

C O N T E N T S

	<u>Page No.</u>
Foreword	
<u>CHAPTER-I</u> INTRODUCTION	
1.1 General	1
1.2 Review of antimicrobial properties of hydroxy-1,4-naphthoquinones	3
1.3 Therapeutic importance of plumbagin and 3-chloroplumbagin	8
1.4 Present investigations	9
References	12
<u>CHAPTER-II</u> TRANSITION METAL CHELATES OF 3-CHLOROPLUMBAGIN	
2.1 Introduction	17
2.2 Present investigations	19
2.3 Experimental	20
2.3.1 Preparation of the ligand	
2.3.2 Preparation of the chelates	
2.3.3 Infra-red and far infra-red spectra	
2.3.4 Thermogravimetry	
2.3.5 Magnetic susceptibility measurements	
2.4 Results and discussion	33
2.4.1 Infra-red spectra, far infra-red spectra and thermogravimetry	
2.4.2 Magnetic susceptibility measurements	
References	48

CHAPTER-III NON TRANSITION METAL CHELATES OF
PLUMBAGIN AND 3-CHLOROPLUMBAGIN

3.1	Introduction	54
3.1.1	Structural studies	57
3.1.2	Applications	61
3.2	Present investigation	64
3.3	Experimental	64
3.3.1	Preparation of ligand and chelates	
3.3.2	Infra-red and far infra-red spectra	
3.3.3	Thermogravimetry	
3.3.4	Electrical conductivity	
3.3.5	Elemental analyses	
3.4	Results and discussion	82
3.4.1	Molecular composition	82
3.4.2	Infra-red spectra	93
	References	93

CHAPTER-IV ANTIMICROBIAL STUDIES OF PLUMBAGIN
3-CHLOROPLUMBAGIN AND THEIR METAL
CHELATES

4.1	Introduction	97
4.2	Present investigation	100
4.3	Experimental	102
4.3.1	Preparation of the compounds and stock solutions	
4.3.2	Micro organisms	
4.3.3	Assay method	
4.4	Results and discussion	104
	References	118