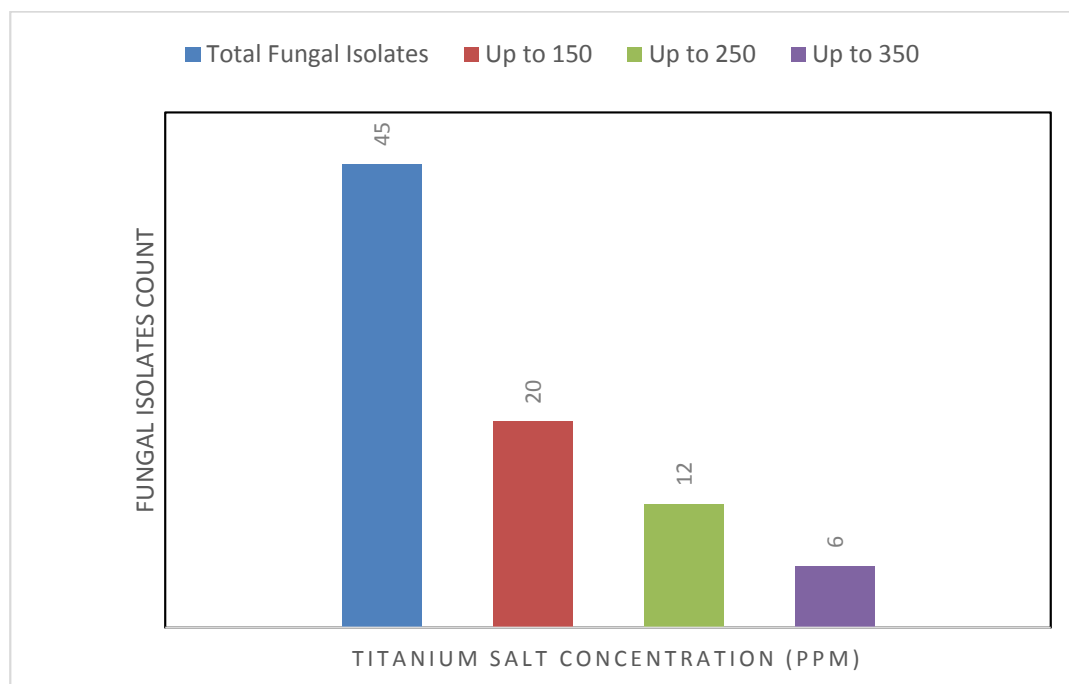
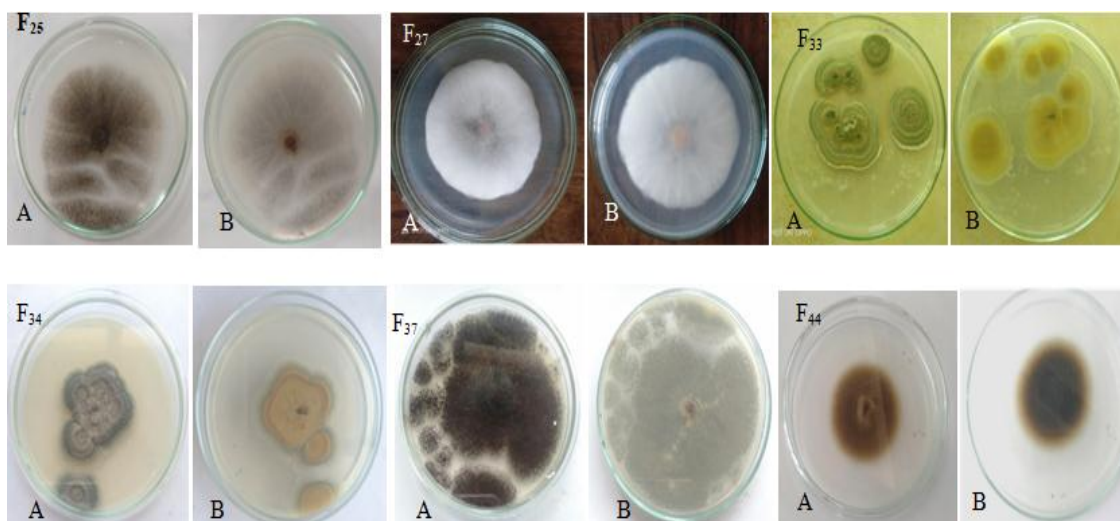


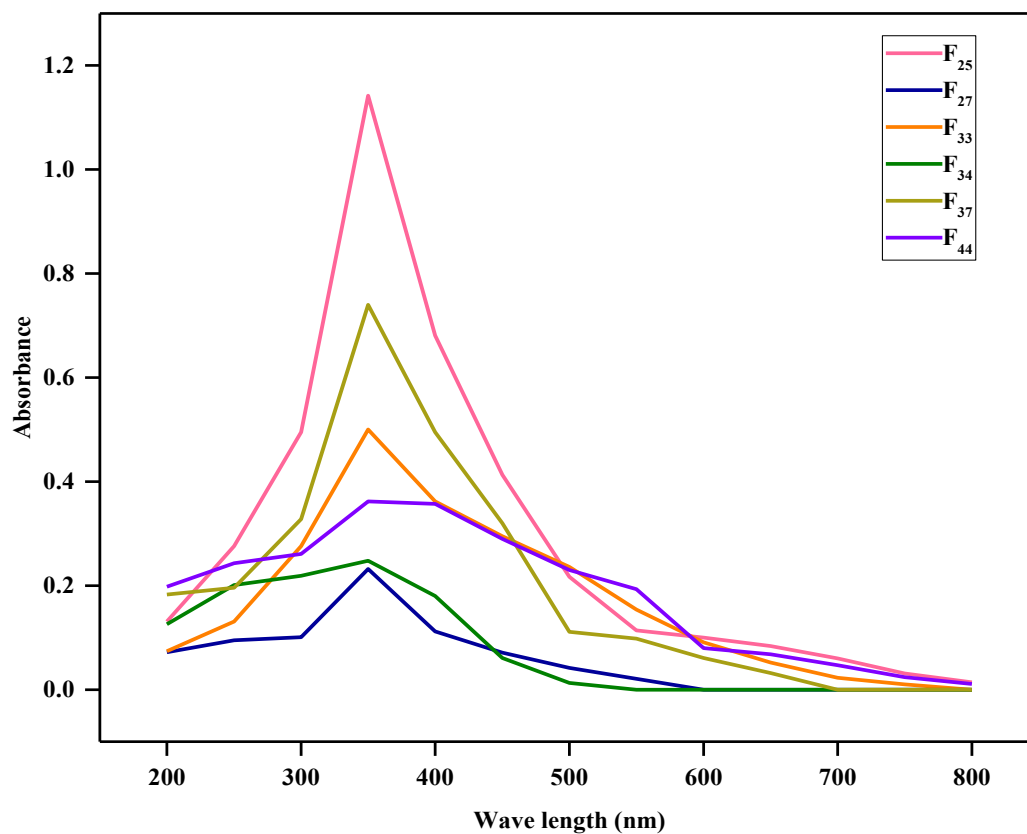
Supplementary Figures



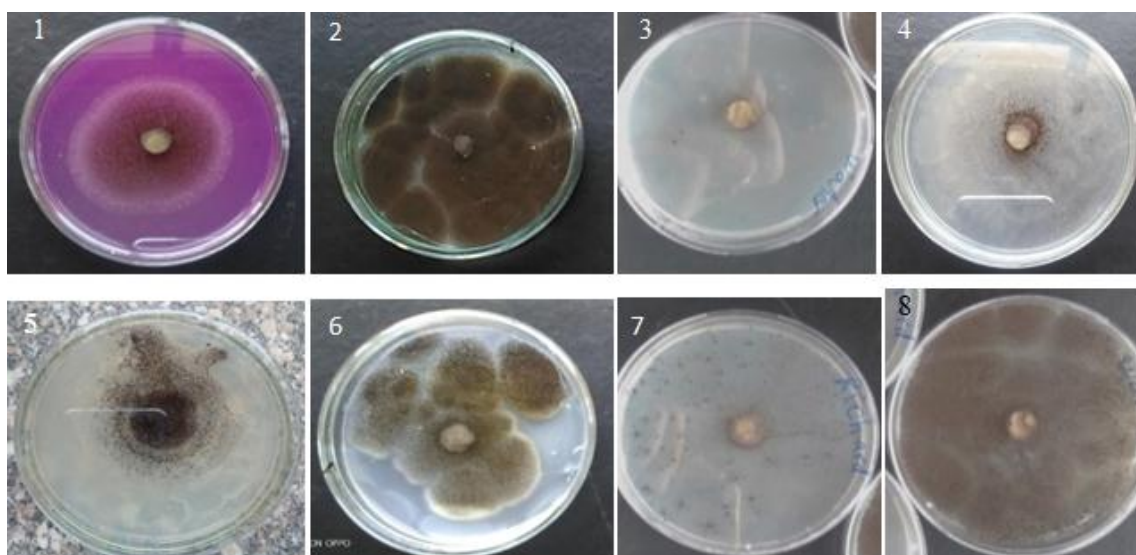
Supplementary Fig. S1. Metallotolerance ability of the forty-five fungal isolates at different Ti^{+4} metal concentrations (150 – 350ppm)



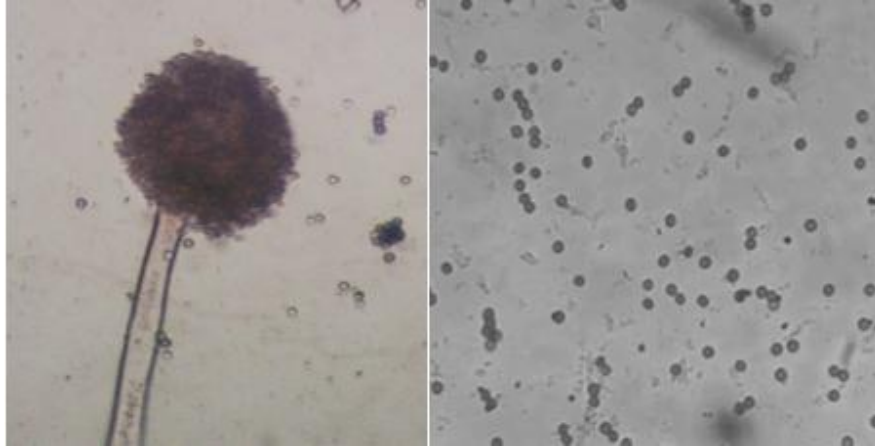
Supplementary Fig. S2. Pure culture of the six fungal isolates having the potential to tolerate increased concentrations of (Ti^{+4}) metal. A: upside, B: downside



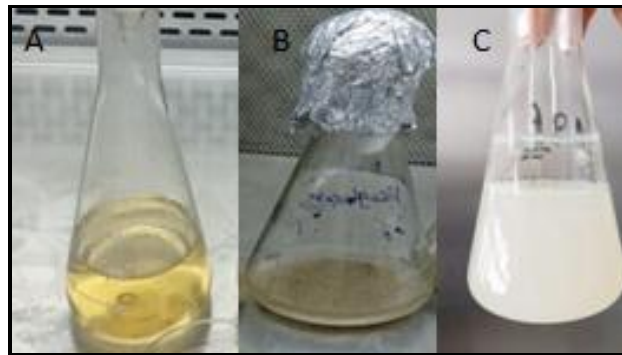
Supplementary Fig. S3. UV-Vis spectra for TiO₂NPs biosynthesized by the different six fungal isolates at 200-800nm wavelength



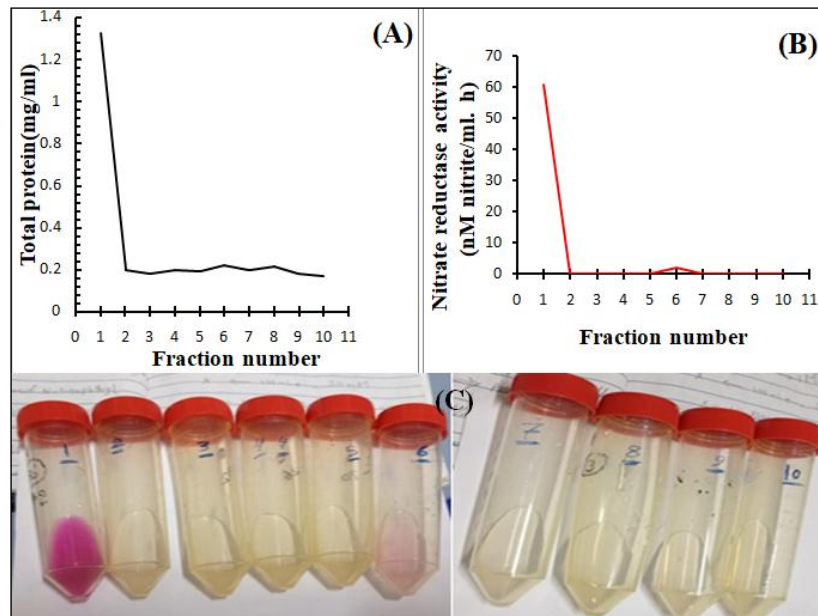
Supplementary Fig. S4. Effect of different solid media on the growth of the most potent fungal isolate F₂₅. (1): Rose Bengal agar; (2): Malt extract agar; (3): Water agar; (4): Sabouraud dextrose; (5): Potato dextrose agar; (6): Czapek's Dox agar; (7): Richards agar and (8): Waksman's agar



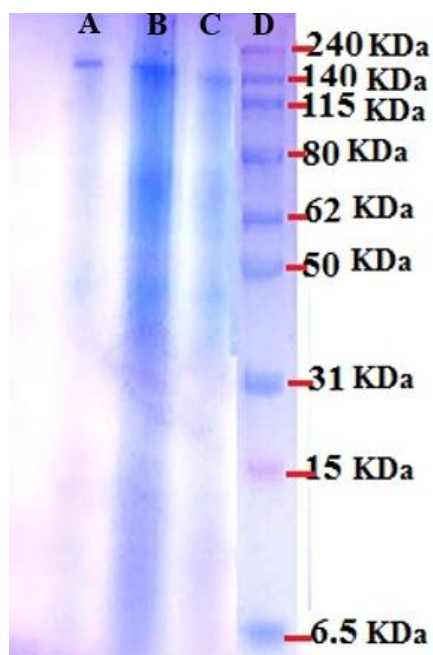
Supplementary Fig. S5. A photograph of the most potent fungal isolate F₂₅ on microscopically examination (Magnification X40); conidiophore with conidia on the left and spores on the right



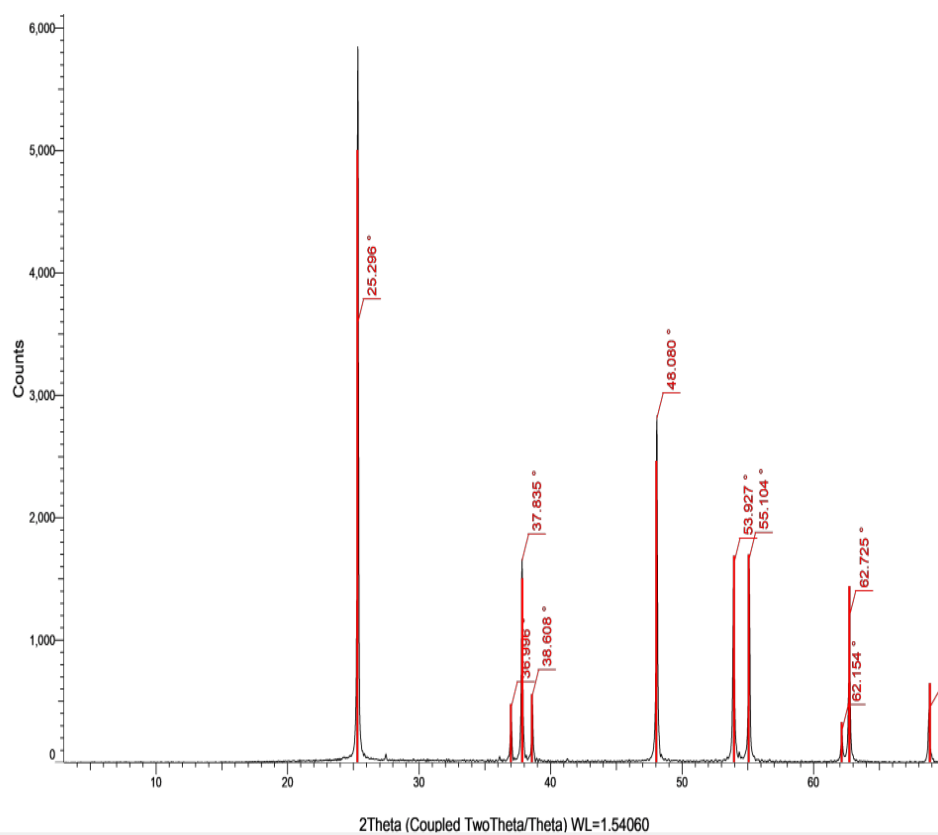
Supplementary Fig. S6. Visual observation of color change to the white of titanium dioxide nanoparticle biosynthesized by *Aspergillus niger* DS22 (ON076463.1); A: culture media, B: Fungal biomass and C: Fungal cell-free filtrate



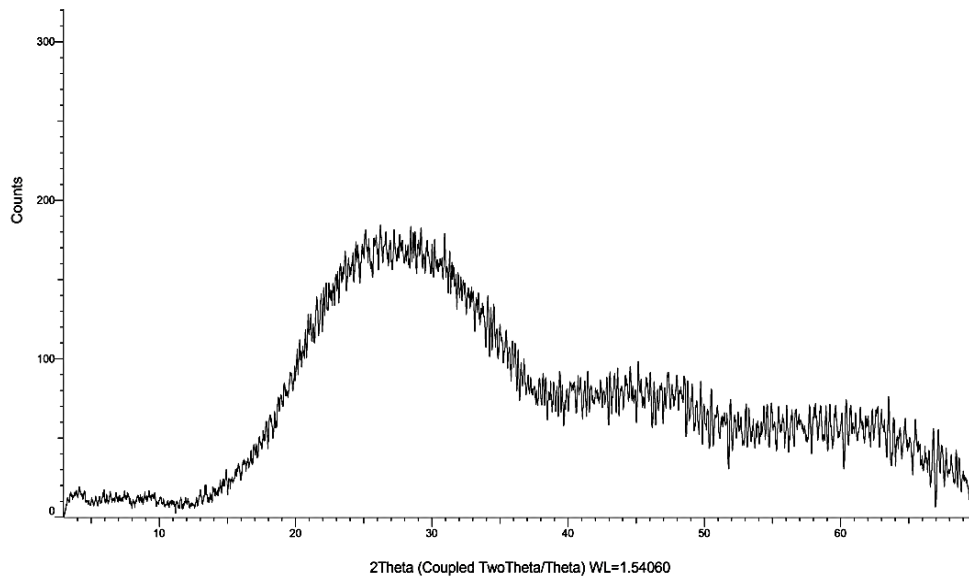
Supplementary Fig. S7. Fractionation pattern of ammonium sulfate precipitate produced by *Aspergillus niger* DS22 (ON076463.1) using Sephadex G-75 column chromatography technique in relation to; (A) Total protein content; (B) Reductase activity and (C): Assay results of the ten fractions for the reductase activity



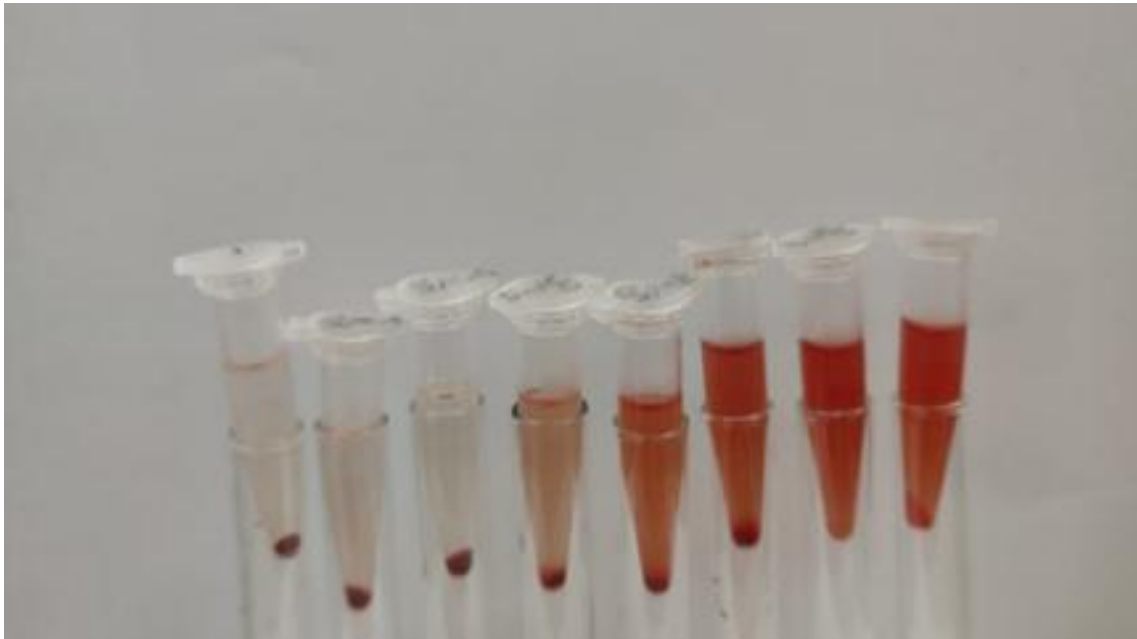
Supplementary Fig. S8. SDS-PAGE of purified fraction NO. 1, lane (A); Dialysate lanes (B & C) and Protein marker (240-6.5kDa) lane (D)



Supplementary Fig. S9. XRD patterns for commercial TiO_2 anatase form



Supplementary Fig. S10. XRD patterns for TiO_2 NPs synthesized by *Aspergillus niger* DS22 (ON076463.1) cell-free filtrate



Supplementary Fig. S11. Anti-inflammatory assay results of TiO_2 NPs showing inhibition of human erythrocyte hemolysis (the highest concentration from the left to the right)