

VI

C O N T E N T S

		Page
ACKNOWLEDGEMENT	..	I
PREFACE	..	III
CONTENTS	..	VI

CHAPTER I

A short review of organotin chemistry

IA	Introduction	..	1
IB	Bonding in organotin compounds		2
IC	Organotin complexes	..	7
	BIBLIOGRAPHY (Chapter I)	..	16

CHAPTER II

Organotin carboxylates

IIA	Introduction	..	21
IIB	Preparation	..	21
IIC	Physical properties of organotin carboxylates		25
IID	Chemical properties of organotin carboxylates		27
IIE	Structure of organotin complex		30
	BIBLIOGRAPHY (Chapter II)		39

CHAPTER III

Preparation, properties and IR spectra of some new organotin carboxylates

IIIA	Introduction	..	45
------	--------------	----	----

VII

	Page
IIIB Methods of preparation ..	60
IIIC Spectrophotometric titrations and nature of the azo carboxylic derivatives	61
IIID Infrared spectra ..	65
IIIE Experimental ..	77
IIIE(1) Preparation of azo carboxylic acids	78
IIIE(11) Reactions for the preparation of organotin derivatives	82
IIIE(111) Spectrophotometric titration	97
BIBLIOGRAPHY (Chapter III)	99

CHAPTER IV

Absorption spectra and structure of the organotin (o-aryl azo benzoates)

IVA Introduction ..	102
IVB Results and discussion ..	106
IVC Conclusion ..	122
IVD Experimental ..	123
BIBLIOGRAPHY (Chapter IV) ..	124

CHAPTER V

Equilibrium constants for some penta-co-ordinated organotin (o-aryl azo) benzoate-donor systems

VA Introduction ..	126
VB Method of calculation of equilibrium constants ..	129
VC Results and discussion ..	132
VD Conclusion ..	145

VIII

		Page
VB	Experimental ..	145
	BIBLIOGRAPHY (Chapter V) ..	147

CHAPTER VI

Unusual donor properties of organotin derivatives of Methyl red

VIA	Introduction ..	148
VIB	Results and discussion ..	148
VIC	Nature of the methanolic solution	155
VID	Peculiarities of triorganotin derivatives of methyl red ..	159
VIE	A preliminary quantitative study of a representative system in methanol	163
VIF	Conclusion ..	167
VIG	Experimental ..	169
	BIBLIOGRAPHY (Chapter VI) ..	169
