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## ABSTRACT

Fingerprints are one of the most valuable of all the physical evidence. They are used for individual identification in forensics. Fingerprints are unique from person to person and remain unchanged during whole life of person. Fingerprints consist of distinct ridge details that make fingerprint of person unique. When individual touch something with bare hands secretions from fingers were transferred to those substrates these secretions helps in enhancement of prints. As these fingermarks are not visible to naked eye different powders are used to make them visible. In this research work silver nanoparticle were synthesized using Barseem (*Trifolium Alexandrinum*). Synthesized particles were characterized by UV-Vis spectroscopy, particle size analyzer and scanning electron microscope. The synthesized silver nanoparticles after drying were used to develop latent fingermark. Maximum peak of absorbance of synthesized silver nanoparticles was in range of 400- 500 nm. Latent fingermarks were developed on various non-porous surfaces. The fingermarks developed with silver nanopowder were photographed in normal light and IR light. The fingerprints that were developed by use of silver nanopowder gave good results up to first and second level ridge detail..