



Synthesis of CuO Nanoparticles from *Mirabilis jalapa* Seed Extract and its Antibacterial Activity

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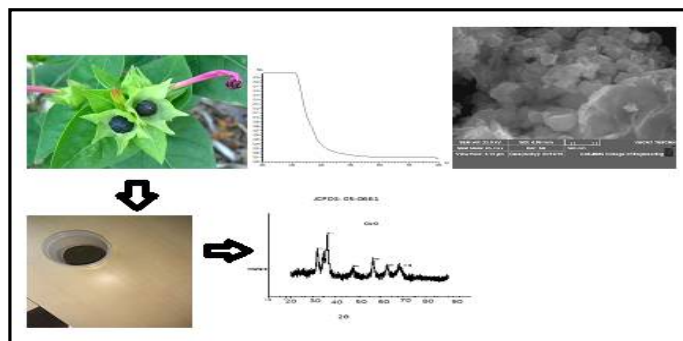
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ABSTRACT

The nanoparticles produced using plant extracts are more stable. Copper oxide nanoparticles using *Mirabilis jalapa* Seed extract has been successfully synthesized by solution combustion method. The characterization of CuO nano particles were carried out to confirm the nano size and shape. The morphology of the CuO nanoparticles was confirmed by powder X-ray diffraction (PXRD). The CuO nanoparticles show the UV-absorption peak at 340 to 380nm. The free agglomerated large surface area with spherical shape is indicated by SEM images. The Scherrer's method used to find the average crystalline size in the range of 10-20 nm.

Graphical Abstract



Keywords: Plant extract, CuO nanoparticles, SEM images.