

# THE USE OF SUPPORTED SILICA OF NICKEL-COPPER CATALYST FOR PHOTODEGRADATION OF METHYLENE BLUE

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## ABSTRACT

The purpose of this study was to study the preparation of Ni-Cu oxide photocatalysts supported by SiO<sub>2</sub> and its application as a photodegradation catalyst for methylene blue solution. Catalysts were characterized using various methods, such as TEM, SEM-EDX, XRD, FTIR, and UV Vis Diffuse Reflectance. The degradation of methylene blue solution is carried out using a UV light source and visible. The results showed that Ni-Cu catalyst supported by SiO<sub>2</sub> was very effective to be used as a catalyst in the photodegradation reaction of methylene blue.

Kata Kunci: *Ni-Cu oxide, photodegradation, methylene blue, silica.*