CONTENT

		Page No.
Chapter 1	General Introduction	
	1.1 Coordination Polymers	2
	1.2 Synthesis principles	4
	1.3 Synthetic methods	9
	1.4 Dimensionality of coordination polymers	11
	1.4 1D Coordination Polymers	11
	1.5 2D Coordination Polymers	13
	1.6 3D Coordination Polymers	14
Chapter 2	Two three-dimensional coordination polymers of lead	(II) with
	iminodiacetate and naphthalene-dicarboxylate anions:	Synthesis,
	characterization and luminescence behavior	
	2.1 Introduction	17
	2.2 Experimental	19
	2.3 X-ray crystallography	21
	2.4 Results and Discussion	22
Chapter 3	Three new co-ordination polymers of zinc (II) and cadmiu	m (II) with
	dicarboxylate and bipyridine ligands: Synthesis, stru	icture and
	luminescence study.	
	3.1 Introduction	32
	3.2 Experimental	33
	3.3 X-ray diffraction crystallography	35
	3.4 Results and Discussion	37

Chapter 4	Three new manganese(II) coordination polymers with I	netero donor	
	ligands: synthesis, x-ray structures and luminescence propert	ties.	
	4.1 Introduction	51	
	4.2 Experimental	53	
	4.3 X-ray diffraction crystallography	55	
	4.4 Results and Discussion	57	
Chapter 5	Structural variability of Ag(I) metal-organic	networks:	
	$C-H\cdots\pi$ and metal··· π interactions.		
	5.1 Introduction	70	
	5.2 Experimental	72	
	5.3 X-ray crystallography	73	
	5.4 Results and Discussion	75	
Chapter 6	1D lead(II) coordination chains with carboxylate containing ligands. A		
	rare example of polyrotaxane 1D→1D interpenetrated	coordination	
	polymer.		
	6.1 Introduction	90	
	6.2 Experimental	91	
	6.3 X-ray crystallography	93	
	6.4 Results and Discussion	94	
	Conclusion	101	
	Summary	106	
	References	109	
	List of publication	132	