

Photoelectrochemical properties of nanocrystalline ZnS discrete versus continuous coating of ZnO nanorods prepared by electrodeposition

Supporting information

TEM and SEM analysis

The recorded SEM (top view) and TEM micrographs on all the produced heterostructures are given in Fig. SI-1 and Fig- SI-2, respectively, to evidence ZnO NRs coating by a more or less continuous ZnS coating shell. EDS spectra recorded on the core and the outer layer of some representative rods confirm the absence of sulphur and reversely its presence.

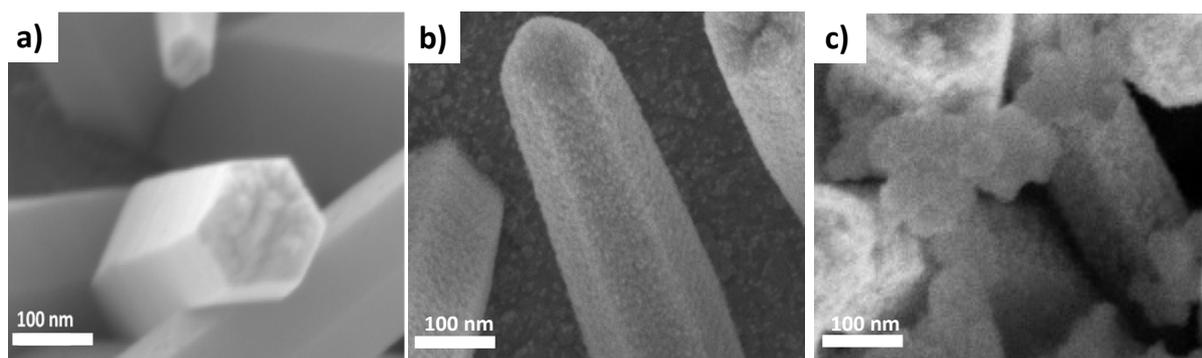


Figure SI-1 SEM micrographs (top view) of bare ZnO NRs a) and their related ZnO@ZnS-NRs b) and ZnO@ZnS-QDs c) heterostructures.

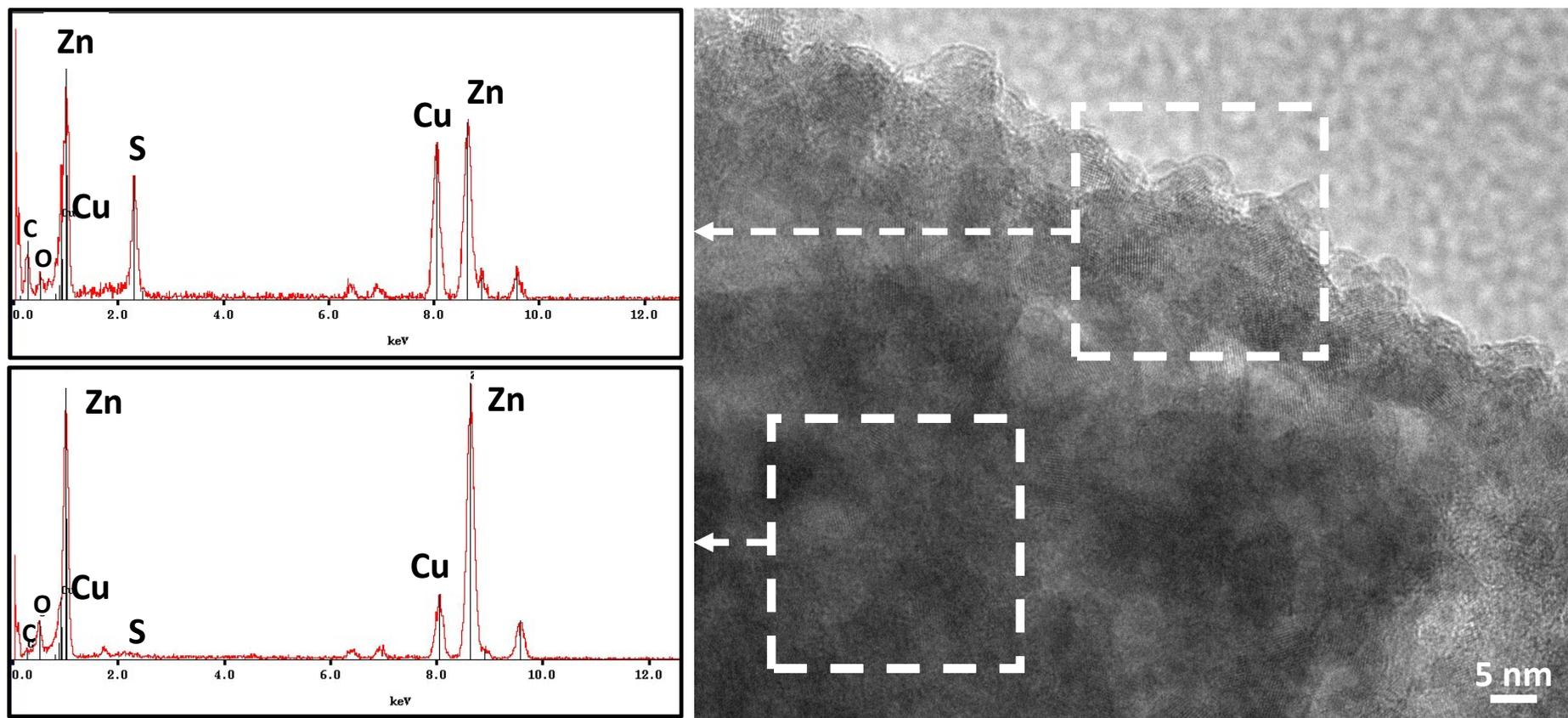


Figure SI-2a HRTEM micrographs of an isolated ZnO@ZnS-NRs nanorod and its EDS spectra recorded on its outer layer (up) and its inner core (down), respectively.

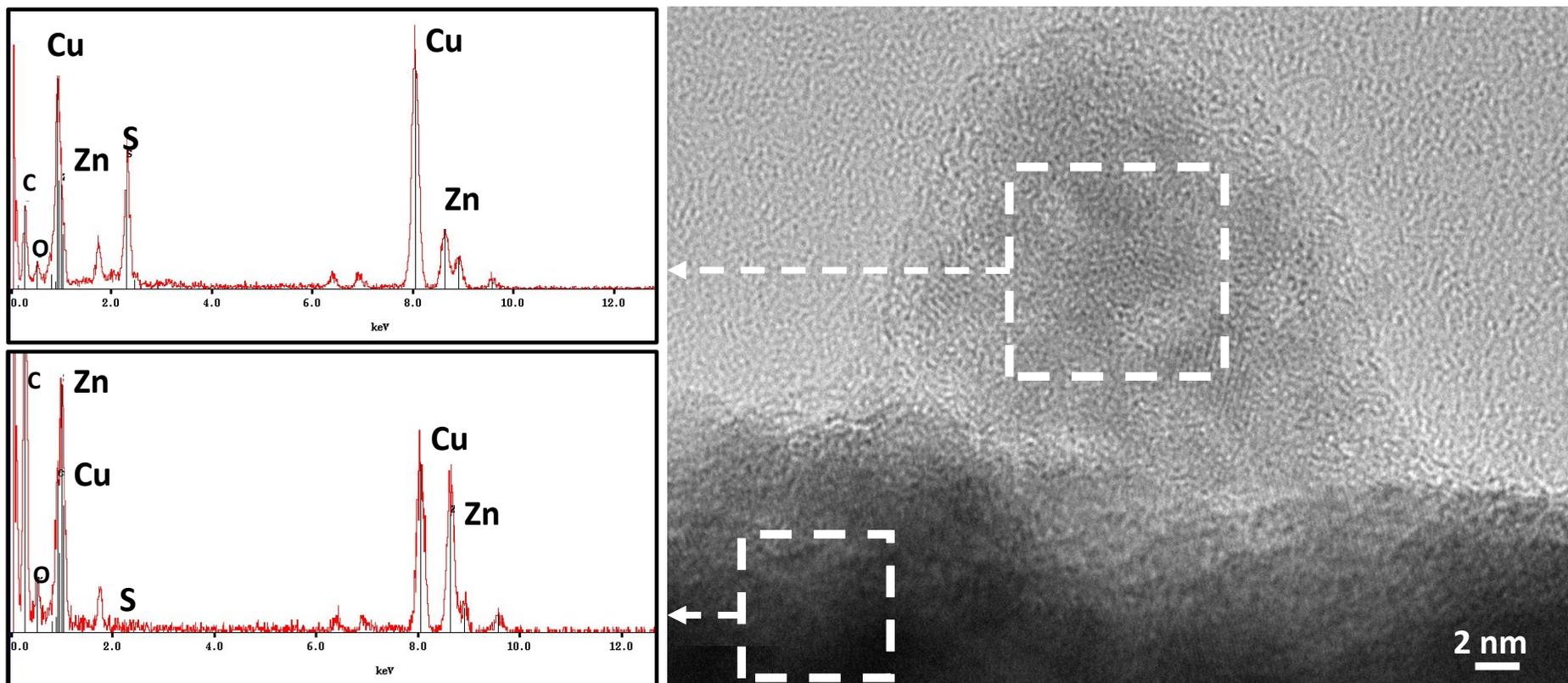


Figure SI-2b HRTEM micrographs of an isolated ZnO@ZnS-QDs nanorod and its EDS spectra recorded on its outer layer (up) and its inner core (down), respectively.