Supplementary Information

## Multistage growth of monocrystalline ZnO nanowires and twin-nanorods: oriented attachment and role of the spontaneous polarization force

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**Fig. S1** Transmission electron microscopy revealing early stages of crystal growth of ZnO nanowires in ethanol at high temperature. These stages involve formation of amorphous clusters and their subsequent crystallization into intermediate quantum dots. The SAED patterns reveal the structure evolution of the nanoparticles with time.



**Fig. S2** (a) EDS spectra of early-stage ZnO nanoclusters/nanocrystals (Fig. S1). (b) Ratio of number of oxygen atoms and zinc atoms [obtained from data in (a)] as a function of average radius of the nanoparticles obtained from the TEM observation. The solid line is fit of the measured data using the indicated equation.