CURRICULUM VITAE

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Presently Professor and Head of Department of Applied Physics at Shri Shankaracharya Group of Institutions (Shri Shankaracharya Technical Campus), Bhilai, C.G.Participated in multi-disciplinary research work (experimental and theoretical) to build the nanostructures and their applications as the next generation of solid state materials. Author of more than 50+ publications. Organized and participated in several conferences in the area of Materials Physics and Nanoscale Science.

Academic Qualification

2000 : **Ph.D. (Solid Sate Ionics Physics)*** [Pt.R.S.S.U, Raipur (C.G.)]

1995 : M.Sc. Physics [Pt. R. S. S. U, Raipur (CG)]

1993 : B.Sc.(PCM) [Pt.R.S.S.U, Raipur (CG)]

*** Title of Ph. D. Thesis** : "*Transport property study and battery fabrication of some silverionconducting fast ion conductors*" , under the guidance of **Dr Rakesh C Agrawal**, Prof. School of Studies in Physics & AstroPhysics, Pt. Ravishankar Shukla University Raipur (Chhattisgarh) INDIA.

Professional Recognition, Awards& Fellowships Received

- Award of Project Fellowship by MPCOST (vide sanction No. p86/92 dt. 16/12/94).

- Award of Research Fellowship by Pt. Ravishankar Shukla University, Raipur (C.G.) (No. 1457/Fin./Sch/1998 dt. 26/09/98).
- Young Scientist award by MPCOST Bhopal in a conference on the National Science Day, 28 Feb. 1998 organised at Pt. Ravishankar Shukla University Raipur.

Teaching experience

Started teaching career from 14/08/1999 as a lecturer of Engineering Physics in the Department of Physics, Raipur Institute of Technology, Raipur (Chhattisgarh). Later on joined as lecturer in Shri Shankaracharya Group of Institutions on 23 Feb 2000. Presently working as a full time Professor of Physics in the same institute . Since ~ 16 years continuously teaching Engineering Physics and Electrical Engineering Materials to graduate students as well as giving lectures in different topics of Solid State Physics to post graduate students of nearby colleges. In this tenure Applied Physics lab and Basic Electronics laboratory for BE students were established under my supervision.

Administrative skill

Well known for good administrative work as Prof Incharge 1st year and Head of Department since 2000. Organized various events as coordinator. Since 2011 also working as Ph.D program coordinator (Chhattisgarh Swami Vivekanand Technical University,Bhilai) for the scholars pursuing research work in various Engineering,Science,Pharmacy & Management courses from this institute.

Details of Employment

S. No.	Post	Name of Institution	Duration	Scale
1.	Lecturer	Raipur Institute of Technology	From 14/08/1999	2200–75-4000/-
		Raipur (Chhattisgarh)	to 22/02/2000	
2.	Lecturer	Shri Shankaracharya College of	From 23/02/2000	8000-275-12000/-

		Engineering & Technology	to 31/07/2003	
		Junwani, Bhilai (Chhattisgarh)		
3.	Lecturer	Shri Shankaracharya College of	From 01/08/2003	10000-325-15200/-
	(Sr. Grade)	Engineering & Technology	to 28/02/2005	
		Junwani, Bhilai (Chhattisgarh)		
4.	Reader	Shri Shankaracharya College of	01/03/2005 to	12000-420-18300/-
		Engineering & Technology	28/02/2010	
		Junwani, Bhilai (Chhattisgarh)		
5.	Sr. Associate	Shri Shankaracharya Group of	01/03/2010 to	34400-900-65900/-
	Professor	Institutions Junwani, Bhilai	27/02/2013	
		(Chhattisgarh)		
6.	Professor	FET-SSGI, Shri Shankaracharya	28/02/2013 to	37400-900-67000/-
		technical Campus -Junwani	Till date	
		Bhilai (Chhattisgarh)		

Professional Activities

1. Reviewer of various international Journal viz : Intenational Journal of Ionics, International Journal of Material Science and Engineering-B, International Journal of Journal of Alloys and Compounds International Journal of material research, Various international Journals of IOP viz. Journal of Physics D, Nanotechnology etc.
2. Delivered a series of lectures on "***Piezoelectric materials and Optoelectronic devices***" from 13th – 15th November 2006 at Govt. V. Y. T. P. G. Autonomous College, Durg(C.G.).
3. Attended the ***Transit of Venus***: Training Programme for Master Resource Persons of Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand and Orissa organised from 14-15th May, 2012 at M.P. Council of Science & Technology, Vigyan Bhawan, Nehru Nagar, Bhopal-462003 in joint collaboration with NCSTC, DST, New Delhi, and Vigyan Prasar, Noida. Nominated from Chhattisgarh state (Chhattisgarh Council of Science and Technology), for participation in this programme.
4. Deputed by Chhattisgarh Council of Science and Technology as state level

resource person to participate in the National Orientation Workshop for finalization of activity guide of National Children's Science Congress 2012-13 from 11-13 June 2012 at regional institute of education (NCERT) Mysore Karnataka . The focal theme selected by NCSTC -Department of Science and Technology (DST) was "Energy : Explore, Harness & Conserve.

Skills and expertise

Knowledge of MS Office, DOS, windows and Linux operating
Systems (FEDORA and Centos), working knowledge of Modeling packages viz.
MATLAB, SIESTA, Transiesta, ATK-Quantumwise, Jmol, Avogadro, Molden,
Xcrysden, xmgrace, gnuplot, VESTA and Java based ImageJ,.

Professional Body's membership

Life member of National Society of Solid State Ionics.
Life member of The Society for Advancement of electrochemical Science and Technology, Karaikudi.
Life member of Material Research Society of India.
Life member of Indian Society for Technical Education(Regd. No. LM40806).
Life member of Indian Association of Physics Teachers (8198 L-4779).

Research Profile

(a) Research lab Established

- **Condensed Matter Physics Research Lab (CMPRL)** in 2001-2002 for Material Preparation and characterization studies and Solid-State Electrochemical Device Applications viz. Solid state batteries. Supercapacitor, light emitting elechrochemical cell of ionic composites, nano-composites, ionic polymers and polymer nano-composite electrolyte materials.

- **Computational nanoionics Research Lab (CNIRL)** in 2012-13 for material/nano-material/nanoionic-materials modeling and simulation to study electronic, electrical, mechanical, optical and transport properties of nano-

particles, nano-tubes, nano-ribbons, semiconductors, conducting polymers, hybrid-biomolecules, OLED, LEEC applications. This is the first parallel computing lab of central India which is collaborated with the Department of Physics, Michigan Technological University (MTU), Houghton, USA.

- **Establishing a Siesta research group** in India as ***siesta-india*** to work together in the field of nano- material science to study properties and device applications. In this group free online training/discussions sessions will be encouraged to learn and study different material properties. The main aim of this group is to work together and learn together. Interested candidates may contact either through mail (drmohanlv@gmail.com) or on my site: www.drmlv.in/siesta-india.M.Sc/MTech students are also welcome with some innovative ideas/problems. Various MTech, Ph D students from different Technical/Science colleges are availing the benefits of this group and lab to learn material modeling for their projects.

(b) Research Interests

(I) Experimental Material Science

Material Preparation and characterization studies and solid-state electrochemical device applications viz. solid state batteries. supercapacitor, light emitting elechrochemical cell of ionic composites, nano-composites, ionic polymers and polymer nano-composite electrolyte materials.

(ii) Theoretical Material/Nano-material Science :

(i) **Mathematical -Modeling**: Mathematical modeling and evaluation of transport properties of some ionic/superionic solids by using space charge depolarization method. Modeling of electrochemical devices viz. solid state batteries, super capacitors and sensors are also in progress.

(ii) **DFT based first principle studies:** Molecular structure, electronic/electrical,mechanical, optical and transport properties using density functional based approach of nano-materials, biomaterials,

ionic/super-ionic solids and electronic/ionic conducting polymers implemented in SIESTA /transiesta software.

(iii) Molecular mechanics and Molecular dynamic simulation of polymer nano-composite materials for solid state battery, super capacitor, organic light emitting diode(OLED), light emitting electrochemical cell (LEEC) applications.

(iii) Collaborations with various Research Centers

CNIRL is running well in the collaboration with following groups :

1 **Prof. Ravindra Pandey**, Chair, Department of Physics, Michigan Technological University, Houghton, Michigan, USA.

2 **Dr. Manickam Minakshi**, Faculty of Science and Engineering, School of Engineering and Information Technology, Murdoch University, Murdoch, Australia.

3 **Dr. Jeevan Jyoti Nakarmi**, Department of Physics, Tribhuvan University, Kathmandu, Nepal.

4 **Dr Ranveer,** Deptt of Physics, Dr Hari Singh Gour University Sagar (M.P)

5 **Dr Anjali Avadhiya,** Department of Physics, Government Nagarjuna Post Graduate (Autonomous) College of Science, Raipur (C.G.)

(iv) Research Projects

Thanks to management of Gangajali Education Society for proviting me financial support to perform a good research work in last 16-17 years. Along with this financial support is also received through following research projects :

1. A project of Chhattisgarh Council of Science & Technology, Raipur, on *Structuralcharacterization of some nanocomposite electrolyte systems using digital image processing of SEM/TEM images* (No.356/CCOST/MRP/09). - completed
2. A MODROB project of AICTE-New Delhi (Rs 13 Lacks) to upgrade condensed matter physics Lab - completed

(v) Conference/ Seminar Organized

1. "*IWMMS 2013: International Workshop on Materials Modeling and Simulation*" with the collaboration of Department of Applied Physics, Michigan Technological University, Houghton, USA, during June 24-27, **2013** at Shri Shankaracharya Group of Institutions, Junwani, Bhilai.

   2. A National Conference on recent advances in nanoscience and nanotechnology, SSCET-Junwani, Bhilai, on 12-13 Jan **2009**.

   3. A national conference on " *Horizons of electrolytic, electronic and photonic materialPhysics*" SSCET- Junwani, Bhilai, on 26-27 Oct. **2007**.

4. A workshop on "*Innovative Physics Teaching (WIPT 2006)*" on 30th December 2006 in SSCET, Junwani Bhilai. Resource person, Dr. H. C. Verma, Deptt. of Physics I.I.T., Kanpur, U.P.
5. A seminar on "*Role of Physics in Technical Education*" in the occasion of National Science Day 2005 and International Physics Year 2005 in SSCET Junwani Bhilai, 19 April **2005**.

(vi) Research Students

Ph.D. awarded

1. **Dr. Arti Verma** – *Characterization analysis of some nanocomposite electrolytes using digital image processing of SEM/TEM images*. –**(Awarded in 2014, Experimental)**
2. **Dr. B. Keshav Rao** - *Modeling of transport properties of some nanoionic materials*. – **(Awarded-2014, theoretical Mathematical/DFT modeling)**
3. **Dr. Nirbhay Singh**- *Investigation on transport properties and material characterization of some nanomaterials for fabrication of supercapacitors* (**Awarded-2015, Experimental)**.

Pursuing PhD under my supervision

4. Homendra Das Sahu- Transport properties study and device applications of some polymer nanocomposite electrolyte system, registered in 2013. ***(Experimental)***

5. Rachana Singh- Ab-initio modeling and performance study of light emitting electro chemical cells, registered in 2013. ***(Theoretical DFT based)***

6. Upma- Studies on the electronic/ionic property of some polymetric biomaterials for medical applications: a density functional approach, registered in 2013. ***(Theoretical***

DFT based)

7. **Duga Verma**- Studies on the optical properties of rare earth doped strontium silicate nanophosphors, registered in 2013 **(both Experimental and *Theoretical DFT based)*** (as co-supervisor)

8. Ajay Kumar Verma- Optimization of lamination parameters of a composite plate subjected to thermo-mechanical loading, registered in 2013 **(Experimerimental)**.
(as co-supervisor)

The research work is going on under the affiliation of Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai.

M.Phil Students : 20 Students of different Universities are guided for project work.

(ii) List of Publications

(a) In peer reviewed International/National Journals

2017

1. **Mohan L Verma and B Keshav Rao**

"First Principle Study of PEO-AgI Polymer Systems", J. Chemical Physics Letters, 2017, (in press).

2. **Mohan L Verma** and Homendra D Sahu

"Study on ionic conductivity and dielectric properties of PEO-based solid nanocomposite polymer electrolytes", Ionics,29 March 2017, pp 1-12,
doi : 10.1007/s11581-017-2063-4, Impact Factor :2.119.

3. **Mohan L Verma**, B. Keshav Rao, Rachna Singh, Durga Banchor and Homendra D Sahu "Ab initio study of mechanical strength of solid polymer electrolyte $(PEO)_5LiClO_4$ ", Ionics, 03 March 2017 , pp 1-6, doi:10.1007/s11581-017-2025-x, Impact Factor 2.119.

4. Keshav Rao and **Mohan L Verma**

"Modeling of space charge dielectric constant" Ionics, 04 January 2017 , pp 1-5, doi : 10.1007/s11581-016-1955-z Impact Factor 2.119.

2016

5. B Keshav Rao and **Mohan L Verma**

"Modeling of ionic charge density", Chemical Physics, **478,** 20 October 2016, pp 87–90http://doi.org/10.1016/j.chemphys.2016.04.017,Impact Factor 1.758.

6. B Keshav Rao and **Mohan L Verma**

"First principle study of 0.75AgI:0.25AgCl: A density functional approach", Chemical Physics Letter(661) 16 September 2016, Pages 157–160, http://doi.org/10.1016/j.cplett.2016.08.069,Impact Factor 1.86.

7. **Mohan L. Verma**, Rachna Singh

"Electron Transport in Zigzag Silicon and Silicon mono-oxide Nanoribbons :Ab initio stud", Research Journal of Physical Sciences Vol. 4(5), 1-7, 2016.

2015

8. Nirbhay K. Singh **Mohan L. Verma**, Manickam Minakshi Sundaram,

"PEO nanocomposite polymer electrolyte for solid state symmetric capacitors", Bull. Mater. Sci., 38 (5),Oct 2015, p. 1577–1588, doi: 10.1007/s12034-015-0980-2, Impact Factor 1.02.

9. **Mohan L. Verma** and Homendra D. Sahu

"Ionic conductivity and dielectric behavior of PEO-based silver ion conducting nanocomposite polymer electrolytes", Ionics, 21(12), 29 July 2015, pp 3223–3231, doi :10.1007/s11581-015-1517-9, Impact Factor-2.199.

10. Nirbhay K. Singh, **Mohan L. Verma** and Taide Ajay

"*Capacitor with PEO/Activated Carbon based Electrode and Nanocomposite Polymer as Electrolyte",* Applied Science and Advanced Materials International Vol. 1 (4-5), pp. 118 – 121 2015.

11. B. Keshav Rao and **Mohan L. Verma (Review Article)**

"*Ionic mobility of (0.9)[0.75Agi:0.25AgCl]:0.1SiO_2 in space charge depolarization"* Ionics, 21(3), March 2015, pp 611-616,doi:10.1007/s11581-014-1344-4, Impact Factor : 2.119.

12. Amar Bahadur, **Mohan L. Verma** and Madhukar Mishra

"First principle study of structural, electronic and magnetic properties of silicon doped zigzag boron nitride nanoribbon,Eur. Phys. J. B. 88:79, 1 April 2015. doi:10.1140/epjb/e2015-50847-5, Impact Factor 1:35.

13. Rajendra Prasad Gautam , **Mohan Lal Verma**, Jeevan Jyoti Nakarmi and Shiba Subedi

"Theoretical study on Structural and Electronics Properties of Boron and Boron NitrideNanodics: A Density Functional Approach",International Journal of Computer & Mathematical Sciences ISSN 2347 – 8527 Volume 4, Special Issue September 2015, DOI : 10.13140/RG.2.1.2227.5289.

2014

14. **Mohan L. Verma**, Manickam Minakshi Sundaram and Nirbhay K. Singh

"Structural and electrochemical properties of nanocomposite polymer electrolyte for electrochemical devices", Industrial Engineering Chemistry Research, 53(39): 14993-15001 5 Sept 2014. DOI:10.1021/ie502615w · Impact Factor : 2.567.

15. **Mohan L. Verma**, Manickam Minakshi Sundaram and Nirbhay K. Singh

"S*ynthesis andCharacterization of Solid Polymer Electrolyte based on Activated Carbon for Solid State Capacitor",*Electrochemical Acta,137: 497–503 10 Aug 2014, DOI:10.1016/j.electacta.2014.06.039 , Impact Factor : 4.50.

16. **Mohan L. Verma** and B. Keshav Rao

"*Modeling of ionic diffusion by space chargedepolarization",* Ionics20(5) *pp* 697-701, May 2014, DOI:10.1007/s11581-013-1015-x, Impact Factor :2.119.

2013

17. **Mohan L. Verma** and B. Keshav Rao

" *A density functional approach for theconductivity"* CSVTU research journal 6: 13-16 2013. *ISSN:0975-8725.*

18. **Mohan L. Verma** and B. Keshav Rao

"Modeling of ionic charge current density" CSVTU research journal 6: 17-20 2013. *ISSN:0975-8725.*

2012

19. **Mohan L. Verma** and Nirbhay K. Singh

" *AC impedance spectroscopic of nano sizeAl2O3 Filler in PEO : AgI polymer electrolyte",* Material Science Research India9(1):139-146 2012, ISSN Print: 0973-3469, Online: 2394-0565.

20. **Mohan L. Verma** and Nirbhay K. Singh

"*AC Impedance Analysis on PEO:AgI PolymerElectrolyte for Capacitor Application",*CSVTU Research Journal 5: 22-26 2012. *ISSN:0975-8725.*

21. **Mohan L. Verma** and Nirbhay K. Singh

"Ultrabattery, fuel cell and supercapacitorbased HEV a comparative study of performance", International Journal of Theoretical andApplied Physics, 2: 113-124 2012. ISSN: 2250-0634.

22. **Mohan L. Verma** and Arti Verma

"*Investigation on solid polymer electrolyte (SPE)membrane of composition [(1-x) PEO: x AgCl] prepared by hot press technique"*, MaterialScience Research India9 (2), 227-232 (2012) ISSN : 0973-3469 .

2011

23. **Mohan L. Verma** and B. Keshav Rao

Modeling of Ag^{+}mobility in AgI by spacecharge depolarization process, Ionics 17(4), pp 323-329, May 2011.DOI : 10.1007/s11581-010-0513-3, Impact Factor 2.119.

24. **Mohan L. Verma** and Arti Verma

"*Structural and morphological characterization of Ag^{+}ion conducting nanocomposite polymer electrolyte membrane(1-x) [70 PEO:30 Ag2SO4]:x Fe2O3 by hot press technique"*International journal of Pure and AppliedPhysics 7(1), pp 7-12, 2011**,** ISSN

0973-1776.

25. **Mohan L. Verma** and Arti Verma

"*Ionic transport properties and characterization studies on Ag^+ ion conducting polymeric nanocomposite electrolyte membrane (1-x) [70PEO:30AgCl]:xTiO2 prepared by hot press technique"* Advances in Polymer Scienceand Technology: An International Journal 1(1) : 10-13 2011. ISSN 2277 – 7164.

26. **Mohan L. Verma**, Arti Verma and R.C. Agrawal

"*Characterization study ofhot-press-synthesized electro active polymeric membranes by image processing",* International Journal of Nanotechnology and Applications 5(3): 161-171 2011, ISSN : 0974-3081.

27. **Mohan L. Verma** and Arti Verma,

"*Study of membrane morphology of SEM image ofpolymer nanocomposite membrane by digital Image processing",* International Journal ofEngg. Science and Technology 1: 1332-1336 2011. ISSN: 2248-9622.

2006

28. **Mohan L. Verma**, R.C. Agrawal and Mimi Mukherjee

"*Space ChargeDepolarization of Wurtzite or Zinc Blend Structured Silver Iodide: Modeling of Preliminary Studies"*, Radiation effects & Defects in solids 161(4), pp 225-233, Aug 2006.

2000

29. R. C. Agrawal, **Mohan L. Verma,** R. K. Gupta and S Thaker

"*Characterization of basic transportparameters in a new fast Ag^+ ion conducting composite electrolyte system: (1-x) [0.75AgI:0.25AgCI]: xZrO2",* Solid State Ionics vol. 136-137, pp 473-478, 2 Nov, 2000, doi:10.1016/S0167-2738(00)00461-6Impact Factor: **2.380.**

1999

30. R. C. Agrawal, **Mohan L. Verma** and R. K. Gupta

"*Studies on persistent – polarization/ memory-type effect in Ag+ ion conducting quenched [0.75Agl: 0.25AgCI] mixed system/solid solution,* Indian, J. Pure and Appl. Phy. 37: 334 1999.Impact Factor: 0.77.

31. R. C. Agrawal, R.K.Gupta, **Mohan L. Verma** and A. R. Sharma

Polarization/self-depolarization studies on Ag^+ ion conducting quenched [0.75Agl: 0.25AgCI] mixed system /solid solution, Indian J. Pure and App. Phy. 37: 235 1999.Impact Factor: 0.77 ·

1998

32. R. C. Agrawal, **Mohan L. Verma** and R. K. Gupta

"*Study of ionic transport propertieson a new Ag^+ ion conducting composite electrolyte system (1-x)[0.75Agl: 0.25AgCI]: xSiO2,* J. Phy. D. 31(20), pp 2854-2860, 1998, doi : https://doi.org/10.1088/0022-3727/31/20/020.

33. R. C. Agrawal, R. K. Gupta and **Mohan L. Verm**a

"*Studies of polarization/self-depolarization and electrets type behavior in Agl,* Ionics 4(1), pp 33-*41*, 1998, doi:10.1007/BF02375777, Impact Factor : 2.119.

(b) Book chapters / special issues of solid state ionics

2010

34. **Mohan L. Verma** and B.Keshav Rao

"*Modeling of space charge ionic conduction in 2phase nano composite electrolytes"*, in Solid State Ionics : Fundamental Researches andTechnological Applications, eds B.V.R.Chowdari et al. Wuhan : Wuhan University of Technology Press, pp-423-430, 2010.

35. **Mohan L. Verma**, B. Keshav Rao and Homendra Sahu

"*Seeking the possibility ofquantum transport in ionic/superionic solids*", in Solid State Ionics : FundamentalResearches and Technological Applications, eds B.V.R.Chowdari et al. Wuhan : Wuhan University of Technology Press, pp- 431-438, 2010.

36. **Mohan L. Verma**, Homendra Sahu and Arti Verma

"*Studies on correlation betweendielectric properties and ionic conductivity of Fe2O3 dispersed PEO based nanocomposite electrolyte*", in Solid State Ionics : Fundamental Researches andTechnological Applications, eds B.V.R.Chowdari et al. Wuhan : Wuhan University of Technology Press, pp-XX-YY, 2010.

37. **Mohan L. Verma**, Nirbhay K. Singh

"*Novel model of hybrid electric vehicle based onsolar energy induced ultrabattery*", in Solid State Ionics : Fundamental Researches andTechnological Applications, eds B.V.R.Chowdari et al. Wuhan : Wuhan University of Technology Press, pp-1139-1145, 2010.

2008

38. **Mohan L. Verma** and B.Keshav Rao

"*Modeling of Space Charge Density in SomeNanocomposite Solid Electrolyte*" in Solid State Ionics : New materials for pollutionfree energy devices eds B.V.R.Chowdari et al. World Scientific, Singapore pp-531-536 2008.

39. **Mohan L. Verma**, B. Keshav Rao, Homendra Sahu and Nirbhay K. Singh

"*Modelingand Determination of Space Charge Dielectric Constant of Nanocomposite Electrolyte 0.9[0.75 AgI : 0.25 AgCl]:SiO2"*, in Solid State Ionics : New materials for pollution freeenergy devices eds B.V.R.Chowdari et al. World Scientific, Singapore, pp-525-530, 2008.

40. **Mohan L. Verma**, B. Keshav Rao, Arti Verma and Mimi Mukherjee

"*StructuralCharacterization of Ionic Materials Applying Digital Image Processing of SEM/TEM Image : A novel Approach"*, in Solid State Ionics : New materials for pollution free energydevices eds B.V.R.Chowdari et al. World Scientific, Singapore, pp-417-421, 2008.

41. **Mohan L.Verma**, Nirbhay K. Singh and Homendra Sahu

"Supercapacitors for hybridelectric vehicles: A survey and modeling of new control

structure" in Solid State Ionics :New materials forpollution free energy devices eds B. V. R. Chowdari et al. World Scientific, Singapore , pp-831-836, 2008.

2001

42. R. C. Agrawal, **Mohan L. Verma** and R. K. Gupta

"*Thermoelectric power and batterydischarge characteristic studies of a new silver ion conducting composite electrolyte (1-x) [0.75Agl:0.25AgCI]:xZrO2" in* Ion Conducting Materials : Theory & Application, eds- A. R. Kulkarni and P Gopalan, Narosa Publishing House, New Delhi, ISBN: 978-81-7319-401-6, pp. 220, 2001.

1998

43. R. C. Agrawal, **Mohan L. Verma**, R. K. Gupta and S. Thaker

"*Thermoelectric powerand battery discharge characteristic studies of a new silver ion conducting composite electrolyte"* inSolid State Ionics - Science and Technology (eds) B. V. R. Chowdary et al.World Scientific, Singapore 465 1998. [ISBN No : 9810237634, 9789810237639].

44. R C. Agrawal, **Mohan L. Verma**, R. K. Gupta, R. Kumar, M. L. Verma and S. K. Pandey.

"Estimation of mobile ion concentration in some silver ion conducting solidelectrolyte systems by dc polarization/depolarization studies" in Solid State Ionics – Science and Technology, (eds) B. V. R. Chowdary et al. World Scientific, Singapore 127 1998. [ISBN No : 9810237634, 9789810237639].

(c) in proceedings of international/national conferences

2015

45. Anjali Oudhia, Youman Kumar Sahu, Aarti Chaudhary and **Mohan L Verma**

"A first principle study of electronic structure of ZnO nanoribbon", Int. J. Adv. Engg. Res. Studies/IV/II/Jan.-March,2015/294-295.

46. Upma, **Mohan L Verma** and Rachna Singh

"Ab initio studies on electronic structure and charge density of potato starch" Int. J. Adv. Engg. Res. Studies/IV/II/Jan.-March,2015/294-295.

47. Durga Verma, R.P. Patel, **Mohan L Verma**,

"Preparation of Eu-activated Sr2SiO4 phosphor by a combustion method and its optical properties",Int. J. Adv. Engg. Res. Studies/IV/II/Jan.-March,2015/271-272.

2011

48. **Mohan L. Verma**, B. Keshav Rao and Homendra Sahu

"*Modeling of a transport properties of a nano-composite material" in the* proceedings of National Conference on recent trends in physics of solids, Excellent publishing house, eds. K.V.R. Murthy et al. pp. 59-63 2011.

2008

49. **Mohan L. Verma** and B. Keshav Rao

"*Modeling of Space Charge Density inNanocomposite Solid Electrolyte 0.9AgCl:0.1SiO2"* in the proceeding of Internationalconference on interdisciplinary approach in physical sciences: Growing trends and recent advances, Guru Ghansidas University Bilaspur (Chhattisgarh) India 2008.

50. **Mohan L. Verma**, Mimi Mukherjee and Arti Verma

"Structural characterization ofnano- crystalline CdS by digital image processing", in the proceeding of Internationalconference of Interdisciplinary approach in physical sciences : growing trends and recent advances, Guru Ghansidas University Bilaspur (Chhattisgarh) India 2008.

2007

51. **Mohan L. Verma,** K. Deshmukh and Anil Choubey

"*Modeling and Determination ofdrift mobility of* Ag^{+} *in 0.75 AgI:0.25AgCl*", in the proceeding of National Conference onPhysics of Nano Structured Functional Materials 72-76 2007.

52. **Mohan L. Verma**, B. K. Rao and Mimi Mukherjee

"*Modeling and evaluation of Ag+diffusion in nanocomposite electrolyte 0.9AgI:0,1SiO2"*, in the proceedings of NationalConference on Physics of Nano

Structured Functional Materials 52-56 2007.

53. Mimi Mukherjee, **Mohan L. Verma**, S. Bhushan and Purna Bose
"*Electro-opticalstudies of chemically deposited Lanthanum/Neodymium doped (Cd-Pb)S films*",proceedings of National Conference on Physics of Nano Structured Functional Materials 78-82 2007.

2006

54. Mimi Mukherjee, **Mohan L. Verma**, Swagota Sarkar and S. Bhushan
"Photoconductivity and nanoparticle studies of some chemically deposited CdS & (Cd-Pb)S films" in Advances in Electronic Materials & Devices" [AEMD - 2006] held at Guru Ghasidas University, P. K. Bajpai et al. (eds) New Delhi, India 2006.

55. **Mohan L. Verma**, Mimi Mukherjee, B.K. RaO and O.P. Verma
"*A preliminarymodeling of ionic drift mobility of a nanocomposite 0.9 AgI:SiO2", in* Advances inElectronic Materials & Devices [AEMD-006] held at Guru Ghasidas University, P.K. Bajpai et al (eds) New Delhi, India 2006.

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Conference/Workshop Attended

1. A conference on National Science Day Feb 28, 1997 organized by MPCOST Bhopal at Pt. Ravishankar Shukla University Raipur.
2. National conference or Luminescence and its applications, Oct. 13-15, 1997, at School of studies in physics, Pt. Ravishankar Shukla University Raipur (C.G.).

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8. 5^{th} National conference on Solid State Ionics Feb. 15-17, 2002. Dept of physics Nagpur University Nagpur.
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