SYNTHESIS, CHARACTERIZATION AND ANTIOXIDANT STUDIES OF SCHIFF BASES DERIVED FROM 4-CHLOROBENZALDEHYDE.

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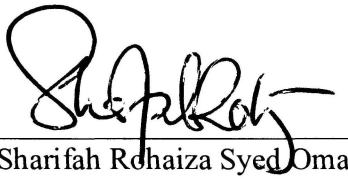
This Final Year Project Report entitled **"Synthesis, Characterization and Antioxidant Studies of Schiff Bases derived from 4-Chlorobenzaldehyde"** was submitted by Nora Niza Binti Kaharudin, in partial fulfillment of requirements for the Degree of Bachelor of Sciences (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by



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ABSTRACT

SYNTHESIS, CHARACTERIZATION AND ANTIOXIDANT STUDIES OF SCHIFF BASES DERIVED FROM 4-CHLOROBENZALDEHYDE.

Schiff bases derived from 4-chlorobenzaldehyde with ethylenediamine, 2-aminophenol and N-phenyl-1,4-phenylenediamine are synthesized, characterized and their antioxidant activity are studied. The Schiff bases have been prepared by condensation reaction using suitable ratio which is 2:1 for synthesizing with ethylenediamine and 1:1 for synthesizing with 2-aminophenol and N-phenyl-1,4-phenylenediamine. The Schiff bases are then characterized by elemental analysis, infrared spectroscopy and NMR spectroscopy. Finally Schiff bases were further study for antioxidant investigation. UV-Visible spectrophotometry is used to measure the absorbance of compound at 700 nm. High absorbances indicate high antioxidant activities. Schiff bases are compared with ascorbic acid which widely known as vitamin C in nature.