

# Polyhydroxy Fullerenes Enhance Antibacterial and Electrocatalytic Activity of Silver Nanoparticles

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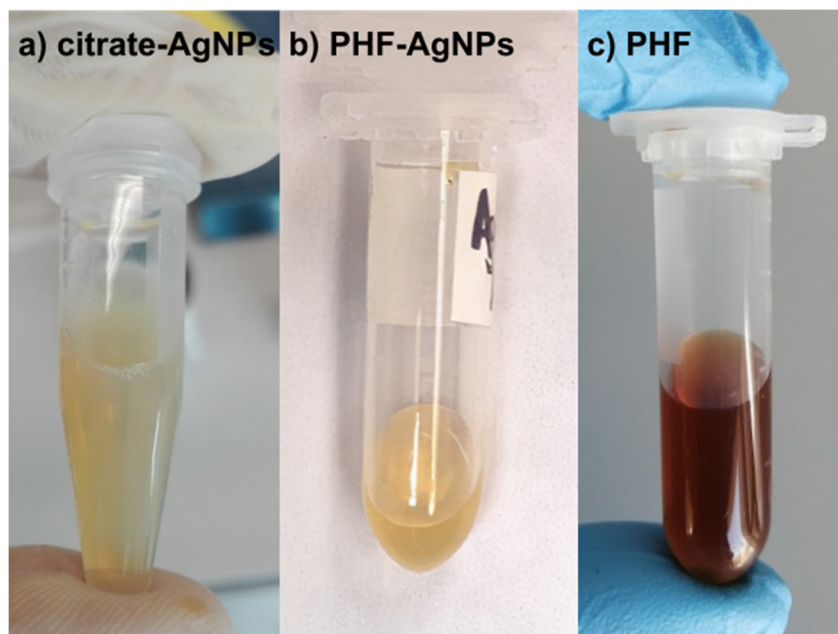
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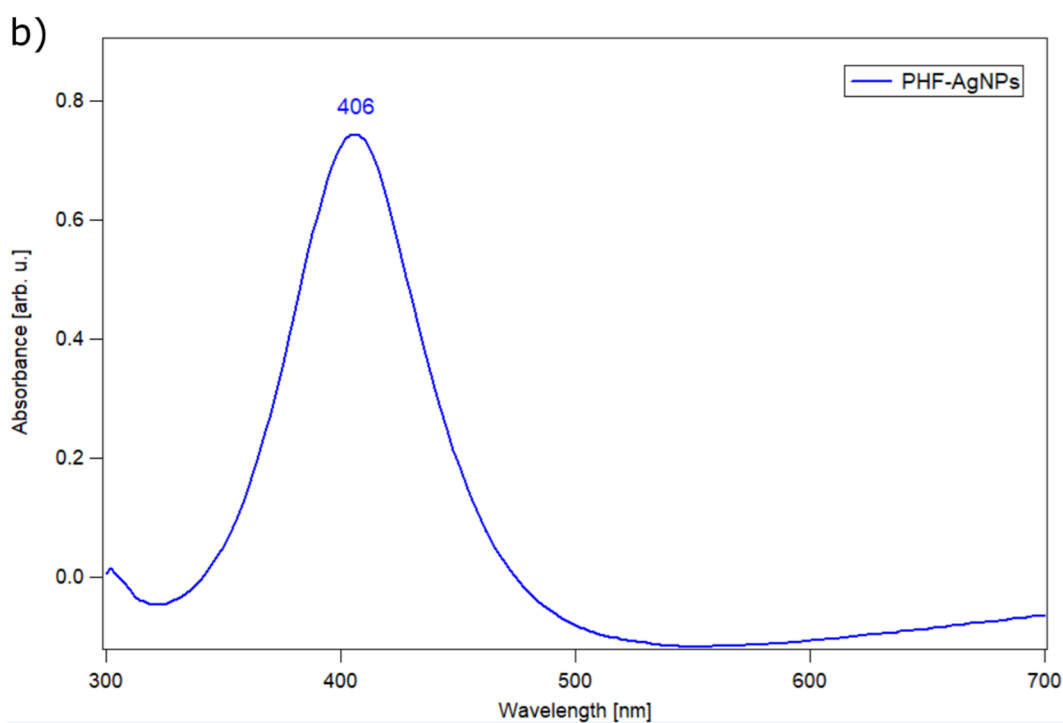
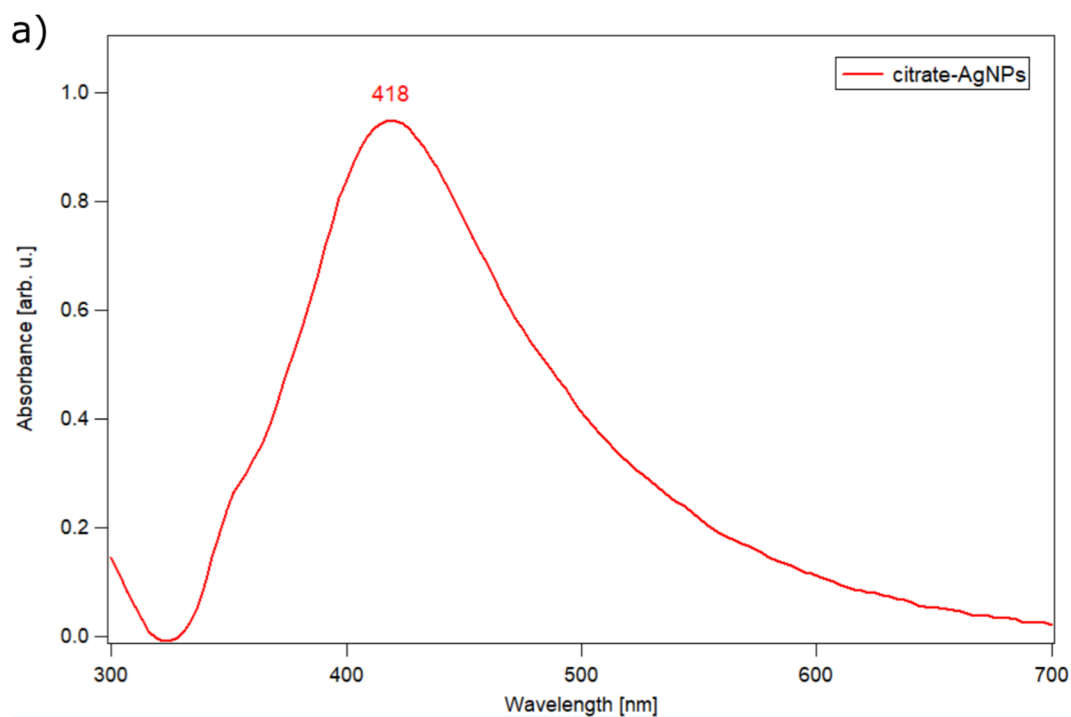
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**Figure S1.** Visual confirmation of silver nanoparticles in (a) citrate-AgNPs and (b) PHF-AgNPs. The silver nanoparticles have a typical yellow color, as has been previously reported. This color is present in (a) and (b), and is an indicator of the presence of silver nanoparticles in both colloids. In contrast, a PHF solution (c) has a brown color.



**Figure S2.** UV-visible spectroscopy of (a) citrate-AgNPs (red) and (b) PHF-AgNPs (blue). (a) Citrate-AgNPs show a broad peak at 418 nm, which is similar to previous reports for AgNPs (Judith Vijaya et al. 2017; Gakiya-Teruya et al. 2019; Rangayasami et al. 2021). (b) PHF-AgNPs show a peak at 406 nm with a narrower full width at half maximum suggesting more uniform nanoparticle sizes. Both spectra, (a) and (b), correspond to spherical silver nanoparticles below 20 nm.