

CONTENTS

CHAPTER	PAGE NO.
I INTRODUCTION	
1.1 Introduction	2
1.2 Solar Cells : History and Status	4
1.3 A Photoelectrochemical (PEC) Cell : Requirements	7
1.4 Advantages of PEC Cells	8
1.5 Selection / Scope of the Problem	9
References	11
II THE EXPERIMENTAL TECHNIQUES AND PROCESSINGS	
2.1 Introduction	14
2.2 The Chemical Deposition System	14
2.3 Preparation of The Thin Film Samples	18
2.4 Techniques of The Thin Film Characterisation	21
2.5 Techniques of The Photoelectrochemical (PEC) Characterisation	24
References	29
III STRUCTURAL, OPTICAL AND ELECTRICAL TRANSPORT PROPERTIES OF In - DOPED CdSe THIN FILMS	
3.1 Introduction	31
3.2 Experimental Details	31

CHAPTER	PAGE NO.
3.3 Results and Discussion	33
3.4 Conclusions	52
References	59
IV PHOTOCHEMICAL (PEC) STUDIES OF CdSe : In ELECTROLYTE INTERFACE	
4.1 Introduction	62
4.2 Experimental Details	62
4.3 Results and Discussion	63
4.4 Conclusions	78
References	83
V SUMMARY AND CONCLUSIONS	
5.1 General	86
5.2 Preparation and Mechanism of Film Formation	87
5.3 Studies on Thin Film Properties	88
5.4 Studies on Photoelectrochemical (PEC) Properties	90
5.5 Conclusions	91