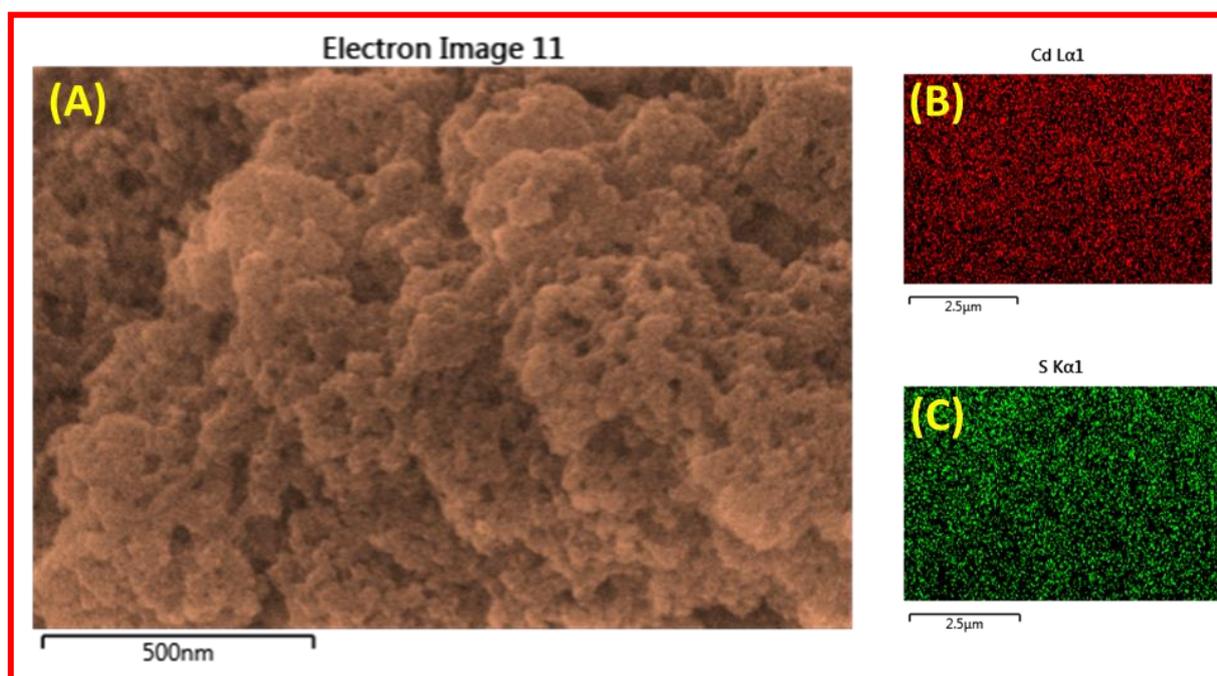
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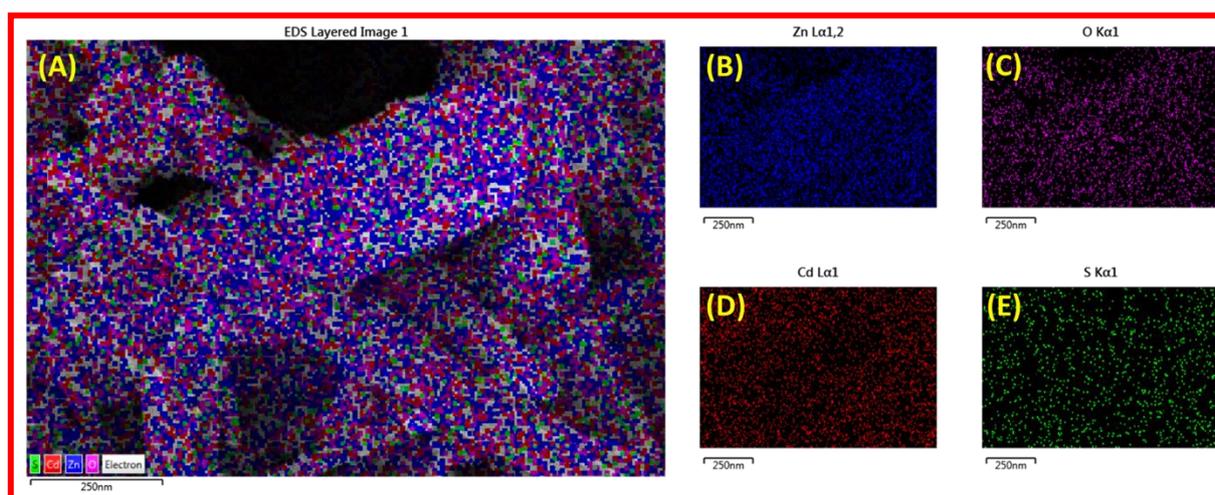
§These authors contributed equally to this work.



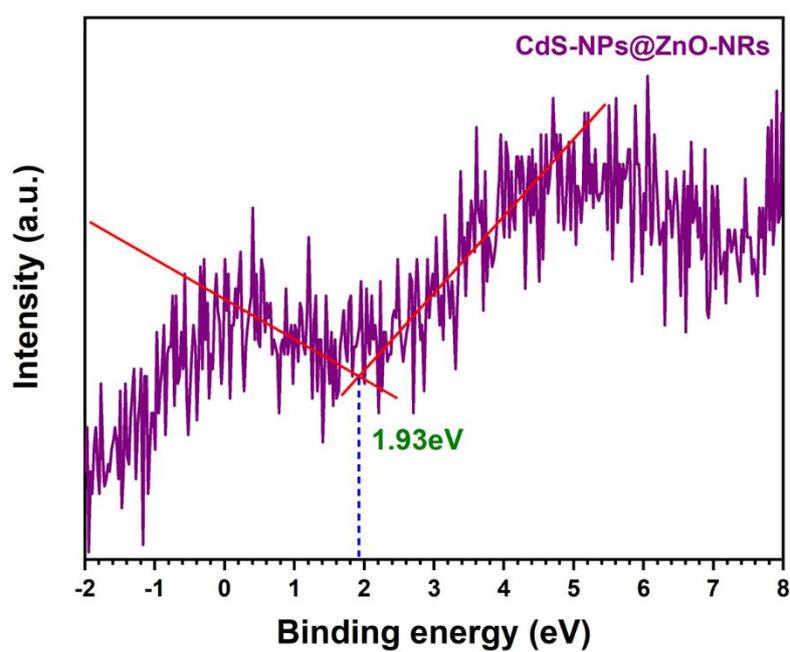
**Figure S1.** Elemental mapping image of overall ZnO-NRs (A), Zn (B), and O (C).



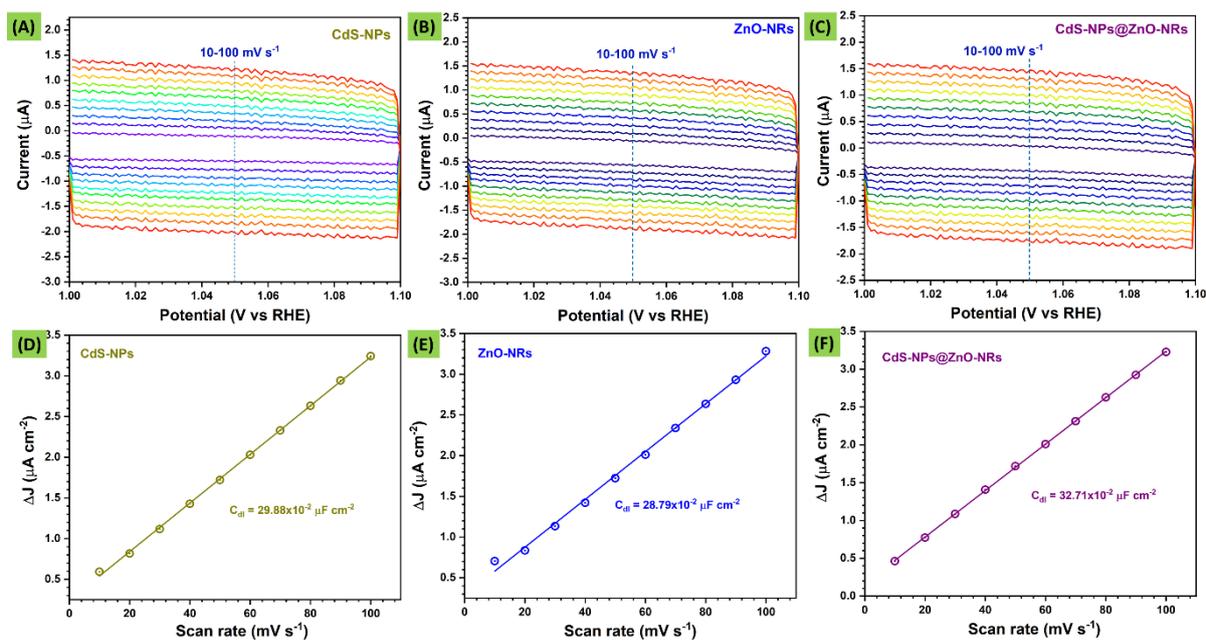
**Figure S2.** Elemental mapping image of overall CdS-NPs (A), Cd (B), and S (C).



**Figure S3.** Elemental mapping image of overall CdS-NPs@ZnO-NRs (A), Zn (B), O (C), Cd (D), and S (E).



**Figure S4.** Valence band X-ray photoelectron spectrum (VB-XPS) of CdS-NPs@ZnO-NRs.



**Figure S5.** Electrochemical active surface area (ECSA) and electrochemical double layer capacitance ( $C_{dl}$ ) of CdS-NPs (A, D), and ZnO-NRs (B, E), and CdS-NPs@ZnO-NRs (C, F).