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Original Research Article

Facile and Eco-Friendly Method for Synthesis of Calcium Oxide Nanoparticles Utilizing *Pistacia Atlantica* Leaf Extracts and Its Characterization

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ABSTRACT

The disadvantages of conventionally utilized techniques for the synthesis of organic and inorganic compounds include costliness, non-eco-friendliness, less effectiveness, and unsuitability in large-scale procedures. Green procedures minimize injurious chemical compounds and equipment, are inexpensive, facile, produce no detrimental chemicals, and are highly efficient. Nano-scale significantly raises the potentiality of compounds and the green methods of synthesis in synthetic chemistry are superior alternates and effective relative to conventionally used techniques. Calcium oxide nanoparticles (CaO-NPs) are of value in adsorption, antimicrobial activities, catalysis, and adsorption. Green synthesis is the most preferable formulation technique because of using contamination-free chemical compounds and encouraging the application of non-toxic solvents, including water and plant extracts. This investigation aimed to propose the synthesis of CaO nanoparticles by an environmental-friendly green synthesis by *P. atlantica* leaf extract. The CaO-NPs were characterized in detail. In our investigation, the UV-Vis spectrums were determined in wavelengths ranging from 270 to 350 nm, suggesting

Keywords: CaO nanoparticles; Green Synthesis; *Pistacia Atlantica*;