

## **Abstract:**

Nanomaterials based on Cu and Ni are P-type semiconductors in nature when they are exposed to light they behave as excellent catalysts. This property makes them to use in photocatalysis. NiS, CuS doped CuO.NiO NP's were used in photocatalysis of organic dyes like methyl blue. These nanomaterials were prepared by using simple solvothermal process (co-precipitation). These nanomaterials have band gap 4.55 eV which made them very efficient to degrade these organic dyes. These nanomaterials are studied by using UV-Visible spectroscopy, PL, SEM and FTIR. It degrades MB in just 100 min under continuous stirring and in the presence of full sun light. They can effectively remove organic dyes from the industrial waste water. UV-Visible spectra show the absorbance at 225nm. FTIR of all the samples show the presence of particles in the sample. PL analysis of the nanoparticles shows sharp peaks at their relevant ranges. The photodegradation of Methyl blue is confirmed by the UV-Visible spectroscopy.