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Parameter variation of crystal violet degradation on TiO_2 -fibrous clay material

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Organic dyes are an important source of environmental contamination, as they are toxic and mostly non-biodegradable. Crystal violet (CV) is a basic dye very used for the coloring of paper, fibers, leather etc., but this dye is non-biodegradable and environmentally persistent. A wide range of methods have been developed for the removal of CV from the wastewaters such as biological methods membrane filtration, coagulation–flocculation, adsorption and advanced oxidation processes (AOPs). Among these techniques, photocatalysis constitutes one of the emerging technologies for the organic pollutants degradation. With the catalyst that was synthesized in the laboratory based on modified fibrous clays of central Tunisia and by relying on the photocatalysis method, a large proportion of crystal violet in solution is disappearing. In conclusion by more advanced research in the chemical field we can eliminate some dyes harmful to our environment even at less expensive and that what we do in our work.

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