ABSTRACT

The purpose of this research work is effective synthesis of copper nanoparticles as their use is being increased in many fields like electronics and the medical field. In the Synthesis of these nanoparticles green method was used .copper sulfate was used as precursor and leaf extract of plant was used for the reduction of copper. Formation of nanoparticles was observed by the change in color of the solution to brown .it was the first visual indication for the formation of the nanoparticles. Various characterization techniques like Uv visible spectrophometry ,FTIR ,SEM and EDX Were used to confirm the formation of nanoparticles .nanoparticles showed absorption peak at 270nm as it ranges from 200-300nm for the copper oxide nanoparticles .FTIR Spectra showed peaks at $472cm^{-1}$ and $524cm^{-1}$ which indicated the bending vibrations of the Cu-O Bond .Efficiency of the copper oxide nanoparticles was evaluated by using it against microbes like Acinetobacter Baumannii, Bacillus cereus, Escherichia coli and their zones of inhibition were measured.