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Method of Preparing Precious Metal Nitride Nanoparticles

Disclosure Number

201102610

Technology Summary

Most grown nanoparticles are metallic metal particles. The present invention involves the production of metal-nitride nanoparticles through the introduction of Nitrogen during the growth process. Such metal nitride nanoparticles have not been reported previously and can be of use in modifying catalytic metal properties, diluting the concentration of metal required for a catalyst, or to stabilize the metal particle against coarsening. Thus, the present invention is a method to prepare small precious metal (such as platinum and palladium, for example) nitride nanoparticles on a support material at low temperature and low pressures.

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