

# CURRICULUN VITAE

## **Dr. Dinesh Patidar**

*Assistant Professor*

Department of Physics

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### ***Research Interest***

Special research interests include synthesis of low dimension materials, organic/inorganic nanocomposite, nanostructured inorganic/organic heterojunctions, metal/semiconductor junctions and their characterization and application.

### ***Education***

**2003-2007** *Ph.D. in Physics on “Electro-Optical Studies of Some Cd-Zn Chalcogenide Films”* Semi-Conductor and Polymer Science Group, Department of Physics, University of Rajasthan, Jaipur (Raj) India

**2001-2003** *M.Sc. in Physics (Specialization in Microwave Electronics)* Department of Physics, M.L.V. Govt. College, Bhilwara affiliated to M.D.S. University, Ajmer (Raj), India

**1998-2001** *B.Sc. (Physics, Chemistry and Mathematics)* Govt. College, Jhalawar affiliated to M.D.S. University, Ajmer (Raj), India,

### ***Employments***

***Assistant Professor (July 2018 to till date):*** Department of Physics, Mohanlal Sukhadia University, Udaipur (Raj), India

***Assistant Professor (January 2015 to May 2018):*** Department of Physics, Seth G.B. Podar College, Nawalgarh, Jhunjhunu (Raj), India

***Guest Faculty and Nano Lab In-charge (April 2015 to Dec. 2015):*** Centre for Converging Technology, University of Rajasthan, Jaipur (Raj), India

***Part-time Lecturer (Sept. 2012 to May 2015):*** Department of Physics, S.S. Jain Subodh P.G. College, Jaipur (Raj), India

**Research Scientist DST (April 2012 to March 2015):** Semi-Conductor and Polymer Science Group, Department of Physics, University of Rajasthan, Jaipur (Raj), India

**Research Associate (Feb 2009 to March 2012):** Semi-Conductor and Polymer Science Group, Department of Physics, University of Rajasthan, Jaipur (Raj), India

**Assistant Professor (Nov 2007 to Jan 2009):** Department of Physics, Jagan Nath Gupta Institute of Engineering and Technology, Jaipur (Raj), India

**Guest Faculty (July 2007 to Dec 2007):** Department of Physics, Malaviya National Institute of Technology, Jaipur (Raj), India

**Senior Research Fellow (Oct 2006 to July 2007):** Semi-Conductor and Polymer Science Group, Department of Physics, University of Rajasthan, Jaipur (Raj), India

**Junior Research Fellow (Oct 2004 to Sept 2006):** Semi-Conductor and Polymer Science Group, Department of Physics, University of Rajasthan, Jaipur (Raj), India

### **Scholarships/Awards**

**July 2011** **DST Fact Track Project for Young Scientist**, Department of Science and Technology (DST), Govt. of India, New Delhi

**March 2011** **Post-Doctoral Fellowship**, Ministry of New and Renewable Energy (NMRE), Govt. of India, New Delhi (not availed)

**Sept. 2009** **Travel Grant** from PCAM School, Italy to attend an International School on “Chemistry and Physics of Materials for Energetics. A European School in Materials Sciences”

**2009 –2012** **Research Associate**, Council for Scientific and Industrial Research (CSIR), Govt. of India, New Delhi

**2006 – 2007** **Senior Research Fellowship**, Defence Research and Development Organization (DRDO), Govt. of India, New Delhi

**2004 – 2006** **Junior Research Fellowship**, Defence Research and Development Organization (DRDO), Govt. of India, New Delhi

### **Project Ongoing/Completed**

**RUSA 2.0 project entitled “Development and optimization of energy conversion and storage materials based on Perovskites, Ferrites and Graphene”** funded by MHRD, Govt. of India (Rs.95.50 lakhs) (Ongoing) (Co-P.I.)

*UGC-BSR research project (Start-Up-Grant) entitled “Development of Metal Oxide-Graphene Nanocomposites with Enhanced Photocatalytic Activity”* funded by UGC Govt. of India (Rs. 10 lakhs) (Ongoing) (P.I.)

*DST Fact Track project entitled “Nanostructured Inorganic/Organic Solar Cell: Fabrication and Characterization”* funded by Department of Science and Technology (DST), Govt. of India (Rs. 20.16 lakhs) (2012 –15) (P.I.)

### ***Books published***

*B.Sc. Part-II “Optics”* Author of Learning Material, Vardhman Mahaveer Open University, Kota (Raj) India

*B.Sc. Part-III “Solid State Physics”* Author of Learning Material, Vardhman Mahaveer Open University, Kota (Raj) India

*B.Sc. Part-III “Practical Physics”* Author of Learning Material, Vardhman Mahaveer Open University, Kota (Raj) India

*Chapter-01 “Classification, Processing and Application of Polymer Nanocomposites”* in “*Nanomaterials and Nanostructures*” (Nanotechnology Volume - 4), Studium Press LLC, Houston, USA

### ***Ph.D. Supervision***

*Mr. Anil Kumar Yadav* has awarded thesis entitled “*Synthesis and Characterization of Chalcogenide Nanomaterials for Optoelectronic Applications*” to Deenbandhu Chhotu Ram University of Science & Technology, Murthal, under co-supervision (2018).

*Mr. Pramod Kumar Arya* has awarded thesis entitled “*Study of Mechanical Properties of Some Thermoplastic based Zinc Oxide and Titanium Oxide Polymeric Nanocomposites*” to the ICFAI University, Jaipur under co-supervision (2017).

### ***Training Programme/School***

**2<sup>nd</sup> Faculty Induction Programme** organized by University of Rajasthan, Jaipur from 23/11/2020 to 22/12/2020.

**Short Term Course on Applications of Nanotechnology in Current Scenario** held at Malviya National Institute of Technology, Jaipur during September 22-26, 2014.

**International School on “Chemistry and Physics of Materials for Energetics: A European School in Materials Science”** held at University of Milano-Bicocca, Milano, Italy during Sept. 14–19, 2009.

**Seminar on Induction Training Programme on Capacity Building in Teaching-Learning and Research Techniques** held at Global Institute of Technology, Jaipur during January 07-18, 2008.

### ***Life Membership of Scientific Bodies***

Life member of **Thermo-Physical Society of India (TPSI)**

Life member of **Material Research Society of India (MRSI)**

Life member of **Indian Academic of Physical Science (IAPS)**

### ***Organizational Experience***

**National Conference and Workshop on Recent Advances in Modern Communication Systems and Nanotechnology** held at University of Rajasthan, Jaipur during January 06-08, 2011 as member

**2<sup>nd</sup> National Conference on Condensed Matter and Materials Physics** held at University of Rajasthan, Jaipur during February 01-03, 2007 as member.

**15<sup>th</sup> National Symposium & Workshop on Thermal Analysis (THERMANS-2006)** (Organized by BRNS, DAE & ITAS) held at University of Rajasthan, Jaipur during February 06-10, 2006 as member.

### ***Conference/Symposium/Workshop Attended/Paper Presented***

**ICAM Global Summit 2020** organized by ICAM during July 22-24, 2020

**VII-Rajasthan Science Congress organized** Mohanlal Sukhadia University, Udaipur, during October 14-16, 2019

**UGC-SAP Sponsored Workshop on “Vermicomposting Biotechnology: An improved Technique for Institutional Waste Management”** organized by Mohanlal Sukhadia University, Udaipur on September 08, 2018.

**Faculty Induction Programme** organized by Mohanlal Sukhadia University, Udaipur during August 08-10, 2018.

**8<sup>rd</sup> National Conference on Thermo-physical Properties** held at Malviya National Institute of Technology, Jaipur during December 14-16, 2015

**26<sup>th</sup> AGM Material Research Society of India Theme Symposium: Materials for Inclusive Development** held at University of Rajasthan, Jaipur during February 9-11, 2015

**17<sup>th</sup> Conference of the International Academy of Physical Sciences (CONIAPS XVII)** held at University of Rajasthan, Jaipur during January 16-18, 2015

**National Conference on Energy Materials and Their Energy Applications (NCNE-2014)** held at S.S. Jain Subodh PG (Autonomous) College, Jaipur during December 22-24, 2014

**7<sup>rd</sup> National Conference on Thermo-physical Properties** held at C.S.J.M University, Kanpur during January 19-20, 2013

**National Conference on Current Trends in Materials Research (CTMR-12)** held at University of Rajasthan, Jaipur during March 17-19, 2012

**12<sup>th</sup> Conference of the International Academy of Physical Sciences (CONIAPS XII)** held at University of Rajasthan, Jaipur during December 22-24, 2010

**International Conference on Polymer Processing and Characterization (ICPPC-10)** to be held at Mahatma Gandhi University, Kottayam during January 15-17, 2010

**5<sup>th</sup> National Conference on Thermo Physics Properties (NCTP-09)** held at M.S. University of Baroda, Vadodara during October 7-9, 2009

**National Workshop on Experimental Methods in Condensed Matter Physics** held at University of Rajasthan, Jaipur during March 26-27, 2009

**National Workshop on Recent trends in Condensed Matter Physics** held at Laxmi Niwas Mittal Institute of Technology, Jaipur during March 21, 2009

**International Conference on Condensed Matter Physics** held at University of Rajasthan, Jaipur during Nov 25-28, 2007

**2<sup>nd</sup> National Conference on Condensed Matter and Materials Physics** held at University of Rajasthan, Jaipur during February 01-03, 2007

**International Seminar on Surface and Interfaces (Techniques and Applications) (ISSI- 2006)** at University of Rajasthan, Jaipur during November 10-13, 2006.

**Intentional workshop on Hydrogen Energy: Production, Storage & Applications (IWHE- 2006)** at University of Rajasthan, Jaipur during November 05-09, 2006.

**National Conference on Recent Advance in Material Science** held at University of Kurukshetra, Kurukshetra during September 27-29, 2006

**15<sup>th</sup> National Symposium & Workshop on Thermal Analysis (THERMANS-2006)** (Organized by BRNS, DAE & ITAS) held at University of Rajasthan, Jaipur during February 06-10, 2006.

**Seminar on Overview of Major Development in Physics in 20<sup>th</sup> Century** held at University of Rajasthan, Jaipur during November 28- 29, 2005

**Awareness workshop on the facilities of UGC-DAE Consortium for Scientific Research** held at University of Rajasthan, Jaipur during November 18- 19, 2005

**National Conference on Optics and Related Phenomena** (Jyothirgamaya-05) held at Sree Narayana College, Kollam during August 29-30, 2005

**National Seminar on Materials Processing and Characterization Techniques (NS-MPCT-2005)** held at Shivaji University, Kolhapur, during March 28-29, 2005.

**National Symposium on Science Technology & Application of Nano-materials (NSNM-05)** held at M.S. University of Baroda, Vadodara during March 21-22, 2005

**3<sup>rd</sup> National Conference on Thermo-physical Properties** held at Goa University, Goa during January 19-20, 2005

**74<sup>th</sup> Annual Session and National Symposium on Science and Technology for Dessert Development** (Organized by NASI, India) held at University of Rajasthan, Jaipur, during December 2-4, 2004

**Seminar on Frontier in Physics** held at University of Rajasthan, Jaipur during May 28- 29, 2004.

## List of publications

### Journal

1. Composition dependence of effective thermal conductivity and effective thermal diffusivity of  $\text{Se}_{100-x}\text{In}_x$  ( $x = 0, 5, 10, 15 \text{ \& } 20$ ) chalcogenide glasses, K. Singh, D. Patidar and N.S. Saxena, Journal Physics & Chemistry of Solids, ISSN: 0022-3697, (2005), 66, 946-948, DOI.org/10.1016/j.jpcs.2004.11.005 (**I.F. 2.752**).  
<https://www.scopus.com/sourceid/28564>
2. Measurement of structural and optical band gap of  $\text{Cd}_{1-x}\text{Zn}_x\text{S}$  ( $x = .4 \text{ \& } .6$ ) nano-materials, T.P. Sharma, D. Patidar, N.S. Saxena and K.B. Sharma, Indian Journal of Pure and Applied Physics, ISSN: 0019-5596, (2006), 44, 125-128 (**I.F. 0.822**).  
<https://www.scopus.com/sourceid/28036>
3. Temperature dependence of dc conductivity in polyaniline-metal halide composites, N. Jain, D. Patidar, N.S. Saxena and K.B. Sharma, Indian Journal of Pure and Applied Physics, ISSN: 0019-5596, (2006), 44, 767-770 (**I.F. 0.822**).  
<https://www.scopus.com/sourceid/28036>
4. Optical and structural properties of CdS thick film, D. Patidar, S. Kumar, R. Sharma, N.S. Saxena, K.B. Sharma and T.P. Sharma, Indian Journal of Pure and Applied Physics, ISSN: 0019-5596, (2006), 44, 729-731 (**I.F. 0.822**).  
<https://www.scopus.com/sourceid/28036>
5. Electrical properties of CdS/polyaniline heterojunction, D. Patidar, N. Jain, N.S. Saxena, K.B. Sharma and T.P. Sharma, Brazilian Journal of Physics, ISSN: 0103-9733, (2006), 36, 1210-1212, DOI.org/10.1590/S0103-97332006000700016 (**I.F. 0.833**).  
<https://www.scopus.com/sourceid/27404>

6. Optical properties of CdS sintered film, D. Patidar, R. Sharma, N. Jain, T.P. Sharma and N.S. Saxena, Bulletin of Material Science, ISSN: 0250-4707, (2006), 29, 21-24, DOI.org/10.1007/BF02709350 (I.F. 1.264).  
<https://www.scopus.com/sourceid/20500>
7. Energy band gaps of  $\text{Se}_{100-x}\text{In}_x$  chalcogenide glasses, K. Singh, N.S. Saxena, O.N. Srivastava, D. Patidar and T.P. Sharma, Chalcogenide Letters, ISSN 1584-8663, (2006), 3, 33-36 (I.F. 0.977).  
<https://www.scopus.com/sourceid/19200156904>
8. Conduction mechanism in CdZnS thick films, D. Patidar, N.S. Saxena, K.B. Sharma and T. P. Sharma, Optoelectronics Advanced Materials: Rapid Communications, ISSN: 1842-6573, (2007), 1, 329-332 (I.F. 0.452).  
<https://www.scopus.com/sourceid/18800156712>
9. Structural, optical and electrical properties of CdZnS thin films, D. Patidar, N.S. Saxena and T.P. Sharma, Journal of Modern Optics, ISSN: 0950-0340, (2008), 55, 79-88, DOI.org/10.1080/09500340701292720 (I.F. 1.657).  
<https://www.scopus.com/sourceid/12181>
10. Energy band gap and conductivity measurement of CdSe thin films, D. Patidar, K.S. Rathore, N.S. Saxena, K.B. Sharma and T.P. Sharma, Chalcogenide Letters, ISSN: 1584-866, (2008), 5, 21–25 (I.F. 0.977).  
<https://www.scopus.com/sourceid/19200156904>
11. Electrical study of Cu-CdS and Zn-CdS Schottky junctions, S. Gupta, D. Patidar, N.S. Saxena, K.B. Sharma and T.P. Sharma, Optoelectronics Advanced Materials: Rapid Communications, ISSN: 1842-6573, (2008), 2, 205-208 (I.F. 0.452).  
<https://www.scopus.com/sourceid/18800156712>
12. Measurement of thermal properties of polyaniline salt from room temperature 30 to 140 °C, N. Jain, D. Patidar, N.S. Saxena and K.B. Sharma, Indian Journal of Pure and Applied Physics, ISSN: 0019-5596, (2008), 46, 385-389 (I.F. 0.822).  
<https://www.scopus.com/sourceid/28036>
13. Structural and optical characterization of chemically synthesized ZnS nano-particles, K.S. Rathore, D. Patidar, Y. Janu, N.S. Saxena, K.B. Sharma and T.P. Sharma, Chalcogenide Letters, ISSN: 1584-8663, (2008), 5, 105–110 (I.F. 0.977).  
<https://www.scopus.com/sourceid/19200156904>
14. A robust variable structure position control of DC motor, M.K. Gupta, A.K. Sharma and D. Patidar, Journal of Theoretical and Applied Information Technology, ISSN: 1992-8645, (2008), 4, 900-905.  
<https://www.scopus.com/sourceid/19700182903>

15. Determination of optical and electrical properties of ZnSe thin films, D. Patidar, K.S. Rathore, N.S. Saxena, K.B. Sharma and T.P. Sharma, Journal of Modern Optics, ISSN: 0950-0340, (2008), 55, 3041–3047, DOI.org/10.1080/09500340802315347 (I.F. 1.657).  
<https://www.scopus.com/sourceid/12181>
16. Energy band gap studies of CdS nanomaterials, D. Patidar, K.S. Rathore, N.S. Saxena, K.B. Sharma and T.P. Sharma, Journal of Nano Research, ISSN: 1662-5250, (2008), 3, 97-102, DOI.org/10.4028/www.scientific.net/JNanoR.3.97 (I.F. 0.589).  
<https://www.scopus.com/sourceid/17600155202>
17. Investigation of electrical properties of PANI/chalcogenide junctions, V. Shaktawat, D. Patidar, K.B. Sharma, N.S. Saxena and T.P. Sharma, Central European Journal of Chemistry (Open Chemistry, ISSN:2391-5420), ISSN: 1895-1066, (2009), 7, 769-773 DOI.org/10.2478/s11532-009-0072-5. (I.F. 1.512).  
<https://www.scopus.com/sourceid/21100384025>
18. Electrical study of thin film Al/n-CdS Schottky junction, S. Gupta, D. Patidar, N.S. Saxena and K.B. Sharma, Chalcogenide Letters, ISSN: 1584-8663, (2009), 6, 723-731 (I.F. 0.977).  
<https://www.scopus.com/sourceid/19200156904>
19. Effect of Cu doping on the structural, optical and electrical properties of CdS nanoparticles, K.S. Rathore, Deepika, D. Patidar, N.S. Saxena and K.B. Sharma, Journal of Ovonic Research, ISSN: 1584-9953, (2009), 5, 175-185 (I.F. 0.701).  
<https://www.scopus.com/sourceid/21100206004>
20. Investigation of Al Schottky junction on n-type CdS film deposited on polymer substrate, S. Gupta, D. Patidar, M. Baboo, K.B. Sharma and N.S. Saxena, Frontiers of Optoelectronics, ISSN: 2095-2767, (2010), 3, 321-327, DOI.org/10.1007/ s12200-010-0102-0.  
<https://www.scopus.com/sourceid/21100228564>
21. Stress-strain behavior of CdS/PMMA nano-composite, D. Patidar, S. Agrawal and N.S. Saxena, Journal of Polymer Engineering, ISSN: 0334-6447, (2010), 30, 565-573, DOI.org/10. 1515/POLYENG.2010.30.9.565 (I.F. 1.072).  
<https://www.scopus.com/sourceid/13571>
22. Storage modulus and glass transition behaviour of CdS/ PMMA nano-composites, D. Patidar, S. Agrawal and N.S. Saxena, Journal of Experimental Nanoscience, ISSN: 1745-8080, (2011), 6, 441- 449, DOI.org/10.1080/17458080.2010.509870 (I.F. 2.482).  
<https://www.scopus.com/sourceid/5800207372>
23. Thermo-mechanical properties and thermal conductivity of CdS- trans-polyisoprene polymer nanocomposite, M. Baboo, M. Dixit, D. Patidar, K.B. Sharma and N.S. Saxena, Journal of Polymer Engineering, ISSN: 0334-6447, (2011), 31, 181-184, DOI.org/10. 1515/ polyeng.2011.039 (I.F. 1.072).



<https://www.scopus.com/sourceid/13571>

24. Glass transition activation energy of CdS/PMMA nano-composite and its dependence on composition of CdS nano-particles, D. Patidar, S. Agrawal and N.S. Saxena, Journal of Thermal Analysis and Calorimetry, ISSN: 1388-6150, (2011), 106, 921-925, DOI.org/10.1007/s10973-010-1150-9 (**I.F. 2.471**).  
<https://www.scopus.com/sourceid/26983>
25. Glass transition temperature and thermal stability of ZnS/PMMA nanocomposites, S. Agrawal, D. Patidar and N.S. Saxena, Phase Transition, ISSN: 0141-1594, (2011), 84, 888-900, DOI.org/10.1080/01411594.2011.563152 (**I.F. 1.026**).  
<https://www.scopus.com/sourceid/29082>
26. Investigation of temperature dependent mechanical properties of CdS/PMMA nanocomposites, S. Agrawal, D. Patidar and N.S. Saxena, Journal of Composite Materials, ISSN: 0021-9983, (2011), 45, 2507-2514, DOI.org/10.1177/0021998311401101 (**I.F. 1.755**).  
<https://www.scopus.com/sourceid/21140>
27. II-VI semiconductor-polymer nanocomposites: Mechanical and thermal properties, N.S. Saxena and D. Patidar, International Review of Chemical Engineering, ISSN: 2035-1755, (2011), 3, 500-514.
28. Effect of ZnS nano-filler and temperature on mechanical properties of poly (methyl methacrylate), S. Agrawal, D. Patidar and N.S. Saxena, Journal of Applied Polymer Science, ISSN: 0021-8995, (2012), 123, 2431-2438, DOI.org/10.1002/app.34800 (**I.F. 2.188**).  
<https://www.scopus.com/sourceid/13554>
29. Characterization of single phase copper selenide nanoparticles and their growth mechanism, D. Patidar and N.S. Saxena, Journal of Crystal Growth, ISSN: 0022-0248, (2012), 343, 68-72, DOI.org/10.1016/j.jcrysgro.2012.01.026 (**I.F. 1.573**).  
<https://www.scopus.com/sourceid/24703>
30. Influence of CdS nano additives on the thermal conductivity of poly(vinyl chloride)/CdS nanocomposites, D. Patidar and N. S. Saxena, Advances in Nanoparticles, ISSN: 2169-0529, (2013), 2, 11-15, DOI:10.4236/anp.2013.21003
31. Cost effective synthesis of carbon nanotubes and evaluation of their antibacterial activity, V. Sharma, R.S. Rajaura, S. Purohit, D. Patidar and K.B. Sharma, Nano Trends: A Journal of Nanotechnology and its Applications, ISSN: 0973-418X, (2013), 14, 1-5.
32. Study on glass transition temperature and mechanical properties of cadmium sulphide/polystyrene nanocomposites, S. Agarwal, D. Patidar and N.S. Saxena, Polymer Engineering & Science, ISSN: 1548-2634, (2013), 53, 1223-1229, DOI.org/10.1002/pen.23382 (**I.F. 1.920**).

<https://www.scopus.com/sourceid/13695>

33. Effective thermal conductivity of CdS/ZnS nanoparticles embedded polystyrene nanocomposites, S. Agarwal, D. Patidar and N.S. Saxena, Heat and Mass Transfer, ISSN: 0947-7411, (2013), 49, 947–953, DOI.org/10.1007/s00231-013-1138-7 (I.F. 1.551).  
<https://www.scopus.com/sourceid/13749>
34. Effect of II-VI nano fillers on storage modulus, glass transition temperature and activation energy of poly(vinyl chloride), D. Patidar and N.S. Saxena, International Review of Chemical Engineering, ISSN: 2035-1755, (2013), 5, 172-178.
35. Hollow CdSe nanospheres synthesized using solvothermal approach: Structural and optical characterization, D. Patidar and N. S. Saxena, Advanced Porous Materials, ISSN: 2327-395X, (2013), 1, 219-223, DOI.org/10.1166/apm.2013.1016.
36. Kinetics of phase transformations and thermal stability of  $\text{Ge}_x\text{Se}_{70}\text{Sb}_{30-x}$  ( $x=5, 10, 15, 20$ ) chalcogenide glasses, A. Kaswan, V. Kumari, D. Patidar, N.S. Saxena and K.B. Sharma, New Journal of Glass and Ceramics, ISSN: 2161-7562, (2013), 3, 99-103, DOI: 10.4236/njgc.2013.34016
37. Review on thermal characterization of polymer nanocomposites, D. Patidar and N. S. Saxena, ITAS Bulletin 6 (2013) 51-67.
38. Monodispersed ZnO nanoparticles and their use in heterojunction solar cell, D. Patidar, A. Kaswan, N.S. Saxena and K.B. Sharma, The Scientific World Journal, Volume 2013, ISSN: 1537-744X, Article ID 260521, 1-6, DOI.org/10.1155/2013/260521.  
<https://www.scopus.com/sourceid/24219>
39. Kinetics of crystallization of  $\text{Ge}_{30-x}\text{Se}_{70}\text{Sb}_x$  ( $x = 15, 20, 25$ ) chalcogenide glasses, A. Kaswan, V. Kumari, D. Patidar, N.S. Saxena and, K.B. Sharma, Processing and Application of Ceramics, ISSN: 2406-1034, (2014), 8, 25–30, DOI.org/10.2298/PAC1401025K (I.F. 0.976)  
<https://www.scopus.com/sourceid/21100370874>
40. Storage modulus and glass transition temperature of MWNT/PMMA polymer nanocomposite films with different wt% of MWNT, M. Verma, D. Patidar, M. Baboo, K.B. Sharma and N.S. Saxena, Journal of Nano-Science, Nano-Engineering & Applications, ISSN: 2231-1777, (2014), 4, 28-33.
41. Electrical properties of GeSeSn chalcogenide glassy system, V. Kumari, A. Kaswan, D. Patidar, N.S. Saxena and K.B. Sharma, Advanced Electrochemistry, ISSN: 2330-1554, (2014), 2, 79-83, DOI.org/10.1166/adel.2014.1045.
42. Effect of post-fabrication annealing on P3HT/ZnO photovoltaic devices, D. Patidar, A. Kaswan, N.S. Saxena and K.B. Sharma, Advanced Electrochemistry, ISSN: 2330-1554, (2014), 2, 66-70, DOI.org/10.1166/adel.2014.1034.

43. Effect of nano CdS dispersion on thermal conductivity of PS/PVC & PS/PMMA polymeric blend nanocomposites, V. Mathur, D. Patidar and K.B. Sharma, Applied Nanoscience, ISSN: 2190-5509, (2015), 5, 623-628, DOI.org/10.1007/s13204-014-0357-7 (**I.F. 3.198**).  
<https://www.scopus.com/sourceid/21100886227>
44. Temperature dependence of thermal transport properties of Ge<sub>30-x</sub>Se<sub>70</sub>Sb<sub>x</sub> chalcogenide glasses, V. Kumari, A. Kaswan, D. Patidar, N.S. Saxena and K.B. Sharma, International Journal of Thermo-Physics, ISSN: 1572-9567, (2015), 36, 722-732, DOI:10.1007/s10765-014-1816-9 (**I.F. 0.853**)  
<https://www.scopus.com/sourceid/13762>
45. I-V measurement of Ge-Se-Sn chalcogenide glassy alloys, V. Kumari, A. Kaswan, D. Patidar, N.S. Saxena and K.B. Sharma, Processing and Application of Ceramics, ISSN: 2406-1034, (2015), 9, 61-66, DOI:10.2298/PAC1501061K (**I.F. 0.976**).  
<https://www.scopus.com/sourceid/21100370874>
46. Effective thermal conductivity and diffusivity of GeSeSb glasses measured simultaneously as a function of temperature and fit to empirical equations, V. Kumari, A. Kaswan, D. Patidar, N.S. Saxena and K.B. Sharma, Journal of Asian Ceramic Societies, ISSN: 2187-0764, (2015), 3, 339-344, DOI.org/10.1016/j.jascer.2015.06.006. (**I.F. 2.395**).  
<https://www.scopus.com/sourceid/21100823276>
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