بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

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بالرسالة صفحات
لم ترد بالاصل

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

Mona Abd El-Azeem El-Attar
B. Sc. & Ed. (Chemistry - Physics), 1990
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1999

To my parents

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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.

7- Inorganic Chemistry.

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Mona A. El-Attar

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CONTENTS

Aim of the work

The present study aims to throw light on the electrochemical behaviour of two series of compounds derived from 4-aminoquinaldine (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 stochiometry 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 samulation

Spectrophotometry

Potentiometry