



## Photocatalytic degradation of methylene blue using undoped and Co-doped bismuth ferrite

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### ABSTRACT

*This work deals with the degradation of non-biodegradable methylene blue using undoped and Co-doped bismuth ferrite as photocatalyst. The effect of various parameters such as pH, concentration of dye, amount of photocatalyst and light intensity on the reaction rate has been studied. The rate of photodegradation of dye was monitored spectrophotometrically. The results show that doping of bismuth ferrite by cobalt increases the rate of photocatalytic degradation due to narrowing of band gap. Mechanism of the reaction has been tentatively discussed.*

**Keywords:** Methylene blue, Bismuth ferrite, Co-doped bismuth ferrite, Photocatalytic degradation.

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