

SYNTHESIS AND CHARACTERIZATION OF PALLADIUM NANOPARTICLES & ITS CONTRIBUTION IN PHOTOTHERMAL THERAPY OF CANCER

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ABSTRACT

Nanotechnology is very useful in manipulating the matter that there is scope of improvement in technologies in order to secure the environment. Currently, the usage of nanotechnology can be seen in the commercial market in the form of nano devices and nano materials which are playing a revolutionary part in the implications of safety, health and advancement in technology. Metal nano particles is helpful in optics, electronics and medicines etc. Palladium metal is also used at large scale. The usage of palladium nanoparticles in green chemistry approach is increasing. During synthesis, palladium nanoparticles are environment friendly. The study is tried to explore the synthesis and characterization of palladium nanoparticles with borassus flabellifer L. leaf extract. To analyze the optical characteristics of palladium nanoparticles, ultra-violet spectroscopy was used. To measure the qualities of palladium nanoparticles, X-ray diffractometre was used. To record the image and size of palladium nanoparticles, TEM was used. Cyto-toxic property of palladium nanoparticles has been recorded with the help of micro-plate reader. The purpose of this paper is to synthesise the palladium nanoparticles with low cost and to improve the usage of palladium nanoparticles with enhanced optical properties.

KEYWORDS: *Characterization, Commercial, Electronics, Optical, Synthesis, Toxic*

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