

# Curriculum Vitae

## ***Dr. Vineet Sharma***

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## ***Academic Qualifications:***

- **2005 -- Ph.D. (Experimental Condensed Matter Physics)** from Centre for Advanced Study in Physics, Panjab University Chandigarh, India,
- **1999 --- M.Sc. (Honours School)** from Centre for Advanced Study in Physics, Panjab University, Chandigarh, India.
- **1997 --- B.Sc. (Phys., Chem., Maths)** from H.P. University, Shimla, India.

## ***Professional Experience:***

- ***Teaching at JUIT Waknaghat since June 2005***
  - ✓ Teaching to Undergraduate Engineering students and Ph.D students

## ***Research Supervision:***

- Ph. D. Students supervised: 04, 01 ongoing
- B.Tech Student supervised: 01

## ***Research project:***

- Enhancing the thermal stability of Chalcogenide Phase-change materials for switching and memory applications; Rs. 20,06,950/-, vide File No. File No. EMR/2016/006094, dated 05 October, 2017, SERB(DST) (2017-2021) [ Principal Investigator]

## ***Research Experience:***

- Experimental Condensed Matter Physics
- Non Crystalline Semiconductors- Transport properties,
- Chalcogenide Glasses
- Semiconducting nanofilms
- Nano ferrites

## ***Reviewer International research Journals from:***

- Institute of Physics
- Elsevier
- Wiley
- Springer
- IEEE

### ***Academic Honors, Awards and Membership:***

- IEEE Senior Member Member(#93357987)
- International Forum of Chalcogenides.
- Indian Society of Analytical Scientists.
- Materials Research Society of India.

### ***Publications:***

[www.scopus.com/authid/detail.url?authorId=54379476800](http://www.scopus.com/authid/detail.url?authorId=54379476800) (h-index-22)  
<https://vidwan.inflibnet.ac.in/profile/174831>

### **Publications in Journals**

1. Improvement in thermal stability and crystallization mechanism of Sm doped  $Ge_2Sb_2Te_5$  thin films for phase change memory applications  
Sanjay Kumar, Vineet Sharma  
***Journal of Alloys and Compounds 893 (2022) 162316 (1-12)***
2. Optical and mechanical properties of Ag doped thermally evaporated SeTe thin films for optoelectronic applications  
A. El-Denglawey, Vineet Sharma, Ekta Sharma, K.A. Aly, A. Dahshan, Pankaj Sharma  
***Journal of Physics and Chemistry of Solids 159 (2021) pp. 110291 (1-10)***
3. Structural transition on doping rare earth Sm to  $Ge_2Sb_2Te_5$  phase change material  
Sanjay Kumar, Vineet Sharma  
***Journal of Alloys and Compounds 877 (2021) pp. 160246(1-9)***
4. Effect of local structure on the optical and dielectric behaviour of Sm doped  $Ge_2Sb_2Te_5$  phase change material  
Sanjay Kumar, Vineet Sharma  
***Optical Materials 115 (2021) pp. 111057 (1-9)***
5. Enhancing the surface morphology for improved phase change mechanism by Sm doping in  $Ge_2Sb_2Te_5$  thin films  
Sanjay Kumar, Vineet Sharma  
***Applied Physics A 127(2021) pp. 213(1-7)***
6. Rare-earth (Dy)-doped  $(GeS_2)_{80}(In_2S_3)_{20}$  thin film: influence of annealing temperature in argon environment on the linear and nonlinear optical parameters  
Pankaj Sharma, Vineet Sharma, Ekta Sharma, A. Dahshan, K. A. Aly, Pawan Kumar, Aslam Khan, Ashok Kumar  
***Applied Physics A 127(2021) pp. 68(1-10)***
7. Transformation in the structural and optical properties with the phase change from hematite ( $Fe_2O_3$ ) to pure spinel structure in Mn-Zn nanoferrites  
Prashant Thakur, Vineet Sharma, Rohit Sharma, Joachim Wollschläger, Kevin Ruwisch, A. Dahshan, Shipra Thakur, Pankaj Sharma,  
***Physica B: Condensed Matter, Volume :584, (2020) pp. 412107.***
8. Improvement in stability of GST PCMs on Sm addition for memory devices  
Sanjay Kumar, Vineet Sharma  
***Journal of Non-Crystalline Solids, 532 (2020) 119887(1-5).***

9. Alloyed Ag<sub>2</sub>SexS<sub>1-x</sub> quantum dots with red to NIR shift: The band gap tuning with dopant content for energy harvesting applications  
Subhash Chand, A. Dahshan, Nagesh Thakur, Vineet Sharma, Pankaj Sharma  
***Infrared Physics and Technology*, 105 (2020) 103162 (1-10).**
10. Chemical ordering and electronic properties of lone pair chalcogenide semiconductors  
Vineet Sharma, Sunanda Sharda, Neha Sharma, S.C. Katyal, Pankaj Sharma  
***Progress in Solid State Chemistry*, 54 (2019) 31-44.**
11. Study of amorphous Sn-Se-Bi-Te semiconducting materials at an average coordination number =2.4  
Rajan Sharma, S.C. Katyal, Shaweta Khanna, Vineet Sharma, Pankaj Sharma  
***Materials Research Express*, 6 (7) (2019)075209 (1-9)**
12. Dependence of structural cross-linking, system energy and transition temperature on coordination number for Sm doped GST  
Sanjay Kumar, Pankaj Sharma, Vineet Sharma  
***Results in Physics* 13 (2019)102276(1-7)**
13. Topological behaviour and glassy framework of GeTeSeGa chalcogenide glasses.  
Ekta Sharma, H. H. Hegazy, Vineet Sharma, Pankaj Sharma.  
***Physica B: Condensed Matter*, 562 (1) (2019) 100-106.**
14. Structural, morphological, magnetic and optical study of co-precipitated Nd<sup>3+</sup> doped Mn-Zn ferrite nanoparticles  
Prashant Thakur, R.Sharma, M. Kumar, S.C. Katyal, P.B. Barman, Vineet Sharma, Pankaj Sharma  
***Journal of Magnetism and Magnetic Materials*, 479 (2019) 317-325.**
15. Mn<sup>2+</sup> Doped Mg–Zn Ferrite Nanoparticles for Microwave Device Applications  
Rohit Sharma, Prashant Thakur, Pankaj Sharma, Vineet Sharma.  
***IEEE Electron Device Letters*, 39 (6) (2018)901-904.**
16. Nanomaterials for high frequency device and photocatalytic applications: Mg-Zn-Ni ferrites  
Rohit Sharma, Prashant Thakur, Manoj Kumar, Pankaj Sharma, Vineet Sharma  
***Journal of Alloys and Compounds* 746 (2018)532-539.**
17. Effect of visible light on the structural and optical properties of ( Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub>)<sub>100-x</sub>Ag<sub>x</sub> (x = 0, 1 and 3) thin films  
Palwinder Singh, Ramandeep Kaur, Pankaj Sharma, Vineet Sharma, Anup Thakur  
***Journal of Materials Science: Materials in Electronics*, 29 (2)(2018)1042-1047.**
18. Enhancement in A-B Super-exchange Interaction with Mn<sup>2+</sup> Substitution in Mg-Zn Ferrites as a Heating Source in Hyperthermia Applications  
Rohit Sharma, Prashant Thakur, Manoj Kumar, P.B. Barman, Pankaj Sharma, Vineet Sharma  
***Ceramics International*, 43 (16) (2017)13661-13669.**
19. Optical Band Gap Tuning of Ag Doped Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> Thin Films  
Palwinder Singh, R. Kaur, Pankaj Sharma, Vineet Sharma, Monu Mishra, Govind Gupta, Anup Thakur  
***Journal of Materials Science: Materials in Electronics*, 28 (2017)11300-11305.**
20. Recent Developments on the Synthesis, Structural and Optical Properties of Chalcogenide Quantum Dots  
Subhash Chand, Nagesh Thakur, S.C. Katyal, P.B. Barman, Vineet Sharma, Pankaj Sharma  
***Solar Energy Materials and Solar Cells* 168 (2017)183-200.**

21. Linear and non-linear optical properties of Ag doped Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> thin films estimated by single transmission spectra  
Palwinder Singh, Pankaj Sharma, Vineet Sharma, Anup Thakur  
***Semiconductor Science and Technology* 32 (4) (2017) 045015**
  
22. Gd<sup>3+</sup> doped Mn-Zn soft ferrite nanoparticles: Superparamagnetism and its correlation with other physical properties  
Prashant Thakur, Rohit Sharma, Vineet Sharma, P.B. Barman, Manoj Kumar, Dipto Barman, SCKatyal, Pankaj Sharma  
***Journal of Magnetism and Magnetic Materials* 432 (2017)208-217.**
  
23. Structural and optical properties of Mn<sub>0.5</sub>Zn<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub> nano ferrites: Effect of sintering temperature  
Prashant Thakur, Rohit Sharma, Vineet Sharma, Pankaj Sharma  
***Materials Chemistry and Physics* 193 (2017) 285-289**
  
24. Ferrimagnetic Ni<sup>2+</sup> doped Mg-Zn spinel ferrite nanoparticles for high density information storage  
Rohit Sharma, Prashant Thakur, Pankaj Sharma, Vineet Sharma  
***Journal of Alloys and Compounds Vol 704 (2017) 7-17.***
  
25. Recent developments on the optical properties of thin films of chalcogenide glasses  
Pankaj Sharma, Neha Sharma, Sunanda Sharda, S.C. Katyal, and Vineet Sharma  
***Progress in Solid State Chemistry Vol 44 (4) (2016) 131-141.***
  
26. Improvement in magnetic behaviour of cobalt doped magnesium zinc nano-ferrites via co-precipitation route  
Rohit Sharma, Prashant Thakur, Manoj Kumar, Nagesh Thakur, N.S. Negi, Pankaj Sharma, Vineet Sharma  
***Journal of Alloys and Compounds Vol 684 (2016)569-581.***
  
27. Superparamagnetic La doped Mn–Zn nano ferrites: dependence on dopant content and crystallite size  
Prashant Thakur, Rohit Sharma, Manoj Kumar, SCKatyal, NS Negi, Nagesh Thakur, Vineet Sharma and Pankaj Sharma  
***Materials Research Express Vol. 3 (2016) 075001.***
  
28. Effect of compositional dependence on physical and optical parameters of Te<sub>17</sub>Se<sub>83-x</sub>Bi<sub>x</sub> glassy system  
Pankaj Sharma , M.S. El-Bana , S.S. Fouad , Vineet Sharma  
***Journal of Alloys and Compounds Vol. 667 (2016) 204-210***
  
29. Analysis of chemical ordering and fragility for Ge-Se-In glasses  
Mohammed El Bana, Suzan S. Fouad, Pankaj Sharma, Vineet Sharma  
***Applied Physics A Vol 120 (2015) 137–143***
  
30. Temperature Dependent Electrical Study of Ge<sub>17</sub>Se<sub>74</sub>Sb<sub>9</sub> Thin Film  
Pankaj Sharma, Vineet Sharma  
***International. Journal of New Horizons in Physics Vol 2 (2015) 21-24.***
  
31. Thermal Analysis of Quaternary Ge-Se-Sb-Te Chalcogenide Alloys  
Neha Sharma, Sunanda Sharda, Vineet Sharma and Pankaj Sharma  
***Journal of Thermal Analysis and Calorimetry Vol 119 (2015) 213-218***
  
32. Thermal Stability and Crystallization Kinetics of Quaternary Sb-Se-Ge-In Chalcogenide Glasses  
Sunanda Sharda, Neha Sharma, Pankaj Sharma, Vineet Sharma  
***Journal of Alloys and Compounds 611 (2014) 96–99.***

33. Structural, morphological and magnetic analysis of Cd–Co–S dilute magnetic semiconductor nanofilms  
Suresh Kumar, N.S. Negi, S.C. Katyal, Pankaj Sharma, Vineet Sharma  
***Journal of Magnetism and Magnetic Materials* 367 (2014) 1–8.**
34. Effect of Te on Linear and Non-linear Optical Properties of New Quaternary Ge-Se-Sb-Te Chalcogenide Glasses  
Neha Sharma, Sunanda Sharda, S.C. Katyal, Vineet Sharma and Pankaj Sharma  
***Electronic Material Letters* 10, No. 1 (2014) 101-106.**
35. Redshift in Absorption Edge of Cd<sub>1-x</sub>Co<sub>x</sub>S Nanofilms  
Suresh Kumar, Pankaj Sharma, and Vineet Sharma  
***IEEE Transactions on Nanotechnology* 13, No.2 (2014) 343-348**
36. Glass transition and crystallization kinetics analysis of Sb–Se–Ge chalcogenide glasses  
Sunanda Sharda, Neha Sharma, Pankaj Sharma, Vineet Sharma  
***Journal of Thermal Analysis and Calorimetry* 115 (2014)361–366.**
37. Non-Linear Refractive Index and Dielectric Parameters of In-incorporated Sb-Se-Ge Semiconducting Glasses  
Sunanda Sharda, Neha Sharma, Pankaj Sharma, and Vineet Sharma  
***Technology Letters Vol.1, No.10 (2014) pp.20-22***
38. Linear and Nonlinear Optical Properties Of Quaternary Chalcogenide Glasses  
Neha Sharma, Sunanda Sharda, Vineet Sharma and Pankaj Sharma  
***Technology Letters Vol.1, No.8 (2014) pp. 9-11***
39. CdS nanofilms: effect of deposition temperature on morphology and optical band gap  
Suresh Kumar, Pankaj Sharma and Vineet Sharma  
***Physica Scripta* 88 (2013) 045603**
40. New Quaternary Sb-Se-Ge-In Chalcogenide Glasses: Linear and Nonlinear Optical Properties  
Sunanda Sharda, Neha Sharma, Pankaj Sharma and Vineet Sharma  
***Journal of Electronic Materials* Vol. 42, No. 12 (2013) 3367-3372.**
41. Far-Infrared Investigation of Ternary Ge-Se-Sb and Quaternary Ge-Se-Sb-Te Chalcogenide Glasses  
Neha Sharma, Sunanda Sharda, Vineet Sharma, Pankaj Sharma  
***Journal of Non-Crystalline Solids* 375 (2013) 114–118**
42. Red-shift in absorption edge of Cd<sub>1-x</sub>Ni<sub>x</sub>S dilute magnetic semiconductor nanofilms  
S. Kumar, P. Sharma and Vineet Sharma  
***Journal of Nanoparticle Research* 15 (2013)1662**
43. Effect of Antimony Addition on Thermal Stability and Crystallization Kinetics of Germanium–Selenium Alloys  
Neha Sharma, Sunanda Sharda, Vineet Sharma, Pankaj Sharma  
***Journal of Non-Crystalline Solids* 371–372(2013)1–5**
44. Effect of Substitutional Doping on Temperature Dependent Electrical Parameters of Amorphous Se-Te Semiconductors  
Neha Sharma, Sunanda Sharda, Dheeraj Sharma, Vineet Sharma, P.B. Barman, S.C. Katyal, S. K. Hazra and Pankaj Sharma  
***Electronic Materials Letters* Vol. 9(5) (2013)629-633**
45. Phase Transition in II–VI Nanofilms of Dilute Magnetic Semiconductors: Cd<sub>1-x</sub>Ni<sub>x</sub>S  
Suresh Kumar, Pankaj Sharma and Vineet Sharma  
***Science of Advanced Materials* 5-6 (2013) 713-717**

46. CdS Nanopowder and Nanofilm: Simultaneous Synthesis and Structural Analysis  
S. Kumar, P. Sharma and Vineet Sharma  
***Electronic Materials Letters* 9 (3)(2013)371-374**
47. CdS Nanofilms: Effect of Film Thickness on Morphology and Optical Band Gap  
Suresh Kumar, Santosh Kumar, Pankaj Sharma, Vineet Sharma, and S. C. Katyal  
***Journal of Applied Physics* 112 (2012) 123512**
48. Finger prints of chemical bonds in Sb-Se-Ge and Sb-Se-Ge-In glasses: A far-IR study  
S. Sharda, N. Sharma, P. Sharma and Vineet Sharma  
***Journal of Non-Crystalline Solids* 362(2013)136–139**
49. Optical analysis of  $\text{Ge}_{19}\text{Se}_{81-x}\text{Sb}_x$  thin films using single transmission spectrum  
Neha Sharma, Sunanda Sharda, Vineet Sharma, Pankaj Sharma  
***Materials Chemistry and Physics* 136 (2012) 967-972**
50. Evaluation of physical parameters for new quaternary  $\text{Ge}_{19-y}\text{Se}_{63.8}\text{Sb}_{17.2}\text{Te}_y$  chalcogenide glasses  
Neha Sharma, Sunanda Sharda, Vineet Sharma and Pankaj Sharma  
***Chalcogenide Letters* Vol. 9, No. 8 (2012)355 – 363.**
51. Basic physical analysis of new *Sb-Se-Ge-In* chalcogenide glassy alloys by predicting structural units: a theoretical approach  
Sunanda Sharda, Neha Sharma Pankaj Sharma and Vineet Sharma  
***Chalcogenide Letters* Vol. 9, No. 9 (2012) 389 – 395**
52. Band Gap and Dispersive Behaviour of Ge Alloyed  $\alpha$ -SbSe Thin Films Using Single Transmission Spectrum  
Sunanda Sharda, Neha Sharma, Pankaj Sharma and Vineet Sharma  
***Materials Chemistry and Physics* 134 (2012) 158-162**
53. Effect of bismuth addition on the optical band gap and extinction coefficient of thermally evaporated As-Se-Ge thin films  
Pankaj Sharma, Vineet Sharma, P. B. Barman and S. C. Katyal  
***Optoelectronics and Advanced Materials-Rapid Communication* Vol. 6, No. 9-10 (2012)804-806.**
54. Thermal Stability and Crystallization Kinetics of Se–Te–Sn Alloys Using Differential Scanning Calorimetry  
R. Kumar, P. Sharma, P. B. Barman, Vineet Sharma, S. C. Katyal and V. S. Rangra  
***Journal of Thermal Analysis and Calorimetry* 110 (2012) 1053–1060**
55. Structural transition in II-VI nanofilms: Effect of molar ratio on structural, morphological, and optical Properties  
Suresh Kumar, Pankaj Sharma, and Vineet Sharma  
***Journal of Applied Physics* 111 (2012) 113510**
56. CdS nanofilms: Synthesis and the role of annealing on structural and optical properties  
Suresh Kumar, Pankaj Sharma and Vineet Sharma  
***Journal of Applied Physics* 111 (2012) 043519,**
57. Physical analysis of structural transformation in Ge incorporated  $\alpha$ - $\text{Sb}_x\text{Se}_{100-x}$  system  
Sunanda Sharda, Neha Sharma, Pankaj Sharma and Vineet Sharma  
***Defects and Diffusion Forum* Vol 316-317 (2011) 45-53.**
58. Structural, rigidity percolation and transition temperature study of  $\text{Ge}_{19}\text{Se}_{81-x}\text{Sb}_x$  system  
Neha Sharma, Sunanda Sharda, Vineet Sharma and Pankaj Sharma  
***Defects and Diffusion Forum* Vol 316-317 (2011) 37-44.**

59. A Green Biogenic Approach For Synthesis Of Gold And Silver Nanoparticles Using *Zingiber Officinale*  
Chandan Singh, Vineet Sharma, Pradeep Kr. Naik, Vikas Khandelwal, Harvinder Singh  
***Digest Journal of Nanomaterials and Biostructures Vol. 6, No 2, April - June 2011, p.535-542***
60. Effect of visible light on a-Se-Te thin film'  
Vineet Sharma, Anup Thakur  
***Optoelectronics and Advanced Materials-Rapid Communication Vol. 3, No. 10 (2009)1046-1049.***
61. An insight into the mechanism of ordered holes formation in porous alumina template'  
R. Kumar, Vineet Sharma, D. Sharma, Nagesh Thakur  
***Optoelectronics and Advanced Materials- Rapid Communications Vol. 3, No. 3, (2009)190–194.***
62. Phase transition in Se-Te thin film on UV illumination'  
Vineet Sharma, Anup Thakur  
***Journal of Optoelectronics and Advanced Materials Vol. 9, No.10 (2007)3097-3099.***
63. Electrical Properties of a-Se<sub>85-x</sub>Te<sub>15</sub>Sn<sub>x</sub> Thin Films'  
Vineet Sharma, Anup Thakur, Jeewan Sharma, Vivek Kumar, SanjeevGautam, S.K. Tripathi  
***Journal of Non-Crystalline Solids 353 (2007)1474-1477***
64. Variation of Optical Constants in Ge<sub>10</sub>Se<sub>60</sub>Te<sub>30</sub> Thin Film'  
P. Sharma, Vineet Sharma, S. C. Katyal  
***Chalcogenide Letters Vol. 3(10) (2006)73 – 79***
65. Phase transition in a-Se<sub>85</sub>Te<sub>15</sub> Thin Film on Thermal Annealing'  
Vineet Sharma  
***Journal of Physics C: Condensed Matter 18(2006)10279–10290.***
66. Effect of Sn Additive on the Electrical Properties of Se-Te Glassy Alloy'  
Vineet Sharma  
***Journal of Optoelectronics and Advanced Materials Vol. 8, No. 5 (2006)1823 – 1830***
67. Proton induced changes on the Optical Parameters of a-(Ge<sub>20</sub>Se<sub>80</sub>)<sub>0.96</sub>Ag<sub>0.04</sub> Thin Films'  
S.K. Tripathi, Anup Thakur, G. Singh, J. Sharma, Vineet Sharma, K.P. Singh, G.S.S. Saini and N. Goyal  
***Journal of Material Science Letters,41 (2006) 1847-1850***
68. Photoconductivity in Thin Film of a-(Ge<sub>20</sub>Se<sub>80</sub>)<sub>0.90</sub>Sn<sub>0.10</sub>'  
A. Thakur, Vineet Sharma, P.S. Chandel, N. Goyal, G.S.S. Saini and S.K. Tripathi  
***Journal of Material Science 41 (2006) 2327–2332***
69. Irradiation Effects on the Electrical Properties of a-Ge-Se-Ag Thin Films'.  
S. K. Tripathi, A. Thakur, G. Singh, J. Sharma, Vineet Sharma, K. P. Singh, G. S. S. Saini, N. Goyal  
***Journal of Optoelectronics and Advanced Materials7 (2005) 2095-2101***
70. Calculation of Optical Parameters of a-Ge-Se-Sn Thin Films'.  
Anup Thakur, Vineet Sharma, G.S.S. Saini, N. Goyal and S.K. Tripathi  
***Journal of Optoelectronics and Advanced Materials7 (2005) 2077-2083***
71. Effect of Light Intensity and Temperature on the Recombination Mechanism in a Thin  
a-(Ge<sub>20</sub>Se<sub>80</sub>)<sub>99.5</sub>Cu<sub>0.5</sub> Films'  
Anup Thakur, Vineet Sharma, G.S.S. Saini, N. Goyal and S.K. Tripathi  
***Journal of Physics D: Applied Physics38 (2005) 1959-1965.***
72. Transient Photoconductivity in Se<sub>85-x</sub>Te<sub>15</sub>In<sub>x</sub> Thin Films'.  
Vineet Sharma, Anup Thakur, N. Goyal, G. S. S. Saini and S. K. Tripathi  
***Journal of Optoelectronics and Advanced Materials7 (2005) 2103-2112***
73. Effect of Sb Additive on the Electrical Properties of Se-Te Alloy'  
S.K. Tripathi, Vineet Sharma, Anup Thakur, G.S.S. Saini and N. Goyal  
***Journal of Non-Crystalline Solids 351 (2005) 2468-2473***

74. Effect of In additive on the Electrical Properties of Se-Te alloy'  
Vineet Sharma, Anup Thakur, N. Goyal, G.S.S. Saini and S.K. Tripathi  
***Semiconductor Science and Technology* Vol. 20 (2005) 103-107.**
75. Effect of Sn Impurity on the Photoconductivity in a- Se<sub>85</sub>Te<sub>15</sub> Thin Films'  
Vineet Sharma, Anup Thakur, Pradeep S. Chandel, G. Madhok, N. Goyal and S.K. Tripathi  
***Indian Journal of Pure and Applied Physics* Vol. 42 (2004) 845-848**
76. Dielectric Relaxation of (Ge<sub>20</sub>Se<sub>80</sub>)<sub>0.98</sub>Sn<sub>0.02</sub> Glassy Alloy'  
Pradeep S. Chandel, A. Thakur, Vineet Sharma, N. Goyal and S.K. Tripathi  
***Indian Journal of Pure and Applied Physics* Vol.42 (2004) 539-543**
77. Effect of Thermal Annealing on the Electrical Properties of Amorphous Se<sub>75</sub>Te<sub>15</sub>Sn<sub>10</sub> Thin Films'  
Vineet Sharma, A. Thakur, P.S. Chandel, N. Goyal, G.S.S. Saini and S.K. Tripathi  
***Journal of Optoelectronics and Advanced Materials, Vol.5, No.5, (2003) 1243-1248.***
78. Photoelectrical Properties in Thin Films of (Ge<sub>20</sub>Se<sub>80</sub>)<sub>0.98</sub>Sn<sub>0.02</sub> Glassy Alloy'  
Anup Thakur, P.S. Chandel, Vineet Sharma, N. Goyal, G.S.S. Saini and S.K. Tripathi  
***Journal of Optoelectronics and Advanced Materials, Vol.5, No.5, (2003) 1203-1208***

### **Proceedings**

79. Evaluation of optical properties of thermally deposited (Sn,Se)-(Bi,Te) thin film  
Rajan Sharma, Ekta Sharma, Sanjay Kumar, Vineet Sharma, and Pankaj Sharma  
***AIP Conference Proceedings 2265 (2020) 030263 (1-4)***
80. Cohesive energy calculation of quaternary Ge-Te-Se-Ga chalcogenide glasses using chemical bond approach  
Ekta Sharma, Rajan Sharma, Vineet Sharma, Pankaj Sharma  
***AIP Conference Proceedings 2050 (1) (2018) 020008 (1-4)***
81. Morphological and Optical Study of Ag<sub>2</sub>Se Quantum Dots  
Subhash Chand, Dhruv Sharma, Vineet Sharma, Pankaj Sharma.  
***AIP Conference Proceedings, 2009 (2018) 20026(1)-020026(1-4).***
82. A Study of Thermal Stability and Crystallization Kinetics of SbSeGe Glassy Alloys  
S Sharda, Pankaj Sharma, Vineet Sharma  
***IOP Conference Series: Materials Science and Engineering, 225 (2017)012009(1-5).***
83. Structural And Optical Study Of Manganese Zinc Nano Ferrite  
Prashant Thakur, Rohit Sharma, Vineet Sharma, Pankaj Sharma  
***International Journal Of Scientific Research Vol 4(10)(2015)184-186***
84. Structural And Optical Analysis Of Mg<sub>0.625</sub>Zn<sub>0.375</sub>Fe<sub>2</sub>O<sub>4</sub>  
Rohit Sharma, Prashant Thakur, Pankaj Sharma, Vineet Sharma  
***International Journal Of Scientific Research Vol 4(10)(2015)187-189***
85. Structural analysis of magnesium zinc ferrite synthesized by co-precipitation method.  
Rohit Sharma, Prashant Thakur, Pankaj Sharma, Vineet Sharma  
***International Journal of Basic and Applied Scientific Aspects Vol. 1 Issue II (2015)12-16***
86. Stability analysis of IV-V-VI chalcogenide glasses using glass transition and crystallization temperature  
Neha Sharma, Sunanda Sharda, Vineet Sharma, and Pankaj Sharma  
***AIP Conf. Proc. 1536 (2013) 615, AIP USA***



87. SbSeGe semiconducting alloys: Non-linear refractive index and susceptibility  
SunandaSharda, Neha Sharma, Pankaj Sharma, and Vineet Sharma  
***AIP Conf. Proc. 1536 (2013) 313, AIP USA***
88. Nonlinear optical properties of IV-V-VI chalcogenide glasses  
Neha Sharma, SunandaSharda, Vineet Sharma and Pankaj Sharma  
***AIP Conf. Proc. 1512 (2013)546AIP USA***
89. Structural and optical study of chemical bath deposited nano-structured CdS films  
Suresh Kumar, Dheeraj Sharma, Pankaj Sharma, Vineet Sharma, P. B. Barman and S.C. Katyal  
***AIP Conf. Proc. 1393 (2011)179. AIP USA***
90. Band Gap Study of Chemical Bath Deposited CdS Thin Films  
Suresh Kumar, Pankaj Sharma, Vineet Sharma  
Proceedings of National Conference on Research Methods in Science, Technology and Management (REMET-2011), Green Hills Engineering College, Kumarhatti, Solan HP, India 26-27 March, 2011, p.26-28
91. Chemical Bond Distribution and Cohesive Energy of  $Ge_{19}Se_{81-x}Sb_x$  System  
Neha Sharma, Sunanda Sharda, Vineet Sharma and Pankaj Sharma  
Proceedings of National Conference on Research Methods in Science, Technology and Management (REMET-2011), Green Hills Engineering College, Kumarhatti, Solan HP, India 26-27 March, 2011, p.14-16.
92. Photocurrent Study with Heat Treatment in SeTeSn Thin Film  
Vineet Sharma, Poonam Sharma and Pankaj Sharma  
Proceedings of National Conference on Research Methods in Science, Technology and Management (REMET-2011), Green Hills Engineering College, Kumarhatti, Solan HP, India 26-27 March, 2011.p.11-13.
93. Glass Stability Study of Ge-Se-Sb Using Differential Thermal Analysis  
Proceedings of National Conference on Research Methods in Science, Technology and Management (REMET-2011), Green Hills Engineering College, Kumarhatti, Solan HP, India 26-27 March, 2011.p. 82-84.
94. Theoretical Calculation of Glass Transition Temperatures for SbSeGe System  
Sunanda Sharda, Neha Sharma, Pankaj Sharma, and Vineet Sharma  
Proceedings of National Conference on Research methods in Science, Technology and Management (REMET-2011), Green Hills Engineering College, Kumarhatti, Solan HP, India 26-27 March, 2011.  
p. 24-25
95. Light induced changes in Se-Te Thin Film'  
Vineet Sharma, Anup Thakur  
Proceedings of the National Conference on Recent Advances in Innovative Materials (RAIM-2008), February 16-17, 2008
96. 'Photoelectrical Properties of  $a-(Ge_{20}Se_{80})Ag_{10}$  Thin Film'  
Anup Thakur, Vineet Sharma, S.K. Tripathi  
***In 'Advanced Material Science'***, Edited by Nafa Singh, R.K. Moudgil, Rajesh Kharab, Kurukshetra University Press (2007) Kurukshetra, India, pp. 193-196
97. Progressive Annealing Effects on the Electrical Properties of  $a-Se_{75}Te_{15}Sn_{10}$  Thin Film'  
Vineet Sharma, Anup Thakur, S.K. Tripathi  
***In 'Advanced Material Science'***, Edited by Nafa Singh, R.K. Moudgil, Rajesh Kharab, Kurukshetra University Press (2007) Kurukshetra, India, pp. 327-330.

98. Refractive Index of Thin Films using Transmission Spectrum'.  
Pankaj Sharma, Vineet Sharma, S.C.Katyal  
***Solid State Physics (India), Vol.51 (2006) 425-426.***
99. Calculation of Optical constants of a-Ge-Se-Ag Thin Films'.  
A.Thakur, Vineet Sharma, G.Singh, G.S.S.Saini, N. Goyal and S.K.Tripathi  
in Proceedings of the International conference on optics & optoelectronics (**ICOL-2005**). PP-OMSD-46.
100. 'Electrical Properties in a-Se-Te-Sn Thin Films'  
Vineet Sharma and S.K.Tripathi  
***Solid State Physics (India), Vol.50 (2005) 709-710.***
101. Refractive Index of Ternary of  $(\text{Ge}_{20}\text{Se}_{80})_{0.90}\text{Sn}_{0.10}$  Glassy Semiconductor'  
A. Thakur, Vineet Sharma, N. Goyal, G.S.S. Saini and S.K. Tripathi  
in '***Materials and their Applications***' Edited by N. Singh, R. K. Moudgil and S. Aggarwal, Kurukshetra University Press (2005) pp. 227-230.
102. Effect of In Impurity on the Electrical Properties of Se-Te Alloy'.  
Vineet Sharma, A. Thakur, N. Goyal, G.S.S. Saini and S.K. Tripathi  
in '***Materials and their Applications***' Edited by N. Singh, R. K. Moudgil and S. Aggarwal, Kurukshetra University Press (2005) pp. 231-234.
103. 'Optical Properties of a-Ge-Se-Sn thin films.'  
A.Thakur, Vineet Sharma, G. Singh, J. Sharma, G.S.S. Saini, N. Goyal and S.K. Tripathi  
in: Proceedings of 7<sup>th</sup> International Conference on Optoelectronics, Fibre Optics and Photonics  
'**Photonics- 2004**' OMDP31 (2004), <http://eel.iust.ac.ir/Sadr/Papers/omdp31.pdf>, p.1-6
104. 'Recombination Mechanism in a- $(\text{Ge}_{20}\text{Se}_{80})_{99.5}\text{Cu}_{0.5}$  Thin Films'.  
Anup Thakur, Vineet Sharma, G.S.S. Saini, N. Goyal and S.K.Tripathi  
***Solid State Physics (India), Vol.49 (2004) 396-397.***
105. 'Electrical Properties in a-Se-Te-In Thin Films'  
Vineet Sharma, Anup Thakur, N. Goyal, G.S.S. Saini and S.K. Tripathi  
***Solid State Physics (India), Vol.49 (2004) 348-349.***

### **Papers presented in Conferences:**

- 1 Effect of Gd doping on the optical band gap of Mn-Zn nano ferrites; Innovations & Challenges In Basic & Applied Sciences (ICBAS-2017) School Of Basic & Applied Sciences Maharaja Agrasen University Baddi, Distt. Solan, H.P.-174103, March 04, 2017
- 2 Structural And Optical Analysis Of  $\text{Mg}_{0.625}\text{Zn}_{0.375}\text{Fe}_2\text{O}_4$   
National Conference on 'Recent Innovations in Applied Sciences and Humanities'(NCASH-2015) Rawal Institute of Engineering and Technology, Faridabad, October 10, 2015
- 3 Structural analysis of magnesium zinc ferrite synthesized by co-precipitation method.  
International Conference on "Emerging Trends in Basic and Applied Sciences" Maharaja Agrasen University, Baddi , Solan, Himachal Pradesh, India, May 1-2, 2015
- 4 Heating changes on the photoconductive behaviour of SeTeSn Thin Film  
National Conference on Recent Trends in Materials Science (RTMS-2011) Jaypee University of Information Technology Waknaghat, Solan, HP, 08-10 October 2011
- 5 Chemical Bond Distribution and Cohesive Energy of  $\text{Ge}_{19}\text{Se}_{81-x}\text{Sb}_x$  System  
National Conference on Research methods in Science, Technology and Management (REMET-2011), , Green Hills Engineering college, Kumarhatti , Solan, HP, 26-27 March, 2011

- 6 Theoretical Calculation of Glass Transition Temperatures for SbSeGe System  
National Conference on Research methods in Science, Technology and Management (REMET-2011),  
Green Hills Engineering college, Kumarhatti , Solan, HP, 26-27 March, 2011
- 7 Structural and Optical Study of Chemical Bath Deposited Nano-Structured CdS Thin Films  
International Conference on Advances in Condensed & Nano Materials, Department of Physics,  
Panjab University, Chandigarh, India 23–26 February 2011
7. Studies of Tramadol hydrochloride in aqueous alcoholic mixture at 25°C  
Recent Advances in Analytical Sciences, ISAS Delhi Chapter & Department of Chemistry, Himachal  
Pradesh University, Shimla-171005, India, April 12-14, 2010.
8. Light induced changes in Se-Te Thin Film  
National Conference on Recent Advances in InnovativeMaterials (RAIM-2008), Department of Applied  
Sciences and Humanities, National Institute of Technology Hamirpur –177005 (HP)India. February  
16-17, 2008
9. Isothermal Annealing Changes on the Electrical Properties of  $Se_{79}Te_{15}Sn_6$  Thin Film  
Recent Advances in Analytical Sciences and Applications, Department of Chemistry, Himachal Pradesh  
University, Shimla-171005, India, April 09-11, 2007.
10. Progressive Annealing Effects on the Electrical Properties of  $a-Se_{75}Te_{15}Sn_{10}$  Thin Film  
National Conference on Recent Advances in Material Science (RAMS-06), Department of Physics,  
Kurukshetra University, Kurukshetra, India, September 27-29, 2006.
11. Electrical Properties of  $a-Se_{85-x}Te_{15}Sn_x$ Thin Films;  
XV International Symposium on non-oxide and new optical glasses, April 10-14, 2006 Department of  
Physics, Indian Institute of Science, Bangalore, India
12. Electrical Properties in  $a-Se-Te-Sn$  Thin Films .  
50<sup>th</sup> Golden Jubilee Solid State Physics Symposium, BARC Mumbai, India, December 05-09, 2005.
13. Electrical Properties in  $a-Se-Te-In$  Thin Films  
49<sup>th</sup> DAE Solid State Symposium, Guru Nanak Dev University, Amritsar, India, December 26-30, 2004.
14. Effect of In Impurity on the photoconductivity of  $Se_{85}Te_{15}$  films  
National Conference on Materials and their Applications (NCMA-2004) Kurukshetra University,  
Kurukshetra, India. March 11-13, 2004.
15. Effect of thermal annealing on the electrical properties of  $(Se_{85}Te_{15})_{0.98}Sn_{0.02}$  thin films  
National Seminar on Materials and Devices (MD-2002), M.J.P. Rohilkhand University, Bareilly, India,  
March 09-10, 2002.

### **FDPs attended:**

1. One week FACULTY DEVELOPMENT PEOGRAM on “Effective Online Teaching and Learning”  
organised by Dr. SSBUI CET, Panjab University in collaboration with Dibrugarh University Institute  
of Engineering and Technology, Assam under TEQIP-III (MHRD, Govt. of India)September 14th to  
September 19th, 2020.
2. One week Faculty Development Program on "Computational Intelligence Techniques for Machine  
Learning" organized by the Dept. of CSE & IT, JUIT, Wagnaghat-173234 (H.P.), India, from August  
31 to September 5, 2020.
3. Two weeks Faculty Development Program on "Ambient Technologies: State-of-Art, Challenges,  
and Future Directions" organized by the Dept. of CSE & IT, JUITWagnaghat-173234 (H.P.), India,  
July 27,2020 to August 8, 2020.

4. Online AICTE Recognized Faculty Development Programme on Quantum and Energy Materials: Potential & Applications 20-04-2020 to 24-04-2020 (One Week) Applied Science Department, NITTTR, Chandigarh
5. Online AICTE Recognized Faculty Development Programme On Nanomaterials and Devices 27-04-20 to 01-05-20 (One Week) Applied Science Department, NITTTR, Chandigarh
6. Faculty Development Programme, 14 -19 July 2014, JUIT Wagnaghat.
7. AICTE Sponsored Faculty Development Program on Computer Aided VHDL, 03-13 March 2008, JUIT Wagnaghat,
8. Faculty Development Programme, IIIT Noida, 11-15 July, 2005

### **Workshops attended:**

1. Two day workshop on “Advanced Functional Materials” sponsored by TEQIP-III and organized by Department of Applied Sciences, Punjab Engineering College (Deemed to be University), Chandigarh. July 25-26, 2020
2. Workshop on Patent Filing and Geographical Indications of Himachal Pradesh, HIMCOSTE & JUIT Wagnaghat, 30<sup>th</sup> November, 2018
3. Workshop on Patent drafting & ipr: Problems & solutions, HIMCOSTE & JUIT Wagnaghat, 13<sup>th</sup> October, 2017
4. International Workshop on X-ray Absorption spectroscopy: Materials-Analysis inside Tool GIAN Workshop, GIAN & Panjab University Chandigarh 03-08 October 2017.
5. Workshop on Patent Filing & Geographical Indications, IPR Cell, Jaypee University Of Information Technology, Wagnaghat, Solan, (H.P.) in Collaboration With Himachal Pradesh Patent Information Centre, Shimla, (H.P.) (HPPIC) 27<sup>th</sup> February, 2017
6. One Week short term course on Cyber Crime & Forensic Tools through ICT, organized by NITTTR Chandigarh & JUIT, 06<sup>th</sup>- 10<sup>th</sup> February 2017
7. One day workshop on Innovation and Intellectual Property Rights, 9<sup>th</sup> December 2016, JUIT Wagnaghat
8. Workshop on Statistical Techniques in Biological and Medical Sciences STBMS- 16, 13-18 June 2016, JUIT Wagnaghat.
9. National Program on Differential Equations: Theory, Computation & Applications (NPDETCA), 19-25 October, 2015 JUIT Wagnaghat.
10. Workshop on “Combinatorics and Graph Theory in Science and Engineering” 03-08 November, 2014, JUIT Wagnaghat.
11. One week Workshop on “Nanotechnology (Fabrication and Characterization)” December 11, 2013 JUIT Wagnaghat.
12. Two Day Workshop on “Antenna Materials” 14– 15 December, 2012, JUIT Wagnaghat.
13. One week IUCEE workshop on “Opto-Electronic and Electronic Materials” 30 June 2011 at JUIT Wagnaghat.
14. Workshop on “Characterization Tools for Materials” Department of Physics, Panjab University, Chandigarh, India February 22, 2011
15. Contact Meeting for Popularizing the National Fusion Programme CMPNFP-08, (Northern Region), Department of Applied Sciences and Humanities, National Institute of Technology Hamirpur – 177005 (HP) India with Board of Research in Fusion Science and Technology (BRFST), 29<sup>th</sup> November 2008.
16. Workshop on Emerging Technologies in Nano-Science (WETNS–08) February 20, 2008, Department of Physics, Punjabi University Patiala–147 002 Punjab (INDIA).
17. National Symposium on Nanomaterials Design: Bridging Nanolength Scale (NSNMD) November 17, 2007, Department of Applied Sciences and Humanities, National Institute of Technology Hamirpur – 177005 (HP) India.

## **Conferences/ Seminars/ Symposia Attended:**

- 1 “A Virtual International Conference on Environmental Sustainability and Smart Agriculture” Organized by Centre of Excellence in Sustainable Technologies for Rural Development [CESTRD], Department of BI & BT, Jaypee University of Information, Technology, Wagnaghat, Solan, INDIA September 18-19 2020.
- 2 Innovations & Challenges In Basic & Applied Sciences (ICBAS-2017) School Of Basic & Applied Sciences Maharaja Agrasen University Baddi, Distt. Solan, H.P.-174103, March 04, 2017
- 3 National Conference on ‘Recent Innovations in Applied Sciences and Humanities’(NCASH-2015) Rawal Institute of Engineering and Technology, Faridabad, October 10, 2015
- 4 International Conference on “Emerging Trends in Basic and Applied Sciences” Maharaja Agrasen University, Baddi , Solan, Himachal Pradesh, India, May 1-2, 2015
- 5 International Conference on Advances in Condensed & Nano Materials, Department of Physics, Panjab University, Chandigarh, India 23–26 February 2011
6. National Conference on Recent Advances in Innovative Materials (RAIM-2008), February 16-17, 2008 Department of Applied Sciences and Humanities, National Institute of Technology Hamirpur – 177005 (HP) India.
7. National Symposium on Nanomaterials Design: Bridging Nanolength Scale (NSNMD) November 17, 2007, Department of Applied Sciences and Humanities, National Institute of Technology Hamirpur – 177005 (HP) India.
8. Recent Advances in Analytical Sciences and Applications, April 09-11, 2007, Department of Chemistry, Himachal Pradesh University, Shimla-171005, India.
9. Recent Trends in Synthetic and Polymer Chemistry (RTSPC-II), March 23-24, 2007, Department of Chemistry, Himachal Pradesh University, Shimla-171005, India.
10. National Conference on Recent Advances in Material Science (RAMS-06), September 27-29, 2006 Department of Physics, Kurukshetra University, Kurukshetra, India.
11. XV International Symposium on non-oxide and new optical glasses, April 10-14, 2006 Department of Physics, Indian Institute of Science, Bangalore, India.
12. 50<sup>th</sup> Golden Jubilee Solid State Physics Symposium, December 05-09, 2005, BARC Mumbai.
13. 49<sup>th</sup> DAE Solid State Symposium, December 26-30, 2004, Guru Nanak Dev University, Amritsar, India.
14. 91<sup>st</sup> Indian Science Congress, January 3-7, 2004, Panjab University, Chandigarh - 160 014, India.
15. DAE Solid State Symposium, December 28-31, 2002, Panjab University, Chandigarh - 160 014, India.
16. Second National Conference on Thermophysical Properties (nctp-2002), September 19-21, 2002, University of Rajasthan, Jaipur, India.
17. Conference on Computational Physics, March 06-07, 2002, Panjab University, Chandigarh - 160 014, India.
18. National Seminar on Materials and Devices (MD-2002), March 09-10, 2002, M.J.P. Rohilkhand University, Bareilly, India.