The Role of Nickel Nanoparticles NI_nanoparticle The internal Structure of Electronic Quantum Nano Memories

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- **Abstract:**

Note : The range of activity variation of nanoparticles depends on the nature and shape of the nanostructure. However, if the energy of the nanoparticle field is comparable to the energy of the electromagnetic radiation and if significant changes occur in the irradiated material within a certain wavelength range due to chemical reactions, the activity of nanoparticles as small as 100 nm will be significant. One of the new data storage tools is the use of nickel quantum dots in nanometer sizes, which are expected to be used for storage.

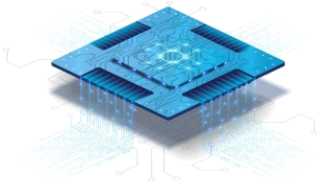
- **Keywords :** Nano-Memory , nanoparticles , nanostructure , Nanoelectronic

• Introduction

Nano quantum effects are important in most materials and give rise to properties different from those we are familiar with at the macroscopic scale. Nanophysics forms the basis of many phenomena in medicine, life sciences and chemistry and is an important interface with these sciences. The electronic and optical properties and surfaces of a variety of materials are interesting and novel. Nanoquantum is based on the continuous development and refinement of nanoscale imaging techniques, the resolution of which reaches the atomic scale. Nanoelectronics enters new materials and various areas of power technology, (nanoscale sensing devices, tools for medical diagnostics, energy efficiency and storage and solar technology). Quantum physics phenomena can be observed with electrons, atoms or photons and in dense matter systems such as metals or semiconductors, which play an important role in

our daily lives. In the world of nano-quantum, we observe many amazing and at first glance unusual phenomena - such as quantum particles that can simultaneously collide in different places, or quantum jumps whose exact point in time is essentially random. As puzzling as these phenomena may seem, we are already seeing signs that will form the basis of the modern technological revolution. There is almost no other field of science where basic research and pure technological applications and its revolutionary impact are so seamlessly intertwined as in nanoelectronics.

Each quantum dot consists of a discrete ball of a few hundred atoms that can have one of two magnetic states. This allows them to hold a single bit of information (a zero or a one), as is common in machine computing. In conventional hard drives, bits of information must be spaced far enough apart to avoid interference. Quantum dots act as completely independent units that are not structurally connected, so they can be brought closer together to some extent. Quantum dots act as completely independent units that are not structurally connected, so they can be brought closer together to some extent.



The range of activity of nanoparticles depends on the nature and shape of the nanostructure. However, if the energy of the nanoparticle field is comparable to the energy of the electromagnetic radiation and if significant changes occur in the irradiated material within a certain wavelength range due to chemical reactions, the activity of nanoparticles as small as 100 nm will be significant. One of the new data storage tools is the use of nickel quantum dots in nanometer sizes, which are expected to be used for storage.

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