



Composite of Titanium Dioxide and Nickel Vanadate Application and Its Effect on Photocatalytic Degradation of Azure A Dye

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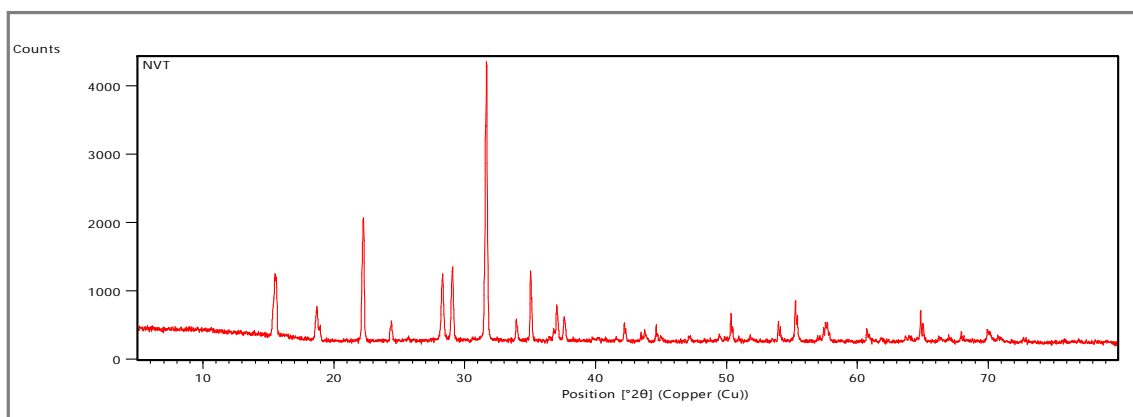
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ABSTRACT

Different dyes have been extracted from their aqueous solutions using a variety of photo catalysts. A combination of titanium oxide and nickel vanadate was utilized as a photo catalyst for dye degradation. The effects of many factors, including pH of the dye solution, dye concentration, quantity of semiconductor, and light intensity, were investigated. There has been some discussion on a potential mechanism for the photocatalytic breakdown of dye in which the hydroxyl radical has been seen to be an active oxidizing species.

Graphical Abstract:



XRD of Nickle vanadate and Titanium Dioxide.

Keywords: Photo catalysis, Degradation, Nickel vanadate, Azure A Dye.