Review of: "Dielectric properties or electrical insulation in (nano supercapacitors)"

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The degree of electrical properties in solid materials (nanosupercapacitors) is very diverse. Based on the amount of resistance (nano supercapacitors) against the passage of electric current, different materials can be divided into categories classified as conductor, semiconductor, and insulator. Meanwhile, in superconductors, there is a different mechanism to guide electrons. (Nano supercapacitors) can be defined as the number of free electrons that move freely in the material under the influence of an external electric field, as well as mobility, which is a measure of the ability and speed of free electrons to move, attributed.

Dielectric properties or electrical insulation in (nano supercapacitors)

In (nano supercapacitors), it is an electrical insulator that can be polarized by applying an electric field. In the structure of (nano supercapacitors), the ideal dielectric does not have free charge. When a dielectric is placed in an external electric field, the induced free charges that moved to the surface in the conductors and made the charge density and the internal electric field zero no longer exist. But because the dielectric (nano supercapacitors) has a limited charge, it cannot be concluded that there is an effect on the electric field. They don't have it.

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:10.32388/2zoxov.


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.


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.


33. ^Afshin Rashid. (2024). Review of: “bipolar transistors (pMOS) have a state voltage connected (Von) around 2 to 3 volts”. Qeios. doi:10.32388/c8zgvw.