

Research Papers (Journals: 48, Conf. Proc.: 12, Citations: 487, h-index:14, i-index:17):

*Journals: (*corresponding author or mentor of the first or corresponding author)*

1. S.L. Patel, A. Purohit, S. Chander, M.D. Kannan and **M. S. Dhaka***, “Influence of NH₄Cl treatment on physical properties to CdTe thin films for absorber layer applications”, Journal of Physics and Chemistry of Solids (Elsevier Publications, Impact Factor: 2.21) Accepted.
2. S.L. Patel, A. Purohit, S. Chander, M.D. Kannan and **M. S. Dhaka***, “An approach to MgCl₂ activation on CdSe thin films for solar cells”, Current Applied Physics (Elsevier Publications, Impact Factor: 2.06) 18 (2018) 803-809.
3. Kaushalya, S.L. Patel, A. Purohit, S. Chander and **M. S. Dhaka***, “Thermal annealing evolution to physical properties of ZnS thin films as buffer layer for solar cell applications”, Physica E (Elsevier Publications, Impact Factor: 2.4) 101 (2018) 174-177.
4. S.L. Patel, A. Purohit, S. Chander, M.D. Kannan and **M. S. Dhaka***, “Towards post-NH₄Cl treatment on CdSe thin films for solar cell Applications”, Vacuum (Elsevier Publications, Impact Factor: 2.07) 153 (2018) 43-47.
5. A. Purohit, S. Chander and **M. S. Dhaka***, “Thermal evolution of physical properties of evaporated CdS thin films for perovskite solar cell Applications”, Vacuum (Elsevier Publications, Impact Factor: 2.07) 153 (2018) 35-38.
6. S. Chander and **M.S. Dhaka***, “CdCl₂ treatment concentration evolution of physical properties correction with surface morphology of CdTe thin films for solar cells” Materials Research Bulletin (Elsevier Publications, Impact Factor: 2.87) 97 (2018) 128-135.
7. S. Chander and **M.S. Dhaka***, “Enhancement in microstructural and optoelectrical properties of thermally evaporated CdTe films for solar cells” Results in Physics (Elsevier Publications, Impact Factor: 2.15) 8 (2018) 1131-1135.
8. S. Chander and **M.S. Dhaka***, “Optical and structural constants of CdS thin films grown by electron beam vacuum evaporation for solar cells” Thin Solid Films (Elsevier Publications, Impact Factor: 1.94) 638 (2017) 179-188.
9. S. Chander and **M. S. Dhaka***, “Time evolution to CdCl₂ treatment on Cd-based solar cell devices fabricated by vapor evaporation”, Solar Energy (Elsevier Publications, Impact Factor: 4.37) 150 (2017) 577-583.
10. A. Purohit, S. Chander, S.L. Patel, K.J. Rangra and **M. S. Dhaka***, “Substrate dependent physical properties of evaporated CdO thin films for Optoelectronic Applications”, Physics Letters A (Elsevier Publications, Impact Factor: 1.86) 381 (2017) 1910-1914.
11. A. Purohit, S. Chander and **M. S. Dhaka***, “Impact of Annealing on Physical Properties of e-beam evaporated CdO thin films for Optoelectronic Applications”, Optical Materials (Elsevier Publications, Impact Factor: 2.32) 66 (2017) 512-518.

12. S. Chander and **M.S. Dhaka***, “Optimization of substrates and physical properties of CdS thin films for perovskite solar cell applications”, *Journal of Materials Science: Materials in Electronics* (Springer, Impact Factor: 2.32), 28 (2017) 6852-6859.
13. S. Chander, A. Purohit, S.L. Patel and **M.S. Dhaka*** “Effect of substrates on structural, optical, electrical and morphological properties of evaporated polycrystalline CdZnTe thin films” *Physica E* (Elsevier Publications, Impact Factor: 2.4) 89 (2017) 29-32.
14. S. Chander and **M.S. Dhaka*** “Thermal annealing induced physical properties of electron beam vacuum evaporated CdZnTe thin films” *Thin Solid Films* (Elsevier Publications, Impact Factor: 1.94) 625 (2017) 131-137.
15. S. Chander, A. Purohit, C. Lal and **M.S. Dhaka*** “Enhancement of optical and structural properties of vacuum evaporated CdTe thin films” *Materials Chemistry and Physics* (Elsevier Publications, Impact Factor: 2.21) 185 (2017) 202-209.
16. S. Chander and **M.S. Dhaka***, “Enhanced structural, electrical and optical properties of evaporated CdZnTe thin films deposited on different substrates”, *Materials Letters* (Elsevier Publications, Impact Factor: 2.69) 186 (2017) 45-48.
17. S. Chander and **M.S. Dhaka***, “Optimization of structural, optical and electrical properties of CdZnTe thin films with the application of thermal treatment”, *Materials Letters* (Elsevier Publications, Impact Factor: 2.69) 182 (2016) 98-101.
18. A. Purohit, S. Chander, A. Hameed, P. Singh and **M.S. Dhaka*** “Structural, dielectric and surface morphological properties of ball clay with wet grinding for ceramic electrical insulators” *Materials Chemistry and Physics* (Elsevier Publications, Impact Factor: 2.21) 181 (2016) 359-366.
19. S. Chander and **M.S. Dhaka***, “Thermal evolution of physical properties of vacuum evaporated polycrystalline CdTe thin films for solar cells”, *Journal of Materials Science: Materials in Electronics* (Springer, Impact Factor: 2.32) 27 (2016) 11961-11973.
20. S. Chander and **M.S. Dhaka***, “Effect of thickness on physical properties of electron beam vacuum evaporated CdZnTe thin films for tandem solar cells”, *Physica E* (Elsevier Publications, Impact Factor: 2.4) 84 (2016) 112-117.
21. S. Chander, A. Purohit, A. Hameed, P. Singh, M. Roy and **M.S. Dhaka*** “Thermal evolution of structural, dielectric and surface morphological properties of Ball clay for ceramic tiles” *Materials Focus* (American Scientific Publishers) 5 (2016) 464-470.
22. P. Joshi, L. Zhang, I. Hossain, H.A. Abbas, R. Kottokaran, S. Nehra, **M. Dhaka**, M. Noack and V. Dalal “The physics of photon induced degradation of perovskite solar cells” *AIP Advances* (American Institute of Physics , Impact Factor: 1.65) 6 (2016) 115114 (1-6).

23. S. Chander and **M.S. Dhaka***, “Impact of thermal annealing on physical properties of vacuum evaporated polycrystalline CdTe thin films for solar cells applications”, *Physica E (Elsevier Publications, Impact Factor: 2.4)* 80 (2016) 62-68.
24. S. Chander and **M.S. Dhaka***, “Influence of thickness on physical properties of vacuum evaporated polycrystalline CdTe thin films for solar cells applications”, *Physica E (Elsevier Publications, Impact Factor: 2.4)* 76 (2016) 52-59.
25. A. Purohit, Subhash Chander, Satyapal Nehra, and **Mahendra Singh Dhaka***, “Thickness dependent physical properties of thermally evaporated nanocrystalline CdSe thin films”, *Acta Metallurgica Sinica (English Letters) (Springer Publications, Impact Factor: 1.34)* 28 (2015) 1299-1304.
26. S. Chander, A. Purohit, Anshu Nehra, S.P. Nehra and **M.S. Dhaka*** “Impact of temperature on performance of parallel and series connected mono-crystalline silicon solar cells” *Energy Reports (Elsevier Publications, Impact Factor: 2.22 SINP)*, 1 (2015) 175-180.
27. S. Chander and **M.S. Dhaka***, “Physical properties of vacuum evaporated CdTe thin films with thermal annealing”, *Physica E (Elsevier Publications, Impact Factor: 2.4)* 73 (2015) 35-39.
28. S. Chander and **M.S. Dhaka***, “Optimization of physical properties of vacuum evaporated CdTe thin films with the application of thermal treatment for solar cells”, *Materials Science in Semiconductor Processing (Elsevier Publications, Impact Factor: 2.59)* 40 (2015) 708-712.
29. S. Chander and **M.S. Dhaka***, “Preparation and physical characterization of CdTe thin films deposited by vacuum evaporation for photovoltaic applications”, *Advanced Materials Letters (VBRI Press, Impact Factor: 1.9)* 6(10) (2015) 907-912.
30. A. Purohit, S. Chander, Anshu Sharma, S.P. Nehra and **M. S. Dhaka***, “Impact of Low Temperature Annealing on Structural, Optical, Electrical and Morphological Properties of ZnO thin films by RF Sputtering for Eco-friendly Photovoltaic Applications”, *Optical Materials (Elsevier Publications, Impact Factor: 2.32)* 49 (2015) 51-58.
31. S.P. Nehra, S. Chander, Anshu Sharma and **M.S. Dhaka***, "Effect of thermal annealing on physical properties of vacuum evaporated In₂S₃ buffer layer for eco-friendly photovoltaic applications", *Materials Science in Semiconductor Processing (Elsevier Publications, Impact Factor: 2.59)* 40 (2015) 26-34.
32. A. Purohit, S. Chander, S.P. Nehra, C. Lal and **M.S. Dhaka***, “Effect of thickness on structural, optical, electrical and morphological properties of thermally evaporated CdSe thin films”, *Optical Materials (Elsevier Publications, Impact Factor: 2.32)* 47 (2015) 345-353.
33. S. Chander, A. Purohit, Anshu Nehra, S.P. Nehra and **M.S. Dhaka*** “A study on spectral response and external quantum efficiency of mono-crystalline silicon solar

- cell” International Journal of Renewable Energy Research (Impact Factor: 1.26) 5 (2015) 41-44.
34. A. Purohit, S. Chander, Anshu Nehra, Arvind, S.P. Nehra and **M.S. Dhaka*** “A study on the performance parameters of single crystalline silicon solar cell with irradiance” Energy and Environment Focus (American Scientific Publishers), 4 (2015) 64-70.
 35. A. Purohit, S. Chander, S.P. Nehra and **M. S. Dhaka*** “Effect of air annealing on structural, optical, morphological and electrical properties of thermally evaporated nanocrystalline CdSe thin films” Physica E (Elsevier Publications, Impact Factor: 2.4), 69 (2015) 342-348.
 36. S. Chander, A. Purohit, Anshu Nehra, Arvind, S.P. Nehra and **M.S. Dhaka*** “A study on the photovoltaic parameters of mono-crystalline Silicon solar cell with cell temperature” Energy Reports (Elsevier Publications, Impact Factor: 2.22 SINP), 1 (2015) 104-109.
 37. S. Chander, S. Choudhary, A. Purohit, Nisha Kumari, S.P. Nehra and **M.S. Dhaka*** “Effect of thickness on structural, optical and electrical properties of In₂S₃ thin films grown by thermal evaporation for solar cell buffer layer applications” Materials Focus (American Scientific Publishers) 4 (2015) 184-188.
 38. S. P. Nehra, **M.S. Dhaka**, Anshu Sharma, Neeraj Kumar, Ritu Malik and M. Singh “Hydrogen induced effect on ZnTe/Co bilayer thin films” Optoelectronics and Advanced Materials-Rapid Communications (*Impact Factor: 0.47*), 8 (2014) 143-148.
 39. M.C. Mishra, G. Sharma, **M.S. Dhaka**, R.K. Kothari, K.B. Joshi and B.K. Sharma “Electronic properties of ZnO: Band structure and Directional Compton profiles” Journal of Electronic Materials (Springer, *Impact Factor: 1.57*), 42 (2013) 3429-3437.
 40. A. Kumar, R. R. Choudhary, P. Bhardwaj, **M.S. Dhaka** and R.K.Choudhary “Universal Pattern Set for Arithmetic Circuits” International Journal of Computer Applications (Foundation of Comp. Sc., USA, *Impact Factor : 0.71*), 40 (2012) 47-51.
 41. R. Kumar, N. Munjal, G. Sharma, V. Vyas, **M.S. Dhaka** and B.K. Sharma “Electron momentum density and phase transition in SrO” Phase Transitions (Taylor & Francis, *Impact Factor : 1.06*), 85 (2012) 1098-1108.
 42. S. P. Nehra, Neeraj Kumar, Anshu Sharma, **M.S. Dhaka**, M. Singh, Y. Hayashi and Y.K.Vijay “Preparation and Characterization of Structural, Electrical, Optical and Magnetic Properties of Hydrogenated Multilayer ZnO/Mn Diluted Magnetic Semiconductor Thin Films” Journal of Spintronics and Magnetic Nanomaterials (American Scientific Publishers), 1 (2012) 28-33.
 43. S. P. Nehra, Neeraj Kumar, Anshu Sharma, **M.S. Dhaka**, M. Singh, Y. Hayashi and Y.K.Vijay “Preparation and Characterization of Electrical, Optical and Magnetic

- Properties of Hydrogenated Multilayer ZnO/Co Diluted Magnetic Semiconductor Thin Films ” Materials Express (American Scientific Publishers, *Impact Factor* : 2.06), 1 (2011) 237-244.
44. G. Sharma, K.B. Joshi, **M.S. Dhaka**, M.C. Mishra, R.K. Kothari and B.K. Sharma “Compton profile and charge transfer study in intermetallic Ti-Al system” Intermetallics (Elsevier Publications, *Impact Factor* : 3.42), 19 (2011) 1107-1114.
 45. G. Sharma, V. Sharma, M.C. Mishra, **M.S. Dhaka** and B.K. Sharma “Electron momentum density distribution in TiCu” Intermetallics (Elsevier Publications, *Impact Factor* : 3.42), 19 (2011) 666-670.
 46. **M.S. Dhaka***, G. Sharma, M.C. Mishra, K.B. Joshi, R.K. Kothari and B.K. Sharma “Electron momentum density distribution in Cd₃P₂” Computer Physics Communications (Elsevier Publications, *Impact Factor*:3.75),182 (2011) 2017-2020.
 47. **M.S. Dhaka**, G. Sharma, M.C. Mishra, K.B. Joshi, R.K. Kothari and B.K. Sharma “A study of electronic structure of CdSe by Compton Scattering Technique” Physica B (Elsevier Publications, *Impact Factor* : 1.45), 405 (2010) 3537-3542.
 48. **M.S. Dhaka**, U. Paliwal, G. Sharma, M.C. Mishra, K.B. Joshi, R.K. Kothari and B.K. Sharma “Ab initio determination of X-ray structure factors and the Compton profile of CdO” Journal of Alloys and Compounds (Elsevier Publications, *Impact Factor* : 3.78), 501 (2010) 136-142.

Conference proceedings:

49. S.L. Patel, A. Purohit, S.Chander and M.S. Dhaka, “Optical properties and surface topography of CdCl₂ activated CdTe thin films” American Institute of Physics ‘Conference Proceedings’, 1953 (2018) 100048.
50. P. Joshi, L. Zhang, R. Kottokaran, H. Abbas, I. Hossain, S. Nehra, **M. Dhaka**, M. Noack and V. Dalal “Physics of instability of perovskite solar cells” Photovoltaic Specialists Conference (PVSC), IEEE 43rd, (2016) 0242-0246.
51. S. Chander, A. Purohit, C. Lal, S.P. Nehra and **M.S. Dhaka**, “Impact of Thermal Annealing on Optical Properties of Vacuum Evaporated CdTe Thin Films for Solar Cells”, American Institute of Physics ‘Conference Proceedings’,1728 (2016) 020590.
52. A. Purohit, S. Chander, C. Lal, S.P. Nehra and **M.S. Dhaka**, “Thickness Dependent Electrical and Optical Properties of CdSe Thin Films”, American Institute of Physics ‘Conference Proceedings’, 1728 (2016) 020591.
53. A. Purohit, S. Chander, A. Nehra, S.P. Nehra, C. Lal and **M.S. Dhaka** “Effect of thickness on structural and optical properties of CdSe thin films” American Institute of Physics ‘Conference Proceedings’, 1665 (2015) 080017.

54. A. Purohit, S. Chander, A. Nehra, S.P. Nehra, C. Lal and **M.S. Dhaka** “Effect of annealing on structural and optical properties of thermally evaporated CdSe thin films” American Institute of Physics ‘Conf. Proceedings’, 1661 (2015) 050009.
55. A. Purohit, A. Hameed, S. Chander, P. Singh, S.P. Nehra and **M.S. Dhaka** “Effect of wet grinding on the structural properties of Ball Clay” American Institute of Physics ‘Conference Proceedings’, 1661 (2015) 110011.
56. S. Chander, A. Purohit, Anshu Nehra, S.P. Nehra, and **M.S. Dhaka** “Performance of single crystalline Silicon solar cell with irradiance” American Institute of Physics ‘Conference Proceedings’, 1665 (2015) 120008.
57. S. Chander, A. Purohit, Anshu Nehra, S.P. Nehra and **M.S. Dhaka** “Influence of temperature on photovoltaic parameters of mono-crystalline Silicon solar cell” American Institute of Physics ‘Conf. Proceedings’, 1661 (2015) 050003.
58. **M.S. Dhaka**, G. Sharma, M.C. Mishra and B.K. Sharma “Electronic structure of polycrystalline Cd metal using ^{241}Am radioisotope” American Institute of Physics ‘Conference Proceedings’ 1591 (2014) P1075-1077.
59. **M.S. Dhaka**, G. Sharma, M. C. Mishra, R.K. Kothari and B.K. Sharma “Compton Profile Study of Polycrystalline ZnBr_2 ” Published in American Institute of Physics ‘Conference Proceedings’ 1313 (2010) P221-223.
60. **M.S. Dhaka**, M. Sharma, G. Sharma, M. C. Mishra, R.K. Kothari and B.K. Sharma “Study of Ionicity and Bonding in HgX_2 using Compton Scattering Technique” Published in DAE and SSPS-2009 Proceedings, Badodara, INDIA, December 14-18, 2009, P 719-720.

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