



Study on Photocatalytic Degradation of Crystal Violet from Water  
by Using Calcium Chromate–Zinc Oxide Composite

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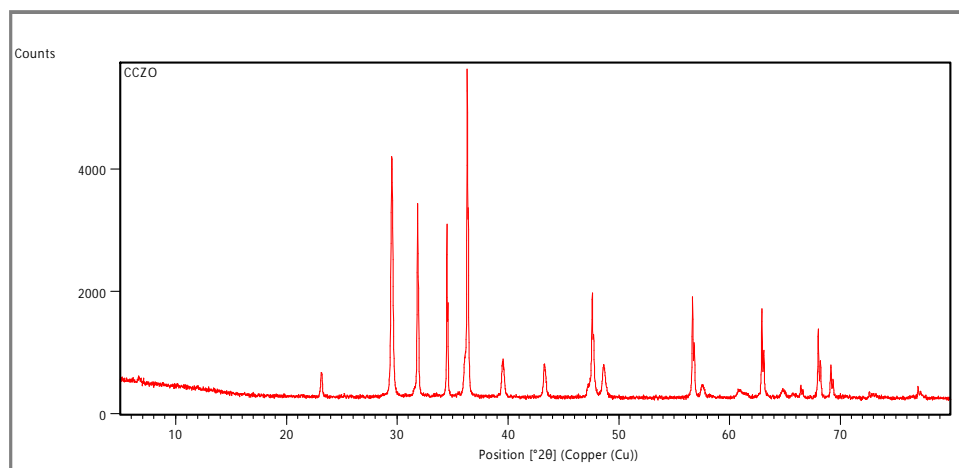
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ABSTRACT

Numerous photocatalysts have been used for the removal of various dyes from their aqueous solutions. Calcium chromate - zinc oxide composite was used as a photocatalyst for the degradation of crystal violet dye. Effect of different parameters that affect the rate of reaction, such as pH of dye solution, concentration of dye, amount of semiconductor and intensity of light were studied. A tentative mechanism for the photocatalytic degradation of dye has been proposed, where hydroxyl radical has been observed as an active oxidizing species.

Graphical Abstract:



XRD of calcium chromate-zinc oxide.

**Keywords:** Photocatalytic Degradation, Zinc Oxide, Calcium Chromate, Crystal Violet Dye.