Fabrication and Evaluation of Human Serum Albumin (HSA) Nanoparticles for Drug Delivery Application

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Abstract

Human Serum Albumin (HSA) Nanoparticles represent promising drug carrier systems. Particle size is a crucial parameter in particular for the in vivo behavior of nanoparticles after intravenous injection. The object of present study was to characterize the desolvation process of human serum albumin for the preparation of nanoparticles. Several process parameters were examined to achieve a suitable size of nanoparticles such as pH. The nanoparticle sample was purified by five cycles centrifugation (20000×g, 8 min) and redispersion of the pellet to the original volume water at pH values of 6 to 9 respectively and then analyzed by PCS.

Keywords: Human serum albumumin, Nanoparticles, Drug delivery, Desolvation method