

Peroxidase-like activity of biosynthesized silver nanoparticles for colorimetric detection of cysteine

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Supplementary data

Table S1. Qualitative phytochemical screening of leaves extract of *Sclerocarya birrea*

| No | Secondary Metabolites | Type of test | Observation | Result |
|----|-----------------------|----------------------|--|----------|
| 1 | Steroids | Salkowski test | Brown precipitate upon standing | Positive |
| 2 | Terpenoids | Salkowski test | Reddish brown precipitate and golden yellow solution | Positive |
| 3 | Saponins | Foam test | Foam formation after 15 minutes | Positive |
| 4 | Alkaloids | Wagner's test | Yellow solution observed- no white precipitate | Negative |
| 5 | Sugars | Benedict's test | Orange-brick red precipitate was formed | Positive |
| 6 | Flavonoids | Ammonium test | Appearance of yellow color at ammonia layer | Positive |
| 7 | Tannins | Ferric chloride test | Black precipitate formed immediately | Positive |
| 8 | Phenols | Ferric chloride test | No green or blue color was observed | Negative |

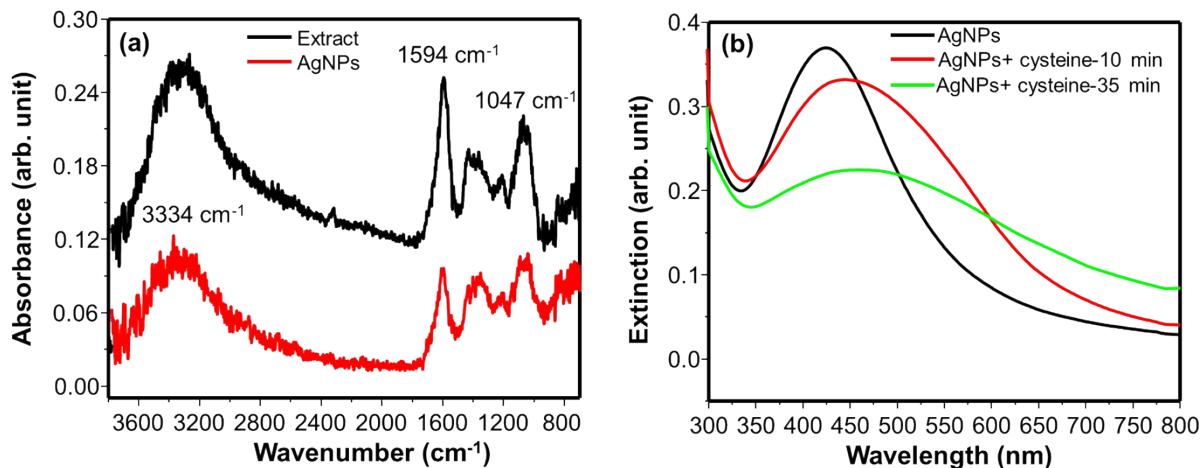


Fig. S1 (a) FTIR spectra of the *Sclerocarya birrea* (Morula) leaves aqueous extract and the synthesized AgNPs obtained using ATR mode. (b) Extinction spectrum of AgNPs colloids and AgNPs colloids mixed with 100 μM cysteine for 10 and 35 min.

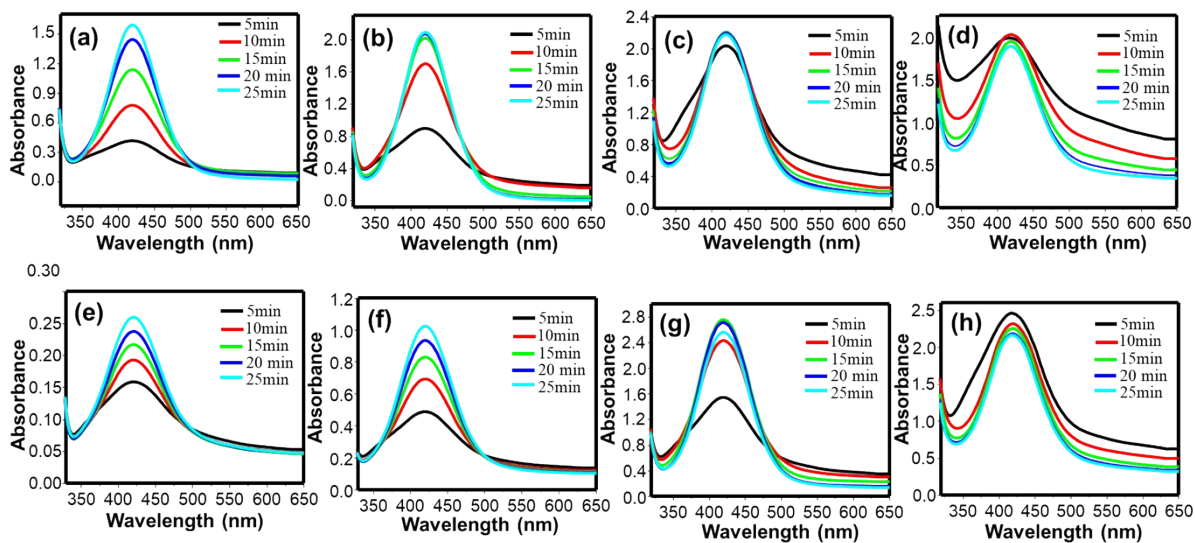


Fig. S2 Spectra of DAP in the absence of cysteine using different volume of AgNPs (a) 10 μL (b) 25 μL (c) 50 μL and (d) 75 μL and in the presence of cysteine using different volume of AgNPs (e) 10 μL (f) 25 μL (g) 50 μL (h) 75 μL .