

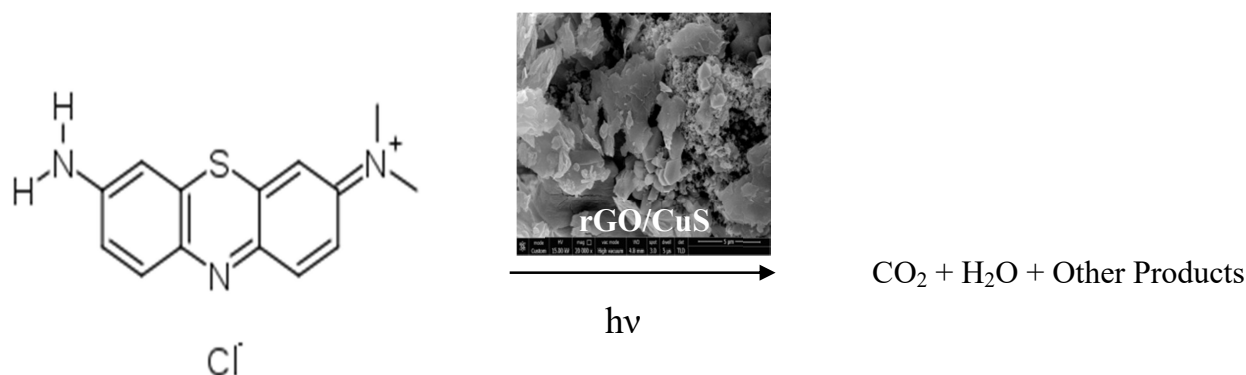
Reduced graphene oxide/CuS nanocomposite as an efficient photocatalyst for degradation of azure A

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Abstract : Water pollution is a serious issue all over the world because water is contaminated by various pollutants, out of which dyes are most common and hazardous because of their complex structures making them stable, non-degradable and hazardous. Azure A is such a dye. Composite of rGO/CuS was prepared by mechanochemical method and further characterized by XRD, FTIR and EDAX techniques. This composite was used to degrade azure A photocatalytically. This composite showed better photocatalytic property as compared to pure CuS. Optimum conditions for maximum dye degradation were observed as: pH = 6.5, [Azure A] = 3.4×10^{-5} M, amount of composite = 0.06 g and light intensity = 50.0 mW cm^{-2} .

Keywords: copper sulfide, reduced graphene oxide, azure A, photocatalytic degradation.