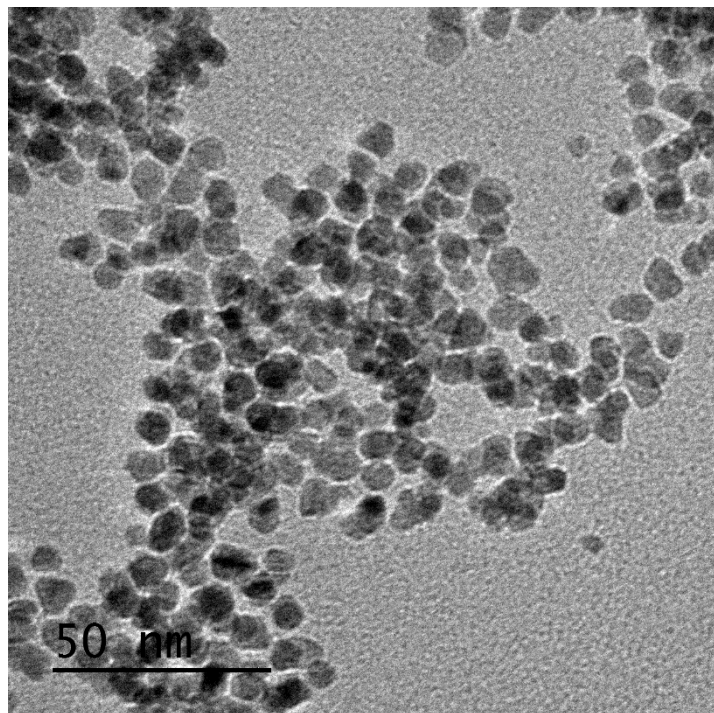


Noble metals nanoparticles prepared by green synthesis



CHEMISTRY/ MATERIALS

Ref: MA00436



Pd nanoparticles

MARKET CHALLENGES

Palladium materials are mostly used as catalytic materials in C-C bond formation, as well as for a number of other applications such as hydrogen storage and sensing.

Nowadays, world cares about organic waste produced by using solvent organic in chemical industry. So, this raising awareness makes the sustainability become a guiding principle and, lead to the expansion of the concept of green chemistry. In this regard, water represents a leading solvent candidate.

INNOVATIVE SOLUTION

The present technology is an easy and controlled synthesis of noble metals nanoparticles perfectly stable in water. The synthesis is eco-friendly, and the stability is ensured by bio-compatible phosphonic ligands that ensure a high stability and dispersity in aqueous media.

SUGGESTED APPLICATIONS

- Catalytic system
- All the usual applications of nanoparticles

COMPETITIVE ADVANTAGES

- Stable aqueous suspension of noble metals nanoparticles
- Possibility to adjust the particle size (from 5nm to 100nm) and size distribution by varying the ligand and the pH
- Biocompatible phosphonic ligand

DEVELOPMENT STATUS

The nanoparticles have been prepared at laboratory level.

IP RIGHTS

Priority patent FR filed in June 2018