The Global Market for Nanoelectronics: Flexible, Stretchable and Printable Electronics, Conductive Films and Inks, Displays, Transistors, ICs, Memory Devices, Coatings and Photonics

Description: The electronics industry will witness significant change and growth in the next decade driven by:

- Scaling
- Growth of mobile wireless devices
- Huge growth in the Internet of Things (IoT)
- Data, logic and applications moving to the Cloud
- Ubiquitous electronics

To meet these market demands, power and functionality needs to improve hugely, while being cost effective, driving demand for nanomaterials that will allow for novel architectures, new types of energy harvesting and sensor integration. As well as allowing for greater power, improved performance and bandwidth, decreased size and cost, improved flexibility and better thermal management, the exploitation of nanomaterials allows for new device designs, new package architectures, new network architectures and new manufacturing processes. This will lead to greater device integration and density, and reduced time to market.

Semiconducting inorganic nanowires (NWs), carbon nanotubes, nanofibers, nanofibers, quantum dots, graphene and other 2D materials have been extensively explored in recent years as potential building blocks for nanoscale electronics, optoelectronics and photonics components, coatings and devices.

The report covers nanotechnology and nanomaterials related to the following markets and applications:

- Flexible, Stretchable and Printable Electronics
- Conductive Films and Inks
- Wearable health monitoring
- Electronic textiles
- HMI automotive displays
- Displays
- Transistors
- Integrated Circuits
- Other components
- Memory Devices
- Conductive and waterproof electronics coatings
- Photonics

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