## INDEX

Chapt.		TITLE	Page No.
1.	INTRODUCTION		
	1.1 Gen	eral	. 2
	1.2 Lite	rature survey	3
	1.2.1	Cadmium oxide (CdO)	3
	1.2.2	Aluminum doped cadmium oxide (Al :CdO)	5
	1.3 state	ement of problem	6
	Referen	ces	8
	•		
2.	THEOF	RETICAL BACKGROUND	
	2.1 Intro	oduction	12
	2.2 Met	hod s of thin film preparation	13
	2.3 Cha	16	
	2.3.1	X-ray diffraction	16
	2.3.2	Scanning electron microscopy	17
	2.3.3	Energy dispersive X-ray analysis (EDAX)	19
	2.3.4	Optical absorption and transmission	19
	2.3.5	Electrical resistivity	26
	Referen	ces	27

3.	1	RATION AND CHARACTERISATION OF CdO		
	3.1 Intro	oduction	30	
	3.2 Exp	erimental	30	
	3.2.1	Experimental set up of spray pyrolysis technique	31	
	3.2.2	Mechanism of thin film formation	32	
	3.2.3	Substrate cleaning	36	
	3.2.4	Preparation of solutions	36	
	3.2.5	CdO thin film deposition	37	
	3.3 Re	sults and discussion	38	
	3.3.1	Thickness measurement	38	
	3.3.2	X-ray diffraction	41	
	3.3.3	Scanning electron microscopy	43	
	3.3.4	Optical absorption and transmission	45	
	3.3.5	Electrical resistivity	46	
Notice to the second se	3.4 Effect of solvent variation on properties of CdO			
	Referen	ces	63	
4	1	ARATION AND CHARACTERISATION OF AID COUNTY THIN FILMS		
	4.1 Intro	oduction	68	
	4.2 Exp	erimental details	69	
	4.2.1	Substrate cleaning	69	
	4.2.2	Preparation of solutions	69	

5	SUMMARY AND CONCLUSIONS		81
	Referen	nces	. 78
	4.3.4	Electrical resistivity	76
	4.3.3	Optical absorption and transmission	75
	4.3.2	Scanning electron microscopy	73
	4.3.1	X-ray diffraction	69
***************************************	4.3 Res	69	
	4.2.3	CdO:Al thin film deposition	69