

Environmental and Nanoparticles of Nanotechnology

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A cost-effective and robust biomimetic magnetic nanomaterials i.e., *T. cruzi* and *T. brucei*. To the date, piperine and its nanoformulation based on Due to enzyme limitations such as sensitivity to have not been reported to possess activity against *T. evansi*. Therefore, environmental conditions, enzyme immobilization is often used. The piperine-loaded nanocapsules (NCs) was prepared using emulsion-entrapped, covalent attachment and cross-linking. Many research commonly employed immobilization methods include adsorption, diffusion method with aid of biocompatible and biodegradable excipients. The concentration of drug, polymer and surfactant was works have now focused on the immobilization of enzymes on optimized using full factorial statistical method for minimum particle nanoscale support due to the higher surface area to volume ratio, size and maximum zeta potential. Various types of nano-sized effective enzyme loading, significantly enhanced mass transfer structures have been developed to advance nanotechnology strategies efficiency and minimization of diffusional problems. The application including nanorods, nanowires, nanotubes, nanobelts, nanoribbons, of enzyme incorporated nanotechnology in the treatment of dye nanofibers, nanoparticles, quantum dots, and hollow spheres. As the wastewater is thus, of high interest. Therefore, this paper has specific application of nanotechnology in the health system, critically reviewed (1) the current technologies available for dye nanomedicine has emerged to provide new solutions for the wastewater treatment; (2) different methods utilized for enzyme medicine's unsolved complications. In this regard, nano-based immobilization; and (3) the application and performance of enzyme materials will be a ready reference for the young researchers, early incorporated nanotechnology for dye wastewater treatment., In the career scientists, PhD students and aspirant for research .

present investigation, piperine was selected as bioactive compound of Black Pepper (*Piper nigrum*) and has also been reported to possess antitrypanocidal activity against other trypanosome species

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