

CONTENTS

	<u>Page</u>
INTRODUCTION.....	1-34.
AIM AND SCOPE OF THE PRESENT WORK.....	35-37

PART I

ELECTROCHEMICAL BEHAVIOUR OF ALUMINIUM
AND THE FOUR SELECTED ALLOYS AS
REVEALED FROM GALVANOSTATIC POLARIZAT-
ION EXPERIMENTS.

A. INTRODUCTION.....	38
B. EXPERIMENTAL.....	39-43
C. RESULTS.....	44-45
D. DISCUSSION.....	46-71

PART II

SUSCEPTIBILITY OF ALUMINIUM AND THE
FOUR SELECTED ALLOYS TO PITTING CORROSION
BY Cl^- IONS USING POTENTIODYNAMIC ANODIC
POLARIZATION TECHNIQUE.

A. INTRODUCTION.....	72-73
B. EXPERIMENTAL.....	74
C. RESULTS.....	75-76
D. DISCUSSION.	77-96

PART III

ELECTROCHEMICAL BEHAVIOUR OF ALUMINIUM
AND THE FOUR SELECTED ALLOYS AS REVEALED
FROM CYCLIC VOLTAMMETRY EXPERIMENTS.

A. INTRODUCTION.....	97
B. EXPERIMENTAL.....	98-99
C. RESULTS.....	100-101
D. DISCUSSION.....	102-112
 SUMMARY AND CONCLUSION.....	 113-117
REFERENCES.....	118-137
SUMMARY IN ARABIC.....	