

624/E₂

**Electrochemical destruction of textile colorants using
Indium Tin Oxide (ITO) coated conducting glass electrode**

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The degradation of textile colorant, Eosin Y (EY), in aqueous medium of pH 3.0 – 6.0 has been studied by anodic oxidation using indium tin oxide (ITO) coated glass anode. The dye solution with a concentration of 50 μM is totally decolorised in 30 minutes at an electrical charge (Q) of 0.067 C dm⁻³. The decay kinetics of EY follows a pseudo first-order reaction. The degradation of EY is faster at acidic pH values than at basic pH values. The key advantage of the ITO conducting glass anode is

that the deposition of polymeric materials on the anode surface during electro-degradation of pollutant is absent and therefore the electrode fouling is not observed. Hence, the ITO anodes can be employed for an extended period without loss of activity.

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