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Photodegradation of Fast Green by Using SnO_2 Quantum Dots/TiO_2 Nanoparticles Composite

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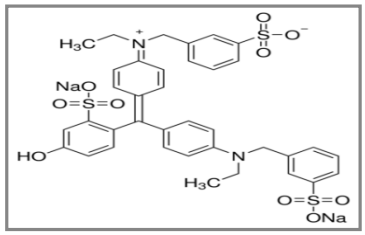
ABSTRACT

The photocatalytic degradation of fast green was studied under visible light using SnO_2-TiO_2. This composite was prepared by hydrothermal method using stannic chloride (hydrate) as precursor for SnO_2 quantum dots. It has more photocatalytic activity than titania nanopowder for degradation of fast green. The effect of various parameters like pH, the concentration of dye, amount of catalyst and light intensity on the rate of degradation was also studied. It can be a promising method for wastewater treatment.

Graphical Abstract



Structure of Fast green.

Keywords: Fast Green, Photocatalysis, Quantum dots, Nanoparticles.