

Shape and size separation of gold nanoparticles using glucose gradient density.

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Streszczenie

We synthesized a mixture composed of gold nanoparticles of various shapes using the wet chemistry method. The final solution contained long nanorods, balls, disks and different spherical nanoparticles. To separate particles of individual shapes from the reaction mixture, the solution was centrifuged in a glucose density gradient. A distribution of nanoparticles based on their diameters was observed and each section was collected independently and each type of nanoobjects was characterised separately. Finally, the difference in nanoparticle shapes depending on the presence of Ag^+ ions in the growth solution is reported and its influence on the separation is discussed.

Słowa kluczowe

gold nanoparticles, gold nanorods, melting, separation, glucose gradient, plasmonics

Adres publiczny

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