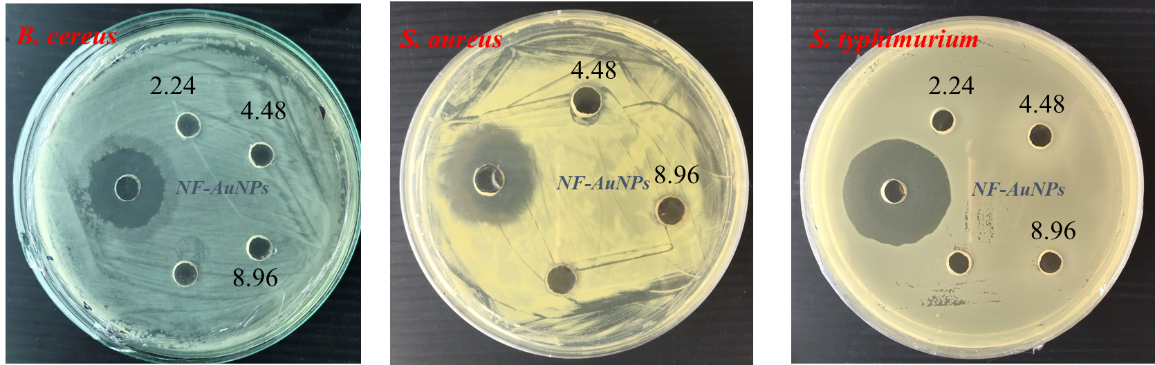
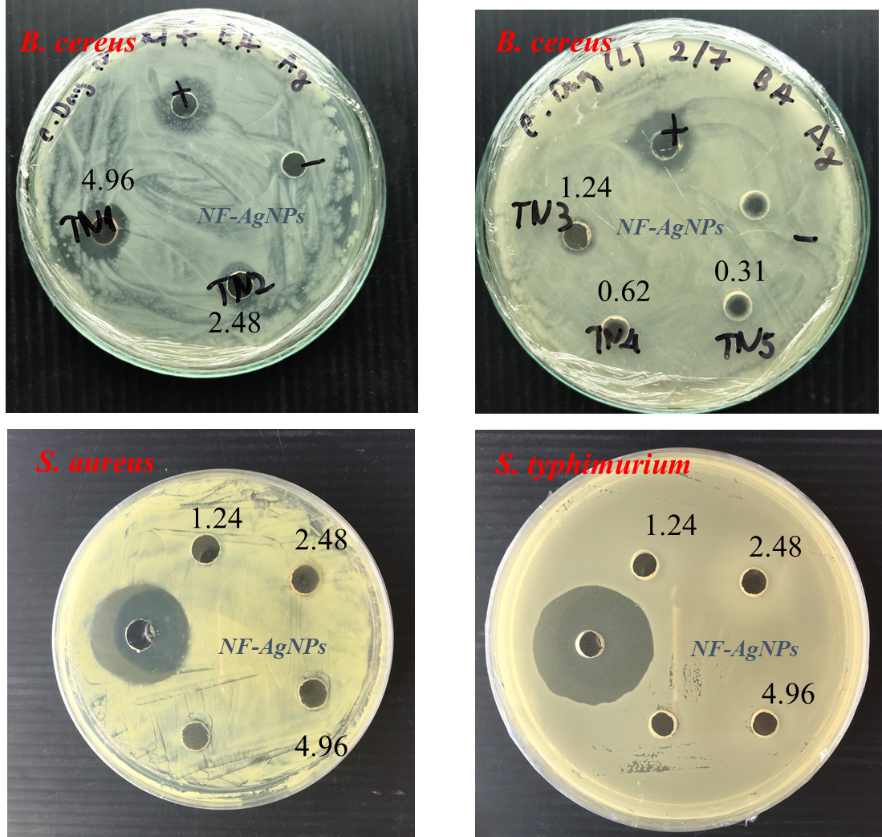
**Noble metallic nanoparticles from waste *Nypa fruticans* fruit husk: Biosynthesis, characterization, antibacterial activity and recyclable catalysis.**

**Supplementary Data**



**Figure S1.** Images for antibacterial activity of NF-AuNPs



**Figure S2.** Images for antibacterial activity of NF-AgNPs

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**Figure S3.** UV-Vis Spectra for degradation of *o*-nitrophenol using NF-AgNPs after five recycles.



**Figure S4.** UV-Vis Spectra for degradation of *m*-nitrophenol using NF-AgNPs after five recycles.



**Figure S5.** UV-Vis Spectra for degradation of *p*-nitrophenol using NF-AgNPs after five recycles



**Figure S6.** UV-Vis Spectra for degradation of *o*-nitrophenol using NF-AuNPs after five recycles



**Figure S7.** UV-Vis Spectra for degradation of *m*-nitrophenol using NF-AuNPs after five recycles



**Figure S8.** UV-Vis Spectra for degradation of *p*-nitrophenol using NF-AuNPs after five recycles

**Table S1.** Comparison of the rate constants of WBS-AgNPs and WBS-AuNPs catalysts towards the catalytic reduction of 4-nitrophenol

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MNPs | Substrates | Size (nm) | knor (s-1 mg-1) | References |
| AgNPs | *D. longan* seed extract | 40 | 4.7 x 10-4 | Khan et al. 2016 |
| Halloysite nanotubes | 10 | 8.7 x 10-5 | Liu and Zhao, 2009 |
| *S. binhchauensis* extract | 20 | 4.2 x 10-3 | Nguyen, Huynh, 2020 |
| *J. subtriplinerve* extract | 8.0 | 18.2 x 10-3 | Nguyen, Huynh, 2020 |
| NF extract | 5-6 | 0.9 x 10-3 | This work |
| AuNPs | *T. montevideense* extract | 12-53 | 5.26 x 10-4 | Shen et al., 2016 |
| *A. lappa* extract | 24.7 | 6.87 × 10-3 | Nguyen, Vo, 2018 |
| *E. coli* cell | 50 | 4.13 x 10-5 | Srivatava et al. 2013 |
| NFextract | 3-4 | 1.14 x 10-3 | This work |

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