



Sonolytic Degradation of Eosin Yellow

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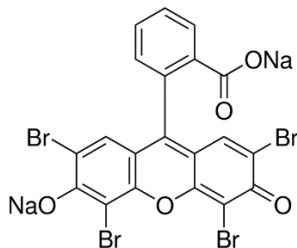
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ABSTRACT

Ultrasound response method is used to study degradation of eosin yellow in aqueous media in ultrasound fast cleaner. It was observed that the colour removal efficiency was influenced by pH, hydrogen peroxide, concentration, frequency of ultrasound. It was found that the dye degradation followed apparent first order kinetics. The rate constant increased by decreasing dye concentration and was affected by the pH of the solution with the highest degradation obtained at 7.5 pH and period of exposure was 90 min. The best and optimum condition for degradation of eosin yellow are developed. Process of degradation was followed spectrophotometrically at maximum wavelength of 517nm. A tentative mechanism is proposed for Sonochemical degradation method has been discussed.

Graphical Abstract:



Structure of eosin yellow

Keywords: Eosin yellow, Hydrogen peroxide, Sonolytic degradation.