

# Review of: "the electric charge density increases in different areas of the nano-transistor , or in other words, the number of electric charges per unit area of the nano-transistor increases"

Arta Chandoz<sup>1</sup>

<sup>1</sup> LNL Technology (Turkey)

Potential competing interests: No potential competing interests to declare.

*In the nano transistor structure, the electronic quantity that is more easily available is the ionization potential, and the ionization potential is greater in the size of the small grains of the nano structure (smaller particles), that is, as the size of the particles increases, their ionization potential decreases. Finds.*

An increase in the surface-to- volume ratio and changes in geometry and electronic structure have a strong impact on the chemical interactions of matter, and for example, the activity of small particles changes with changes in the number of atoms (and thus the size of the particles). Unlike today's nano-transistors, which behave based on the movement of a mass of electrons in matter, new devices follow the phenomena of quantum mechanics at the nano scale, in which the discrete nature of electrons cannot be ignored. By reducing all the horizontal and vertical dimensions of the transistor, the electric charge density increases in different areas of the nano-transistor , or in other words, the number of electric charges per unit area of the nano-transistor increases. This kind of integrated circuits with their unique characteristics in the nanometer scale have various applications of mesoscopic systems. Modeling Si/Cu nanoparticles based on a relationship between molecular mechanics and solid mechanics, an energy-equivalent model is used for the mechanical properties and nanomolecular structure of the sputtering layer of materials, macroscopic properties of nanoparticles such as melting point, boiling point and electrical conductivity . It is done through a sample that is large enough to be measured in normal laboratory conditions.

*When the melting point of a nanomolecule is measured, in fact, the behavior of a large number of nanoparticle molecules is examined, and this is not true for all materials; When the material size is reduced and reaches nanometer dimensions, completely different behavior and properties may be seen compared to the same material in large dimensions.*

[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]

## References

- <sup>^</sup> 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.
- <sup>^</sup> Afshin Rashid. (2024). *Review of: "transistor nMOS (with ultra-low power consumption, energy-efficient computing, during the sub-threshold range)".* Qeios. doi:10.32388/1a44jb.
- <sup>^</sup> 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.
- <sup>^</sup> Erkan Ozturk. (2023). *Review of: "(Nano transistor) Electronic and biological nanotechnology (Structure, internal building)".* Qeios. doi:10.32388/bt5z8a.
- <sup>^</sup> Linda Brouce. (2023). *Review of: "(Field effect nano transistors) Nano transistor electronic quantity"*. Qeios. doi:10.32388/12sgvj.
- <sup>^</sup> Afshin Rashid. (2024). *Review of: "Nano supercapacitors (supercapacitors or electrochemical nanocapacitors)".* Qeios. doi:10.32388/67gwcf.
- <sup>^</sup> 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.
- <sup>^</sup> 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.
- <sup>^</sup> Afshin Rashid. (2023). *Review of: "Nano electrical memories and testing Nickel nanoparticles NI\_nanoparticle Strong conductors of electric current"*. Qeios. doi:10.32388/sbe8l8.
- <sup>^</sup> Afshin Rashid. (2023). *Review of: "Reproduction (electrical nano memories) by the method combined nanolithography (1Y V), Fast switching speed (1 microsecond)".* Qeios. doi:10.32388/jg1x8x.
- <sup>^</sup> Afshin Rashid. (2023). *Review of: "Experiment (nanoelectronic memory) using small organic molecules Chlorophyll pseudo instead of charge storage capacitors"*. Qeios. doi:10.32388/k0x2ro.
- <sup>^</sup> 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.
- <sup>^</sup> Anita Gupta. (2023). *Review of: "Amplification of Nano Wires Nano Wire by Electron Nano Lithography"*. Qeios. doi:10.32388/l3md1n.
- <sup>^</sup> 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.
- <sup>^</sup> Afshin Rashid. (2023). *Review of: "(Field effect nano transistors) Nano transistor electronic quantity and ionization potential)"*. Qeios. doi:10.32388/464lg7.
- <sup>^</sup> 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 1 · nm - 1 · 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 &lt; i=4&gt;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 2 to 2 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.

