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PIONEERING BIOREMEDIATION USING BIOFABRICATED NANOPARTICLES

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Abstract

Bio remediation is a branch of biotechnology that uses the normal strategy of removal of contaminants toxins from soil, water etc by use of living organisms. This work focuses on removing toxic dye contaminants by using iron nano particles that are synthesized via green synthesis.

Keywords: nanoparticles, nanotechnology, bio remediation

Introduction

The innovative field of nanotechnology is escalating and it has received enormous attention all over the world in the last few years. This revolutionising field is booming leaps and bounds due to emergence of nano particles with their unique functions and physical chemical properties.

Nanomaterials and devices promisingly interact with the body in a highly selective molecular level. It is a futuristic field that paves the way towards a emerging scientific paradigm. Nanoparticles are ultrafine particles with atleast one dimension less than 1000nm.They form the building blocks of nanomaterial and devices. Field of potential research with intense scientific research. Nanoparticles (NPs) have received intensive attention in terms of therapeutics and diagnosis because of their unique physicochemical properties that revolutionize medical treatment with more potent less toxic and smart outcomes (Lichen Yin, Zhiyuan Zhon, 2020)

In the present study eco-friendly synthesis of iron nanoparticles from bio-active aqueous leaf extract of Abrus precatorius and To determine the efficiency of biosynthesized iron nanoparticles in dye degradation activity using FTIR analysis

Applications of Nanotechnology

Nanoparticles hold a great potential in the areas of drug delivery and are explored as vehicles for orally administered insulin formulations. (Reena Siwach *et al*., 2019) .Notably recent years nanotechnologies have been applied to