

TABLE OF CONTENTS

Chapter	Topic	Page No.
	List of Tables	i
	List of Figures	iii
	List of Schemes	vii
	List of Appendices	viii
I	<i>Photophysical & Catalytic behaviour of Polydentate Ligands and their Metal Complexes</i>	1
II	<i>Photophysical Properties of A₂B-corroles: Selective Mercury(II) ion Sensing in Solution</i>	29
III	<i>Catalytic Hydrocarbon Oxidation by Iron Complex of 5, 10, 15-tris(difluorophenyl)corrole</i>	52
IV	<i>Selective Olefin Epoxidation Catalyzed by Iron Corrole in Ionic Liquid Medium at Room Temperature</i>	70
V	<i>Copper(II) Dipyrrromethene Complex and Its Use as an Oxidation Catalyst: C-H Activation at Room Temperature</i>	83
VI	<i>Room Temperature Stereospecific Alkane Hydroxylation with Hydrogen Peroxide Catalyzed by an Iron(III)-cyclam Complex</i>	100
VII	<i>Room Temperature Selective Alkane Hydroxylation with H₂O₂ By Iron(III) Cyclam Intercalated Montmorillonite K-10</i>	117
	Appendix	133
	Bibliography	139
	Index	148