

Press Release

A Patent No.144,281 titled "**Method for the fabrication of silver nanoparticles by unsaponifiable part of vegetable oil deodorizer distillate**" has been granted on July 8, 2024 by the Federal Government of Pakistan through the Intellectual Property Organization, Patent Office Karachi according to the patent ordinance 2000. The names of the inventors are **Syed Tufail Hussain Sherazi, Sarfaraz Ahmed Mahesar and Hadia Shoaib from National Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.**



The Unsaponifiable Part of Vegetable Oil Deodorizer Distillate (USP-VODD) is explored as a capping/reducing agent for the synthesis of silver nanoparticles (AgNPs). The VODD is waste products obtained during the deodorization process of the vegetable oils refining. It is a very cheap source of several health beneficial components such as squalene, hydrocarbons, phytosterols, tocopherols, tocotrienols, mono and diglycerides, and fatty acids.

This invention describes a unique method for the fabrication AgNPs using of USP-VODD. For the first time, USP-VODD is applied as a reducing/capping agent for the synthesis of AgNPs. The antioxidant and antimicrobial studies demonstrated the significant potential of USP-VODD derived AgNPs to be used as in the food, cosmetic and pharmaceutical industries to increase the shelf life of the products. Synthetic antioxidants are very expensive beyond their specific limit while USP-VODD derived AgNPs are natural and health beneficial due to the involvement of bioactive components such as tocopherols, sterols and squalene.

