



Nanoscale-Resistive Switching in Forming-Free Zinc Oxide Memristive Structures

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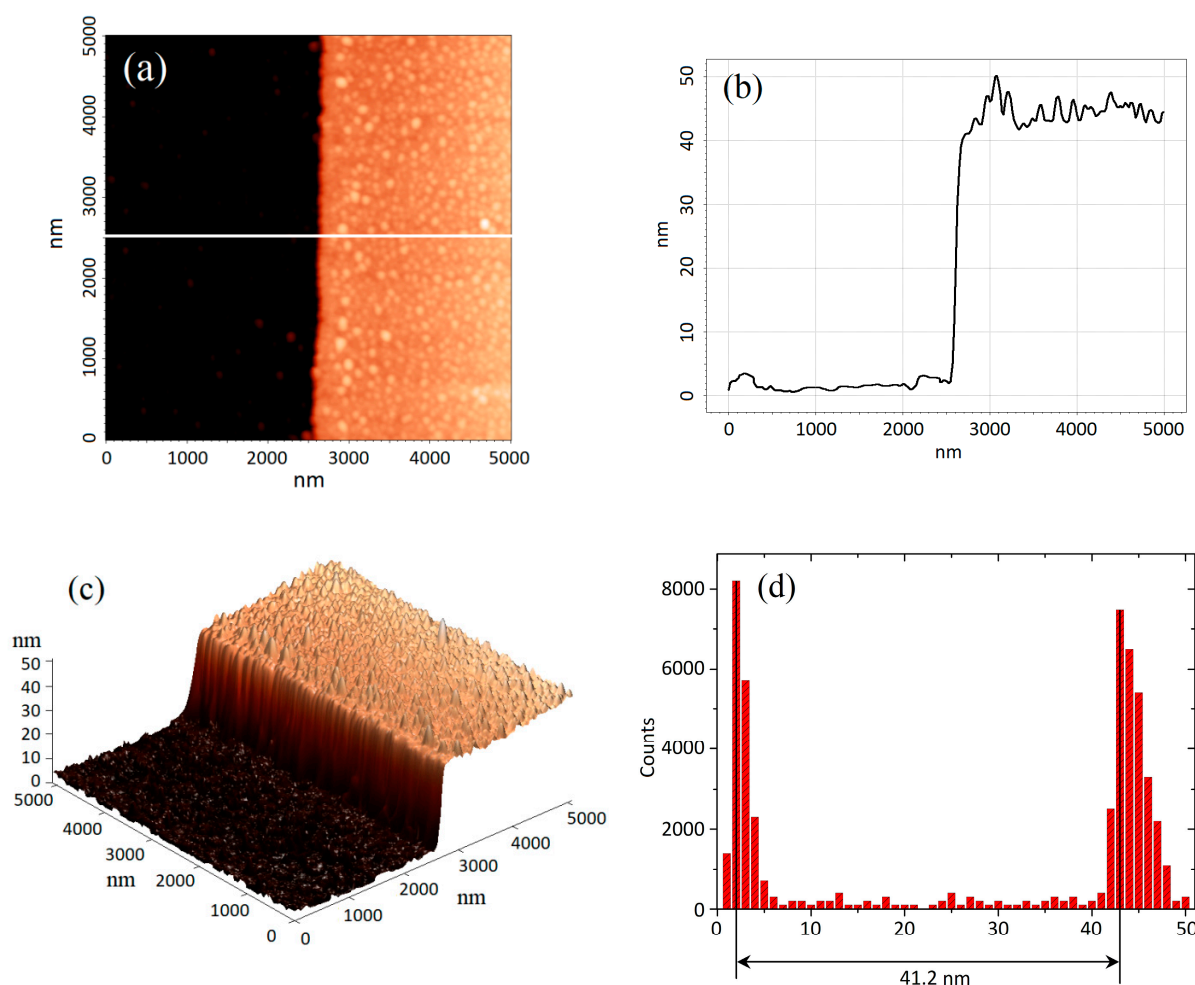
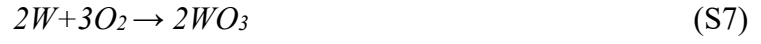
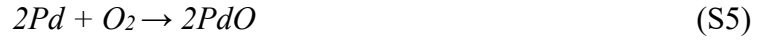


Figure S1. Experimental studies of the forming-free nanocrystalline ZnO film thickness: (a) – AFM-image; (b) – AFM cross section along the white line in (a); (c) – 3D AFM-image; (d) – height histogram.



Equations S1–S9. Reduction reaction at the interface between the electrode and the forming-free nanocrystalline ZnO film.