

CV of Prof. Kedar Singh

1. Name: Prof. Kedar Singh
2. Current Position and Address: Professor of Physics and Dean, School of Physical Sciences, Jawaharlal Nehru University, New Delhi-110067,
Phone No. 01126738934/01126704784 (O),
Email: kedar@mail.jnu.ac.in , kedarbhp@rediffmail.com
3. Educational Qualifications: M.Sc.(Physics), Ph.D. (Experimental Condensed Physics)
4. Academic/Research experience/Employment:

S. No.	Post held	Organization	From	To
1	Professor of Physics, School of Physical Sciences,	Jawaharlal Nehru University, New Delhi	01.12.2017	Till
2	Associate Professor of Physics, School of Physical Sciences,	Jawaharlal Nehru University, New Delhi	01.12.2014	30.11.2017
3	Assistant Professor, Department of Physics, Institute of Science	Banaras Hindu University, Varanasi	17.05.2004	30.11.2014

5. Administrative experience:

S. No.	Post held	Organization	From	To
1	Dean, School of Physical Sciences, JNU	Jawaharlal Nehru University, New Delhi	08.02.2020	Till date

6. Area of Specialization: Experimental Condensed Matter Physics
7. Dissertations Supervised
 - (a) Ph.D. Thesis supervised : 10
 - (b) Ph.D. Thesis under supervision: 05
 - (b) Post Graduation (M.Sc.) Projects: 25
 - (c) Mentor of Post Doctoral Fellows: 02
8. List of research publications:
Total published research papers in reputed Journals: 134 (Please see enclosure-1)
9. Number of Books Authored/ Edited : 01 Book Chapter “Core/Shell Quantum Dots: Synthesis, Properties and Devices”, 2020, 28, 1–28, Springer Nature

10. Honors/ Award/ Recognitions received :

- (a) Raman fellow for Post Doctoral Studies in US under Indo-US 21st Century Knowledge Initiative Program (2013-14) availed at High Magnetic Field Laboratory, Florida, USA.
- (b) Better Opportunities for Young Scientists in Chosen Areas of Science and Technology (BOYSCAST) fellow (2008-09) availed at Florida State University, USA.
- (c) CSIR-Senior Research Fellow (Ext.) (2003-04) availed at University of Rajasthan, Jaipur.

11. Members :

- (a) JNU Court member (2020 to till)
- (b) JNU Executive Council member (2021 to till)
- (c) Member of Academic Council, JNU (2016-18), (2020- till)
- (d) Core Committee member of IQAC, JNU (2020 to till)
- (e) Life member of Microscope Society of India
- (d) Life member of Chaloginde Forum

12. Number of Research Projects Handled as Principal Investigator: Seven

S. No.	Title	Grant Period	Cost (Rs. in L)	Funding Agency
i	Investigation of Optical and Magnetic Properties of Some Transition Metal Doped Diluted Magnetic Semiconductors for Spintronic Applications	May 15, 2017 to May 14, 2021 (completed)	46.52	SERB , New Delhi
ii	Synthesis and characterization of Magnetic Semiconductor Quantum Dots for Device Applications	July 2015 to 31 March 2019 (completed)	11.00	UPE-II, JNU
iii	Development and Characterization of Ge-Sb-Te Phase Change Materials for Memory Applications	April 1, 2015 to March 31, 2018 (completed)	23.00	SERB , New Delhi
iv	Preparation and investigation of Carrier-Type Reversal Metal modified Chalcogenide Glasses	April 1, 2013 to March 31, 2015 (Completed)	10.51	UGC, New Delhi
v	Synthesis and Characterization of Carbon Nanotube Doped Chalcogenide Glassy Composites	July 1, 2011 to June 30, 2014 (Completed)	15.50	CSIR, New Delhi
vi	Synthesis and characterization of multi-component chalcogenide glasses	April , 2008 to March 31, 2011	11.82	UGC, New Delhi
vii	Study of structural relaxation in chalcogenide glasses	July 1, 2006 to Jun30, 2009	8.00	CSIR, New Delhi

Curricular activities

- Convener of Vigyan Manthan Series, JNU (2018-2021)
- Chairman, Webinar on National Education Policy 2020 : Opportunities in Research and Innovation (31 Mar 2021), SPS, JNU, Delhi
- Coordinator, 18th Refresher Course in Physical and Nanosciences (16-28, Nov 2020), HRDC, JNU, New Delhi
- Chairman, Webinar on Nanoscience and Nanotechnology in the Present Scenario (9th & 10th June, 2020), SPS, JNU, New Delhi
- Convener, Webinar on Material Science, Technology & Society (8-9, May 2020), SPS, JNU, New Delhi
- Coordinator, 17th Refresher Course in Physical and Nanosciences (18-30, Nov 2019), HRDC, JNU, New Delhi

- Coordinator of Refresher Course in Physics held on Oct 5-30, 2015 at HRDC, JNU, New Delhi
- Member of University Admission Coordination Board (BHU), 2008-2011
- Vice –President, Indian Physics Association, Varanasi Chapter (2009-10)
- Organizing Secretary of “International Conference on Multifunctional Materials” (ICMM -2010), Dec 7-9, 2010 at Banaras Hindu University, Varanasi
- Organizing Secretary, “Summer School on Development and Characterization of Advanced Materials” February 22 - March 14, 2013 at Banaras Hindu University, Varanasi

List of Publication of Prof. Kedar Singh

Enclosure-1

S. No.	Details of the Paper
1.	Simultaneous measurements of thermal conductivity and diffusivity of $\text{Se}_{85-x}\text{Te}_{15}\text{Sb}_x$ ($x = 2, 4, 6, 8$ and 10) chalcogenide glasses at room temperature Kedar Singh, N. B. Mahrjan and N. S. Saxena* phys. stat. sol. (a) 189, 1 197-202, (2002).
2.	Simultaneous measurements of thermal conductivity and thermal diffusivity of $\text{Se}_{80}\text{Te}_{20-x}\text{In}_x$ ($x = 2, 4, 6$ and 10) chalcogenide glasses at room temperature N. S. Saxena*, Mousa M. A. Imran and Kedar Singh Bulletin of Material Science 25, 241, (2002).
3.	Thermal properties of neutron irradiated $\text{Se}_{80}\text{Te}_{10}\text{In}_{10}$ glass Kedar Singh and N. S. Saxena* Mater. Sci. Engg. A. 346, 287, (2003).
4.	Temperature dependence study of thermal conductivity and thermal diffusivity of treated Oil-Palm-Fiber Reinforced phenolformaldehyde composites Kedar Singh, N. S. Saxena*, M. S. Sreekal and S. Thomas Journal of Applied Polymer Science 98, 13, 3458, (2003).
5.	Calorimetric Studies in $\text{Se}_{75}\text{Te}_{25-x}\text{Sn}_x$ Chalcogenide glasses N. B. Maharjan, Kedar Singh and N. S. Saxena* phys. stat. sol. 395, 1, 305-310, (2003).
6.	Structural relaxation of hybrid composite of phenol formaldehyde Kedar Singh, N. S. Saxena*, S. Thomas and M. S. Sreekala Indian J. Eng. & Material Science 10, 65, (2003).
7.	Kinetics of Ge-As-Se in Glass Transition Region Kedar Singh and N. S. Saxena* Bulletin of Material Science 26, 543, (2003).
8.	Temperature dependence of thermo-physical properties of untreated oil- palm- fiber reinforced phenol-formaldehyde composites Kedar Singh, N. S. Saxena* and S. Thomas J. Scientific & Industrial research 62, 903, (2003).
9.	Pressure dependence of thermal conductivity and thermal diffusivity of Se-Te -In chalcogenide glasses" Kedar Singh and N. S. Saxena* Indian J. Pure & Appl. Physics 41, 466, (2003).
10.	Thermal properties of pine apple leaf fiber reinforced composites for different filler concentrations using transient plane source technique Ravindra Mangal, N. S. Saxena*, M. S. Sreekala, S. Thomas and Kedar Singh Mater. Sci. Engg. A 339, 281-285, (2003).
11.	Temperature dependence of thermo-physical properties of $\text{Se}_{80}\text{Te}_{10}\text{In}_{10}$ chalcogenide Glass. Kedar Singh and N. S. Saxena* Mater. Sci. Engg. A 329 (1-2), 38, (2005).
12.	Thermophysical properties on Zn -Se pellets N. S. Saxena*, R. Sharma, Kedar Singh and T. P. Sharma J. Mat. Sci. Lett. 40, 523, (2005).
13.	Simultaneous measurements of thermal conductivity and diffusivity of $\text{Se}_{100-x}\text{In}_x$ ($x = 0, 5, 10, 15$ and 20) chalcogenide glasses at room temperature Kedar Singh, N. S. Saxena* and D. Patidar Journal of Physics and Chemistry of Solids, 66, 946, (2005).
14.	Composition dependence of the electrical conductivity of $\text{Se}_{85-x}\text{Te}_{15}\text{Sb}_x$ ($x = 2, 4, 6, 8$ and 10) chalcogenide glasses at room temperature

	V. K. Saraswat, Kedar Singh, N. S. Saxena*, V. Kishore, T. P. Sharma and P. K. Saraswat, <i>Current Appl. Physics</i> , 6, 64, (2006).
15.	Energy band gap of $\text{Se}_{100-x}\text{In}_x$ chalcogenide glasses Kedar Singh*, N. S. Saxena, O. N. Srivastav, D. Patidar and T. P. Sharma <i>Chalcogenide Letters</i> , 3, 3, 33-36, (2006).
16.	Electrical conductivity of Se-In Chalcogenide Glasses V.K. Saraswat*, V.Kishore, Kedar Singh, N.S.saxena and T.P.Sharma <i>Chalcogenide Letters</i> 3, 8, 61-65, (2006).
17.	Electrical measurements of $\text{Se}_{85-x}\text{Te}_{15}\text{Sb}_x$ glasses Vibhav K Saraswat, K. Singh, N.S.Saxena* <i>Indian Journal of Pure and Applied Physics</i> 44, 782, (2006).
18.	Thermal Transport in $\text{Se}_{81}\text{Te}_{15}\text{Sb}_4$ Chalcogenide Glass A.K. Singh, Pushpendra Kumar, Kedar Singh* and N.S.Saxena <i>Chalcogenide Letters</i> , 3, (2006), 139–144.
19.	Thermo-physical properties of Se-Te-Sb vitreous chalcogenide semiconductors Pushpendra Kumar, Kedar Singh* <i>Chalcogenide Letters</i> 4, (2007), 127-132.
20.	Correlative study of optical, electrical and thermal transport properties of $\text{Se}_{100-x}\text{In}_x$ chalcogenide glasses, Abhay Kumar Singh, Kedar Singh* <i>Journal of Optoelectronics and Advanced Materials</i> 9, 3756 – 3759, (2007).
21.	Temperature dependence of effective thermal conductivity and effective thermal diffusivity of $\text{Se}_{90}\text{In}_{10}$ bulk chalcogenide glass Kedar Singh*, Abhay Kumar Singh and N.S. Saxena <i>Current Applied Physics</i> , 8, 159-162, (2008).
22.	Pre-exponential Factor for the Non-Isothermal Crystallization in Glassy $\text{Se}_{85-x}\text{Te}_{15}\text{Sb}_x$ ($0 \leq x \leq 10$) Alloys N. Mehta & K. Singh* <i>Philosophical Magazine</i> , 88 (2008) 1411-1421.
23.	Effect of Slow Neutron Radiation on the Pre-exponential Factor of Thermally Activated Crystallization in $\text{Se}_{96}\text{In}_4$ Chalcogenide Glass N. Mehta, K. Singh* & N. S. Saxena <i>Journal of Physics D: Applied Physics</i> , 41 (2008) 135406.
24.	Comparative Analysis of Some Thermo-physical Properties of $\text{Se}_{90}\text{Zn}_{10}$ and $\text{Te}_{90}\text{Zn}_{10}$ alloys N. Mehta, K. Singh* & N. S. Saxena <i>Thermochimica Acta</i> , 475 (2008) 80-82.
25.	Effect of annealing on structures and effective thermal conductivity of $\text{Se}_{90}\text{In}_{10}$ chalcogenide glass, Abhay Kumar Singh, Kedar Singh*, N.S.Saxena <i>Journal of Ovnic Research</i> 4, 107 – 111, (2008).
26.	Comparative Analysis of Thermal Crystallization in $\text{Cu}_{50}\text{Ti}_{50}$ and $\text{Cu}_{50}\text{Zr}_{50}$ Metallic Glasses N. Mehta, K. Singh* & N. S. Saxena <i>Physica B</i> , 403 (2008) 3928-3931.
27.	Effect of Sb and Sn additives on the activation energies of glass transition and crystallization in binary $\text{Se}_{85}\text{Te}_{15}$ alloy N. Mehta, K. Singh* & S. Kumar <i>Phase Transitions</i> , 82 (2009) 43-51.
28.	Effect of Lithium ion-irradiation on crystallization kinetics of glassy $\text{Se}_{98}\text{In}_2$ alloy H. Kumar, N. Mehta*, K. Singh & N. S. Saxena <i>Philosophical Magazine Letters</i> , 89 (2009) 126-135.
29.	Electrical Properties of $\text{Se}_{93-x}\text{Zn}_2\text{Te}_5\text{In}_x$ Chalcogenide Glasses A. K. Singh, N. Mehta & K. Singh* <i>Chalcogenide Letters</i> , 6 (2009) 9-14.
30.	Correlation between Meyer-Neldel Rule and phase separation in $\text{Se}_{98-x}\text{Zn}_2\text{In}_x$ chalcogenide glasses A. Singh, N. Mehta & K. Singh* <i>Current Applied Physics</i> , 9 (2009) 807-811.

31.	Observation of inverse Meyer-Neldel rule in thermally activated crystallization of hybrid composite of phenol formaldehyde N. Mehta, K. Singh* & S. Kumar Philosophical Magazine, 89 (2009) 797 - 806.
32.	Electrical properties of Se-Zn-In chalcogenide glasses A. Singh, N. Mehta & K. Singh* The European Physical Journal Applied Physics, 46 (2009) 20303.
33.	On the glass transition phenomenon in Se-Te and Se-Ge based ternary chalcogenide glasses N. Mehta, K. Singh*, A. Kumar Physica B, 404 (2009)1835-1838.
34.	Effect of ionic irradiation on the pre-exponential factor of thermally activated crystallization in $\text{Co}_{66}\text{Si}_{16}\text{B}_{12}\text{Fe}_4\text{Mo}_2$ metallic glass N. Mehta, K. Singh* & N. S. Saxena Journal of Physics and Chemistry of Solids, 70 (2009) 811–815.
35.	Co-relation between pre-exponential factor and activation energy of non-isothermal crystallization for virgin and irradiated $\text{Fe}_{78}\text{B}_{13}\text{Si}_9$ metallic glass N. Mehta, K. Singh* & N. S. Saxena Physica B, 404 (2009) 2184–2188.
36.	Optical and FTIR properties of $\text{Se}_{93-x}\text{Zn}_2\text{Te}_5\text{In}_x$ Chalcogenide Glasses A. K. Singh, N. Mehta & K. Singh* Physica B, 404 (2009) 3470–3474.
37.	Effect of indium additive on glass forming ability and thermal stability of Se-Zn-Te chalcogenide glasses A. K. Singh, N. Mehta & K. Singh* Philosophical Magazine Letters, 90 (2010) 201-208.
38.	Crystallization kinetics and thermal stability of $\text{Se}_{98-x}\text{Zn}_2\text{In}_x$ chalcogenide glasses, Abhay Kumar Singh and Kedar Singh* Philosophical Magazine, 89, 1457–1472, (2009).
39.	Composition dependence UV-Visible and MID-FTIR properties of $\text{Se}_{98-x}\text{Zn}_2\text{In}_x$ (X= 0, 2, 4, 6 and 10) chalcogenide glasses Abhay Kumar Singh and Kedar Singh* Journal of Modern Optics 56, 471-476, (2009).
40.	Element directed aqueous solution synthesis of copper telluride nanoparticles characterizations and optical properties Pushpendra Kumar and Kedar Singh* Crystal growth & Design, 9, (7), 30089-30094, (2009).
41.	Effect of annealing below crystallization temperature on structural and mechanical properties of $\text{Co}_{66}\text{Si}_{16}\text{B}_{12}\text{Fe}_4\text{Mo}_2$ metallic glass Pushpendra Kumar, Kedar Singh*, T.P. Yadav, O.N. Srivastava. Journal of Optoelectronics and advanced materials 11, (8), 1082-1087, (2009).
42.	Calorimetric studies of glass transition phenomenon in glassy $\text{Se}_{80-x}\text{Te}_{20}\text{Sn}_x$ alloys H. Kumar, N. Mehta & K. Singh* Physica Scripta, 80 (2009) 065602.
43.	Composition dependence of thermal stability, micro-hardness and compactness in glassy $\text{Se}_{90}\text{In}_{10-x}\text{Ge}_x$ alloys H. Kumar, N. Mehta*, K. Singh & A. Kumar Physica B, 404 (2009) 3761-3765.
44.	Effect of Lithium ion-irradiation on glass transition kinetics of glassy Se_8In_2 alloy H. Kumar, N. Mehta*, K. Singh & N. S. Saxena Phase Transitions, 83 (2010) 1-9.
45.	Effect of In and Zn additives on some thermal properties of a-Se N. Mehta, K. Singh* & N. S. Saxena Solid State Science, 12 (2010) 963-965.
46.	Effect of high energetic ionic radiation in thermally activated crystallization of $\text{Co}_{66}\text{Si}_{15}\text{B}_{16}\text{Fe}_6\text{Ni}_1$ metallic glass: Observation of MN rule

	N. Mehta, K. Singh* & N. S. Saxena Radiation Effects and Defects in Solids, 166 (4) (2011) 251-257
47.	Study of dielectric properties of Se-Zn-In chalcogenide glasses A.K. Singh, N. Mehta, K. Singh* Optoelectronics and advanced materials-Rapid Communication 12, (2010), 1700-1705.
48.	Synthesis of CdSe nanoparticles at 50 °C by wet chemical method Pushpendra Kumar and Kedar Singh* Current Nanoscience, 6, (1) 89-93, (2010).
49.	Ferromagnetism in Cu doped ZnSe Semiconducting Quantum Dots Pushpendra Kumar and Kedar Singh* Journal of Nanoparticle Research, 13 (2011) 1613- 1620.
50.	Calorimetric studies of crystallization kinetics of $Se_{75}Te_{15-x}Cd_{10}In_x$ multicomponent chalcogenide glasses using non-isothermal DSC S Kumar, K Singh*, N Mehta Philosophical Magazine Letter, 90, (2010), 547-557.
51.	Template-free Solvothermally Synthesized ZnSe/ZnSe: Eu^{3+} Nanoparticles, Structural, Optical and Raman Studies Pushpendra Kumar and Kedar Singh* Current Nanoscience 6, (5) 402-407, (2010).
52.	Calorimetric studies of $Se_{75}Te_{15}Cd_{10}$ and $Se_{75}Te_{10}Cd_{10}In_5$ multicomponent chalcogenide glasses Sunil Kumar, Kedar Singh* Physica B: Condensed Matter 405, (2010), 3135-3140.
53.	Wurtzite ZnSe quantum dots: Synthesis, Characterization and PL properties Pushpendra Kumar and Kedar Singh* Journal of Optoelectronics and advanced materials 1, (2009) 59-69.
54.	Structural, Optical and Raman studies of Template-free Solvothermally Synthesized ZnSe/ZnSe: Ce^{3+} Nanoparticles Pushpendra Kumar and Kedar Singh* Journal of Luminescence, 130, (2010), 2026-2031.
55.	Template Free -Solvothermally Synthesized Copper Selenide ($CuSe$, $Cu_{2-x}Se$, $\beta-Cu_2Se$ and Cu_2Se) Hexagonal Nanoplates from Different Precursors at Low Temperature Pushpendra Kumar, Kedar Singh* and O. N. Srivastava Journal of Crystal Growth, 312, (2010), 2804-2813.
56.	Observation of Meyer Neldel rule and crystallization rate constant stability for $Se_{93-x}Zn_2Te_5In_x$ chalcogenide glasses A K Singh and Kedar Singh* The European Physical Journal of Applied Physics, 51(3) (2010)30301
57.	Calorimetric studies of glass transition in glassy $Se_{75}Te_{15-x}Cd_{10}In_x$ alloys using non- isothermal DSC technique Sunil Kumar, Kedar Singh* and Neeraj Mehta Physica Scripta, 82, (2010), 04560-04565.
58.	Synthesis, characterizations, and optical properties of copper selenide quantum dots Pushpendra Kumar , Kedar Singh* Structural Chemistry 22(2011) 103-110
59.	Calorimetric studies of non-isothermal crystallization in amorphous Cu_xTi_{100-x} alloys N Mehta K Singh and N S Saxena Bull. Mater. Sci., 34, No. 7(2011) 1459–1463
60.	Localized structural growth and kinetics of $Se_{98-x}Zn_2In_x$ ($0 \leq x \leq 10$) amorphous alloys A. K. Singh and Kedar Singh* Physica Scripta, 83, (2011), 025605
61.	The effect of Indium additives on crystallization kinetics and thermal stability of Se-Te-Sn chalcogenide glasses Sunil Kumar and Kedar Singh* Physica B 406, (2011)1519

62.	Calorimetric studies of thermal crystallization in glassy $\text{Se}_{80-x}\text{Te}_{20}\text{Sn}_x$ ($0 \leq x \leq 10$) alloys H Kumar, N Kumar and K Singh Phys. Scr. 83 (2011)065602
63.	Simultaneous measurements of thermal conductivity and thermal diffusivity of $\text{Se}_{90-x}\text{Te}_5\text{Sn}_5\text{In}_x$ ($x = 0, 3, 6$ and 9) multi-component chalcogenide glasses Sunil Kumar and Kedar Singh J Mater Sci. 47 (2012) 3949
64.	Room temperature ferromagnetism in magic- sized Cr- doped CdS dilute magnetic semiconducting quantum dots P .Srivastava, P. Kumar and K. Singh J. of Nano particle research ,13 (2011)5077- 5085
65.	Effect of some metallic additives (Ag, Cd and Sn) on thermal transport properties of a-Se A. Sharma, K. Singh and N Mehta J of therm. Anal. Calorim. (2012) 109:915–920
66.	Glass Transition, Thermal stability and glass-forming tendency of $\text{Se}_{90-x}\text{Te}_5\text{Sn}_5\text{In}_x$ multicomponent chalcogenide glasses Sunil Kumar and Kedar Singh* Thermochimica Acta, 528 (2012) 32-37
67.	Quantum Phase Transition from Superparamagnetic to Quantum Superparamagnetic State in Ultrasmall $\text{Cd}_{1-x}\text{Cr(II)}_x\text{Se}$ Quantum Dots? Weiwei Zheng, Pushpendra Kumar, Aaron Washington, Zhenxing Wang, Naresh S. Dalal, Geoffrey F. Strouse, and Kedar Singh* J . of the American Chemical Society 134 (2012) 2172–2179
68.	Investigations on structural, optical and second harmonic generation in solvothermally synthesized pure and Cr-doped ZnO nanoparticles P. Kumar, J. Singh, Kedar Singh, R. S. Tiwari, O. N. Srivastava and A. C. Pandey CrystEngComm 14 (2012)1653
69.	Low temperature synthesized thermoelectric Sb_2Te_3 irregular nanoflakes Punita Srivastava and Kedar Singh* Materials Letters 75(2012)42-44
70.	Evidence of a ZnCr_2Se_4 Spinel Inclusion at the Core of a Cr-Doped ZnSe Quantum Dot Weiwei Zheng, Kedar Singh, Zhenxing Wang, Joshua T. Wright, Johan van Tol, Naresh S. Dalal, Robert W. Meulenberg, and Geoffrey F. Strouse J . of American Chemical Society 134 (2012) 5577-5585
71.	Effect of Indium additive on thermal Transport properties of Se-Te-Cd multi- component chalcogenide glasses Sunil Kumar and Kedar Singh* J. of Thermal Analysis and Calorimetry(2012) 110:519–522
72.	Effect of Pb additive on crystallization kinetics of $\text{Se}_{80}\text{In}_{20}$ glassy matrix Indra Sen Ram, Kedar Singh Physica B: Condensed Matter 407 (2012) 3472
73.	Structural and Thermal properties of chemically synthesized Bi_2Te_3 nanoparticles Punita Srivastava and Kedar Singh J. of Thermal Analysis and Calorimetry (2012) 110:523–527
74.	Synthesis of CdSe nanoparticles by solvothermal route: Structural, Optical and Spectroscopic properties Punita Srivastava and Kedar Singh* Advanced Materials Letters (Accepted)-2012
75.	Morphological evolution in single-crystalline Bi_2Te_3 nanoparticles, nanosheets and nanotubes with different synthesis temperatures Punita Srivastava and Kedar Singh Bull. Mater. Sci 26,5 2013, 765-770
76.	Effect of Pb addition on dielectric relaxation in $\text{Se}_{80}\text{In}_{20}$ glassy system

	Indra Sen Ram, R K Singh, P Singh, Kedar Singh* Journal of Alloys and Compounds, 552 (2013) 480–485,ISSN : 0925-8388 (International J.)
77.	Two Dimensional Bi ₂ Te ₃ nano-sheets with enhanced electrical and dielectric properties : scope of novel storage renewable energy in nanoelectronics Punita Srivastava and Kedar Singh Science of Advanced materials Volume 5, Number 7, July 2013, pp. 836-843(8)
78.	Low temperature reduction route to synthesis bismuth telluride (Bi ₂ Te ₃) nanoparticles: structural and optical studies Punita Srivastava and Kedar Singh* Journal of Experimental Nanoscience 9 (10) (2014), 1064-1074
79.	Thermal and mechanical properties of CNT-Se _{90-x} Te ₁₀ Ag _x (0, 5 and 10) glassy composites. Indra Sen Ram, Kedar Singh* Journal of Alloys and Compounds, 576 (2013) 358-362, ISSN: 0925-8388 (International J.)
80	Synthesis and dielectric relaxation behavior of metallic Bi ₂ Te ₃ Nanotube Punita Srivastava and Kedar Singh Materials Letters, 108 (2013) 25-28,
81.	Layered Sb ₂ Te ₃ nanoflakes as chalcogenide dielectrics Punita Srivastava and Kedar Singh J of Electronic Materials 42(2013) 2733-2738
82.	Study of Crystallization Process in Se ₈₀ In ₁₀ Pb ₁₀ by Iso-Conversional Methods Indra Sen Ram, Kedar Singh Journal of Crystallization Process and Technology, 2013, 3, 49-55
83	Effect of Cs-on morphological, optical and electrical properties of Bi ₂ Te ₃ nanostructures Punita Srivastava and Kedar Singh Materials Letters, 136 (2014) 337-340
84	Enhancement of electrical, thermal and mechanical properties of carbon Nanotube additive Se ₈₅ Te ₁₀ Ag ₅ glassy alloys A.N Upadhyay, R.S. Tiwari and Kedar Singh Materials Letters, 136 (2014) 445-448
85	Study of Glass-Transition Kinetics of Pb-Modified Se ₈₀ In ₂₀ System by using Non-isothermal Differential Scanning Calorimetry Indra Sen Ram and Kedar Singh Int J Thermo-physics 35 (2014) 123-135
86	Electro-optical, UV absorbance, and UV photoluminescence analysis of Se ₉₅ In ₅ chalcogenide glass microparticle doped ferroelectric liquid crystal Dharmendra Pratap Singh, Swadesh Kumar Gupta, Shivani Pandey, Kedar Singh, and Rajiv Manohar JOURNAL OF APPLIED PHYSICS 115, 214103 (2014) ISSN: 0021-8979
87	Effect of carbon nano tube additive on the structural and thermal properties of Se ₈₅ Te ₁₀ Ag ₅ glassy alloys A.N Upadhyay, R.S. Tiwari and Kedar Singh J. Thermal Anal. Calorimetri 15 (2015) 4825-6
88	Electrical conduction mechanism in Se _{90-x} Te ₅ Sn ₅ In _x (X= 0, 3, 6 and 9) multi-component glassy alloys I S Ram, Sunil Kumar, R K Singh, P S Singh and Kedar Singh AIP Advances 5, (2015) 087164-7 ISSN: 2158-3226
89	Electrical and dielectric properties of carbon Nanotube containing Se ₈₅ Te ₁₀ Ag ₅ glassy composites A.N Upadhyay, R.S. Tiwari and Kedar Singh Adv. Mater. Lett 6 (2015) 1089
90	Microstructural and thermal investigations of carbon nanotube additive Se ₈₀ Te ₁₆ Cu ₄ glassy composites AN Upadhyay, RS Tiwari, Kedar Singh* Materials Letters 164 (2016), 449-451

91	Glass transition and crystallization kinetics of $\text{Se}_{98-x}\text{Cd}_2\text{In}_x$ ($x= 0, 2, 6$ and 10) glassy alloys Sunil Kumar and Kedar Singh * <i>J. of Thermal Analysis and Calorimetry</i> , 124 (2016) 675-682
92	Optical and electrical properties of carbon nanotube- containing $\text{Se}_{85}\text{Te}_{10}\text{Ag}_5$ glassy composites AN Upadhyay, RS Tiwari, Kedar Singh* <i>Philosophical Magazine</i> 96 (2016) 576-583
93	Study of optical properties of vacuum evaporated carbon nanotube containing $\text{Se}_{80}\text{Te}_{16}\text{Cu}_4$ thin films A. N. Upadhyay, R. S. Tiwari, and Kedar Singh* <i>Materials Research Express</i> , IOP 3 (2016), 086405
94	Kinetics of phase transformation of carbon nanotube containing $\text{Se}_{85}\text{Te}_{10}\text{Ag}_5$ glassy composites A. N. Upadhyay, and Kedar Singh <i>Materials Research Express</i> , IOP 3 (2016) 125201
95	Shape and Size-Dependent Magnetic Properties of Fe_3O_4 Nanoparticles Synthesized Using Piperidine Ashwani Kumar Singh, O. N. Srivastava and Kedar Singh <i>Nanoscale Research Letters</i> 12 (2017) 298
96	Annealing effect on thermal conductivity and microhardness of carbon nanotube containing $\text{Se}_{80}\text{Te}_{16}\text{Cu}_4$ glassy composites A N Upadhyay , R S Tiwari and Kedar Singh <i>Mater. Res. Express</i> 5 (2018) 025203
97	An effective approach to study the biocompatibility of Fe_3O_4 nanoparticles, graphene and their nanohybrid composite Ashwani Kumar Singh, Pallavi Singh, Rajiv Kumar Verma, Suresh Yadav, Kedar Singh Amit Srivastava <i>Applied Nanoscience</i> , 8 , (2018) 831–838
98	Experimental Validation of Ferromagnetic–Antiferromagnetic Competition in $\text{Fe}_x\text{Zn}_{1-x}\text{Se}$ Quantum Dots by Computational Modeling <i>Jasleen K. Bindra, Lavrenty Gennady Gutsev, Johan Van Tol, Kedar Singh, Naresh S. Dalal and Geoffrey F. Strouse</i> <i>Chemistry. Materials.</i> , 30 (6)(2018), 2093
99.	Lightweight Reduced Graphene Oxide- Fe_3O_4 Nanoparticle Composite for the Quest of Excellent Electromagnetic Interference Shielding Material. AK Singh , Ajit Kumar, KK Haldar , Vinay Gupta ' Kedar Singh <i>Nanotechnology (IOP)</i> 29(2018) 245204
100	Synthesis of MoS_2 -reduced graphene oxide/ Fe_3O_4 nanocomposite for enhanced electromagnetic interference shielding effectiveness Jagdees Prasad, Ashwani Kumar Singh, Jyoti Shah, R K Kotnala and Kedar Singh <i>Materials Research Express</i> , 5(5) (2018) 120
101	Glass-forming ability and thermal stability of $\text{Se}_{100x}(\text{Ge}_2\text{Sb}_2\text{Te}_5)_x$ glassy alloys. Ajit Kumar, Indra Sen Ram, Sunil Kumar, Jagjiwan Ram, A. N. Upadhyay, Kedar Singh*, <i>J of Thermal Analysis & Calorimetry</i> 134(2018) 923-931
102	Optical properties of Highly Luminescent, Monodisperse, and Ultrastable $\text{CdSe}/\text{V}_2\text{O}_5$ Core/Shell Quantum Dots for In-Vitro imaging Amar Nath Yadav, Ashwani K. Singh, Prem Prakash Sharma, Pratima R. Solanki, and Kedar Singh <i>J of Material Science: Materials in Electronics</i> 29 , pages18650–18659(2018)
103	Carrier type reversal in Pb modified $\text{Se}_{80}\text{In}_{20}$ semiconducting glassy alloys Indra Sen Ram, Jagjiwan Ram & Kedar Singh* <i>Indian Journal of Pure & Applied Physics</i> , 56(2018) 440-443
104	Evidence of Ferrimagnetism in Fe-Doped CdSe Quantum Dots <i>Jasleen K. Bindra, George Kurian, Jonathan H. Christian, Johan Van Tol, Kedar Singh, Naresh S. Dalal, Mogus D. Mochena, Sebastian A. Stoian, and Geoffrey F. Strouse</i> <i>Chemistry of Materials</i> , 30 (2018)8446–8456

105	Surface modification of CdS quantum dots: an effective approach for improving biocompatibility Amar Nath Yadav, Rahul Kumar, Rishi K Jaiswal, Ashwani Kumar Singh P Kumar and Kedar Singh* Materials Research Express, 6(5) (2019) 120
106	Enhanced Electrocaloric Effect and Energy Storage Density in Lead-Free $0.8\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ - 0.2SrTiO_3 Ceramics Ajit Kumar, Raju Kumar, Kedar Singh, and Satyendra Singh Phys. Status Solidi A 2019, 216, 1800786
107	Electromagnetic interference shielding effectiveness in 3D flower-like MoS ₂ -rGO/gadolinium-doped nanocomposites. Jagdees Prasad , AK Singh, KK Haldar , Vinay Gupta , Kedar Singh* Journal of Alloys and Compounds 788 (2019) 861-872
108	Ultrafast Charge Carrier dynamics in CdSe/V ₂ O ₅ core/shell Quantum Dots Amar Nath Yadav, Ashwani Kumar Singh, Shubhda Srivastava, Mahesh Kumar, Bipin Kumar Gupta, Kedar Singh* Physical Chemistry Chemical Physics , 21(2019) 6265
109	Antiferromagnetic exchange in ultrasmall, uniform, and monodisperse chromium oxide nanocrystals Amar Nath Yadav, Kedar Singh Materials Letters 252,(2019) 84-87
110	CoFe ₂ O ₄ nanoparticles decorated MoS ₂ -reduced graphene oxide nanocomposite for improved microwave absorption and shielding performance Jagdees Prasad, Ashwani Kumar Singh, Krishna Kamal Haldar, Monika Tomar, Vinay Gupta and Kedar Singh * RSC Advances 9 (2019) 21881
111	Vanadium doped few-layer ultrathin MoS ₂ nanosheets on reduced graphene oxide for highperformance hydrogen evolution reaction Ashwani Kumar Singh, Jagdees Prasad, Uday Pratap Azad, Ashish Kumar Singh, Rajiv Prakash, Kedar Singh,* Amit Srivastava, Andrei A. Alaferdova and Stanislav A. Moshkalev RSC Advances 9 (2019) 22232
112	CdSe/V ₂ O ₅ Core/Shell Quantum Dots Decorated Reduced Graphene Oxide Nanocomposite for High-Performance Electromagnetic Interference Shielding Application Ashwani Kumar Singh, Krishna Kamal Haldar, Monika Tomar, Vinay Gupta and Kedar Singh * Nanotechnology 30(2019)505704
113	Strong electromagnetic wave absorption and microwave shielding in the Ni-Cu@MoS ₂ /rGO composite. Jagdees Prasad, Ashwani K. Singh, Monika Tomar, Vinay Gupta and Kedar Singh Journal of Materials Science: Materials in Electronics, 30(2019) 18666–18677
114	Compositional dependence of thermal transport and optical properties of Se ₈₅ Ge _{15-x} Pb _x (0 ≤ x ≤ 10) chalcogenide glassy alloys Pankaj K. Mishra , K. Singh , A.N. Upadhyay, H. Kumar Optical Materials 97, (2019), 109395
115	Investigation of Photophysical Properties of Ternary Zn–Ga–S Quantum Dots: Band Gap versus Sub-Band-Gap Excitations and Emissions Amar Nath Yadav, Kedar Singh ACS Omega 2019 4 (19), 18327-18333
116	Switching-on Superparamagnetism in diluted magnetic Fe (III) doped CdSe Quantum Dots Amar Nath Yadav, Jasleen K. Bindra , Narendra Jakhar , Kedar Singh CrystEngComm 20 (2020) 1738-1745
117	Electromagnetic interference shielding performance of lightweight NiFe ₂ O ₄ /rGO nanocomposite in X- band frequency range Ajit Kumar, Ashwani K. Singh, Monika Tomar , Vinay Gupta , Pramod. Kumar , Kedar Singh Ceramics International, 46, 10A (2020)15473-15481

118	Evaluation of Dopant Energy and Stokes Shift in Cu-doped CdS Quantum Dots via Spectro-electrochemical Probing Amar Nath Yadav , Pramod Kumar, Kedar Singh New Journal of Chemistry 2020, 44 , 13529-13533
119	Preparation, characterization, and antibacterial activity of ultrasmall chromium oxide nanocrystals Amar Nath Yadav, Rishi K. Jaiswal , Pramod Kumar , Kedar Singh AIP Conference Proceedings 2265, 030046 (2020)
120	CdSe-Reduced graphene oxide nanocomposite toxicity alleviation via V2O5 shell formation over CdSe core: in vivo and in vitro studies, Ashwani Kumar Singh, Amar Nath Yadav, Amit Srivastava, Saurabh Srivastava, Rishi K Jaiswal, Amal Chandra Mondal, Kedar Singh, Nanotechnology 31 (2020) 415101.
121	Chromium-doped MoS ₂ grown on rGO nanosheet for enhanced microwave shielding performance, Jagdees Prasad, Ashwani Kumar Singh, Monika Tomar, Vinay Gupta and Kedar Singh, AIP Conference Proceedings 2265 (2020) 030594.
122	Influence of the rate of radiation energy on the charge-carrier kinetics application of all-inorganic CsPbBr ₃ perovskite nanocrystals. Kumar, V., Nagal, V., Kumar, R., Srivastava, S., Gupta, B.K., Kumar, M., Hafiz, A.K. and Singh, K. RSC Advances 2020 , 10, 34651-34657.
123	Graphene-Induced Room Temperature Ferromagnetism in Cobalt Nanoparticles Decorated Graphene Nanohybrid, Amar Nath Yadav, Ashwani Kumar Singh, Pramod Kumar, Kedar Singh, <i>Nanoscale Research Letters</i> 15 (2020) 1-8.
124	Spin Dynamics in Mn:ZnSe Quantum Dots: A Pulsed High-Frequency EPR Study Jasleen K. Bindra, Kedar Singh, Johan van Tol, Naresh S. Dalal, and Geoffrey F. Strouse ACS-J of Physical Chemistry C 2020, 124, 35, 19348–19354
125	Investigation of structural and optical properties of manganese doped zinc selenide quantum dots Amar Nath Yadav ^{1,a} and Kedar Singh ¹ AIP Conference Proceedings 2276, 020018 (2020)
126	Molybdenum Disulfide Wrapped Carbon Nanotube-Reduced Graphene Oxide (CNT/MoS ₂ -rGO) Nanohybrid for excellent and fast removal of Electromagnetic Interference Pollution Jagdees Prasad Ashwani Kumar Singh, Amar Nath Yadav, Ajit Kumar , Monika Tomar , Amit Srivastava , Pramod Kumar , Vinay Gupta , Kedar Singh* ACS Applied Materials & Interfaces 2020, 12, 40828–40837
127	High-efficiency microwave absorption and electromagnetic interference shielding of Cobalt-doped MoS ₂ nanosheet anchored on the surface reduced graphene oxide nanosheet, Jagdees Prasad, Ashwani Kumar Singh, Monika Tomar, Vinay Gupta and Kedar Singh, Journal of Materials Science: Materials in Electronics 31 (2020) 19895–19909.
128	Hydrothermal synthesis of micro-flower like morphology aluminum-doped MoS ₂ /rGONanohybrids for high efficient electromagnetic wave shielding materials. Jagdees Prasad, Ashwani Kumar Singh, Monika Tomar, Vinay Gupta and Kedar Singh Ceramics International, 47 (2021) 15648-15660.
129	Femtosecond photoluminescence up-conversion spectroscopy in Cu doped CdS quantum dots Amar Nath Yadav, Pramod Kumar , Kedar Singh Materials Letters 297, 159(2021) 129925
130	Electromagnetic interference shielding properties of hierarchical core-shell palladium-doped MoS ₂ /CNT nanohybrid materials Jagdees Prasad, Ashwani Kumar Singh, Ajay Pratap Singh, Gahlot, Monika Tomar, Vinay Gupta, Kedar Singh Ceramics International, (2021), doi.org/10.1016/j.ceramint.2021.06.183

131	Vandana Nagal, <u>Virendra Kumar</u> , Rafiq Ahmad, Marya Khan, Zishan H. Khan, Kedar Singh, Hidemitsu Furukawa, Ajit Khosla, Yoon Bong Hahn, and A. K. Hafiz. "Emerging Applications of g-C ₃ N ₄ Films in Perovskite-Based Solar Cells." <i>ECS Journal of Solid-State Science and Technology</i> , 10 (2021)065001
132	Vandana Nagal, <u>Virendra Kumar</u> , Marya Khan, Suliman Alomar, Nirmalya Tripathy, Kedar Singh, Ajit Khosla, Naushad Ahmad, Aurangzeb Khurram Hafiz, and Rafiq Ahmad. "Highly sensitive uric acid biosensor based on vertically arranged ZnO nanorods on ZnO nanoparticles seeded electrode." <i>New Journal of Chemistry</i> (2021).
133	<u>Virendra Kumar</u> , Vandana Nagal, Dr. Shubhda Srivastava, Dr. Mahesh Kumar, Dr. Bipin K. Gupta, Dr. Aurangzeb K. Hafiz, and Prof. Kedar Singh. "Power Dependent Hot Carrier Cooling Dynamics in Trioctylphosphine Capped CsPbBr ₃ Perovskite Quantum Dots Using Ultrafast Spectroscopy." <i>ChemistrySelect</i> (2021) (Published)
134	Nagal, Vandana, <u>Virendra Kumar</u> , Rahul Kumar, Kedar Singh, Ajit Khosla, Rafiq Ahmad, and Aurangzeb Khurram Hafiz. "CsPbBr ₃ Nanoplatelets: Synthesis and Understanding of Ultraviolet Light-Induced Structural Phase Change and Luminescence Degradation." <i>ECS Journal of Solid State Science and Technology</i> , 10, 096002 (2021) (Published)