

Abstract Submitted
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Focused Ion Beam Treatment of ZnO Nanowires¹ GAGIK SHMAVONYAN, State Engineering University of Armenia — We investigated vapour-liquid-solid-grown ZnO nanowires (NWs) on a Si substrate by SEM. SEM investigations show that there are single NWs and ensembles of NWs, among which we found straight and bend, perfect and non-perfect NWs, as well as NWs with clean surfaces and surfaces with the dark spots and features. After focused ion beam polishing we found that every NW has a clean homogeneous surface, which allow us to conclude that all those dark spots and surface features of the NWs really are just surface features. The focused ion beam milling gives information of the deeper interior of the NWs, i.e. buried structures within the NWs and whether those structures are propagating within the NWs. But also here we found that there are no buried structures inside the NWs and the dark spots and features are not propagating within the NWs, which leads to the result that the NWs are totally homogeneous. The sizes of the NWs were determined: the length is about 2-24 μm , and the width and height are about 200-500 nm.

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