

Sequential Deposition of Multisegment Nanowires

Matei E, Preda N, Enculescu M, Ansermet J-P, Toimil Molares ME, Enculescu I
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Electrochemical replication of nanoporous membranes represents a facile approach towards the fabrication of nanostructures with tailored properties. By the template method we prepared multisegment nanowires with tailored structure. The first step of the process was the fabrication of the nanoporous template by swift heavy ion irradiation and subsequent selective etching of the ion track. The next step was to fill the pores with the desired combination of materials. In this manner, by sequential electrodeposition steps of metal and semiconductor we prepared Ni - CdTe and Ni - ZnO - Ni nanowires.