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## Advanced oxidative degradation of indigo caramine

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**R**isk to ecosystem vary significantly depending upon the nature and extend of exposure to hazardous chemicals. Environment remediation, particularly in the field of waste water treatment, has gained utmost importance in recent years. Indigo Caramine is widely used in food preservatives, textile and pharmaceutical industries. Anthropogenic releases of such chemicals into the environment are predominately into water and soil. In the present study, advance oxidation processes namely UV/H<sub>2</sub>O<sub>2</sub> Fenton and Fenton like were investigated for the degradation of indigo caramine in lab-scale photo reactor. Hydroxyl radicals are powerful oxidizing reagents. The study reports that on the advanced oxidation of indigo caramine in an acid medium by means of the combined action of polychromatic UV –radiation dose, hydrogen peroxide concentration, Fenton's reagent and pH. The process is being highly dependent on experimental

parameters, degradation studies were carries out at different concentration of (Fe+2/ H<sub>2</sub>O<sub>2</sub>) and the optimum results were obtained.

### Biography

Samiksha Mahakulkar is studying Chemical Engineering in Laxminarayan Institute of Technology, Nagpur. It is one of the oldest and premier institute in the field of Chemical Technology creating technocrafts since decades. She worked under the guidance of Dr. Pratibha Agrawal, Professor at Laxminarayan institute of technology for 1 year on the research topic "Advanced Oxidation Process" for Water Treatment. Wrote review and original research papers and have well knowledge about it. She is doing her internship in CSIR- NEERI ( National Environmental and Engineering Research Institute) under Dr. Ganesh Kale , Senior Scientist on topic Solid and waste Management and she is recognized as junior scientist.

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