

## Green chemistry and bioprocessors

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In the present scenario there is a need to evolve an eco-friendly processes for the synthesis of nanoparticles. The researchers are changing their focus from physical and chemical processes towards **'green' chemistry and bioprocesses**. These processes not only help in health benefits in various ways such as :-

- 1) Clean water with less release of hazardous chemical wastes to water posing many diseases.
- 2) Safe environment for workers of chemical industry ie less fire and explosion damages
- 3) Less impure air:- Release of hazardous chemicals in air.
- 4) Safe consumer products will be synthesised.
- 5) Safe food as the hazardous chemicals which enter food chain will be less.

In nano particle synthesis the increase in the surface area helps to increase surface energy and catalytic reactivity further increases which improves the effectiveness of nanoparticles. The synthesis of nanoparticle can be done by various techniques but the biological approach for the synthesis of nanoparticles become imperative. The advantage over the other biological processes are less elaborate process of maintaining cell culture with so many precautions and handling care.

In the present research the various plant species are taken into consideration using this beneficial technique. The process of synthesis of silver nanoparticles will be by the reduction of aqueous  $\text{Au}^{3+}$  ions with the aqueous extract of various plant species.