CHAPTER -	I. I	NTRODUCTION.	ľ
	1.1	An Overview of Thin Film Technology and Solar	
		Cells.	2
	1.2	Basic Demands of a Photoelectrochemical (PEC)	11
		Cells.	*
	1.3	Selection of the Materials.	13
	1.4	Nature of the Work.	14
CHAPTER -	II.	THEORETICAL BACKGROUND.	18
	2.1	Introduction.	20
	2.2	Survey of Thin Film Deposition Techniques.	21
	2.3	Chemical Deposition Process and Mechanism of	30
		Bi ₂ S ₃ Film Formation.	
	2.4	Electronation and De-electronation Processes.	34
	2.5	The Semiconductor/Electrolyte Interface.	36
	2.6	Charge Transfer Mechanism Across The	65
		Semiconductor/ Electrolyte Interface.	75
	2.7	Some Useful Definitions.	70
CHAPTER -	III	DESIGN, FABRICATION, AND EXPERIMENTAL TECHNIQUES.	80
	3.1	Introduction.	82
		Development of Chemical Deposition System.	8 2
		Deposition of Bi ₂ S ₃ Thin Films.	0.2
		Characterisation of The Films.	88
			91

	OF Bi ₂ S ₃ THIN FILMS.	
۷	1.1 Introduction.	
6	1.2 Experimental.	
4	4.3 Results and Discussion.	
CHAPTER - V	V THE PROPERTIES OF n-Bi ₂ S ₃ BASED	
	PHOTOELECTROCHEMICAL (PEC) CELLS.	
	5.1 Introduction.	
	5.2 Experimental Details.	. ,
	5.3 Results and Discussion.	
	I SUMMARY AND CONCLUSIONS.	

Maria de Caracteria de Caracte

4.
