

A REVIEW OF THE BIOGENESIS OF IRON NANOPARTICLES USING MICROORGANISMS AND THEIR APPLICATIONS

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Abstract. Iron-based nanoparticles have gained a lot of attention due to their properties which offer a broad range of biomedical and industrial applications. Traditional methods of synthesis of iron nanoparticles strongly influence their properties and limit their applicability. Recently, there has been a growing interest in the development of biological routes of syntheses of iron nanoparticles as the resulting particles have structural characteristics required by biomedical field. The mechanism for the synthesis of iron-based nanoparticles by microorganisms and its current limitation are presented.

Keywords: nanoparticles, iron, microorganisms, biological synthesis, biomedical applications.