

# CrystEngComm

## Supporting Information for

### Tunable Growth of PbS Quantum Dots-ZnO Heterostructure and

### Mechanism Analysis

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Supporting information S1:

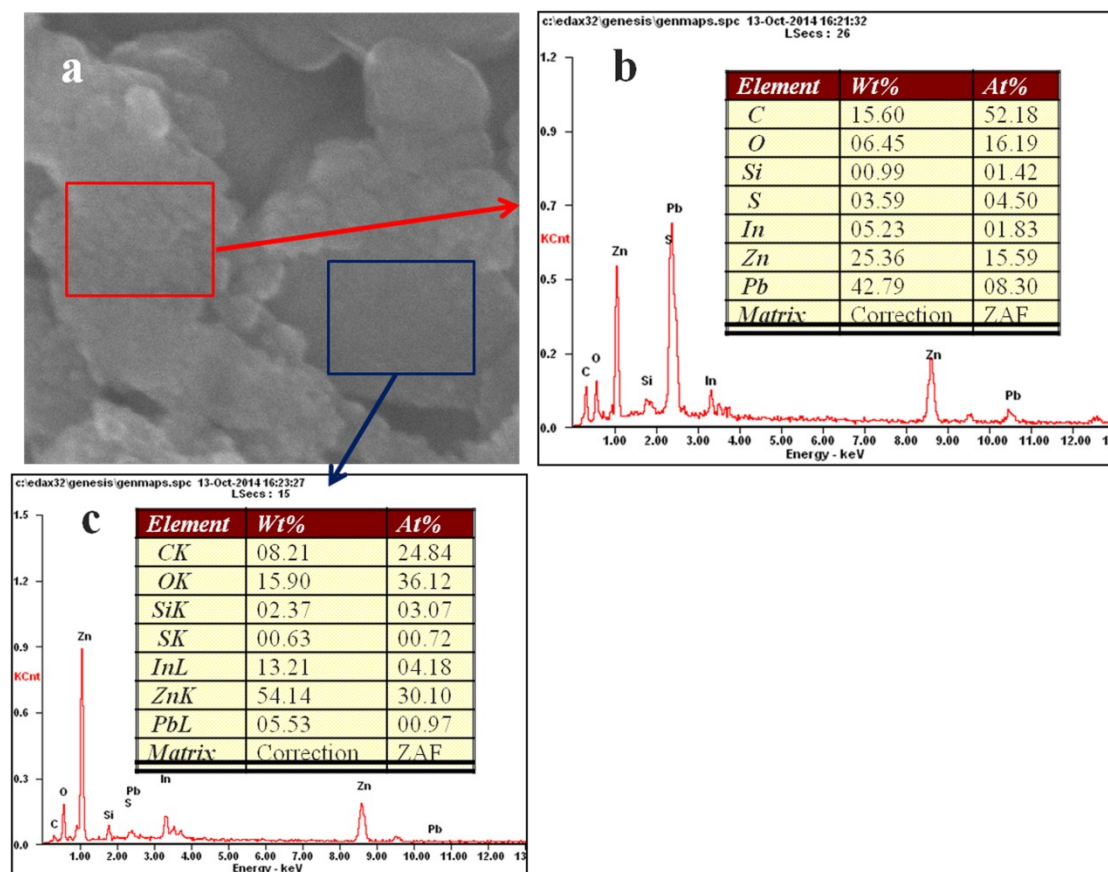


Figure S1. EDS of PbS QDs-ZnO heterostructure formed by using pure WATER as solvent of  $\text{Pb}(\text{NO}_3)_2$ .

Supporting information S2:

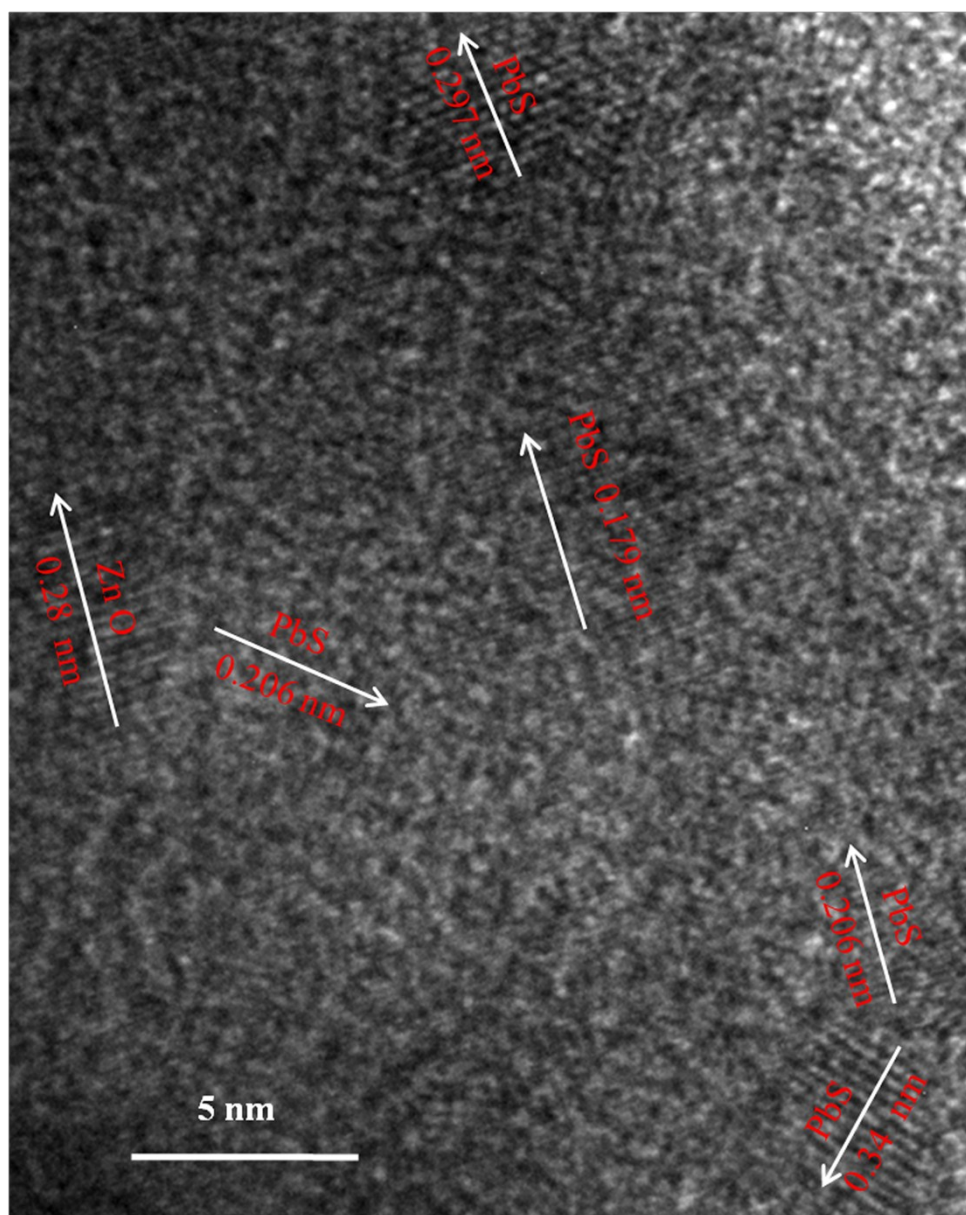


Figure S2. HRTEM image of PbS QDs-ZnO heterostructure formed in  $\text{Pb}(\text{NO}_3)_2$  solution with volume ratio of ethanol/water 2:1.

Supporting information S3:

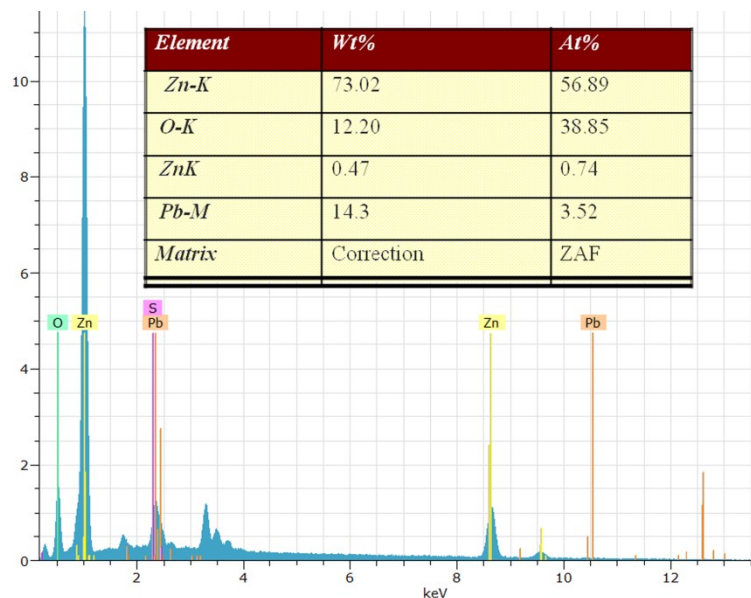


Figure S3. EDS of PbS QDs-ZnO heterostructure formed by using ethanol/water mixture (v/v=2:1) as solvents of  $\text{Pb}(\text{NO}_3)_2$  solutions. The concentration of  $\text{Pb}(\text{NO}_3)_2$  is 0.03 M corresponding to sample in Figure 5c.

Supporting information S4:

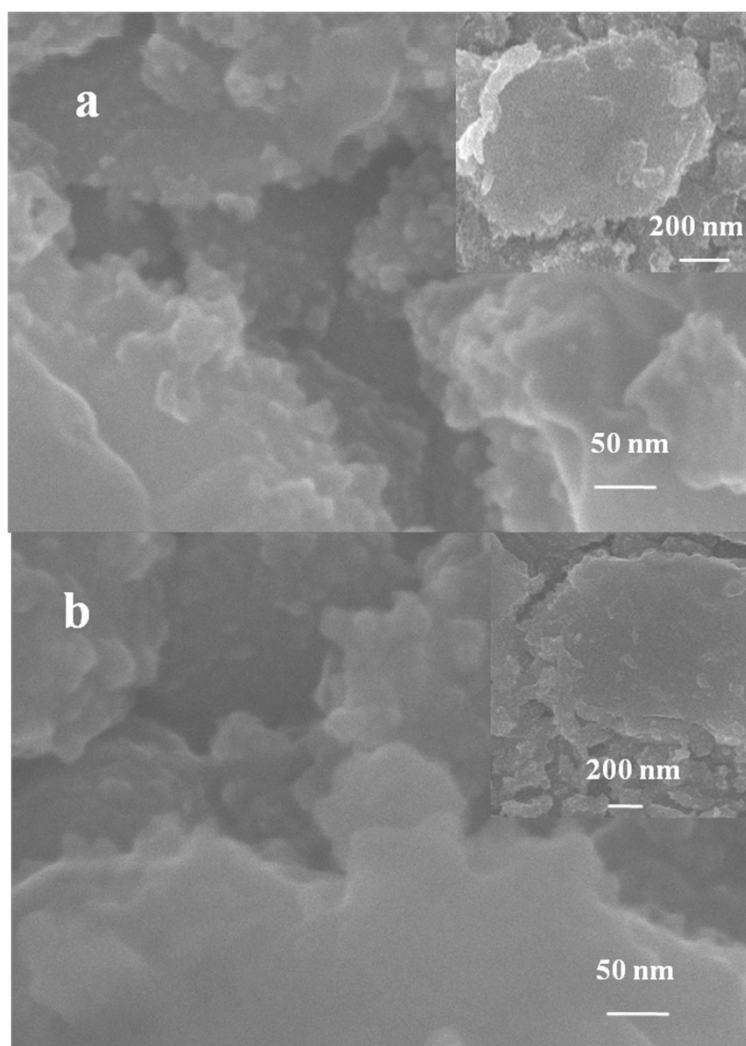


Figure S4. SEM images of PbS QDs-ZnO heterostructures formed by SILAR method with different dipping times in  $\text{Pb}(\text{NO}_3)_2$  solution each circle: (a) 3 times; (b) 5 times.