Review of: "The advantages of using nanoporous aluminum oxide as a template for the production of nanowires compared to other methods, including the high order of pores, the alignment of pores, and the controllability of the ratio"

Jorge Gasperini[1]

1 University of Rome Tor Vergata

Potential competing interests: No potential competing interests to declare.

The advantages of using nanoporous aluminum oxide as a template for the production of nanowires compared to other methods, including the high order of pores, the alignment of pores, and the controllability of the ratio The length is equal to the diameter and high density of the porosity.

> *The amount of order and dimensions of the nanowires produced using this set of templates is determined and controlled by the initial conditions of the anodizing process.*

due to chemical stability, high saturation magnetization, high axial anisotropy, high temperature, chemical stability and high corrosion resistance excellent, and high special resistance of nano-electricity, they have good electromagnetic and nano-magneto-optic properties.The main advantage of this technique is the selective growth of a material in the region of interest in one step. Due to the high resolution of the focused ion beam nanolithography technique , deposits can be grown with high lateral resolution , but with much less damage caused to the substrate due to the low linear motion of electrons compared to ions. In contrast, the growth rate and metal content of the deposits are generally used for focused ion beam nanolithography.

> ***Note: Oligophenylene vanillin (silicon/germanium) structure nano wires and cylinders are used for possible applications in energy, electronics, optics and other fields.***

Oligophenylene vanillin nanowires (Si Silicon / Germanium Gi) , narrow structures whose diameter is only a few billionths of a meter but thousands or millions of times longer. They exist in various forms—made of metals, semiconductors, insulators, and organic compounds—and are used for applications in the fields of electronics, energy conversion, optics, and chemical sensing. Because of their extreme thinness, Oligophenylene vanillin nanowires with a (Si Silicon / Germanium Gi) structure are essentially one dimensional. Nanowires are quasi-one-dimensional materials, "their two dimensions are on the nanometer

scale." This one-dimensionality confers distinct electrical and optical properties.For one thing, this means that the electrons and photons in these nanowires experience "confined quantum effects." However, unlike other materials that produce such quantum effects, such as quantum dots, the length of Oligophenylene vanillin nanowiresallows them to communicate with other macroscopic devices and the outside world.

[1][2][3][4][5][6][7][8][9][10][11][12][13][14][15][16][17][18][19][20][21][22][23][24][25][26][27][28][29][30][31][32][33][34][35][36][37][38][39]

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/z3oxov.*
2. ^*Afshin Rashid. (2024). Review of: "transistor nMOS (with ultra-low power consumption, energy-efficient computing, during the sub-threshold range)". Qeios. doi:10.32388/1al4jb.*
3. ^*Afshin Rashid. (2023). Review of: "High speed (doping) nMOS graphene transistor in p- and n-doping electronic circuits (positive and negative)". Qeios. doi:10.32388/jreu5m.*
4. ^*Erkan Ozturk. (2023). Review of: "(Nano transistor) Electronic and biological nanotechnology (Structure, internal building)". Qeios. doi:10.32388/bt5z8a.*
5. ^*Linda Brouce. (2023). Review of: "(Field effect nano transistors) Nano transistor electronic quantity".Qeios. doi:10.32388/12sgvj.*
6. ^*Afshin Rashid. (2024). Review of: "Nano supercapacitors (supercapacitors or electrochemical nanocapacitors)". Qeios. doi:10.32388/67gwcf.*
7. ^*Afshin Rashid. (2024). Review of: "FinFET nanotransistor downscaling causes more short channel effects, less gate control, exponential increase in leakage currents, drastic process changes and unmanageable power densities". Qeios. doi:10.32388/hx4oyk.*
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.*
9. ^*Afshin Rashid. (2023). Review of: "Nano electrical memories and testing Nickel nanoparticles NI_nanoparticle Strong conductors of electric current". Qeios. doi:10.32388/sbe8l8.*
10. ^*Afshin Rashid. (2023). Review of: "Reproduction (electrical nano memories) by the method combined nanolithography (١٢ V), Fast switching speed (١ microsecond)". Qeios. doi:10.32388/jg1x8x.*
11. ^*Afshin Rashid. (2023). Review of: "Experiment (nanoelectronic memory) using small organic molecules Chlorophyll pseudo instead of charge storage capacitors". Qeios. doi:10.32388/k0x2ro.*
12. ^*Marcus Webster. (2024). Review of: "Graphene molecular nanomemories show unique electronic properties, and their small dimensions, structural strength, and high performance make them a charge storage medium for Nano memory*

applications". Qeios. doi:10.32388/a6k2u7.

13. ^Anita Gupta. (2023). Review of: "Amplification of Nano Wires Nano Wire by Electron Nano Lithography".Qeios. doi:10.32388/l3md1n.
14. ^Cita O,brain. (2023). Review of: "The changes in the width of the nano transistor channel due to the field effect of the gate around can cause undesirable changes and loss of mobility". Qeios. doi:10.32388/5pfxk9.
15. ^Afshin Rashid. (2023). Review of: "(Field effect nano transistors) Nano transistor electronic quantity and ionization potential)". Qeios. doi:10.32388/464lg7.
16. ^Afshin Rashid. (2023). Review of: "The concept of (Nano assembler) in smart electronic nano structures".Qeios. doi:10.32388/atyte1.
17. ^Afshin Rashid. (2023). Review of: "Oligophenylene vanillin (silicon/germanium) structured nanowires and cylinders for possible applications in electronic energy". Qeios. doi:10.32388/i5wrmf.
18. ^Afshin Rashid. (2023). Review of: "Propagation of Oligophenylene vanillin nanowires by focused ion beam (FIB) nanolithography method (below ١٠٠ nm - ١٠ nm range)". Qeios. doi:10.32388/whhfa8.
19. ^Afshin Rashid. (2023). Review of: "Nano wire immersion method (structure and function)".Qeios. doi:10.32388/0od0gl.
20. ^Carlos Sanchez. (2023). Review of: "Oligophenylene vanillin (silicon/germanium) structure". Qeios. doi:10.32388/59igyk.
21. ^Andria Pandich. (2023). Review of: "Nano wire immersion method (structure and performance)".Qeios. doi:10.32388/efe18p.
22. ^Andrea County. (2023). Review of: "The concept of (Nano assembler)". Qeios. doi:10.32388/xrrt0e.
23. ^Luola Sendros. (2024). Review of: "nMOS instead of exhibiting thermionic emission modulation, changes through a quantum tunnel modulation 12> They change through a dam.". Qeios. doi:10.32388/5sdms6.
24. ^Lucas Jeferson. (2024). Review of: "Graphene in nMOS field-effect transistors". Qeios. doi:10.32388/1aozqy.
25. ^Afshin Rashid. (2024). Review of: "Many types of electrical nano-sensors using CP nanomaterials designed for nano-biological applications". Qeios. doi:10.32388/lytuvb.
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.
27. ^Afshin Rashid. (2024). Review of: "A combination of interference nanolithography and nanoelectronics lithography enables the fabrication and reproduction of high-resolution structures in large areas". Qeios. doi:10.32388/qy3s52.
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 < a i=4>electrostatic nanocapacitors only 25 nm". Qeios. doi:10.32388/247k3y.

31. ^Afshin Rashid. (2024). Review of: "distribution of nanotubes by NIR-vis-UV absorption spectroscopyresulting in preparation like valence electrons (dopingP)". Qeios. doi:10.32388/jg6x41.
32. ^Afshin Rashid. (2024). Review of: "Production of nano supercapacitors using nanoparticles (a piezoelectric and ferroelectric material)". Qeios. doi:10.32388/c2juls.
33. ^Afshin Rashid. (2024). Review of: "bipolar transistors (pMOS) have a state voltage connected (Von) around ۲ to ۳ volts". Qeios. doi:10.32388/c8zgvw.
34. ^Afshin Rashid. (2024). Review of: "_ Lindemann's change structure section in electrical nanostructures Lindemann change / (change structure) in multilayer nanostructures". Qeios. doi:10.32388/ttqb0i.
35. ^Afshin Rashid. (2024). Review of: "Normally, the length of nanowires is more than 1000 times greater than their diameter. This huge difference in ratio (length to diameter) compared to nanowires is often referred to as ١D materials". Qeios. doi:10.32388/xapduf.
36. ^Afshin Rashid. (2024). Review of: "Investigating the performance of (C۶۰ and C۷۰ endohistal bucky tubes and nano-fullers) and diamond in the manufacture of nano-electronic devices". Qeios. doi:10.32388/i6e9rc.
37. ^Afshin Rashid. (2024). Review of: "Nano Fullerenes with The Ability to Store Electrostatic Energy That can be Used as Nano Supercapacitors With Very High Capacity". Qeios. doi:10.32388/0ubhl5.
38. ^Afshin Rashid. (2024). Review of: "Micro and nano-electromechanical systems (MEMS / NEMS) are devices in which the physical motion of a micro- or nano-scale structure is controlled by an electronic circuit". Qeios. doi:10.32388/2zjn6h.
39. ^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). SSRN.