ABSTRACT

Environmental standardization and stabilization of surface charges of [silver nanoparticles](https://www.sciencedirect.com/topics/chemistry/silver-nanoparticle) (AgNPs) is important in biological systems and interest in bio-interfacial interaction. Different synthesized AgNPs in chemical reduced (AgNO3 (0.01, 0.1 and 0.5 M); NaBH4 and Na3C6H5O7) garnered for analysis of physico-chemical charge stabilization by means of different pH (1–13) and ionic interferences (NaCl, Ca(NO3)2, Na2CO3 and NaNO3). The uniform sized (size: ∼22 nm) and highly charged (zeta potential: −37.9 mV) AgNPs with uniform dispersion remains unaltered in high ionic interferences. Highest [antifungal activity](https://www.sciencedirect.com/topics/chemistry/antifungal) of AgNPs against Candida albicans and moderate activity against Staphylococcus aureus are correlated.