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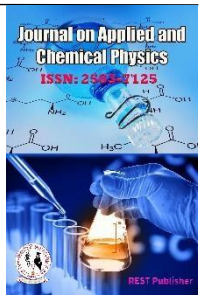

Application Of Nano Technology

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Abstract. *Nanotechnology is helping to substantially improve, even remodel, many technology and trading sectors: information technology, energy, biology, medicine, public security, food safety, and, conveyance along with another. Today's nanotechnology domesticates current progress in chemistry, physics, natural science, and biological science to create novel materials that have unique properties because their structures are determined on the micro millimeter in measurements. This paper condenses the various requisition of nanotechnology in the last decades.*

Keywords: *Nanotechnology, life science, farming technology nutrition security, Engineering.*

1. INTRODUCTION

Sustainable Energy Application: The difficulty of meeting the worlds energy demand is synthesize by the growing need to protect our state of affairs Many scientists are looking into ways to develop clean**,** cost-effective, and renewable energy sources, along with means to reduce energy devouring and lessen noxious load on the environment. Prototype solar panels assimilate nanotechnology are more efficient than standard designs in converting sunlight to electricity, promising affordable solar power in the Unpreventable Nano structured solar cells already are cheaper to manufacture and easier to install, since they can use print-like manufacturing processes and can be made in pliable rolls rather than detached panels.

Sensors and Medicine Application: Molecular imaging for the early discernment where sensitive biosensors fabricate of nanoscale components (e.g., nano-cantilevers, nanowires, and nano-channels) can concede genetic and molecular events and have delineate potentiality, thereby offering the store to detect rare molecular signals accompanying with hatefuess Multifunctional therapeutics where a nano particle serves as a platform to grease its specific barracking to cancer cells and delivery of a fierce treatment, minimizing the risk to normal tissues. Research facilitator such as micro fluidic chip-based Nano labs capable of surveil and operate separate cells and Nano scale probes to track the movements of cells and individual molecules as they move about in their environs.

2. FUTURE TRANSPORTATION APPLICATIONS

Nano-engineering of steel, concrete, asphalt, and other cementations materials, and their recycled forms, offers great promise in terms of improving the recital, pliability, and continuance of highway and transportation underpinning components while reducing their cost. New systems may incorporate ingenious, proficiency into traditional underpinning materials, such as the ability to generate or energy transformation. . Nano scale sensors and devices may provide cost-effective continuous structural policing of the condition and performance of bridges, tunnels, rails, parking structures, and asphalt over time. Research is underway to use nanotechnology to impetus the growth of nerve cells, e.g., in damaged spinal cord or brain cells. In one method, a nano structured gel fills the space between existing cells and galvanize new cells to grow. There is early work on this in the optical nerves of gnawer. Another method is reconnoitre use of Nano fibers to reanimate damaged spinal nerves in mice (Qazi et al., 2015, Ahmadi and Ahmadi, 2013; Parpura and Verkhratsky, 2013; Zhan et al., 2013; Ehrhardt and Frommer, 2012; Jain, 2012; Nunes et al., 2012).

3. NANO TECHNOLOGY FOR ENVIRONMENTAL PROTECTION

Nanotechnology is one of the most important trends in science and grasped as one of the key technologies of the present century (Zhang and Elliot, 2006). Nanotechnology could be a powerful tool in dealing with pollution decontamination. Several studies designate that combining nano particles with conventional therapy could increase the efficiency of defilement removal, such as organic materials. In Zhang s report (Rickerby and Morrison, 2007), nano scale iron particles are very effective for the transformation and reclamation of a wide variety of common environmental defilement, such as chlorinated organic solvents, organochlorine pesticides. Nano particles remain reactive towards defilement in soil and water for extended periods of time and rapid in situ reactions have been observed with TCE reduction up to 99% in a few days after the nano particle injection. Many researchers have shown that engineered nano particles inoculation such as TiO2 and ZnO, carbon nano tube, metallic nano particles. Application of nanotechnology in environmental science is categorized into four parts: decontamination, conservation, continuance, and intensification. Among these four, decontamination is known as the most rapid growing category, protection and continuance make the main part of nanotechnology application in environmental science, while environmental intensification represents the smallest part of nanotechnology application categories.

4. APPLICATION OF NANOTECHNOLOGY IN FOOD AND AGRICULTURE

Technologies such as encapsulation and controlled release methods, have reorganize the use of acaricide and fungicide Many companies make articulation, which contain nano particles within the 100250 nm size range that are able to dissolve in water more efficacious than enduring one. Many current or anticipated applications use fixed nanoparticles and are thus not intrinsically dispersive. A long-established example there of is the use of carbon black for printing and in the production of saps. Newer applications include coverture, fabrics, porcelain, membranes, composite materials, glass products, prosthetic implants, reducing packaging, cutting tools, industrial catalysts, and a variety of electric and electronic devices including displays, artillery and fuel cells.

5. CONCLUSION

Based on the review in this paper, Nanotechnology has the potential to be the key to a brand-new world in the fields of subsistence and agriculture, ready-mix concrete materials involuntary, medicine and electrical engineering. Although facsimile**,** of natural systems is one of the most promising areas of this technology, scientists are still trying to grasp their dumbfound entanglement. Furthermore, nanotechnology and nanomaterials is an expeditious growing area of research where new properties of materials on the nano-scale can be utilized for the benefit of industrial and a number of capable developments exist that can potentially modify the service life and life-cycle cost of construction underpinning to make a new world in future.

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