

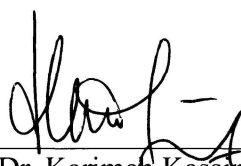
SYNTHESIS, CHARACTERIZATION AND CORROSION INHIBITION
STUDY OF SCHIFF BASE LIGANDS IN 1 M HCL

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Final Year Project Report Submitted in Partial Fulfillment of the Requirements
for the Degree of Bachelor of Science (Hons.) Applied Chemistry in the Faculty
of Applied Sciences Universiti Teknologi MARA

APRIL 2009

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ACKNOWLEDGEMENTS

First of all, my highest grateful to Allah s.w.t. for His grace and blessing that made everything possible. With this oppurtunity, I would like to express my gratitude to first and foremost my dear supervisor, Dr. Karimah Kassim for her complete attention and precious thoughts upon completing this project. Her valuable knowledge and advice have made it possible for me to complete this project successfully. My great appreciation would also go to the two lab assistants namely; Mr. Adnan Ismail and Mr. Khairul Anwar Tajuddin, whom have been a great help in assisting me during the period of using the laboratory (MK1 and MK2). I am very grateful for all the assistance had been given. Last but not least is to my family for their unending moral support since the beginning towards the end of this project. Of course, not to forget, my friends whom are directly or indirectly involved in carrying out this project. I am forever thankful for their help and advices during our discussions together. Thank you very much.

Cordelia Binti Abdul Rahim

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ABSTRACT

SYNTHESIS, CHARACTERIZATION AND CORROSION INHIBITION STUDY OF SCHIFF BASE LIGAND IN 1 M HCL

This study has been done to synthesize, characterize and to investigate the efficiency as a corrosion inhibiting compound of the Schiff base ligands for mild steel. Schiff base has been known as an alternative that can be applied in the industry to reduce the rate of corrosion which is cheap as well. The chemicals used were o-phenyldiamine, ethylenediamine, benzaldehyde and benzalacetophenone which resulted in three Schiff Base ligands were obtained. These ligands were then characterized to confirm the purity of the compound obtained with its predicted properties. Then these Schiff base ligands were applied in the corrosion test using the weight loss method in an acidic media of 1 M of hydrochloric acid (HCL). The data collected over the period of five days were then calculated and analyzed. The result shows that the Schiff base ligands were proven to effectively inhibit the corrosion process. This can be concluded that the Schiff Base ligands are an effective corrosion inhibitor.