

***Commelina nudiflora* L. Edible Weed as a Novel Source For Gold Nanoparticles Synthesis and Studies On Different Physical–Chemical and Biological Properties**

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ABSTRACT

In this study we used common weed plant *Commelina nudiflora* as reducing and stabilizing agent for gold nanoparticles synthesis. The synthesized gold nanoparticles were characterized using their physical–chemical parameters such as size, shape, composition and crystalline nature by different analytical techniques. Biosynthesized gold nanoparticles are spherical and triangle in shapes as reported in this study. The spherical size of the particles ranges between 50 and 150 nm and triangular size is ≤ 150 nm as measured by FESEM. The *C. nudiflora* synthesized gold nanoparticle has potential antibacterial and antioxidant activities.

KEYWORDS: Gold nanoparticles; FESEM; *Commelinanudiflora*; Antibacterial; Antioxidant

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