Figure S1: Plates indicating the fungal growth in media treated with AgNPs, FeONPs , Bimetallic NPs and biochar in relation to control:



Figures S2: The FTIR spectra of *A. digitata* fruit shell extract, phyto-fabricated nanoparticles, and biochar.

1. **The FTIR spectral analysis of plant extract:**
2.  **The FTIR spectral analysis of AgNPs:**
3. **The FTIR spectral analysis of FeONPs:**
4. **The FTIR spectral analysis of bimetallic NPs:**



1. **The FTIR spectral analysis of Biochar:**



**Table S1:**

**The major three peaks from the FTIR analysis:**

|  |  |  |  |
| --- | --- | --- | --- |
| Materials | Peak 1 | Peak 2 | Peak 3 |
| Plant extract | 3336 | 2023 | 1635 |
| AgNPs | 3337 | 2023 | 1636 |
| FeONPs | 3337 | 2020 | 1637 |
| Bimetallic | 3337 | 2023 | 1637 |
| Biochar | 3341 | 2008 | 1636 |