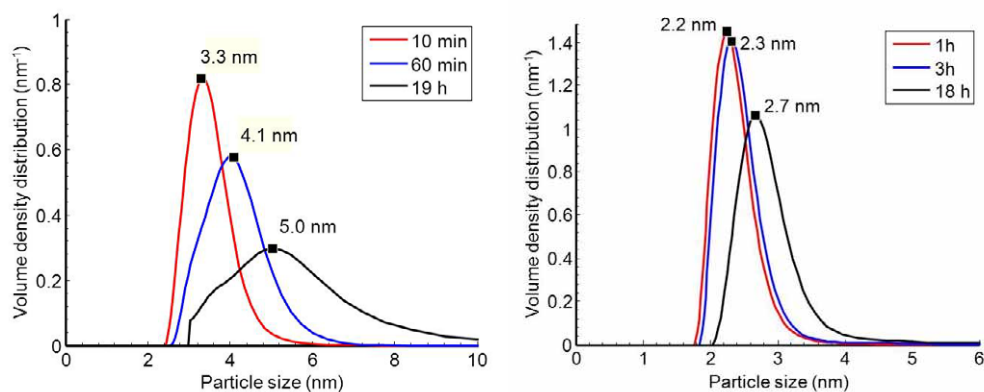


## Supplementary Information

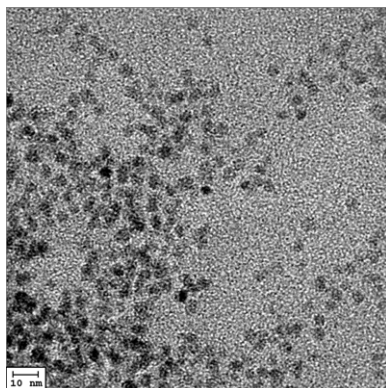
### Concept of a thin film memory transistor based on ZnO nanoparticles insulated by a ligand shell

By Johannes Hirschmann, Hendrik Faber, and Marcus Halik

**SI 1:** Particle size distribution (PSD) of NPs covered with acetate (left) and 2-ethylhexanoate (right) in dependence on reaction time at 35°C. The PSDs were determined according to [12].



**SI 2:** TEM of NPs with 2-ethylhexanoate ligand shell. The particles were highly diluted, no stabilizing agent was added. Magnified x 70000.



**SI 3:** AFM of ZnO NPs covered with 2-ethylhexanoate spin coated on SiO<sub>2</sub> substrate. The picture was recorded in tapping mode. 1 x 1 μm<sup>2</sup>, RMS = 0.53 nm

