

Plants as NPs bioreactors: physiological bases of the process and possible technological applications.

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Historically, the property of plant to catalyse the reduction of metal salts to the colloidal status is well known. There is plenty of evidence regarding the use of plant extracts, obtained from different species and organs, to achieve synthesis of metal nanoparticles (NPs). In particular, the role of plant enzymes and secondary metabolites is widely demonstrated, either as reducing or as capping and stabilizing agents. The physiological pathway responsible for NPs formation and its cellular localization are still obscure. A better understanding of these topics is crucial to assess green synthesis of NPs by using plant biomass.