



“Green” Synthesis of Metal Nanoparticles

Metallic Nanoparticles are of interest because of their exceptional physical-chemical properties, including catalytic, optical, magnetic, and electrical properties. Several attempts have been made using chemical and physical methods for size and shape-controlled synthesis of single-crystalline metallic NPs. Nanorods, nanodisks, decahedral and triangular nanoprisms have been successfully demonstrated. However, the methods used require time-consuming and elaborate steps using additional chemical reductants, and additional stabilizers for nanoparticle stability, and/or external energy supply such as heating and photo-irradiation.

A new method of synthesizing metallic nanoparticles has been developed that produces large nanoparticles of gold, silver, palladium and platinum in various shapes and sizes that are controllable. Further the process is simple and is done in water with materials that are milder and more environmentally friendly than existing technology.

The technology is pre-patent and all rights are available.

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