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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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Electrochemical Behaviour of Some Electroactive Organic Compounds in Buffer Solutions

A Thesis

*submitted for partial fulfillment
for the degree of M. Sc.
in Chemistry*

BY

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To my parents

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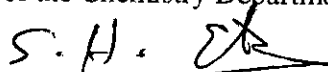
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STATEMENT

This thesis is submitted in partial fulfillment of the requirements for the M. Sc. Degree. In addition to the work carried out in this thesis, the candidate has accomplished with success the post graduate studies in the following topics :

- 1- *Electrochemistry.*
- 2- *Chemical Kinetic.*
- 3- *Photochemistry.*
- 4- *Group Theory.*
- 5- *Molecular Spectroscopy.*
- 6- *Organic polymers and adhesives.*
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Aim of the work

The present study aims to throw light on the electrochemical behaviour of two series of compounds derived from 4-aminoquinoline (azo and Schiff base compounds) in buffer solution of different pH values at mercury electrodes.

The electrode reaction pathway of these compounds is postulated and the kinetic parameters of the electrode reaction are determined. The pK values of these compounds are determined spectrophotometrically and the stoichiometry of the metal complexes of these compounds with some metal ions are determined potentiometrically.

The techniques used in the present study are:

DC-polarography

Cyclic voltammetry

Digital simulation

Spectrophotometry

Potentiometry

