

Effect gold nanoparticles generated by cold plasma for mineral blood

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ABSTRACT

In the present study, gold nanoparticles (AuNPs) were prepared using a simple low cost method synthesized cold plasma at different exposure time . The nanoparticles were characterized using UV-Visible spectra, X-ray diffraction (XRD). The prepared AuNPs showed surface Plasmon resonance centered at 530, 540, and 533 nm. The XRD pattern showed that the strong intense peaks indicate crystalline nature and face centered cubic structure of gold nanoparticles for all samples were prepared .The average crystallite size of the AuNPs was 20-40 nm. Morphology of the AuNPs were carried out using FESEM. Observations show that the AuNPs synthesized we well dispersed with and particle sizes ranging from 9 to 31 nm with spherical shapes which are clearly observed. The effect of AuNPs on mineral blood is studied with different doses durations (130,260,520) ppm. As the AuNPs doses increases, the Fe and Ca components in the blood increased, while The Na,Cl and K, and chlorine elements decreased. These results give an indication of the nanoparticles receptor to be used to treat many diseases related to mineral blood components.