

Abstract Submitted
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Confinement of metal nanoparticles with various sizes in silica matrices JEEUN LEE, SHIN-HYUN KANG, SUNG-MIN CHOI, KAIST — Many studies have been focused on metal nanoparticles since they have interesting properties due to their high surface area to volume ratio. While bulk metals have constant properties regardless of their sizes, the noble properties of metal nanoparticles such as catalytic activity, magnetic, and electronic properties dramatically change depending on their sizes. Here, metal nanoparticles with various sizes are synthesized, functionalized, then confined in stable silica matrices and their physical and chemical properties are investigated. The structure of each system is characterized by transmission electron microscopy (TEM) and scanning electron microscopy (SEM).

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