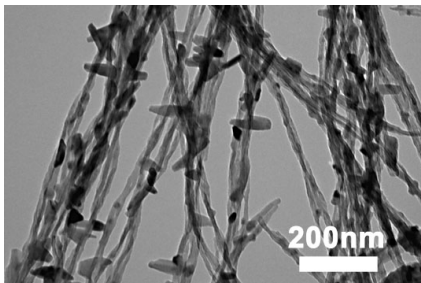


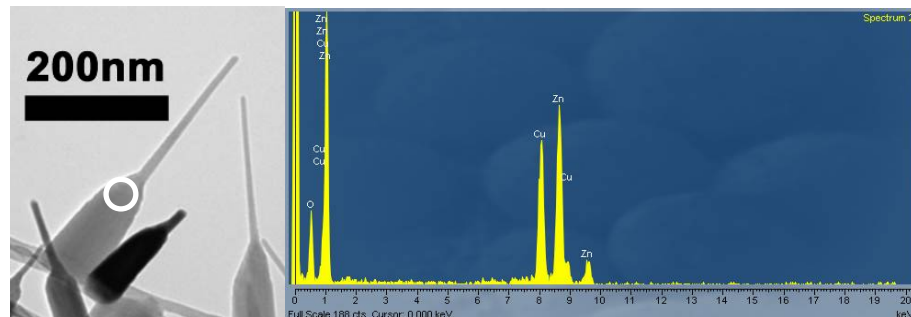
Supporting information:

S1. ZnO/SiO₂ nanostructure got at the early stage of the growing process

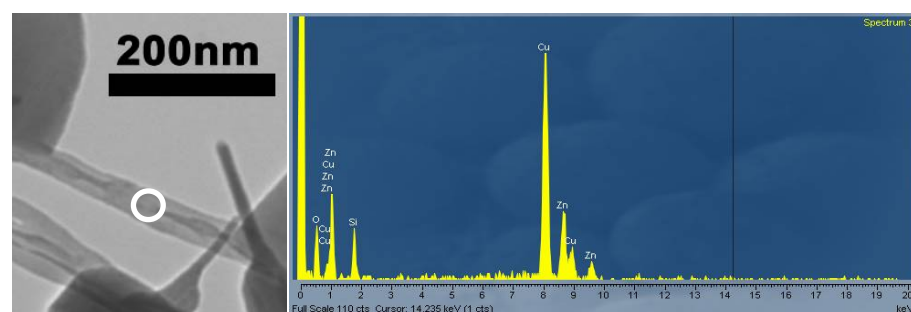


This experiment showed SiO₂ nanowires grow out from the liquid Sn surface, and baby ZnO nucleus appeared at the beginning.

S2. EDX spectrum of the ZnO nanostructure

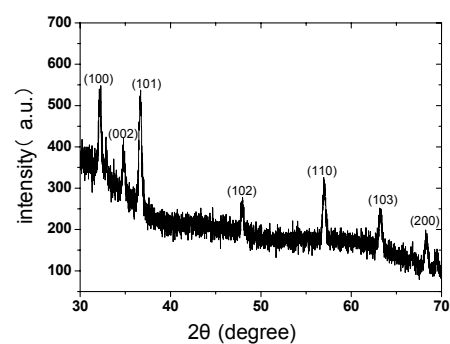


Spectrum 1, the EDX result was got from the nanoneedle section, the ration of O to Zn is 1.1.



Spectrum 2, the EDX result was got from long nanowires on which the ZnO needles standing, the ratio of O:Si:Zn \approx 3:1:1.

S3. XRD spectrum of the ZnO/SiO₂ nanostructure.



The spectrum is dominated by peaks of hexagonal ZnO (CAS number 1314-13-2).