Antibacterial Activity of Nano Particles Extracted from Oyster Mushrooms (*Pleurotus ostreatus*)

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Abstract:

Oyster mushrooms are edible mushrooms with lot of essential nutrients such as rich of proteins, amino acids, low levels of carbohydrates, lipids and fats. The present study cultivated the Oyster mushroom: *Pleurotus ostreatus* using coir pith substrate. The harvested *Pleurotus ostreatus* was an efficient mushrooms could be utilized in the biosynthesis of nanoparticles through green chemistry and it was an eco-friendly technique, non-toxic and alternative to physical and chemical method. The presence of biomolecules in the edible mushroom acted as a reducing and capping agent in production of nano particles. The synthesized silver nano particles (AgNPs) showed effective bactericidal activity against both gram positive and gram-negative strains. The AgNPs of P. *ostreatus* could be recommended for the applying in biomedical industries for manufacturing drugs and medicines. And also it could be utilized in food, biocide manufacturing industries and cosmetics.

Keywords:

Oyster mushrooms, Silver nano particles and antibacterial activity.