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

Kiana Hafland

1 City of Portland

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.

References

1. ^Lei Choe. (2024). Review of: "The field-effect tunneling transistor nMOS, as an alternative to conventional CMOS by enabling the voltage supply (VDD) with ultra-low power consumption.". Qeios. doi:10.32388/23oxov.


8. Chad Allen. (2024). Review of: “FinFET nanotransistor, the reduction of scale causes more short channel effects, less gate control, an exponential increase in leakage currents, severe process changes, and power densities”. Qeios. doi:10.32388/h3qk7b.


26. ^Afshin Rashid. (2024). Review of: "In general, an electrical nano-biosensor consists of an immobilized static biological system (based on their own built-in immobilized static biological system)". Qeios. doi:10.32388/pq6ho0.


28. ^Prienna Radochevich. (2024). Review of: "Block nanolithography Oriented copolymer is a combination of top-down lithography and the bottom-up self-organization of two polymers to produce high-resolution nanopatterns over large areas". Qeios. doi:10.32388/a0nexa.

29. ^Prienna Radochevich. (2024). Review of: "Block nanolithography Oriented copolymer is a combination of top-down lithography and the bottom-up self-organization of two polymers to produce high-resolution nanopatterns over large areas". Qeios. doi:10.32388/a0nexa.

30. ^Afshin Rashid. (2024). Review of: "Nano supercapacitor called (electrostatic) -- The total thickness of each \( i=4 \) electrostatic nanocapacitors only 25 nm". Qeios. doi:10.32388/247k3y.


32. ^Lola Carter. (2024). Review of: "CP materials are able to provide sensitive and rapid responses to specific biological and chemical species". Qeios. doi:10.32388/nseza9.

33. ^Lola Carter. (2024). Review of: "So far, arrays of electrostatic nanocapacitors cannot store much total energy because they are too small". Qeios. doi:10.32388/csrr0u.


35. ^Mesina Farfan. (2024). Review of: "The ultra-thin carbon lattice is capable of transporting electrons with coordinated spin over longer distances and spinning for longer periods of time than any other known material at room temperature". Qeios. doi:10.32388/u9m7vv.