

A detailed study on the effect of side chains of amino acids for the synthesis of zinc nanoparticles

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In the present work, a simple one-step synthetic method was demonstrated for the synthesis of zinc nanoparticles using amino acids as reducing and stabilizing agents in aqueous medium. The formation of the nanoparticles was strongly influenced by varying the pH of the solution and the structure of the amino acid. The yield and properties of the synthesized amino acids capped zinc nanoparticles were compared. The synthesized nanoparticles were characterized by using UV-Vis and FT-IR spectral studies.

Keywords: Amino acids, nanoparticles, pH, zinc, L-cysteine.