Preparation of biocompatible Chitosan-Gold nanoparticles and its optical properties

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Chitosan is the material produced from deacetylation of chitin, so it is bio-compatible and suitable material to apply DDS. Gold nanoparticles could be applied to treat and detecting materials of disease using CT contrast media. Preparation of chitosan nanoarticle has been by iontophoretic method to 100~200nm size. Amine group of chitosan nanoparticles became ionic cross-linking gelation with TPP solution. Change of chitosan's functional group was demonstrated by FT-IR. Optical properties of gold colloids and chitosan nanoparticles were analyzed by UV-Vis spectroscopy. Also, images of synthesized chitosan-gold nanoparticles were confirmed by SEM, TEM.