Contents

		Page
PREFACE:		i to vi
	Section I	
Chapter 1:	Introduction	1 to 36
1.1:	Solvent Extraction	
1.2:	Principles of solvent extraction	
1.3:	Synergistic extraction	
1.4:	Metal ions studied – a brief survey	
1.5:	Survey of several synergistic extraction systems	
1.6:	Objective of present investigation	
1.7:	References	
	Section II	
Chapter 2:	Materials and equipments	37 to 44
2.1:	Materials	
2.2:	Commercial extractants	
2.3:	Synthesised extractants	
2.4:	Synthesis of some other extractants and donors	
2.5:	Instruments	
2.6:	Procedure for determination of cations	
2.7:	References	
Chapter 3 :	Synergistic extraction of some	
	transition elements	45 to 104
3.1:	Synergistic extraction of Cobalt (II) by	
	2-hydroxy-1-naphthaldoxime and neutral donors	
3.2:	Synergistic effect of neutral donors on the extract	ion
	of Zirconium (IV) by salicylaldoxime in dichloror	methane

3.3:	Studies on synergistic extraction of Pd (II) using
	2-hydroxy-1-naphthaldehyde thiosemicarbazone
	and some donors
3.4:	Synergistic extraction of Gold (III) by
	2-hydroxy-1-naphthaldehyde thiosemicarbazone
	and donors
Chapter 4 :	Synergistic extraction of some lanthanides 105 to 128
4.1:	Synergistic extraction of Cerium (III) by
	2,2'-dipyridyl-donor combination
4.2:	Influence of crown ethers on the synergistic
	extraction of Praseodymium with benzoylacetone
Chapter 5 :	Synergistic extraction of some actinides 129 to 236
5.1:	Synergistic extraction of Th (IV) by
	2-hydroxy-1-naphthaldehyde thiosemicarbazone
	and neutral donors
5.2:	Synergistic extraction studies of Uranium (VI) by
	2,2'-dipyridyl and neutral donors in chloroform
5.3:	Synergistic extraction of Uranium (VI) by
	2-hydroxy-1-naphthaldehyde thiosemicarbazone
	several neutral donors
5.4 :	Extraction of Uranyl ion with 3-phenyl-4-benzoyl-
	5-isoxazolone (HPBI) and neutral donors from dilute
	nitric acid medium
5.5:	Synergistic extraction of ternary betadiketonates of
	Uranyl ion using some substituted monoamides
5.6 :	Role of ligand structure and basicity on the
	extraction of a neutral isoxazolonate using some
	substituted monoamides

5.7:	Thermodynamic study on the synergistic extraction
	of UO_2^{2+} with some β -diketones and N substituted
	amides

5.8: Extraction of tetravalent Neptunium isoxazolonates as their TOPO adducts

Section III

Chapter 6: Summary and conclusions 237 to 246
List of PublicationS
Reprints