

Abstract

The present invention discloses a method for uniformly coating metal nanoparticles without a carbon impurity on an oxide ceramic powder surface, which includes the steps of putting grinded and mixed a metal organic material and oxide ceramic powder into a rotational reaction chamber, then bubbling oxidizing gas under a rotational and heating condition to oxidize the metal organic material into a metal oxide, and finally bubbling reducing gas to reduce the metal oxide into nanoparticles in a metallic state, so as to implement the uniform coating of the nanoparticles in the metallic state, and avoid coarsening and growing problems of nanoparticles led by a long-term coating reaction under a high temperature. The present invention has a simple method and a short preparation period, and the metal nanoparticles prepared are uniformly dispersed and have wide application prospects in multiple fields like catalytic materials and conductive ceramics.

[Figure 2.]