Synthesis and characterizations of Au-BSA NCs.

Aqueous HAuCl4 (5 mL, 10 mmol/L) was vigorously mixed with BSA (5 mL, 50 mg/mL) at 37 °C. After 2 min, aqueous NaOH (0.5 mL, 1.0 M,) was added, and the mixture was incubated at 37 °C for 12 h. All glassware was washed with aqua regia (HCl:HNO3, 3:1 v/v), and then rinsed with ultrapure water and ethanol. (Red emission with λ em max 650 nm, QY \approx 6%, Au NCs consisted of ~25 gold atoms, with nanoparticle ~0.8 nm encapsulated in the BSA molecule)

The characterizations of Au-BSA NCs (TEM, Zeta potential and Fluorescence emission and excitation spectra) were shown in the following figures.







TEM of the Au-BSA NCs

Zeta potential of the Au-BSA NCs

Fluorescence emission and excitation spectra