

Abstract

In order to avoid the harmful effects caused by the chemical synthesis of CuO nano particles, green synthesis of CuO nano particles was done. CuO nano particles were synthesized using the extract of *Delbergia sissoo* plant which is also known as “taali” or “sheesham”. Reaction conditions were optimized by carrying out reaction at various conditions of temperatures, salt concentrations and by using both dry and fresh leaves then the yield produced using each condition was noted. The synthesized nano particles were then characterized by using UV-Vis spectroscopy, FT-IR spectroscopy, Photo luminescence and SEM. UV-Vis spectroscopy showed a peak at 225 nm which was characteristic to copper oxide nano particles. FT-IR of both the extract and the nano particles was done which showed peaks corresponding to the functional groups responsible for the conversion of metal nuclei into nano particles. Photo luminescence gave a peak at 782nm. SEM images revealed spherical nano particles with an average particle size of 35 nm.