

Enzyme Chip Nano Structure and function

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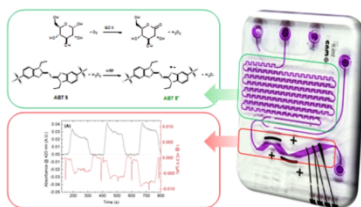
- **Abstract:**

- In the structure of Enzyme Chip Nano , electrical signals can be used to collect and regulate enzymes, and as a result, controlled products are optically, electrochemically and biologically controlled.

- **Keywords:** Nanocommunications , terahertz , electromagnetic waves , nanoantenna

Introduction •

Nano chips enzyme (Enzyme Chip Nano) in a double-layer structure with different types of material on the surface of the microarray nano- nano chip enzymes (Enzyme Chip Nano) built and is tagged Applications of Nanoelectronics Technology in the Medical Industry with Nano Enzyme Chip (Enzyme Chip Nano) The basic applications of nano biosensors and nano bio chips are used in this field . Enzyme Chip Nano has a wide range of applications from environmental and water studies to drug discovery and DNA sequencing. The new technology of nanochips is based on microfluidic systems that have the ability to analyze small volumes of liquids.

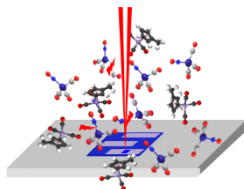


Enzyme Chip Nano is produced by attaching specific particles to the end of carbon nanotubes and calculating the vibrational frequency in the presence or absence of particles. Nano enzyme chip (Enzyme Chip Nano) seamlessly combines both optical transmission and electrochemical

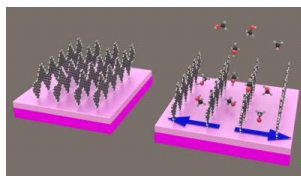
for validation analytes of biological undergoing reactions of the catalytic enzyme, the Nano enzyme chip (Enzyme Chip Nano) are integrated into a mixer microfluidic with integrated function in At your disposal, it also works as a measuring bioreactor.

A final and complete summary of the topic of nanochips Nano Chip •

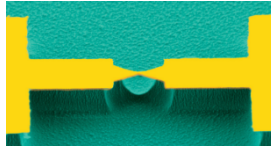
Most of the ingredients of chips and nanochips are silicon. By applying the appropriate voltage (threshold voltage) to the silicone solution, the repulsive force overcomes the surface tension of the silicone and a jet is formed. By evaporating the solvent from the jet, the liquid phase changes to solid and the primary nano materials of the chips are formed.



Many parameters affect the characteristics of the nanostructures produced by this method, the most important parameters are the distance between the needle and the collector, the applied voltage, the flow rate and the concentration of the silicone solution; By changing these parameters, the optimal dimensions of nanochips can be achieved. The diameter of nanostructures has a linear relationship with the flow rate and distance, and a non-linear relationship with the potential and concentration of the silicon solution in the production of nanochips and nanotransistors. With increasing distance and electric potential, the diameter of nanostructures decreases and increases with increasing current rate and electric potential.



In the production of nanochips and nanotransistors, when the repulsive force overcomes the surface tension, the electric field reaches a critical value or threshold. At first, the jet moves in a linear pattern, then slowly moves away from the linear pattern and forms a complex shape along the way to the collector. The structure and structure of the production of nanochips and nanotransistors and the length of the jet is proportional to the applied voltage. The Taylor nanocone structure changes from convex to concave by changing the field strength and subsequently (jet charge density). The miniaturization of components in microelectronic systems and circuits has caused a significant growth of this industry in recent years. The speed of growth of this industry is such that with the smaller components, the number of transistors in the unit area of each semiconductor chip and nanochips has increased. Reducing the dimensions of these components can reduce the consumption of raw materials and energy, reduce the cost of these parts, and increase their speed and efficiency. Therefore, making and developing electronic tools with smaller dimensions and greater speed and efficiency has become more important day by day.



Lithography is one of the most common methods for making electronic circuits. With the help of this method, structures can be made with precision and dimensions of 01 nm. Finding techniques with the help of which this method can be used for the industrial production of these parts (nanochips and microchips).

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