Abstract Title: **Antibacterial Potential of Titanium Oxide Nanoparticles Against some Food Poisoning Microbes**

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Abstract

The synthesis of titanium dioxide nanoparticles (TiO2 NPs) was performed using biological methods as eco-friendly through the inclusion of the mold isolated from *Aspergillus versicolor*. The characterize detect of TiO2 NPs were attained by UV–Vis Spectrophotometer and Scanning Electron Microscopy (SEM).This was followed by a determination of the antibacterial efficacy of the biologically synthesized ZnO NPs against *Staphylococcus aureus*, *Bacillus cereus*, *Salmonella typhimurium* and *Candida albicans*. The results revealed that the effect TiO2 salt on *Aspergillus versicolor* in cultivated in Yeast extract broth medium was evident .The biosynthesis of TiO2 NPs at 12g/100 ml. Scanning electron microscope (SEM) showed the morphology of TiO2 NPs sizes which appeared having a spherical spectrum shape with an absorption bands of TiO2 NPs at 410 to 428 nm. Using 25, 50 and 100 mg/ml of TiO2 NPs synthesized from *A.versicolor* were found to inhibit *Staph. aureus*, *B. cereus*, *S. typhimurium* and *C. albicans* activities. It's evident that the gram positive bacteria were more sensitive to TiO2 NPs as compared with the gram negative bacteria. The 100 mg/ml caused a bacterial inhibition at 33, 28 and 24 mm, respectively. Furthermore, increasing the nanoparticles concentration had resulted in improving the inhibition effects against food poisoning bacteria. Besides, it was found that the inhibition zone of 100 mg/ml from TiO2 NPs against *C.albicans* was at 29 mm.



Biography (150 word limit)

I graduated with a PhD from Mosul University, in Iraq and subsequently served as a researcher and academic staff for almost 29 years at the Trade and Agriculture ministry, Mosul and Tikrit University. Expert, in Food Microbial Detection, Mycotoxin Analysis, Food Quality Process. University Prof. Lecturer, and supervisor for more than 60 Ph.D. and M.Sc. Post-graduate Students in Iraq Universities. Member of more than 100 examining committees for post-graduate student in different universities.

Head for the department of Food Sciences and Biotechnology for six years, dean of the College of Agriculture for two years, and dean College of Pharmacy for one year.

Published more than 80 research in different journals. Subscribe in more than 25 conference and more than 12 workshops**.** Have Post doctorate at 2015, and professor visitor at 2016 in Istanbul Technical University, Istanbul, Turkey.

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