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Synthesis of nanoparticles

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Nanotechnology, the study of matter at nano-scale i.e. between 1-100 nm, has opened up novel dimensions in the field of biotechnology and nano-medicine along with various other important applications such as drug delivery, electronics, cosmetics, biosensors, etc. The nanoparticles of varied shape and sizes can be synthesized by using physical, chemical or biological pathways. However, exploiting physical and chemical routes lead to high energy consumption, low yield, high cost and environmental damage by employing harsh reducing agents. The biological pathways involve the use of microorganisms (bacteria and fungi) or plants but using microorganisms is riskier because of the pathogenicity issue. In the current research, we present a generalized view of green synthesis for the generation of nanoparticles involved for nano drug formulations or its parts as a cost effective, simpler and eco-friendly approach.

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