



**Green Synthesis of Silver Nanoparticle from
Leaves of *Artemisia roxburghiana* L**

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ABSTRACT

In this paper we have reported the green synthesis of silver nanoparticles (AgNPs) by using the leaves extract of *Artemisia roxburghiana* as capping and reducing agents. The synthesized nanoparticles were characterized by the spectral techniques such as UV-Vis, Powder XRD, HR-SEM and HR-TEM which confirm the average size of nanoparticles about 42 to 47 nm. In the EDX data it has been found that the synthesized nanoparticles are 46 percent silver and it is nearly spherical in shape. After characterization it has been screened for antioxidant activity by DPPH method which shows that its IC50 value of 63 further in order to check the materials applicability the photocatalytic degradation of natural dyes such as alizarin red and methyl orange, were monitored in the presence of synthesized nanoparticles.

Graphical Abstract

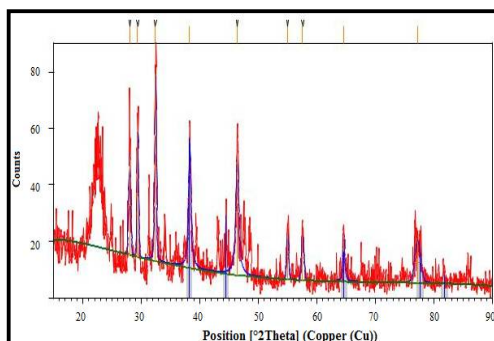


Figure 2. XRD peaks of AgNPs

Keywords: Green chemistry, *Artemisia roxburghiana*, DPPH, photocatalytic activity.