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PhotocatalyticDegradation of Methyl Orange Dye using Different Photocatalysts under Solar Light

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Abstract: In the present paper, the degradation of Methyl Orange dye using two commercial photocatalysts (ZnO and TiO_2). These two catalysts have been tested and compared in suspension in a slurry reactor under solar light.
The best values ofvarious transactionssuch as catalyst concentration, catalyst type and the concentration at the beginning of experiment of that affectingthe degradation percentage of Methyl Orange were observed by changing catalyst concentration (0.5 –1.5 g/l), and the elementary dyeconcentration (50–150 mg/l). The disappearance of colour and substrates together with the abatement of total organic carbon content was monitored. The main sulfonate-containing intermediateswere found to be in lower number in respect to those obtained under solar light. The photocatalystZnOnoticed that was a perfect photocatalyst from TiO_2during the degradation of Methyl Orange.
Keywords: Degradation; Indigo carmine dye; Photocatalysis; Zinc oxide.

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