

LIST OF PUBLICATION OF R. K. PANDEY

➤ BOOK

1. **Hand Book of Semiconductor Electrodeposition** R K Pandey, S. Chandra and S.N. Sahu., Marcel Dekker, USA 1996

➤ BOOK CONTRIBUTIONS

1. Energy Sources: Problems and Remedies, in Foundation Course for the undergraduates, Indore University Publications, 1984.

➤ REVIEW ARTICLES

1. "Semiconductor photoelectrochemical solar cells" S.Chandra and **R.K.Pandey** *Physica Status Solidi (a)* **72** (1982) 415.

➤ RESEARCH PUBLICATIONS

1. "A Thin film solid state battery using NH Ag I superionic solids" S. Chandra, R.C.Agrawal and **R.K.Pandey** *Natl. Acad. Sci. Letter* **1** (1978)112.
2. "A Photoelectrochemical diode for solar energy conversion" S. Chandra and **R.K.Pandey**, *National Acad. Sci.(India) Annual No.*, (1978) 89.
3. "Superionic Solid Film II: Preparation and electrical conductivity of anion substituted silver iodide based superionic solid AG I PO" S.Chandra, R.C.Agrawal and **R.K.Pandey** *Phys. Stat. Solidi(a)* **57** (1980) 299.
4. "Solar Energy conversion using photoelectrochemical solar cells with low cost substrates" S.Chandra, R.C. Agrawal and **R.K.Pandey** *Solar Cells* **1** (1980) 367.
5. "A photoelectrochemical cell for solar energy conversion using electrodeposited CdSe films" S.Chandra, R.C.Agrawal and **R.K.Pandey** *Phys. Stat. Solid (a)* **59** (1980)737.
6. "Solar Energy conversion by photoelectrochemical cells using chemical bath deposited CdS films" S. Chandra, R.C.Agrawal and **R.K.Pandey** *J. Phys. D* **13** (1980) 1757.
7. "High purity electrodeposited CdSe films Preparation and application in solar cells" **R.K.Pandey**. A.J.N.Rooz in *International Conference on Physics and Technology of compensated semiconductors*, IIT, Madras (1985).

8. "Semiconductor heterostructures for photoelectrochemical solar cells" **R.K.Pandey**, A.J.N.Rooz and S.Lal Proc. Photon induced processes in chemical and biological systems, Published in *J. Scientific Res.* **13** (1986)1757.
9. "Efficient electrochemical photovoltaic cells using n-CdSe films Electrodeposited from low purity materials" **R.K.Pandey** and A.J.N. Rooz *J. Phys. D: Appl. Phy.* **19** (1986)917.
10. "Preparation, compositional, electrical, characterisation of n-CdSe Films Grown from low purity materials and application in electrochemical photovoltaic cells" **R.K.Pandey** and A.J.N. Rooz *Proc. Sol. Energy. Conv. Engineering Conf. (USA)* Am. Soc. Pub. P. (1986) 1309.
11. "Investigation of traps and minority carrier diffusion length in CdSe films" **R.K.Pandey**, R.B.Gore and A.J.N.Rooz *J. Phys. D.* **20** (1987)1059.
12. "Auger electron spectroscopic investigation of the influence of deposition parameters on the purity and stoichiometry of n-CdSe films electrodeposited from low purity materials" **R.K.Pandey**, A.J.N.Rooz and S.K.Kulkarni *Thin Solid Films* **51**, (1987) 150.
13. "Chemically formed CdZnSe photoanodes I: Auger electron spectroscopy and scanning electron microscope studies" **R.K.Pandey**, A.J.N.Rooz, S.R.Kumar and S.K.Kulkarni *J. Semicond. Sci. Tech.* **3** (1988)729.
14. "Chemically formed Cd Zn Se photoanodes II: Preparation, electrical characterisation, photoelectrochemical and solar cell studies" **R.K.Pandey**, A.J.N.Rooz and R.B.Gore *J. Semicond. Sci. Tech.* **3** (1988)733.
15. "A novel nonaqueous electroplating technique for CdTe films" R.B.Gore and **R.K.Pandey** *Thin Solid Films* **164** (1988) 255.
16. "Cathodic electrodeposition characteristics of CdTe films in a nonaqueous bath" **R.K.Pandey** and R.B.Gore *Extended Abstract Vol. Proc. of the 174th meeting of the Electrochem. Soc.* Chicago, Illinois, USA, October 9-14 (1988).
17. "Investigation of deposition parameters for the nonaqueous electroplating of CdTe films and application in electrochemical photovoltaic cells" R.B.Gore, **R.K.Pandey** and S. K. Kulkarni *Solar Energy Materials* **18** (1989)159.
18. "Structure, composition and surface topology of cadmium telluride films fabricated by a new nonaqueous electroplating technique R.B.Gore, **R.K.Pandey** and S.K.Kulkarni *J. Appl. Phy.* **65** (1989) 2693.

19. "A modified selective electrodeposition technique for growing CdSe films for electrochemical photovoltaic solar cells" S.R.Kumar, A.J.N.Rooz and **R.K.Pandey** *Electrochem.* **5** (1989)711.
20. "Preparation and characterisation of nearly stoichiometric CdTe films from a nonaqueous bath" R.B.Gore and **R.K.Pandey** *Applied Surface Sci.* **48/49** (1991) 530.
21. "Photoelectrochemical and solar cell studies of n-CdSe film grown by repeated cycle of electrodeposition" **R.K.Pandey**, S.R. Kumar, A.J.N.Rooz and S.Chandra *Thin Solid Films* **1** (1991) 200.
22. "Composition surface morphology and structure of n-CdSe film prepared by a repeated cycle of electrodeposition" **R.K.Pandey**, S.R.Kumar, A.J.N.Rooz and S.Chandra *J.Mat. Sci.* **24** (1991)3617.
23. "Rapid thermal annealing of Cu-In/Se stacked layers" S.R.Kumar, R.B.Gore and **R.K.Pandey** *Semicond. Sci. Tech.* **6** (1991) 940.
24. "X-ray photoelectron spectroscopy and structure of the Cu-In alloy films" S.R.Kumar, S.K.Kulkarni and **R.K.Pandey** *Thin Solid Films* **161** (1992) 208.
25. "Preparation and properties of a Cu-In alloy precursor for CuInSe films" S.R.Kumar and **R.K.Pandey** *Sol. En. Mat.* **26** (1992) 149.
26. "Copper Indium films prepared from electrodeposited Cu-In/vacuum evaporated Se stacked layers" S.R. Kumar and **R K Pandey** *Bulletin of Indian Vacuum Society* **23** (1992) 25.
27. "A comparative study of the morphological and compositional trends in CdTe film galvanostatically deposited from an ethylene glycol based bath" **R.K.Pandey**, G.Razzini and L.P. Bicelli *Sol. Energy Mater.* **26** (1992) 285.
28. "Study of the CdTe electrodeposition from a nonaqueous bath" **R.K. Pandey**, S. Maffib and L.P.Bicelli *J. Materials Chemistry and Physics* **35** (1993)15.
29. "Properties of CuInSe films prepared by a rapid thermal annealing technique" S.R.Kumar, R.B.Gore and **R.K.Pandey** *Thin Solid Films* **109** (1993) 223.
30. "Evolution of the morphological, structure and composition evolution of CdTe films potentiostatically deposited from an ethylene glycol based bath" **R.K.Pandey**, S.Maffi and L.P. Bicelli *J.Materials Chem. and Physics* **37** (1994) 141.

31. "Rapid thermal annealing of multiple dip coated CdS films" Jayakrishnan R, Kumar S.R. and **R.K.Pandey** *Semicond. Sci. Tech.* **9** (1994) 97.
32. "Characterisation and photovoltaic device application of dip coated rapid thermal annealed CdS films" Jayakrishnan R., Jaya P nair, Beena Annie Kuruvilla, S K Kulkarni and **R K Pandey** *Journal of Materials Science: Materials for Electronics* **7** (1996) 1993.
33. "Composition, structure and morphology of dip coated rapid thermal annealed CdS and nonaqueous electrodeposited CdTe" Jayakrishnan R., Jaya P. Nair, Beena Annie Kurvillla, S.K. Kulkarni and **R.K.Pandey** *Semicond. Sci. Technol.* **11** (1996) 116.
34. "Transport property studies on Ag^+ ion conducting composite electrolyte system $(1-x) \text{AgI}:\text{xSnO}_2$ " R C Agrawal, R Kumar and **R K Pandey** *Solid State Ionics: New Developments* Ed. BVR Chowdary et al., World Scientific, Singapore (1996) 499.
35. "Temperature dependence of transference number and ionic drift velocity on some silver halide systems" R C agrawal, R Kumar and **R K Pandey** *Solid State Ionics: New Developments* 493.
36. "Ionic drift velocity and mobility measurements on a quenched $[0.75 \text{AgI}: 0.25 \text{AgCl}]$ mixed system or soloid solution" R C Agrawal, R K Gupta and **R K Pandey** *Solid State Ionics: New Developments* Ed. B V R Chowdary, World Scienctific Singapore (1996) 481.
37. "Electrodeposition of ZnTe films" Nandu B Chaure, Jayakrishnan R., Jaya P Nair and **R K Pandey** *Semiconductor Science and Technology* **12**(1997) 1171.
38. "Effect of Cu-doping on the properties of ZnTe Films" Nandu B Chaure, Jayakrishnan R, Jaya P Nair and **R K Pandey** *Thin Solid Films* **324** (1997) 78.
39. "In-situ Sb-doped CdTe Films" Jaya P Nair, Jayakrishnan R, Nandu B Chaure and **R K Pandey** *Semiconductor Science and Technology* **13** (1998) 340.
40. "Investigation of Sb-doped CdTe films by PIXE, XPS and AFM" Jaya P Nair, Jayakrishnan R., Nandu B Chaure, Arun Lobo, S K Kulkarni and **R K Pandey** *Thin Solid Films* **347** (1999) 39.
41. "Deposition and characterisation of $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ Mo electroplated from a non-aqueous bath" Jaya P.Nair, R.Jayakrishnan, Nandu B.Chaure, S.Gokhale, Arun Lobo, S.K. Kulkarni and **R.K.Pandey** *Journal of Physics and Chemistry of Solids* **60**(1999)1693.

42. "Layout Editor - A CAD Tool for Mask Generation" Indu Gupta and **R.K.Pandey** Proc. of X International Workshop"Physics of Semiconductor Devices Vol.II Editor Vikram Kumar & S.K.Agarwal, *Allied Pub. Ltd.* (1999) 837.
43. "Development of Design Rule Checker for Mask Generation of Semiconductor Devices" Indu Gupta and **R.K.Pandey**, Proc. of X International Workshop"Physics of Semiconductor Devices Vol.II Editor Vikram Kumar & S.K.Agarwal, *Allied Pub. Ltd.* (1999) 841.
44. "Automated Characterization of Electrodeposited Semiconductor Thin Films Devices" Indu Gupta and **R.K.Pandey**, Proc. of X International Workshop"Physics of Semiconductor Devices Vol.II Editor Vikram Kumar & S.K.Agarwal *Allied Pub. Ltd.* (1999) 1373.
45. "Non aqueous Electrodepoited $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ films for Solar cell Applications" Jaya P Nair, Nandu B. Chaure Jayakrishnan R and, R.K.Pandey *J. Mat. Sc : Mat in Electronics* **12** (2001) 377
46. "Synthesis and Characterisation of Sb-Doped CdTe Films"Jaya P Nair, Nandu B. Chaure, Jayakrishnan R and, R.K.Pandey *J. Phys. and Chem. of Solids* **63** (2002) 31.
47. "Investigation of Size Dependent Optical and Morphological Properties of Nanocrystalline ZnSe Films" Javed Mazher, Shweta Badwe, Ragini Sengar, Dharendra Gupta and R.K.Pandey *Physica E* **16** (2003) 209.
48. "Layout Editor - A CAD Tool for Modelling VLSI Design. Indu Gupta and **R.K.Pandey** *Inst of Electronics and Telecom Engineers Review* **20** (2003) 541.
49. "In-situ Atomic Force Microscopic Studies of Reverse Pulse Plated Cu/Co-Ni- Cu Films" D.Gupta, A.C.Nayak,J. Mazher,R.Sengar, K.P.Joshi and R.K.Pandey *J. Mat. Science* **39** (2004) 1.
50. "Strained ZnSe Nanostructures Investigated by XRD, AFM, TEM and Optical Spectroscopy" J. Mazher, A.K.Shrivastava, R.V.Nandedker and R.K.Pandey *Nanotechnology* **15** (2004) 572.
51. "Invstigation of Non aqueous Electrodeposited $\text{CdS/Cd}_{1-x}\text{Zn}_x\text{Te}$ Heterojunction Solar Cells" N.B.Chaure,Shweta Chaure and R.K.Pandey *Solar Energy Materials and Solar Cells* **81** (2004) 39.
52. "Investigation of Cu and Co/Ni Multilayer Deposition in Aqueous Ambient" D.Gupta, D. Kaushik, A.C.Nayak and R.K.Pandey *J. Phys and Chem of Solids* **66** (2005) 861.

53. "Self Assembled Nanocrystalline CdSe thin Films" Shweta Chaure, N.B. Chaure and R.K. Pandey *Physica E* **28** (2005) 439.
54. "Study of Composition Modulation in Cu/Co Multilayers Grown by Pulse Electrodeposition" Dharendra Gupta, A.C. Nayak, M. Sharma, R.R. Singh, S.K. Kulkarni and R.K. Pandey *Thin Solid Films* **513** (2006) 187.
55. "Investigation of passivation processes for HgCdTe/CdS structure for IR application" Ragini Raj Singh, Diksha Kaushik, D. K. Gupta, R. K. Sharma, R.K. Pandey *Thin Solid Films* **510** (2006) 235.
56. "Self Organised CdSSe Quantum Dots Thin Films" Shweta Chaure, Nandu Chaure and R K Pandey *J. Nanoscience and Nanotechnology* **6/3** (2006) 731.
57. "Synthesis and Characterisation of Electropolymerised Polyaniline/Q-ZnSe Composite Films" Diksha Kaushik, Madhulika Sharma, Ragini Raj Singh, D.K. Gupta, and R.K. Pandey *Materials Letter* **60** (2006) 2994.
58. "Study of Electropolymerised Polyaniline Films Using Cyclic Voltammetry, Atomic Force Microscopy and Optical Spectroscopy" Madhulika Sharma, Diksha Kaushik, Ragini R. Singh and R. K. Pandey *J Materials Science- Materials in Electronics* **17** (2006) 537.
59. "Study of size dependent structure, morphology and luminescence behavior of CdS films on Si substrate" Diksha Kaushik, Ragini Raj Singh, Madhulika Sharma, D.K. Gupta, N.P. Lalla and R.K. Pandey *Thin Solid Films* **515/18** (2007) 7070.
60. "Electric Field Assisted Growth of Self-Organized CdS Films: Size Dependent Structural and Optical Properties" Shweta Chaure, N. B. Chaure, and R. K. Pandey *J. Nanosci. Nanotechnol.* **7** (2007) 945.
61. "Self Organised ZnSe Quantum Dots Synthesis and Characterisation" Diksha Kaushik, Ragini Raj Singh A. B. Sharma, D. Gupta, M. Sharma and R.K. Pandey *J Nanoscience and NanoTech* **8** (2008) 1502.
62. "Magnetic Force Microscopy Studies on Copper/Cobalt Multilayers Electrodeposited Using Periodic Pulse Trains" D K Gupta, R.K. Pandey *J. Mag and Mag Materials* (2008).
63. "Highly Luminescent Inverted ZnS/CdS Core/Shell Quantum Dots" Madhulika Sharma, D. Gupta, D. Kaushik, A. B. Sharma, and R. K. Pandey *J. Nanosci. Nanotechnol.* **8** (2008) 3949.
64. "Study of Self-Organized CdS Q-Dots" Diksha Kaushik, Madhulika Sharm, A.B. Sharma and R.K. Pandey *Journal of Nanoscience and Nanotechnology* **8/8** (2008) 4303.

65. "Studies on Surface Processing and Passivation of p-HgCdTe using cadmium Sulfide films", **Ragini Raj Singh**, Diksha Kaushik, Madhulika Sharma and R.K.Pandey *Semiconductor Science and Technology*, **23** (2008) 015016.
66. "Cd_{1-x}Zn_xTe thin films formed by non-aqueous electrochemical route" N.B. Chaure, Shweta Chaure and R.K. Pandey *Electrochimica Acta* (In press) (2008).