Review of: "the superiority of the surface of the nano-holes. In order to control the properties of Oligophenylene vanillin nanowires, parameters that are effective in the formation and optimization of the diameter of the holes and the thickness of the mold should be considered."

Veronica Santos

Cambridge College

Potential competing interests: No potential competing interests to declare.

The superiority of the surface of the nano-holes. In order to control the properties of Oligophenylene vanillin nanowires, parameters that are effective in the formation and optimization of the diameter of the holes and the thickness of the mold should be considered.

Focused ion beam nanolithography resources were mainly based on nanotechnology due to its stability and ease of use, focused ion beam scanning on the surface of a material removes materials with the desired pattern and with high nanoscale accuracy, and for The conceptual design of focused ion beam nanolithography uses and integrates similar components: sources, extraction and acceleration, optics, scan coils, sample stage, electron detectors, etc. Interestingly, the focused ion beam nanolithography equipment provides the user with all imaging, nanostructural and analysis capabilities of both technologies in a single platform. For this reason, focused ion beam technology has become very popular for performing special tasks such as cross-sectional imaging, preparation of nanodevice layers, nanopatterning of materials, and circuit editing. Focused ion beam nanolithography is capable of directly removing materials without much use of resistors. As a direct nanolithography method, the number of processing steps is minimized compared to other methods.

Focused ion beam nanolithography, as a sequential nanolithography technique, is inherently slow and its throughput is much lower than other techniques, and Ga+ -based liquid metal ion source has become the most widespread type of source in focused ion beam nanolithography equipment. has been However, in recent years, new developments in sources such as gas field ion sources, plasma sources and metal alloy sources are the next step in terms of resolution or power. Since the ion-matter interaction is stronger than the electron-matter interaction, it can create harmful effects on the remaining material and change its physical and chemical properties.
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.
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.