

Review of: "In the manufacturing of one-dimensional nanostructures such as nanowires by electro-accumulation method, there are three general steps"

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Potential competing interests: No potential competing interests to declare.

In the manufacturing of one-dimensional nanostructures such as nanowires by the electro-accumulation method, there are three general steps: firstly, the creation of a porous template as a suitable substrate and framework for the accumulation of nanowires; secondly, the growth of nanowires in line with the cavities of the template; and thirdly, the removal of the template and the separation of nanowires from it. The properties of nanowires are directly dependent on the characteristics of the surface of the mold, such as the distribution of the size of the holes, the density of the holes, and the superiority of the surface of the nanoholes. To control the characteristics of nanowires, the parameters that are effective in the formation and optimization of the diameter of the holes and the thickness of the mold should be considered.

Magnetic nanowires such as cobalt, nickel, iron, and alloys can be made by electroaccumulation and spontaneous accumulation on an anodic aluminum oxide mold, and the magnetic properties of cobalt nanowire arrays, such as coercive force, saturation magnetism, and residual magnetization, are related to the configuration of nanowires, and the diameter of the nanowires depends.

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