# Department of Chemistry, Maharshi Dayanand University, Rohtak

# **Prof. Devender Singh**

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- [AU-ID ("Singh, Devender" 57220777784)] [ h- index=45, i10 index=140, I-5 index=170]
- √ https://orcid.org/ 0000-0002-2180-5049
- √ https://scholar.google.com/citations?user=4DBKKZIAAAAJ&hl=en
- √ https://www.researchgate.net/profile/Devender-Singh-11/publications
- Ranked in top 2% of World leading Scientists database released by Stanford University USA and Elsevier (2024, 2023).
- Research Excellence Award (2022) and Best Researcher Award (2023) of Maharshi Dayanand University, Rohtak, Haryana.

#### Presently working in the research fields of energy materials

- Synthetic Chemistry of Organic Moieties and Metal-Complexes
- Advanced Phosphor (Up and Down converters) and OLED Materials (Metal-Complexes)
- Fabrications of EL Devices with Inorganic and Organic Light Emitting Materials
- Solar Cells (Thin Solar Films and DSSC)
- Trace Metal Determination in Biological, Food, Soil samples etc.

#### Academic Societies/Associations Affiliated

- Life Member of Indian Science Congress Association (ISCA-L-12745)
- Life Member of Chemical Research Society of India (CRSI-LM-924/2007)
- ➤ Life Member of Material Research Society of India (MRSI-LM B-942/2007)
- ➤ Life member of Chemical council of Chemist (ICC-LF-1232/2007)
- Life Member of Indian Society of the Analytical Scientist-Delhi Chapter (ISAS-DC-LM-41/2013)
- Life member of Society for Materials Chemistry (SMC-LM-863)
- > Fellow Member of International Congress of Chemistry and Environment (FICCE)
- Member of Korean Institute of Chemical Engineers (**KIChE**)
- ➤ Member of Material Research Society of Singapore (MRS)

### Abroad Visits

- Visited the Nanyang Technological University and National Singapore University, Singapore for a week [2023].
- ➤ Visited Freie Universität Berlin, Germany for Collaborative research programme [2018].
- > Visited the Nanyang Technological University and National Singapore University, Singapore for a week [2016].
- Visited the Centre of Physics, Universidade do Minho, Braga, Portugal on FP7/IRSES European Union -Marie Curie International Research Staff Exchange Scheme for doing research work on the International Research Project based on the "DEVELOPMENT OF A NEW GENERATION OF CIGS-BASED SOLAR CELLS" [NANOCIS- 269279]. [2014]
- ➤ Visited the Centre of Physics, Universidade do Minho, Braga, Portugal on FP7/IRSES European Union -Marie Curie International Research Staff Exchange Scheme for doing research work on the International Research Project based on the "DEVELOPMENT OF A NEW GENERATION OF CIGS-BASED SOLAR CELLS" [NANOCIS- 269279]. [2013]
- Visited the Centre of applied Physics, Universidade do Politechnica, Valencia, Spain on FP7/IRSES for doing research work on the International Research Project based on the "DEVELOPMENT OF A NEW GENERATION OF CIGS-BASED SOLAR CELLS" [NANOCIS- 269279]. [2013]
- Visited the Sensors and Material Research Centre of **Korea Institute of the Energy Research, S. Korea**, for research work under the collaboration of the KIER and M.D. University, Rohtak, INDIA. [2004]

### Research Papers

Published in Journals : 258 (245 published + 13 communicated)
Presented in Conferences : 36 (14 International + 22 National)
Book Authored – 03 and Book Chapters – 07

- Research Guidance -10 Scholars have been awarded Ph.D on the following topics:-
  - 10. Synthesis, Structural and Optical Analysis of Phosphor Materials for Lighting Applications (Pawan Kumar, 2024)
  - 9. Optoelectronic study of Luminescent metal complexes for displays (Anjli, 2023)
  - 8. Synthesis and optoelectronic analysis of rare-earth doped phosphors (Isha Gupta, 2023)
  - Preparation and luminescent characteristics of heterocyclic ligand based rare earth metal complexes for OLEDs applications (Kapeesha Nehra, 2022)
  - 6. Synthesis and optoelectronic characteristics of Rare earth metal complexes for display applications (Anuj, 2022)
  - 5. Structural and Photoluminescent characteristics of Phosphor Materials for Display Applications (Sitender- 2021)
  - 4. Structural studies of Aluminate Phosphor Materials" (Sonika) (Ph. D awarded in Aug, 2018)
  - 3. Synthesis and Characterization of Luminescent Materials (Suman) (Ph. D awarded in Aug, 2017)
  - 2. Synthesis and Optoelectronic Characterization of Heterocyclic Ligand Based Metal Complexes (Shri Bhagwan -2016)
  - 1. Synthesis and Optoelectronic Characterization of Mixed Metal Oxide Phosphors(Vijeta Tanwar) (April, 2016)

#### Scholars presently registered /working - 07

> Sonia, Vandana, Sofia, Swati, Bharti, Rishu and Rinki are working on Optoelectronic Light Emitting Materials.



# Educational qualifications

Degree	Year of passing	University/ Institute
Ph.D 2005 In Collaboration of Maharshi Dayanand University, Rob		In Collaboration of Maharshi Dayanand University, Rohtak, India &
		Korea Institute of Energy Research (KIER), Daejon, South Korea
M.Sc	M.Sc 2001 Maharshi Dayanand University, Rohtak, Haryana, India	
B.Sc	1999	Maharshi Dayanand University, Rohtak, Haryana, India

### Career profile

Designation	Institution served	Dura	ntion
Professor (Full) of Chemistry	Department of Chemistry, Maharshi Dayanand University, Rohtak	12 July, 2021	Till now
Associate Professor of Chemistry	Department of Chemistry, Maharshi Dayanand University, Rohtak	12 July, 2018	11 July, 2021
Assistant Professor [Stage III]	Department of Chemistry, Maharshi Dayanand University, Rohtak	12 July, 2015	11 July, 2018
Assistant Professor [Stage –II]	Department of Chemistry, Maharshi Dayanand University, Rohtak	12 July, 2010	11 July, 2015
Assistant Professor [Stage –I]	Department of Chemistry, Maharshi Dayanand University, Rohtak	14 June, 2010	11 July 2010
Assistant Professor [Stage –I]	Pt. NRS Govt. College, Rohtak	27 Sept. 2008	14 June, 2010
Assistant Professor [Stage –I]	Government P.G. College, Jhajjar	12 July, 2006	27 Sept. 2008
Lecturer (Assistant Professor)	University Institute of Engineering and Technology (UIET) M. D. University, Rohtak	14 Nov, 2005	12 July, 2006
Lecturer (Guest/Contractual)	UIET (Earlier-Department of Engineering & Technology), M. D. University, Rohtak	16Aug., 2005	25 Oct.,2005

### Training Programmes

Name of the Training programme	Organized by the organization	Date of event
One week <b>Faculty Development Programme</b> on "Community Service and Sustainable Society" (online)	AICTE Training and Learning(ATAL) Academy with	05.10.2021 to
Service and Sustainable Society (Offine)	M.D. University, Rohtak	09.10.2021
One week Faculty Development Programme on "Spectroscopic	J.C. Bose University of Science &	25.05.2020 to
and Analytical Techniques: Applications" (online)	Technology, YMCA, Faridabad	29.05.2020
One week Faculty Development Programme on "Advances in	Ch. Bansi Lal University, Bhiwani	14.05.2020 to
Research Methodology and Data Analysis" (online)		20.05.2020
One week <b>Faculty Development Programme</b> on "MOOCs and E-	Faculty Development Centre	10.04.2020 to
learning Technologies" (online )	M.D. University, Rohtak	15.04.2020
One week workshop-course on " Greener Strategies for organics	Department of chemistry, GJUST,	25.11.2016 to
and nanomaterials"	Hisar (Sponsored by: GIAN-MHRD)	29.11.2016
Short Term Course (STC) on Research Methodology	HRDC-Kurukshetra University,	28.04.2016 to
(All discipline)	Kurukshetra	04.05.2016
Refresher Course (Chemistry)	Himachal Pradesh University,	19.11. 2012 to
Himachal Pradesh University, Shimla, Himachal Pradesh.	Shimla, Himachal Pradesh.	08.12. 2012
Training course on "Capacity Building for Lecturers of Higher	HIPA, Gurgaon, Haryana	29.06.2009 to
Education" conducted by HIPA, Gurgaon, Haryana.		03.07. 2009
Training for Eduset on "Script Writing" at NITTR, Chandigarh	NITTR, Chandigarh	03 – 07 Nov.
		2008
Refresher Course of Chemistry	Pt. NRS Govt. College, Rohtak	05 – 25 May
organized by DGHE at Pt. NRS Govt. College, Rohtak		2008
Induction Training Programme on "Induction Training	HIPA, Gurgoan, Haryana.	28 May to 15
Programme for newly recruited Government Lecturers at HIPA,		June 2007
Gurgoan, Haryana.		
Orientation Course at	Himachal Pradesh University,	01 – 30 April
Himachal Pradesh University, Shimla, Himachal Pradesh.	Shimla, Himachal Pradesh.	2007

#### Project undertaken

Title of the project	Duration	Funding agency	Status
Rare-earth Activated Luminescent Nanomaterials: Development and their	2022	MDU, Rohtak	Ongoing
Emerging Applications (5 Lakhs)	onwards		
Fluorescence Characteristics of $\pi$ -conjugated Lanthanide-metallopolymers	2017-2020	SERB-DST	Completed 2021
for Light Emitting Applications (Rs- <b>34,31,890/-</b> )		New Delhi	
Growth and Opto-electronic Characterization of the Phosphor Materials	2011-2014	University Grant	Completed
(Rs- <b>9,58,560</b> /-)		Commission, New Delhi	2015

### ❖ Publications Book Authored – 03 and Book Chapter-07

Name of book/Chapter	Publisher	ISBN
Synthesis Approaches of Recent Green Nanomaterials in Energy Storage: An overview	Materials for Boosting Energy Storage: Recent Advances and Applications in Sustainable Energy Technologies, ACS Book series	Under Revision
Chapter 2: Persistent Luminescence in comparison to Phosphorescence" doi.org/10.1007/978-981-97-4943-0_1	Persistent Luminescence: Fundamentals, Mechanisms and Applications (Sept, 2024) in Springer series, Progress in Optical Science and Photonics	978-981-97-4943-0
Chapter 10: Therapeutic Potential of Benzopyrones against Antiparasitic Diseases doi.org/10.1007/978-981-19-9605-4_10	Natural Product Based Drug Discovery Against Human Parasites: Opportunities and Challenges (Jan, 2023) Springer Singapore	978-981-199604-7 978-981-19-9607-8
Chapter 11: Polymers with carbon-based quantum dot for energy storage doi.org/10.1016/B978-0-323-99549-8.00004-2	Polymer Blend Nanocomposites for Energy Storage Applications (July, 2023, pp311-343), Elsevier	<b>9780323995498</b> 9780323995641
Chapter 12:Recent Developments in Dye-Sensitized Solar Cells and Potential Applications doi.org/10.1002/9781119407690.ch12	"Advanced Photovoltaic Materials" (Oct 2018) Advanced Materials Book Series WILEY-Scrivener Publisher, USA	9781119407546
Chapter 10: Recent Advancements in Luminescent Materials and Their Prospective Applications doi.org/10.1002/9781119241966.ch10	"Advanced Magnetic and Optical Materials" (Nov, 2016) Advanced Materials Book Series WILEY-Scrivener Publisher, USA	9781119241911
Chapter 14: Developments in Organic Light Emitting Materials and Their Potential Applications doi.org/10.1002/9781119241966.ch14	"Advanced Magnetic and Optical Materials" (Nov 2016) Advanced Materials Book Series WILEY-Scrivener Publisher, USA	9781119241911
Comprehensive Coordination & Organometallic Chemistry	Ane Books Pvt. Ltd. New Delhi (Jan, 2018)	9789386761422
Comprehensive Nuclear Chemistry Fundamental and Applications	Book World Publisher, New Delhi (Dec, 2016)	9788192288543
Comprehensive Engineering Chemistry	I. K. International Publisher, New Delhi. (Aug 2008)	9788189866556

### Awards and distinctions

- Got the Best paper presentation Awards of <u>Chemical Sciences</u> in the Indian Science Congress Association, 2008, held at Vishakhapatnam, Andhra Pradesh.
- Assignment with in the M.D. University, Rohtak. (Activities/Assignments)
  - > Chairman/HOD Chemistry
  - > Member of Academic Council, Faculty of Physical Sciences, U.G and P.G Board of Studies, MDU
  - > Expert at PGBOS of Deptt of Chemistry, DCRUST, Murthal, Sonepat
  - > Worked as organizer for National Conference on "Recent Trends in Materials and Life Sciences" (Sept 2023).
  - Worked as organizer and Treasurer for the 1st Chemistry Alumni Meet (Mar., 29, 2018).
  - > Hostel Warden of Boys Hostel -III (Himalaya) and Boys Hostel -V (Udiagiri) (since Aug 2010 to July 2018).
  - ➤ Worked as organizer in the National Conference on Recent Advances in Chemical Sciences (NCRACS-2018) organized by Department of Chemistry, Maharshi Dayanand University, Rohtak, Haryana (Mar., 7, 2018).
  - ➤ Worked as organizer for National Youth Festival 2017 and Inter Zonal Youth Festival (IZYF-2023, IZYF-2016 & IZYF-2017)
  - ➤ Worked as organizer and Treasurer in the National Conference on Advances in Chemical Sciences (ACS-2013) organized by Department of Chemistry, Maharshi Dayanand University, Rohtak, Haryana (Mar., 1-2, 2013).
  - ➤ Worked as organizer in the National Conference on Thermodynamics and Biological System (NCTBS-2011) organized by Department of Chemistry, Maharshi Dayanand University, Rohtak, Haryana (Nov. 26-28, 2011).
  - ➤ Worked as organizer in the SCIENCE CONCLAVE organized by Maharshi Dayanand University, Rohtak, Haryana (Dec., 2-3, 2011).

# **List of Publications in Reputed Journals**

Sr. No.	Title with name of author(s) as appearing in the publication	Journal name, Vol, Year, pages	ISSN / ISBN	ImpactFactor- 2022 (TR)
258	Colorimetric reversibility: Aqueous phase recognition of cyanide using smart phone based device with real sample analysis Jyoti Jangir; Kiran, Anju Ranolia; Priyanka, Sandhya Chahal, Snigdha Singh; Anil Duhan; Rahul Kumar; Devender Kumar; Parvin Kumar	Microchemical Journal (UR)	1095-9149	4.9
257	Synthesis, Characterization and Biological activity of Template Tailored Macrocyclic Complexes Ramesh Kumar,Jai Kumar,Devender Singh,Harish Kumar,Arti Jangra	Russian Journal of Coordination Chemistry (UR)	1608-3318	1.1
256	Mixed metal oxide nanocomposites for enhanced electrochemical detection of nitrite in food products Rajni Kumari, Varsha Barman, Rajni Mohil, Devender Singh, Harish Kumar	Journal of Electroanalytical Chemistry (UR)	1572-6657	4.598
255	Starch/Whey protein isolate/TiO2 nanocomposite-based biofilm: Sustainable alternative to non-biodegradable plastic for food packaging Ankit Dhayal, Harish Kumar, Rajni Kumari, Ankita Yadav, Rahul Sharma, Shaurya Prakash, Antresh Kumar, Parvin Kumar, Ramesh Kumar, Devender Singh	International Journal of Biological Macromolecules (UR)	1879-0003	7.7
254	Advancements in carbon capture and utilization technologies: Transforming CO <sub>2</sub> into valuable resources for a sustainable carbon economy	Renewable and Sustainable Energy Reviews (UR)	1879-0690	16.3
253	Next-Generation Nanocomposite: Optimizing Al <sub>2</sub> O <sub>3</sub> -CuO-ZnO and Reduced Graphene Oxide for Enhanced Performance	Inorganic Chemistry Communications (UR)	1387-7003	4.4
252	Exploring the Structural versatility of Acyl/Aroyl Hydrazones: A Comprehensive Review"  Kulbir Kadyan, Rahul Singh, Jayant Sindhu, Parvin Kumar, Meena Devi, Ashwani Kumar, Sohan Lal, Harish Kumar, Devender Singh,	Topics in Current Chemistry (UR)	2364-8961	7.1
251	Periodic Mesoporous Organosilica (PMO): Synthetic aspects from Mono-silylated to Multi-silylated precursor and its different applications Payal Tyagi, Sandeep Kumar, Devender Singh, Sumit Kumar, Rajender Malik,	Chemical Reviews (UR)	1520-6890	51.4
250	Harnessing the power of Carbohydrates: Chitosan and starch-based nanocomposites for sustainable developments Ankit Dhayal, Harish Kumar, Bindu Mangla, Devender Singh	Carbohydrate Research (UR)	1873-426X	2.4
249	Polyamideimide/MWCNTs nanocomposite impregnated with pyrrole for high-efficiency electromagnetic interference shielding in X-band Priyanka Rani, Rajender Singh Malik, Rinki Malik, Devender Singh	Journal of Materials Science and Technology (UR)	1873-3891	10.5
248	Synthesis Strategies for Rare Earth Activated Inorganic Phosphors: A Mini Review Sitender Singh, Devender Singh, Preeti Siwach, Isha Gupta and Pawan Kumar	Applied Research	UR	
247	Optimizing luminescent properties of europium(III) ion chelates with β-diketone and ancillary ligands: Insights into opto-electronic characteristics and Judd-Ofelt calculations, Vandana Aggarwal, Devender Singh, Anjli Hooda, Komal Jakhar, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Journal of the Indian Chemical Society (UR)	0019-4522	3.2
246	Tuning Emissive Color of Trivalent Terbium Ion through Environmental Factors: Optoelectronic Insights from Theoretical, Spectral and Computational Studies Vandana Aggarwal, Devender Singh, Shri Bhagwan, Raman Kumar Saini, Komal Jakhar, Sumit Kumar, Parvin Kumar, Jayant Sindhu	RSC Advances (UR)	2046-2069	3.9
245	Exploring the Influence of Emissive Centers in Mono and Dinuclear Europium(III) Complexes for Advance Lighting Applications: Synthesis, Characterization and Computational Modelling Vandana Aggarwal, Devender Singh, Shri Bhagwan, Raman Kumar Saini, Komal Jakhar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Journal of Molecular Structure Accepted	0022-2860	4.0
244	Synthesis, C-N/N-N Bond Conformational Analysis and Evaluation of Naphtho[2,3-d][1,2,3]triazole-4,9-dione tethered N-acyl Hydrazones as α-Amylase Inhibitors: Insights from Molecular Modeling and ADMET Analysis  Meena Devi, Jayant Sindhu, Rahul Singh, Sohan Lal, Ashwani Kumar, Devender Singh, Harish Kumar, Parvin Kumar	Journal of Molecular Structure 15 October 2024, 140390	0022-2860	4.0
243	Advances in Electrochemical Sensors for Rapid Detection of Food Additives: A Comprehensive Review Harish Kumar, Rajni Kumari, Devender Singh, Bindu Mangla	Trends in Analytical Chemistry 17 October 2024, 118011	1879-3142	11.8
242	Indole analogs as potential anti-breast cancer agents: Design, synthesis, in-vitro bioevaluation with DFT, molecular docking and ADMET	Journal of the Indian Chemical Society	0019-4522	3.2

	atudias	101(11) 2024 101404	1	
	studies Renu Gavadia, Jyoti Rasgania, Neetu Sahu, Surendra Nimesh, Lacy Loveleen, Satbir Mor, <b>Devender Singh</b> and Komal Jakhar	101(11), 2024, 101404		
241	Naphthoquinone fused diazepines targeting hyperamylasemia: Potential therapeutic agents for diabetes and cancer Sandhya Chahal, Payal Rani, Rajvir Singh, Gaurav Joshi, Roshan Kumar, Parvin Kumar, Deepak Wadhwa, <b>Devender Singh</b>	Future Medicinal Chemistry https://doi.org/10.1080/17568919. 2024.2400968	1756-8927	3.2
240	Synthesis and Photoluminescent Studies of Orange–Red Emissive Samarium(III) Complexes with 1,1,1-trifluoro-5,5-dimethyl-2,4-hexanedione and 2,2'-bipyridine and its Distinctive Analogous Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Anuj Dalal, Vandana Aggarwal, Komal Jakhar, Sumit Kumar, Rajender SinghMalik, Parvin Kumar, Jayant Sindhu		ISSN: 0020-1693	2.7
239	Structural attributes driving λmax towards NIR region: A QSPR approach Payal Rani, Sandhya Chahal, Priyanka, Parvin Kumar, <b>Devender Singh</b> , Jay ant Sindhu	Chemometrics and Intelligent Laboratory Systems 2024, 252,105199	ISSN 0169-7439	3.7
238	Synthesis of indole-functionalized isoniazid conjugates with potent antimycobacterial and antioxidant efficacy Renu Gavadia, Jyoti Rasgania, Neetu Sahu, Mandira Varma- Basil, Varsha Chauhan, Sanjay Kumar, Satbir Mor, <b>Devender</b> <b>Singh</b> , Komal Jakhar	Future Medicinal Chemistry 16(17), 2024, 1731-1747	1756-8927	3.2
237	Design and Synthesis of Isatin-Tagged Isoniazid Conjugates with Cogent Antituberculosis and Radical Quenching Competence: In-vitro and In-silico Evaluations Renu Gavadia, Jyoti Rasgania, Neetu Sahu, Mandira Varma-Basil, Varsha Chauhan, Sanjay Kumar, Satbir Mor, <b>Devender Singh</b> , Komal Jakhar	Chemistry & Biodiversity 2024, e202400765	1612-1880	3.4
236	Quinoxaline-linked N-acyl hydrazone acts as a "turn-off" fluorescent sensor for the selective detection of Fe <sup>3+</sup> . Synthesis and spectroscopic analysis  Laxmi Narayan, Parvin Kumar, Jayant Sindhu, Ashwani Kumar,  Devender Singh, Sohan Lal, Harish Kumar	Journal of Photochemistry & Photobiology, A: Chemistry 457, 2024, 115857	1873-2666	4.1
235	Synthesis of thiazolidine-2,4-dione tethered 1,2,3-triazoles as α-amylase inhibitors: In vitro approach coupled with QSAR, Molecular Docking, Molecular Dynamics and ADMET studies Rahul Singh, Parvin Kumar, Jayant Sindhu, Meena Devi, Sohan Lal, Ashwani Kumar, <b>Devender Singh</b> , Harish Kumar	European Journal of Medicinal Chemistry 275, 2024, 116623	0009-4374	6.0
234	Synthesis, Structural Insights and Photoluminescent Studies of Orange – Red Emissive Samarium (III) Complexes with 1,1,1-trifluoro-5,5,-dimethyl-2,4-hexanedione and 2,2'-bipyridine and its Distinctive Analogous Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Anuj Dalala, Vandana Aggarwal, Komal Jakhar, Sumit Kumar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Journal of Molecular Structure 1308, 2024, 138056	0022-2860	4.0
233	Optimizing white light emission in Dy(III) complexes: impact of energy transfer from mono and bidentate ligands on luminescence Sofia Malik, Komal Jakhar,* Devender Singh,* Anjli Hooda, Sonia Redhu, Swati Dalal, Vandana Aggarwal, Sumit Kumar, Rajender Singh Malik and Parvin Kumar	RSC Advances 14, 2024, 22642-22655	2046-2069	3.9
232	Design and Photophysical Characterization of Dinuclear Lanthanide Complexes Incorporating Spacer Ligands along with their Mononuclear Analogues: A Comparative Study Vandana Aggarwal, <b>Devender Singh</b> , Sonia Redhu, Sofia Malik, Swati Dalal, Sumit Kumar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Optical Materials 15, 2024, 115833	0925-3467	3.8
231	Adsorption studies of imidacloprid from aqueous solution using polyacrylamide coated magnetite nanoparticles as a nanoadsorbent Keerti Rani, Ramesh Kumar, <b>Devender Singh</b> , Harish Kumar, Parvin Kumar, Suresh Kumar	Biointerface Research in Applied Chemistry 14, 2024, 88	2069-5837	1.6
230	Exploration of gel-combustion synthesis, structural and photoluminescent characteristics of $Y_2Si_2O_7$ :Dy <sup>3+</sup> phosphor: A prospective cool white light emitter for NUV based-wLEDs Pawan Kumar, <b>Devender Singh,</b> Isha Gupta, Harish Kumar and Ramesh Kumar	ICC 168, 2024, 112861	1387-7003	4.4
229	Comprehensive investigation of Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> nanophosphors for w-LEDs: Structural, Judd-Ofelt calculation and photoluminescent characteristic with high color purity and thermal stability Pawan Kumar, <b>Devender Singh</b> , Sonika kadyan, Harish Kumar and Ramesh Kumar	Ceramic International 47(14), 2024, pp. 19282-19303	0272-8842	5.1
228	Comprehensive Investigation of Luminescent Dysprosium (III) Complexes via Photoluminescence, Thermal and Electrochemical Techniques Sonia Redhu, <b>Devender Singh</b> , Swati Dalal, Sofia Malik, Vandana Aggarwal, Anjli Hooda, Sumit Kumar, Rajender Singh Malik and Parvin Kumar	Polyhedron 261,2024, 117146	0277-5387	2.4
227	Exploring the Role of Neutral Ligands in Modulating the Photoluminescence of Samarium Complexes with 1,1,1,5,5,5-Hexafluoro-2,4-pentanedione Sofia Malik, Komal Jakhar, <b>Devender Singh</b> , Swati Dalal, Anjli Hooda, Kapeesha Nehra, Sumit Kumar, Rajender Singh Malik and	Luminescence 39, 2024, e4810	1522-7235	3.2

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226	Parvin Kumar  Pyrano[2,3-c]pyrazole fused spirooxindole-linked 1,2,3-triazoles as antioxidant agents: Exploring their utility in the development of antidiabetic drugs <i>via</i> inhibition of α-amylase and DPP4 activity Sandhya Chahal, Payal Rani, Shweta, Kapil Kumar Goel, Gaurav Joshi, Rajvir Singh, Parvin Kumar, <b>Devender Singh</b> , Jayant Sindhu	Bioorganic Chemistry 147, 2024, 107363	ISSN: 1090-2120	4.5
225	Remediation of toluidine blue O dye from aqueous solution using surface functionalized magnetite nanoparticles Arti Jangra, Ramesh Kumar, <b>Devender Singh</b> , Harish Kumar, Jai Kumar, Parvin Kumar, Suresh Kumar	Water Practice and Technology, 2024, 19(4), pp. 1119–1134	ISSN 1751231X	1.6
224	NUV-Excitation Dy(III) Complexes: Synthesis, Structural Study and Impact of Secondary Ligands on Optoelectronic Properties, Sonia Redhu, <b>Devender Singh</b> , Kapeesha Nehra, Swati Dalal, Sofia Malik, Vandana Aggarwal, Sumit Kumar, Rajender Singh Malik,	Journal of Molecular Structure 1311, 2024, 138380	0022-2860	4.0
223	Parvin Kumar, Jayant Sindhu  Near Ultra-Violet Excitable Tb(III)-tris-hexafluoro-2,4-pentanedione Complexes for OLEDs: Insights into the Impact of Ancillary Ligands on Photoluminescent Characteristics Sofia Malik, Komal Jakhar, <b>Devender Singh</b> , Anjli Hooda, Kapeesha Nehra, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Journal of Molecular Structure 1311, 2024, 138334	0022-2860	4.0
222	Green emissive Tb(III) complexes based on photosensitizing antenna: Synthesis and optoelectronic analysis Swati Dalal, <b>Devender Singh</b> , Anuj Dalal, Anjli Hooda, Sumit Kuma, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Materials Science in Semiconductor Processing 177, 2024, 108370	1369-8001	4.2
221	1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione based ternary complexes of Eu(III): Synthesis, structural and luminescence investigations Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Anuj Dalal, Komal Jakhar, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Optical Materials 151, 2024, 115348	0925-3467	3.8
220	Design and Spectroscopic Study of Samarium Complexes with Tunable Photoluminescent Properties  Vandana Aggarwal, <b>Devender Singh</b> , Anjli Hooda, Kapeesha Nehra, Sonia Redhu, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Journal of Molecular Structure, 2024, 138315	0022-2860	4.0
219	Realization of green emitting pyrosilicate structured Er <sup>3+</sup> activated Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> phosphor: A systematic study of opto-electronic characteristics and thermal stability for solid-state lighting Pawan Kumar, <b>Devender Singh</b> , Sitender Singh, Harish Kumar and Ramesh Kumar	RSC Advances 14, 2024, 18716-19729	ISSN: 0022-2313	3.9
218	Insights into opto-electronic investigation of highly pure reddish-orange light emissive Sm <sup>3+</sup> doped Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> phosphors: Tailored for NUV-excitable white light emitting diodes Pawan Kumar, <b>Devender Singh</b> , Sonika Kadyan, Harish Kumar and Ramesh Kumar	Journal Molecular Structure 1314, 2024, 138727	0022-2860	4.0
217	Cool green emissive Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> :Tb <sup>3+</sup> nanophosphor: Auto combustion route, structural and photoluminescence characteristics with good thermal stability for solid state lighting Pawan Kumar, <b>Devender Singh</b> , Sonika kadyan, Harish Kumar and Ramesh Kumar	RSC Advances 14, 2024, 16560-16573	ISSN: 0022-2313	3.9
216	Monometallic heteroleptic complexes of Dy(III) incorporating β-diketone and ancillary moieties: Photophysical and electrochemical analyses Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Kapeesha Nehra, Sumit Kumar, Rajender Singh Malik, Vikas Siwach, Parvin Kumar	Chemical Physics Letters 847, 2024, 141376	0009-2614	2.8
215	Orangish-red light emitting LaSr <sub>2</sub> AlO <sub>5</sub> :Sm <sup>3+</sup> nanophosphors for warm LEDs: Crystallographic, photoluminescence characteristics with high color purity and thermal stability  Pawan Kumar, <b>Devender Singh</b> and Harish Kumar	Materials Chemistry and Physics 320, 2024, 129418	ISSN: 0254- 0584	4.3
214	Trivalent dysprosium activated LaSr <sub>2</sub> AlO <sub>5</sub> nanophosphors for NUV-excited wLEDs: Insights into structural, optical, Judd-Ofelt parameters and temperature dependent photoluminescence Pawan Kumar, <b>Devender Singh</b> and Harish Kumar	Inorganic Chemistry Communications 163, 2024, 112375	1387-7003	4.4
213	Computational and Optoelectronic Investigations of Red-Emissive Europium (III) beta-diketonate with N-donor Ligands for Display Applications Sonia Redhu, <b>Devender Singh</b> , Kapeesha Nehra, Sumit Kumar, Rajend er Singh Malik, Parvin Kumar, Jayant Sindhu	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 315, 2024, 124307	1010-6030	4.3
212	Photoluminescence Tuning of Terbium tris-1,1,1-trifluoro-5,5-dimethyl-2,4-hexanedione complexes: Synthesis, Spectroscopic, Thermal and Electrochemical Analyses Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Sofia Malik, Vandana Aggarwal, Swati Dalal, Sumit Kumar, Rajender Singh Malik and Parvin Kumar	Journal of Luminescence, 271, 2024, 120588	1872-7883	3.3
211	Optimizing hexafluoro-2,4-pentanedione based Eu(III) complexes: A comprehensive study on the synthesis, spectroscopic characterization with Judd-Ofelt calculation	Optical Materials 150, 2024, 115257	0925-3467	3.8

	Sofia Malik, Komal Jakhar, <b>Devender Singh</b> , Sumit Kumar, Rajender			
	Singh Malik, Parvin Kumar			
210	Rationally designed dual channel reversible probe for cyanide recognition in aqueous medium with solid-state sensing abilities Kiran, Anju Ranolia, Priyanka, Indu Bala, Jyoti Jangir, Snigdha Singh, Jayant Sindhu, Parvin Kumar, <b>Devender Singh</b>	Journal of Photochemistry and Photobiology A: Chemistry 453, 2024, 115650	1010-6030	4.1
209	Synthesis, Characterization and Luminescent Properties of N-donor Based Samarium-tris-β-Diketonate: Tuning Optoelectronic Characteristics for Displays Applications Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Sofia Malik, Vandana Aggarwal, Swati Dalal, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Journal of Molecular Structure, 1307, 2024, 138056	0022-2860	4.0
208	Enhancement in photophysical properties of octacoordinated Dy (III) complexes via energy transfer from photosensitizing ligands Swati Dalal, <b>Devender Singh</b> , Anjli Hooda, Sonia Redhu, Sofia Malik, Vandana Aggarwal, Sumit Kumar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Optical Materials 150, 2024, 115159	ISSN: 0925-3467	3.8
207	Photophysical analysis and Judd–Ofelt calculation of Eu (III) complexes: Influence of various neutral ligands on luminescent properties  Swati Dalal, Devender Singh, Anuj Dalal, Sumit Kumar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Journal of Molecular Structure, 1307, 2024, 137909	0022-2860	4.0
206	Comprehensive investigation of ternary dysprosium complexes for white light emission: Synthesis, spectroscopic and colorimetric analyses Vandana Aggarwal, <b>Devender Singh</b> , Anjli Hooda, Sofia Malik, Swati Dalal, Sonia Redhu, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Journal of Luminescence 270, 2024, 120555	1872-7883	3.3
205	Examination of the spectroscopic characteristics of bright green emitting, octa coordinated luminescent terbium (III) complexes Sonia Redhu, <b>Devender Singh</b> , Anjli Hooda, Anuj Dalal, Komal Jakhar, Sumit Kumar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Polyhedron 253, 2024, 116926	0277-5387	2.4
204	Samarium (III) complexes with tunable luminescence: efficient sensitization and semiconducting properties for optoelectronic devices Swati Dalal, <b>Devender Singh</b> , Anuj Dalal, Anjli Hooda, Sofia Malik, Sumit Kumar, Rajender Singh Malik, Parvin Kumar, Jayant Sindhu	Journal of Materials Science: Materials in Electronics 35(9), 2024, 632	ISSN: 0022-2313	2.8
203	Synthesis and photoluminescent analyses of ternary terbium(III) Tris-β-diketonate complexes: a systematic exploration Vandana Aggarwal, <b>Devender Singh</b> , Anjli Hooda, Kapeesha Nehra, Komal Jakhar, Sumit Kumar, Rajender Singh Malik, Parvin Kumar	Journal of Materials Science: Materials in Electronics 35(8), 2024, 568	ISSN: 0022-2313	2.8
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201	Developments in Conducting Polymers, Metal oxides, and Carbon nanotubes-based composite electrode materials for Supercapacitors: A Review  Aarti Tundwal, Harish Kumar, Bibin J. Binoj, Rahul Sharma, Gaman Kumar, Rajni Kumari, Ankit Dhayal, Abhiruchi Yadav, <b>Devender Singh</b> and Parvin Kumar	RSC advances 14, 2024, 9406-9439	ISSN: 0022-2313	3.9
200	Exploration of red emitter Eu <sup>3+</sup> activated LaSr <sub>2</sub> AlO <sub>5</sub> phosphor for wLEDs: Crystallographic engineering, photoluminescence, high thermal stability, Judd-Ofelt calculation and band-gap analyses Pawan Kumar, <b>Devender Singh</b> and Harish Kumar	Material Research bulletin 173, 2024,112683	1873-4227	5.3
199	Tailored gel-combustion synthesis, structural refinement, high thermal stability and optoelectronic analyses of Tb <sup>3+</sup> activated LaSr <sub>2</sub> AlO <sub>5</sub> nanophosphors: A green emitter for display applications Pawan Kumar, <b>Devender Singh</b> and Harish Kumar	Materials Science in Semiconductor Processing 174, 2024, 108162.	1873-4081	4.2
198	A green light emissive LaSr <sub>2</sub> AlO <sub>5</sub> :Er <sup>3+</sup> nanocrystalline material for solid state lighting: crystal phase refinement and down-conversion photoluminescence with high thermal stability  Pawan Kumar, <b>Devender Singh</b> and Harish Kumar	RSC Advances 14(2), 2024, 755-770	0022-2313	3.9
197	Preparation, characterization and spectroscopic analyses of Dy(III) β-diketonates with bidentate N Donor Neutral Ligands for Displays Sonia Redhu, <b>Devender Singh</b> *, Anjli Hooda, Anuj Dalal, Sumit Kumar, Rajender Singh Malik Vikas Siwach and Parvin Kumar	Journal of Photochemistry and Photobiology A: Chemistry 449, 2024, 115381	1010-6030	4.1
196	Conducting polymers and Carbon nanotubes in the field of Environmental Remediation: Sustainable developments Aarti Tundwal, Harish Kumar, BibinJ.Binoj, Rahul Sharma, Rajni Kumari, Ankita Yadav, Gaman Kumar, Ankit Dhayal, Abhiruchi Yadav, Devender Singh, Bindu Mangla, Parvin Kumar	Coordination Chemistry Reviews 500, 2024, 215533	0010-8545	20.3
195	Design and synthesis of isoniazid-based pyrazolines as potential	Journal of Molecular Structure, 1295, 2024, 136657		4.0

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194	Komal Jakhar α-Amylase Inhibitors Based on Thiazolidinone Skeleton: A Promising	Chemistry Select	2365-6549	1.9	
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193	Mixed metal oxide decorated polypyrrole nanocomposites for multifunctional applications	Inorganic Chemistry Communications	1387-7003	4.4	
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189	Kumar and <b>Devender Singh*</b> Thiazolidinedione-triazole conjugates: Design, synthesis, and probing	Future Medicinal Chemistry	1756-8927	3.2	
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107	derivatives: Electrochemical and Optoelectronic Study Anjli Hooda, Anuj Dalal, Kapeesha Nehra, Sitender Singh, <b>Devender</b>	Material in Electronics	0022 2010	2.0	
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176	Structural, morphological and optical characteristics of Gd <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> :Dy <sup>3+</sup> nanophosphors for WLEDs	Luminescence doi.org/10.1002/bio.4566	0022-2313	3.2	
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185	Metal oxide decorated polyaniline based multifunctional	Results in Engineering	2590-1230	6.0	
	nanocomposites: An experimental and theoretical approach Ankita Yadav, Harish Kumar, Rahul Sharma, Rajni Kumari, <b>Devender</b>	18, 2023, 101161			
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102	Pawan Kumar, <b>Devender Singh</b> , Isha Gupta and Harish Kumar		1072 4227	5.2	
183	Physical insights into crystal structure and optical response of green light emitting Tb <sup>3+</sup> activated GdSr <sub>2</sub> AlO <sub>5</sub> nanophosphors for optical	Material Research bulletin 167, 2023, 112413	1873-4227	5.3	
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100	nanocrystals for lighting applications	826, 2023, 140670	0009-2614	2.0	
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178	Crystatiographic and tuninescence studies of Ga <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> :EF	Journal of molecular structure	ואוממו.	4.0	

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176	Samarium (III) Complexes with Fluorinated Diketones and Heteroaromatic Auxiliary Moieties; Synthesis and Spectral Analyses Anjli Hooda, <b>Devender Singh*</b> , Anuj Dalal, Kapeesha Nehra, Sumit Kumar, Rajender Singh Malik, Brijesh Rathi and Parvin Kumar	Inorganica Chimica Acta 553, 2023, 121543	ISSN: 0020-1693	2.7
175	Materials catalyst for CO <sub>2</sub> capture and conversion into cyclic carbonate: Progress and Challenges Payal Tyagi, <b>Devender Singh</b> , Neeti Malik, Sumit Kumar, Rajender Singh Malik	Materials today 65, 2023, 133-165	ISSN: 1873-4103	21.1
174	N-Donor Auxiliary Ligand-based Terbium (III) β-diketonates: Preparation and Photophysical Studies Anjli Hooda, <b>Devender Singh*</b> , Anuj Dalal, Kapeesha Nehra, Sumit Kumar, Rajender Singh Malik, Harkesh Sehrawat and Parvin Kumar	Journal of Luminescence 258, 2023, 119828	ISSN: 0022-2313	3.3
173	Crystal structure, morphological and photoluminescent studies of Tb <sup>3+</sup> doped YAlO <sub>3</sub> perovskite for advanced display applications Isha Gupta, Sitender Singh, Pawan Kumar, Shri Bhagwan, Vinod Kumar and <b>Devender Singh*</b>	Luminescence doi.org/10.1002/bio.4486 2023	ISSN: 1522-7243	3.2
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171	Study of structural and spectroscopic characteristics of novel color tunable yellowish-white Dy <sup>3+</sup> doped Gd <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> nanophosphors for NUV-based WLEDs  Isha Gupta, <b>Devender Singh*</b> , Sitender Singh, Pawan Kumar, Shri Bhagwan and Vinod Kumar	Journal of molecular structure 1272, 2023, 134799	ISSN: 0022-2860	4.0
170	Parsing structural fragments of thiazolidin-4-one based \( \alpha\)-amylase inhibitors: A combined approach employing in vitro colorimetric screening and GA-MLR based QSAR modelling supported by molecular docking, molecular dynamics simulation and ADMET studies  Rahul Singh, Parvin Kumar*, Jayant Sindhu, Meena Devi, Ashwani Kuma, Sohan Lal, <b>Devender Singh</b>	Computers in Biology and Medicine 157, 2023, 106776	ISSN: 0010-4825	7.0
169	A study of phase evolution, crystallographic and down-conversion luminescent behaviour of monoclinic Y <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> :Dy <sup>3+</sup> nanophosphors for white light applications  Pawan Kumar <sup>a</sup> , <b>Devender Singh<sup>a*</sup></b> , Isha Gupta <sup>a</sup> , Sitender Singh <sup>a</sup> , Simran Nehra <sup>b</sup> and Ramesh Kumar <sup>c</sup>	Optical Materials 138, 2023, 113677	ISSN: 0925-3467	3.8
168	Er³+-doped Y <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> nanophosphors for advance display applications: Synthesis, crystal chemistry and down conversion photoluminescent investigation Pawan Kumar <sup>a</sup> , <b>Devender Singh*</b> , Isha Gupta, Sitender Singh, Simran Nehra and Ramesh Kumar	Material Chemistry and Physics 301, 2023, 127610	ISSN: 0254- 0584	4.3
167	Optical, Electrochemical and Photophysical Analyses of Heteroleptic Luminescent Ln(III) Complexes for Lighting Applications  Anjli Hooda, Devender Singh*, Anuj Dalal, Kapeesha Nehra, Sumit Kumar, Rajender Singh Malik, Ramesh Kumar, Parvin Kumar and Brijesh Rathi	RSC Advances 13, 2023, 9033	ISSN: 0022-2313	3.9
166	Luminescent Tb(III) Complexes with Lewis Bases for Displays: Synthesis and Spectral Investigation Anjli Hooda, <b>Devender Singh*</b> , Kapeesha Nehra, Anuj Dalal, Sumit Kumar, Rajender Singh Malik, Brijesh Rathi and Parvin Kumar	Inorganic Chemistry Communication 151, 2023, 110583	ISSN: 1387- 7003	4.4
165	Preparation, Spectral and Judd Ofelt Analysis of Luminous Octa-coordinated Europium(III) Complexes Anjli Hooda, <b>Devender Singh*</b> , Anuj Dalal, Kapeesha Nehra, Sumit Kumarb, Rajender Singh Malik, Ramesh Kumar and Parvin Kumar	Journal of Photochemistry and Photobiology A: Chemistry 440, 2023, 114646	ISSN: 1010-6030	4.1
164	Gadolinium-based Sm³+ activated GdSr <sub>2</sub> AlO <sub>5</sub> nanophosphor: Synthesis, Crystallographic and Opto-electronic analysis for warm wLEDs Pawan Kumar, <b>Devender Singh*</b> , and Isha Gupta	RSC Advances 13, 2023, 7703	ISSN: 2046-2069	3.9

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149	Perovskite GdAlO <sub>3</sub> :Dy <sup>3+</sup> nanophosphors: A gel-combustion synthesis, phase evaluation and down conversion luminescent characteristics for WLED's  Pawan Kumar <sup>a</sup> , <b>Devender Singh<sup>a*</sup></b> , Isha Gupta <sup>a</sup> , Sitender Singh <sup>a</sup> and	Journal of Luminescence 252, 2022, 119409	ISSN: 0022-2313	3.3
150	Heteroleptic Eu(III) Emissive Complexes: Luminescent, Optoelectronic and Theoretical Investigation Anjli Hooda, Anuj Dalal, Kapeesha Nehra, Pawan Kumar, Devender Singh*, Rajender Singh Malik and Sumit Kumar	Journal of Luminescence 252, 2022, 119272	ISSN: 0022-2313	3.3
151	Emerging green light emission of $Er^{3+}$ -activated single phased $GdAlO_3$ phosphors for lighting applications  Pawan Kumar <sup>a</sup> , <b>Devender Singh</b> <sup>a*</sup> , Isha Gupta <sup>a</sup> , Sitender Singh <sup>a</sup> and Vinod Kumar <sup>b</sup>	Luminescence 37, 2022, 2028-2040	ISSN: 1522-7243	3.2
152	Quantum dots decorated polyaniline plastic nanocomposites as a novel amperometric sensor for formaldehyde: Experimental and theoretical	Talanta Open 6, 2022, 100141	2666-8319	UR
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150	Preparation, spectroscopic and optical investigations Anuj Dalal, Kapeesha Nehra, Anjli Hooda, Pawan Kumar, Devender Singh*, Sumit Kumar, Ramesh Kumar, and Parvin Kumar	International Journal for Light and Electron Optics 276, 2023, 170648		40
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157	Vinod Kumar and <b>Devender Singh*</b> Preparation, structural and photometric properties of single-phased Gd <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Tb <sup>3+</sup> green-emitting phosphors for solid	Materials Science and Engineering B	ISSN: 0254- 0584	3.9
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159	Vinod Kumar <sup>b</sup> Structural and photophysical measurements of Er <sup>3+</sup> doped Gd <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> nanophosphors for solid-state lighting applications  Isha Gupta, Devender Singh <sup>*</sup> , Sitender Singh, Pawan Kumar, Shri	Chemical Physics Letters 814, 2023, 140350	ISSN: 0009-2614	2.8
160	Crystallographic and optical investigation of reddish-orange color tunable GdAlO <sub>3</sub> :Sm <sup>3+</sup> perovskite nanomaterials for solid state lighting applications  Pawan Kumar <sup>a</sup> , <b>Devender Singh</b> <sup>a*</sup> , Isha Gupta <sup>a</sup> , Sitender Singh <sup>a</sup> and	Chemical Physics Letters 812, 2023, 140277	ISSN: 0009-2614	2.8
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162	Combustion derived single phase Y <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> :Tb <sup>3+</sup> nanophosphor: Crystal chemistry and optical analysis for solid state lighting applications Pawan Kumar, <b>Devender Singh*</b> , Isha Gupta, Sitender Singh, Simran	RSC Advances 13, 2023, 7752	ISSN: 2046-2069	3.9
163	Photophysical Characteristic of Eu(III) 1,3-diketonates with substituted 1,10-phenanthroline auxiliary moieties Anjli Hooda, <b>Devender Singh*</b> , Kapeesha Nehra, Anuj Dalal, Sumit Kumar, Rajender Singh Malik, Ramesh Kumar and Parvin Kumar	Journal of Molecular Structure 1282, 2023, 135200	ISSN: 0022-2860	4.0

148	Monte Carlo Based QSGFEAR: Prediction of Gibb's Free Energy of	New Journal of Chemistry	1369-9261	2.7
110	Activation at Different Temperatures Using SMILES Based Descriptors	2022,46, 19062-19072		
147	Phase Recognition and Spectroscopic Characteristics of Single-Phase Tb <sup>3+</sup> doped Gd <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> Nanophosphors for NUV energized Advanced Photonic Appliances Isha Gupta <sup>a</sup> , <b>Devender Singh</b> <sup>a*</sup> , Sitender Singh <sup>a</sup> , Pawan Kumar <sup>a</sup> , Shri Bhagwan <sup>a</sup> and Vinod Kumar <sup>b</sup>	Journal of Luminescence 252, 2022, 119327	ISSN: 0022-2313	3.3
146	Crystal configuration, spectroscopic and optical characteristics of Er <sup>3+</sup> doped YAlO <sub>3</sub> perovskites for advanced photonic appliances Isha Gupta, Pawan Kumar, Sitender Singh, Shri Bhagwan, Sunil Kumar Chhikara and <b>Devender Singh*</b>	Inorganica Chimica Acta 543, 2022, 121183	ISSN: 0020- 1693	2.7
145	Structural, morphological and optoelectronic aspects of YAlO <sub>3</sub> :Dy <sup>3+</sup> doped nanocrystalline materials for NUV energized WLEDs  Isha Gupta, Sitender Singh, Pawan Kumar, Shri Bhagwan, Vinod Kumar and Devender Singh*	Current Applied Physics 43, 2022, 78-89	1567-1739	2.4
144	Structural refinement and optical characteristics of single-phase Gd <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Er <sup>3+</sup> nanophosphors for solid state lighting technology  Pawan Kumar, Sitender Singh, Isha Gupta, Kapeesha Nehra, Vinod Kumar and <b>Devender Singh*</b>	Journal of Luminescence 252, 2022, 119338	ISSN: 0022-2313	3.3
143	Cool green light emitting GdAlO <sub>3</sub> :Tb <sup>3+</sup> perovskite nanomaterials: Crystal structure and spectroscopic characteristics for advance display appliances  Pawan Kumar <sup>a</sup> , <b>Devender Singh</b> <sup>a*</sup> , Isha Gupta <sup>a</sup> , Sitender Singh <sup>a</sup> Vinod Kumar <sup>b</sup> , Harish Kumar <sup>c</sup> and Sunil Kumar Chhikara <sup>d</sup>	Inorganic Chemistry Communications 145, 2022, 110064	ISSN: 1387- 7003	4.4
142	Synthesis, thermal and photoluminescence investigation of Tb(III) β-diketonates with 1,10-phenanthroline derivatives Kapeesha Nehra, Anuj Dalal, Anjli Hooda, Shri Bhagwan, Komal Jakhar, <b>Devender Singh*</b> , Rajender Singh Malik, Sumit Kumar and Brijesh Rathi	Journal of Luminescence 251, 2022, 119233	ISSN: 0022-2313	3.3
141	Preparation and luminescence behaviour of perovskite LaAlO <sub>3</sub> :Tb <sup>3+</sup> nanophosphors for innovative displays Pawan Kumar, Sitender Singh, Isha Gupta, Vinod Kumar and Devender Singh*	Optik International Journal for Light and Electron Optics 267, 2022, 169709	ISSN: 0030-4026	2.84
140	Luminous LaAlO3:Dy <sup>3+</sup> perovskite nanomaterials: Synthesis, structural and luminescent characteristics for WLEDs Pawan Kumar, Sitender Singh, Isha Gupta, Vinod Kumar and Devender Singh*	Luminescence 37, 2022, 1932-1941	ISSN: 1522-7243	3.2
139	Mononuclear luminous β-diketonate Ln(III) complexes with heteroaromatic auxiliary ligands: Synthesis and luminescent characteristics Anjli Hooda, Anuj Dalal, Kapeesha Nehra, Pawan Kumar, Devender Singh*, Sumit Kumar, Rajender Singh Malik, Ramesh Kumar, and Parvin Kumar	Luminescence 37, 2022, 1921-1931	ISSN: 1522-7243	3.2
138	Computational and Spectroscopic Evaluation of 1,10- Phenanthroline based Eu(III) Fluorinated β-Diketonate Complexes for Displays Kapeesha Nehra, Anuj Dalal, Anjli Hooda, Sitender Singh and Devender Singh*	Journal of Luminescence 251, Nov.2022, 119111	ISSN: 0022-2313	3.3
137	CORAL: Development of A hybrid descriptor based QSTR model to predict the toxicity of Dioxins and Dioxin-like Compounds with Correlation Intensity Index and Consensus Modelling Parvin Kumar, Ashwani Kumar, Devender Singh*	Environmental Toxicology and Pharmacology 93, 2022, 103893	ISSN: 1382-6689	4.2
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135	Phase recognition, structural measurements and photoluminescence studies of reddish-orange-emissive YAlO <sub>3</sub> :Sm <sup>3+</sup> perovskite nanophosphors for NUV energized WLEDs Isha Gupta, Pawan Kumar, Sitender Singh, Shri Bhagwan, Vinod Kumar, <b>Devender Singh*</b>	Journal of Molecular Structure 2022, 133567	ISSN: 0022-2860	4.0
134	Er <sup>3+</sup> -activated LaAlO <sub>3</sub> perovskite phosphor: Crystal structure and down conversion photoluminescent behaviour for	Inorganic Chemistry Communications	ISSN: 1387- 7003	4.4

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126	Red luminous Eu(III) complexes: Preparation, spectral, optical	Inorganica Chimica Acta	ISSN: 0020-	2.7
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120	Red-emitting β-diketonate Eu(III) complexes with substituted 1,10-phenanthroline derivatives: Optoelectronic and spectroscopic analysis  Anjli Hooda, Anuj Dalal, Kapeesha Nehra, Sitender Singh, Sumit Kumar and <b>Devender Singh</b> *	Journal of Fluorescence 32, 2022, 1413-1424 https://doi.org/10.1007/s1089 5-022-02951-0	ISSN 1573- 4994	2.6
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112	Terbium Complexes of Asymmetric β-diketone: Preparation, Photophysical and Thermal Investigation Anjli Hooda <sup>a</sup> , Kapeesha Nehra <sup>a</sup> , Anuj Dalal <sup>a</sup> , Sitender Singh <sup>a</sup> , Raman Kumar Saini <sup>a</sup> , Sanjay Kumar <sup>b</sup> and <b>Devender Singh</b> <sup>a*</sup>	Inorganica Chimica Acta 536, 2022, 120881	ISSN: 0020- 1693	2.7
111	Preparation and optical investigation of green luminescent ternary terbium complexes with aromatic β-diketone Anjli Hooda, Anuj Dalal, Kapeesha Nehra, <b>Devender Singh</b> *, Sumit Kumar, Rajender Singh Malik and Parveen Kumar	Chemical Physics Letters 794, 2022, 139495	ISSN: 0009-2614	2.8
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76	Optical and Structural Investigations of MLaAlO4: $Eu^{3+}$ ( $M=Mg^{2+}$ , $Ca^{2+}$ , $Sr^{2+}$ and $Ba^{2+}$ ) Nanophosphors for Full-Color Displays Sonika Kadyan, Sitender Singh, Suman Sheoran, Anura Samantilleke, Bernabe Mari and <b>Devender Singh</b> *	Journal of Materials Science: Materials in Electronics 2020, 31, 414–422	ISSN: 0957- 4522	2.8
75	Rapid-gel combustion synthesis, structure and luminescence investigations of trivalent europium doped MGdAlO <sub>4</sub> ( $M = Mg^{2+}, Ca^{2+}, Sr^{2+}$ and $Ba^{2+}$ ) nanophosphors Sonika Kadyan, Sitender Singh, Anura Samantilleke, Bernabe Mari and <b>Devender Singh</b> *	Optik International Journal for Light and Electron Optics 2020, 200, 163450	ISSN: 0030- 4026	2.84
74	Synthesis and Optoelectronic Characteristics of MGdAl <sub>3</sub> O <sub>7</sub> :Eu <sup>3+</sup> Nanophosphors for Current Display Devices Sonika Kadyan, Sitender Singh, Suman Sheoran, Anura Samantilleke, Bernabe Mari and <b>Devender Singh</b> *	Transactions of theIndian Ceramic Society 2019, 78 (4), 219-226	ISSN: 2165-5456	1.5
73	Down-conversion characteristics of Eu <sup>3+</sup> doped M <sub>2</sub> Y <sub>2</sub> Si <sub>2</sub> O <sub>9</sub> (M = Ba, Ca, Mg and Sr) nanomaterials for innovative solar panels Suman Sheoran, Vijeta Singh, Sitender Singh, Sonika Kadyan, Jasbir Singh, <b>Devender Singh*</b>	Progress in Natural Science: Materials International 2019, 29,(4), 457-465	ISSN: 1002- 0071	4.8
72	Novel Synthesis and Optical Investigations of Trivalent Europium Doped $MGd_2Si_3O_{10}$ ( $M=Mg^{2+}$ , $Ca^{2+}$ , $Sr^{2+}$ and $Ba^{2+}$ ) Nanophosphors for Full-Color Displays Suman Sheoran, Sitender Singh, Ajay Mann, Anura Samantilleke, Bernabe Mari and <b>Devender Singh*</b>	Journal of Materials NanoScience 2019, 6(2), 73-81	ISSN : 2394- 0867	
71	Fabrication and Photovoltaic characteristics of alizarin dye based DSSCs Raman Kumar Saini, Pratap Singh Kadyan, Jasbir Singh, Shri Bhagwan and <b>Devender Singh</b> *	Der Pharma Chemica 11(2), (2019) 43-48	ISSN: 0975- 413x	
70	Development and characterization of nanosheets attached nanotetrapods of zinc oxide Jasbir Singh, Sukhbir Singh, Sitender Singh, <b>Devender Singh*</b>	SN Applied Sciences 1(8), (2019) 912	ISSN : 2523- 3971	
69	Synthesis, structure and photoluminescent characterization of MYAl <sub>3</sub> O <sub>7</sub> :Eu <sup>3+</sup> (M = Ca, Sr, Mg and Ba) red emitting materials for display applications Sonika Kadyan, <b>Devender Singh*</b>	Journal of Materials Science: Materials in Electronics 29 (20), (2018) 17277-17286	ISSN: 0957- 4522	2.8
68	Electroluminescent materials: Metal complexes of 8- hydroxyquinoline- A review Devender Singh*, Shri Bhagwan, Vandna Nishal, Raman Kumar Saini and Ishwar Singh	Materials & Design 156, (2018) 215-228	ISSN: 0264-1275	7.6
67	Synthesis and Optoelectronic characterization of poly (toluene-co-perylene) copolymer for Light Emitting Application Raman Kumar Saini, <b>Devender Singh</b> , Shri Bhagwan, Sonika and Pratap Singh Kadyan	Nanoscience & Nanotechnology-Asia 8(1), (2018) 26-32	ISSN: 1878- 5352	0.761
66	Optical characterization of $Eu^{3+}$ doped MLSiO <sub>4</sub> ( $M = Ca$ , $Sr$ , $Ba$ and $L = Mg$ ) phosphor materials for display devices <b>Devender Singh*</b> , Suman Sheoran and Jasbir Singh	Journal of Materials Science: Materials in Electronics 2018, 29, 294–302	ISSN: 0957- 4522	2.8
65	Structural and photoluminescence characteristics of M <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Eu <sup>3+</sup> (M = Y, Gd and La) nanophosphors for optoelectronic applications <b>Devender Singh*</b> , Sonika Kadyan and Shri Bhagwan	Journal of Materials Science: Materials in Electronics 2017, 28(18), 13478-13486	ISSN : 0957- 4522	2.8
64	Europium doped silicate phosphors: Synthetic and characterization techniques  Devender Singh*, Suman Sheoran and Vijeta Tanwar	Advanced Materials Letters 2017, 8(5), 656-672	0976-3961 eISSN: 0976- 397X	
63	Synthesis and optical characterization of trivalent europium doped M <sub>4</sub> Al <sub>2</sub> O <sub>9</sub> (M = <i>Y</i> , <i>Gd and La</i> ) nanomaterials for display applications <b>Devender Singh*</b> and Sonika Kadyan	Journal of Materials Science: Materials in Electronics 2017, 28(15), 11142–11150	ISSN: 0957- 4522	2.8

62	Synthesis of SrAl <sub>4</sub> O <sub>7</sub> :Eu <sup>2+</sup> ,Ln <sup>3+</sup> (Ln <sup>3+</sup> =Y, Pr) Nanophosphors using Rapid Gel Combustion Process and their Down Conversion Characteristics <b>Devender Singh*</b> , Vijeta Tanwar, Anura Simantilleke, Bernanbe Mari, Pratap Singh Kadyan and Ishwar Singh	Electronic Materials letters 2017, 13, 222-229 DOI: 10.1007/s13391-017- 6038-4	ISSN: 0957- 4522 ISSN: 1573- 482X	2.1
61	Optical Characteristics of Eu(III) doped MSiO <sub>3</sub> (M = Mg, Ca, Sr and Ba) Nanomaterials for White Light Emitting Applications  Devender Singh*, Suman Sheoran Vijeta Tanwar and Shri Bhagwan,	Journal of Materials Science: Materials in Electronics- 2017, 28, 3243–3253	ISSN: 0957- 4522	2.8
60	Optical characteristics of sol-gel derived M <sub>3</sub> SiO <sub>5</sub> :Eu <sup>3+</sup> (M = Sr, Ca and Mg) nanophosphors for display device technology <b>Devender Singh*</b> , Suman Sheoran, Shri Bhagwan and Sonika Kadyan	Cogent Physics 2016, 3, 1262573	ISSN : 0976- 3961	0.4
59	Synthesis and luminescent characteristics of $M_3Y_2Si_3O_{12}$ : $Eu^{3+}$ ( $M = Ca$ , $Mg$ , $Sr$ and $Ba$ ) nanomaterials <b>Devender Singh</b> * $^{\dagger}$ , Suman Sheoran	Journal of Materials Science: Materials in Electronics- 2016, 27(12), 12707–12718	ISSN: 0957- 4522	2.8
58	Synthesis and optical characterization of color-tunable heterocyclic ligand based beryllium(II) complexes for white lighting applications  Devender Singh*, Shri Bhagwan, Vijeta Tanwar and Raman Kumar Saini	Materials & Design 2016, 100, 245–253	ISSN: 0264-1275	7.6
57	Synthesis and characterization of color-tunable mixed ligand based magnesium complexes for display device applications  Devender Singh*, Shri Bhagwan, Raman Kumar Saini and Vijeta Tanwar	Journal of Materials Science: Materials in Electronics 2016, 27(6), 6464-6473	ISSN: 0957- 4522	2.8
56	Optoelectronic Properties of Color-Tunable Mixed Ligand Based Zinc Complexes for White Light Emitting Devices <b>Devender Singh</b> *, Shri Bhagwan, Raman Kumar Saini, Vijeta Tanwar and Vandna Nishal	Journal of Electronic Materials 2016, 45, 4865-4874 DOI 10.1007/s11664-016-4721-0	ISSN: 0361-5235	2.2
55	Synthesis and luminescent characterization of SrAl <sub>4</sub> O <sub>7</sub> :Eu <sup>2+</sup> ,RE <sup>3+</sup> (RE=Nd, Dy) nanophosphors for light emitting applications <b>Devender Singh*</b> , Vijeta Tanwar, Anura Simantilleke, Bernabe Mari, Pratap Singh Kadyan and Ishwar Singh	Journal of Materials Science: Materials in Electronics 2016, 27, 5303-5308	ISSN : 0957- 4522	2.8
54	Fabrication and Characterization of DSSCs Based on Nano- TiO2 Using azo dyes as Organic Photosensitizers Raman Kumar Saini†, <b>Devender Singh</b> †, Shri Bhagwan, Ishwar Singh and Pratap Singh Kadyan*	Journal of Nanoelectronics and Optoelectronics 2016, 11(5), 715–722	ISSN: 1555- 130X (P): EISSN: 1555- 1318	0.961
53	Preparation and Enhanced Luminescence of Tb(III) Ternary Complexes of β-diketones and Monodentate Auxiliary Ligands  Devender Singh*, Kapoor Singh, Shri Bhagwan, Raman Kumar Saini, Pratap Singh Kadyan and Ishwar Singh	Cogent Chemistry 2016, 2: 1134993, 10 pages	ISSN: 0141- 9382	
52	Bis(5,7-dimethyl-8-hydroxyquinolinato)beryllium(II) complex as optoelectronic material  Devender Singh*, Kapoor Singh, Shri Bhagwan , Raman Kumar Saini, Pratap Singh Kadyan and Ishwar Singh	Journal of Luminescence 2016, 169, 9-15	ISSN 0022-2313	3.3
51	Luminescent Characterization of Eu <sup>2+</sup> doped BaMAl <sub>10</sub> O <sub>17</sub> (M = Ca/Mg or both) Blue Nanophosphors for White Light Emitting Applications  Devender Singh*, Vijeta Tanwar, Anura Simantilke, Pratap Singh Kadyan and Ishwar Singh	Journal of Materials Science: Materials in Electronics 2015, 26: 9977–9984	ISSN: 0957- 4522	2.8
50	Photoluminescent Characterization of MAl <sub>2</sub> O <sub>4</sub> :Eu <sup>2+</sup> ,Dy <sup>3+</sup> (M = Ca /Ca+Ba /Ca+Mg) Blue Nanophosphors for White Light Display Applications  Devender Singh*, Vijeta Tanwar, Anura Simantilke, Bernanbe Mari, Pratap Singh Kadyan and Ishwar Singh	Advanced Materials Letters 2016, 7(1), 47-53	ISSN: 0976- 3961 eISSN: 0976- 397X	
49	Rapid synthesis and enhancement of down conversion emission properties of green SrAl <sub>2</sub> O <sub>4</sub> :Eu <sup>2+</sup> ,Ln <sup>3+</sup> (Ln <sup>3+</sup> =Dy/Dy,Nd) nanophosphors  Devender Singh*, Vijeta Tanwar, Anura Simantilleke, Bernabe Mari, Pratap Singh Kadyan and Ishwar Singh	Journal of Electronic materials 2016, 45, 2718-2724	ISSN: 0361-5235	2.2
48	Rapid synthesis and enhancement in down conversion emission properties of $BaAl_2O_4$ : $Eu^{2+}$ , $RE^{3+}$ ( $RE^{3+}$ = $Y$ , $Pr$ ) nanophosphors	Journal of Materials Science: Materials in Electronics,	ISSN : 0957- 4522	2.8

	<b>Devender Singh*</b> , Vijeta Tanwar, Anura Simantilke, Bernanbe Mari, Pratap Singh Kadyan and Ishwar Singh	2016, 27, 2260-2266			$\prod$
47	Optoelectronic characterization of trivalent europium doped $Gd_2O_3$ and $MGd_2O_4(M=Ba\ or\ Sr)$ nanophosphors for display device applications  Devender Singh*, Vijeta Tanwar, Shri Bhagwan, Suman Sheoran, Vandna Nishal, Anura Priyajith Samantilleke, Bernabe Mari and Pratap Singh Kadyan	Journal of Nanoelectronics and Optoelectronics 2016, 11, 305-310	ISSN: 1555- 130X (Print): EISSN: 1555- 1318	0.961	
46	Synthesis and optical characterization of europium doped MY <sub>2</sub> O <sub>4</sub> (M = Mg, Ca, Sr) nanophosphors for solid state lightening applications  Devender Singh*, Vijeta Tanwar, Shri Bhagwan, Vandna Nishal, Suman Sheoran, Sonika Kadyan, Anura P. Samantilleke and Pratap Singh Kadyan	Indian Journal of Materials Science 2015, Article ID 845065, 8 pages	2314-7490 (Online)		
45	Characterization and luminescent properties of zinc-Schiff base complexes for WOLED.  Vandna Nishal, <b>Devender Singh</b> , Raman Kumar Saini, Vijeta Tanwar, Sonika and Pratap Singh Kadyan	Cogent Chemistry 2015, 1, 1079291, 10 pages	ISSN: 0141- 9382		
44	Synthesis and Optical Characterization of Mixed Ligands Beryllium-Complexes for Display Device Applications Vandna Nishal, <b>Devender Singh</b> , Raman Kumar Saini, Vijeta Tanwar, Shri Bhagwan Sonika Kadyan, Ishwar Singh and Pratap Singh Kadyan	International Journal of Optics 2015 (2015), Article ID 691854, 7 pages	ISSN: 1687-9384 E-ISSN: 1687-9392	1.8	
43	Synthesis and optoelectronic characterization of heterocyclic ligands based Magnesium-complexes as light emitting materials  Vandna Nishal, <b>Devender Singh</b> , Raman Kumar Saini, Shri Bhagwan , Vijeta Tanwar, Sonika, Sonia Verma, Ishwar Singh and Pratap Singh Kadyan	Der Pharma Chemica 2015, 7(9), 326-333	ISSN 0975-413X		
42	Optoelectronic characterization of zinc complexes for display device applications Vandna Nishal, <b>Devender Singh</b> , Raman Kumar Saini, Shri Bhagwan, Vijeta Tanwar, Sonika, Ritu Srivastava and Pratap Singh Kadyan	Journal of Materials Science: Materials in Electronics, 2015, 26 (9), 6762-6768	ISSN: 0957- 4522	2.8	
41	Optoelectronic characterization of $Eu^{3+}$ doped $MLa_2O_4$ ( $M = Sr$ , $Ca$ , $Mg$ ) nanophosphors for display devices <b>Devender Singh</b> , Vijeta Tanwar, Anura P. Samantilleke and Pratap Singh Kadyan	Cogent Physics 2015, 2: 1104200, 13 pages	ISSN : 0976- 3961		
40	Photovoltaic characterization of dye sensitized solar cells based on TiO <sub>2</sub> nanoparticles using triarylmethane dyes as photosensitizers Raman Kumar Saini, <b>Devender Singh</b> , Shri Bhagwan, Sonika, Ishwar Singh and Pratap Singh Kadyan	Journal of Nanoelectronics and Optoelectronics 2016, 11,(3), 175-182.	ISSN 1555-130X EISSN: 1555- 1318	0.961	
39	Photovoltaic analysis and effect of electrolyte on nano-titania based DSSCs using Patent blue V dye Raman Kumar Saini, <b>Devender Singh</b> , Shri Bhagwan, Sonika, Ishwar Singh and Pratap Singh Kadyan	Der Pharma Chemica, 2015, 7(8), 162-169	ISSN 0975-413X		
38	Photovoltaic characterization of nano-titania based DSSCs using xanthene dyes Raman Kumar Saini, <b>Devender Singh</b> , Shri Bhagwan, Sonika, Ishwar Singh and Pratap Singh Kadyan	Research Journal of Pharmaceutical, Biological and Chemical Sciences (RJPBCS) 2015, 6(5), 1108-1116.	ISSN 0975-8585	0.35	
37	Heavy metals in Wheat Grains of Haryana (India) and their Health Implications.  Sonia Verma, Sanjiv K. Yadav, Sudesh Yadav, <b>Devender Singh*</b> and Ishwar Singh*	Journal of Chemical and pharmaceutical research, 2015, 7(10), 342-351.	ISSN: 0975-7384		
36	Evaluation of Serum Metal Profile in Relation to Biri Smoking using ICP-MS Sonia Verma, Sudesh Yadav*, <b>Devender Singh</b> , Partap Singh Kadyan and Ishwar Singh	International Journal of Environmental Analytical Chemistry 2015, 95, 14, 1385–1394	ISSN 0306- 7319 (Print), 1029-0397 (online)	2.3	
35	Characterization of Near Infrared Light Emitting (benzene-co- pentacene) copolymer. Raman Kumar Saini, <b>Devender Singh</b> , Shri Bhagwan, Sonia Verma, Sonika and Pratap Singh Kadyan	Der Pharma Chemica, 2014, 6, (4), 255-260	ISSN 0975- 413X		
34	Synthesis and optoelectronic characterization of mono(5,7-dichloro-8- hydroxyquinolinato)bis(8-	Advanced Science Letter, 2014, 20, 1396-1400	ISSN/eISSN 1936-		

	hydroxyquinolinato)aluminium(III) complex. Kapoor Singh, <b>Devender Singh</b> , Amit Kumar, Shri Bhagwan, Raman Kumar Saini, Pratap Singh Kadyan, Ritu Shrivastva and Ishwar Singh*		6612/1936- 7317	
33	Enhanced luminescence from the β-diketone based europium complexes.  Kapoor Singh, Raman Kumar Saini, <b>Devender Singh</b> , Pratap Singh Kadyan, Shri Bhagwan, Ritu Shrivastva and Ishwar Singh*	Advanced Science Letter, 2014, 20, 1475-1478	ISSN/eISSN 1936- 6612/1936- 7317	
32	Synthesis and Optical Characterization of Terbium Doped M <sub>2</sub> SiO <sub>4</sub> Nanophosphors.  Devender Singh*, Vijeta Tanwar, Shri Bhagwan, Anura P. Simantilleke, Ishwar Singh and Pratap Singh Kadyan	Advanced Science Letter, 2014, 20,1531-1534	ISSN/eISSN 1936- 6612/1936- 7317	
31	Synthesis and luminescent characterization of MAlO <sub>3</sub> :Eu <sup>3+</sup> red nanophosphors. <b>Devender Singh*</b> , Vijeta Tanwar, Shri Bhagwan, Sonika, Pratap S. Kadyan, Anura P. Simantilleke and Bernabe Mari	Advanced Science Letter, 2014, 20, 1726-1729	ISSN/eISSN 1936- 6612/1936- 7317	
30	A new zinc-schiff base complex as an electroluminescent material. Vandna Nishal, <b>Devender Singh</b> , Amit Kumar, Vijeta Tanwar, Ishwar Singh, Ritu Srivastava and Pratap Singh Kadyan*	Journal of Organic Semiconductors, 2014, 2(1), 15-20	ISSN/ E-ISSN 2160-6099/ 2160-6110	
29	Synthesis and characterization of soluble (Benzene-co- perylene) copolymer. Raman Kumar Saini*, <b>Devender Singh</b> , Shri Bhagwan, Sonika and Pratap Singh Kadyan	Chemical Science Transactions, 2014, 3(3), 1193-1199.	ISSN/E-ISSN 2278-3458/ 2278-3318	1.011
28	Red emitting $MTiO_3$ ( $M = Ca$ or $Sr$ ) phosphors doped with $Eu^{3+}$ or $Pr^{3+}$ with some cations as co-dopants.  B. Mari, K.C. Singh, Paula Cembrero-Coca, Ishwar Singh, <b>Devender Singh</b> , Subash Chand	Display 2013, 34(4), 346–351	0141-9382	3.074
27	Synthesis, Characterization and Electroluminescent Characteristics of Mixed-Ligand Zinc(II) Complexes. Vandna Nishal, Amit Kumar, Pratap Singh Kadyan, <b>Devender</b> Singh, Ritu Srivastava, Ishwar Singh, Modeeparampil N. Kamalasanan	Journal of Electronic Materials, 2013, 42(6), 973-978	0361-5235	2.2
26	Tris[2,4,6-(2-hydroxy-4-sulhpo-1-naphthylazo)]-s-triazine, trisodium salt as a spectrophotometric Reagent for microdetermination of Lead(II) in alloys, environmental and biological samples.  Pratap Singh Kadyan*, <b>Devender Singh</b> , Sapana Garg, Sonia Verma and Ishwar Singh	Research Journal of Chem. Environ., 2013, 17(3), 53-58.	E-ISSN No. 2278-4527	0.238
25	Selective Determination of Uranium Using 1-(2-Quinolylazo)-2,4,5-Trihydroxybenzene as a Colorimetric Reagent. Pratap Singh Kadyan*, Sapana Garg, <b>Devender Singh</b> and Sonia Verma	Chemical Science Transaction, 2013, 2(2), 435- 440.	ISSN/E-ISSN 2278-3458/ 2278-3318	1.011
24	Spectrophotometeric Determination of Zinc (II) in Food-Stuffs and Biological Samples with Tris-[2,4, 6-(2-Hydroxy-4-Sulpho-1-Naphthylazo)]-S-Triazine, Trisodium Salt. Sapana Garg, <b>Devender Singh</b> , Sonia Verma and Pratap Singh Kadyan*	Journal of Chemical, Biological and Physical Sciences, 2012, 2(4), 1746-1752.	e- ISSN: 2249 -1929	2.307
23	Micro-determination of Vanadium using 1-(2-Quinolylazo)-2,4,5-trihydroxybenzene as an Analytical Reagent. Pratap Singh Kadyan, <b>Devender Singh</b> , Ashok Sharma, Poonam, Sonia Verma and Ishwar Singh*	Der Pharma Chemica, 2012, 4(4), 1577-1581.	0975-413X	
22	Enhanced Red Emission from Europium Doped Yttrium Oxide Nano Phosphor.  Devender Singh*, Pratap Singh Kadyan, Vijeta Tanwar, Vandna Nishal, Sang-Do Han and Ishwar Singh	Asian Journal of Chemistry, 2012, 24(12), 5873 – 5875	0970-7077	0.535
21	Spectrophotometric determination of trace cadmium in tobacco with tris-[2,4,6- (2-hydroxy-4- sulpho-1-naphthylazo)]-s- triazine, trisodium salt Pratap Singh Kadyan, <b>Devender Singh</b> and Ishwar Singh	Asian Journal of Chemistry, 2012, 24(12), 5876-5878.	0970-7077	0.535
20	Rapid gel synthesis and optical characterization of the Y <sub>2-x</sub> O <sub>3</sub> :xTb <sup>3+</sup> nano phosphor. <b>Devender Singh*</b> , Ishwar Singh, Pratap Singh Kadyan, Subash Chand, Vijeta Tanwar and Sang Do Han	Archives of Applied Science Research, 2012, 4 (1), 518-523.	0975-508X	

•	naphthylazo)pyridine as a spectrophotometric method for	2003, 15 (3&4), 1699-1702.	7077	0.333
3	Singh  Reaction of lead(II) with 2,6-bis(1-hydroxy-2-	43A, 2004, 2542-2544.  Asian journal of Chemistry,	ISSN: 0970-	0.535
4	Preparation of small-sized particles of Eu <sup>2+-</sup> activated barium magnesium aluminate phosphors Sang Do-Han, Chi-Hwan Han Ishwar Singh and <b>Devender</b>	Indian Journal of Chemistry - Section A Inorganic, Physical, Theoretical and Analytical Chemistry,	ISSN: 0376- 4710	0.491
5	Crystal growth of electroluminescent ZnS:Cu,Cl phosphor and its TiO <sub>2</sub> coating by sol-gel method for thick film El device.  Sang Do-Han, Ishwar Singh, <b>Devender Singh</b> , You-He Lee, Gaytri Sharma and Chi-Hwan Han	Journal of Luminescence, 2005, 115, 97-103.	0022-2313	3.3
0	ZnS:Cu,Cl phosphor. Gaytri Sharma, Anita Sharma, <b>Devender Singh</b> , Ishwar Singh, Young-Woo Rhee and Sang Do-Han	2005, 44A, 447-451.		U. <del>4</del> 91
6	Sanjiv K. Yadav, Ishwar Singh, <b>Devender Singh</b> and Sang Do- Han  Synthesis and photoluminescent characteristics of yellow	Management, 2005, 75 (2), 129-132. Indian Journal of Chemistry,	0376-4710	0.491
7	Ishwar Singh, A. K. Sharma, S. K. Yadav and <b>Devender Singh</b> Selenium Status in Soils of Northern Districts of India.	2006, 83, 97-100.  Journal of Environmental	0301-4797	8.0
8	Anita Sharma, <b>Devender Singh</b> and Ishwar Singh*  A bis-azo dye as a chromogenic reagent for determining traces of copper in foodstuffs, blood sera and body tissues.	Journal of Indian Chemical Society,	0019-4522	3.2
9	Synthesis and characterization of optical properties of europium (III) complex with 4,4,4-trifluoro-1-phenyl-1,3-butanedione and 1,10-Phenanthroline.	Proc. of ASID '06, 8-12 Oct, New Delhi, 262- 263, 2006.		
10	Electroluminescent characteristics of OLEDs fabricated with bis(5,7-dichloro-8-ydroxyquinolinato) zinc(II) as light emitting material.  Anita Sharma, <b>Devender Singh</b> , J.K. Makrandi, M.N. Kamalasanan, Ritu Shrivastva and Ishwar Singh*	Materials Letters 2007, 61, 4614–4617	0167-577X	2.7
11	Development of micro hydrogen gas sensor with SnO <sub>2</sub> -Ag <sub>2</sub> O-PtO <sub>x</sub> composite using MEMS process.  Il Jin Kim, Sang Do Han, Chi Hwan Han, Jihye Gwak, Dae Ung Hong, <b>Devender Jakhar</b> , K.C. Singh and Jin Suk Wang	Sensors and Actuators B: Chemical, 2007, 127(2), 441-446	0925-4005	8.0
12	Selenium Status in food grains of Northern Districts of India. Sanjiv K. Yadav, Ishwar Singh, Anita Sharma and <b>Devender</b> Singh	J. Environment management, 2008, 88, 770-774.	0301-4797	8.0
13	Fabrication and characterization of OLED with Mg complex of 5-chloro-8-hydroxyquinoline as emission layer.  Anita Sharma, <b>Devender Singh</b> , J.K. Makrandi, M.N. Kamalasanan, Ritu Shrivastva and Ishwar Singh*	Materials Chemistry and Physics, 2008, 108(2-3), 179-183.	0254-0584	4.3
14	Preparation and characterization of long persistence strontium aluminate phosphor.  Sang-Do Han, Krishan C. Singh, Tai-Yeon Cho, Hak-Soo Lee, Devender Jakhar, Chi-Hwan Han, Jihye Gwak	Journal of Luminescence 2008, 128 (3), 301-305	0022-2313	3.3
L <b>5</b>	White organic light emitting diode based on 2-methyl-8-hydroxyquinolinatolithium stacked with DCM dye. Amit Kumar, Ritu Shrivastva, S.S. Bawa, <b>Devender Singh</b> , Kapoor Singh, Gaytri Chauhan, M. N. Kamalasanan and Ishwar Singh	Journal of Luminescence, 2010, 130, 1516-1520	0022-2313	3.3
16	Electroluminescent characteristics of bis(5-chloro-8-hydroxyquinolinato) zinc(II) complex.  Anita Sharma, <b>Devender Singh</b> , P.S. Kadyan, Amit Kumar, Kapoor Singh, Gayatri Chauhan and Ishwar Singh	Indian Journal of Chemistry, 2010, 49A (4), 448-451.	0376-4710	0.412
L <b>7</b>	1-(2-Quinolylazo)-2,4,5-trihydroxybenzene as Spectrophotometric Reagent for Micro-determination of Palladium (II).  Pratap Singh Kadyan, <b>Devender Singh</b> , Ashok Sharma and Ishwar Singh*	Der Pharma Chemica, 2011, 3(6), 70-74.	0975-413X	
	Quinolylazo)-2,4,5-trihydroxybenzene. Pratap Singh Kadyan, <b>Devender Singh</b> , Ashok Sharma, Poonam, Sonia Verma and Ishwar Singh*	Chemists, 2011, 28(2), 1-6	0075 412V	
19 18	Micro-determination of palladium using 2, 6-bis(1-hydroxy-2-naphthylazo)pyridine as an analytical reagent.  Pratap Singh Kadyan, <b>Devender Singh</b> and Ishwar Singh*  Spectrophotometric Determination of Silver with 1-(2-	Asian Journal of Chemistry, 2012, 24(10), 4594-4596.  Journal of Indian Council of	0970-7077	0.535

	determination of phosphate and citrate.				
	Ishwar Singh, Ashok K. Sharma, Sanjiv K. Yadav and				
	Devender Singh				
2	Synthesis and analytical applications of a new heterocyclic bis-	Asian journal of Chemistry,	ISSN: 0970-	0.535	
	azo dye: 2,6-Bis(7-hydroxyphenanthryl-8-azo)pyridine	2003, 15(2), pp 1069-1074.	7077		
	Ishwar Singh, Ashok K. Sharma, Sanjiv K. Yadav and				
	Devender Singh				
1	Synthesis and analytical studies of a new bis-azo dye: 2,6-	Asian journal of Chemistry,	ISSN: 0970-	0.535	
	Bis(9-hydroxyphenanthryl-10-azo)pyridine	2003, 15(1), 185-190.	7077		
	Ishwar Singh, Ashok K. Sharma, Sanjiv K. Yadav, Devender				
	Singh and Sang Do-Han				

### Invited talk in Refresher Course/ conference/seminar/workshop/symposia etc.

- 1. Delivered a talk on "Display Materials: Characterization and their Applications" in STUTI programme of DST, New Delhi organized by the DCRUST Murthal (15.07.2022).
- 2. Delivered a talk on "Materials: Applications and their Chemistry" in Online Refresher Course on "Chemistry" organized by HRDC of Kurukshetra University, Kurukshetra (Haryana). (12-10-2020).
- 3. Delivered a talk on "Chemistry: Various application of Materials" in Online Refresher Course on "Chemistry" organized by HRDC of Guru Jambheshwar University of Science & Technology, Hisar (Haryana) (07-10-2020).

### Participation and papers presented in conference/seminar/workshop/symposia etc.

Sr.	Title of the paper presented	Title of the conference/ seminar etc &	Date of	Conferences
No.		organizer	event	details
36	Enhancing luminescence of europium(III) β-diketonates with ancillary ligands: Investigating opto-electronic characteristics	3 <sup>rd</sup> Indian analytical congress (IAC-2022)(An International conference and exhibition), Dehradoon, Uttarakhand, India	5-7 June, 2024	International
35	Sm(III) doped GdSr <sub>2</sub> AlO <sub>5</sub> nanophosphors: Struc tural and Optical Analysis for Lighting Applications	International Conference on "Designing a Sustainable Future: Advances and Opportunities in Green chemistry (ICGC-2023)" at Leh Campus, Taru Thang, University of Ladakh	3-5 July, 2023	International
34	Terbium Doped Y4Al2O9 Nanophosphors: Optical and Structural Characteristics for Solid State Displays	11th International Conference on Materials for Advanced Technologies (ICMAT2023) held at Suntec, Singapore	26-30 June, 2023	International
33	Mononuclear Luminous Ln(III) complexes with bidentate ligands for lighting applications: Synthesis and photophysical investigations	2 <sup>nd</sup> Indian analytical congress (IAC-2022)(An International conference and exhibition), Dehradoon, Uttarakhand, India	26-28 May, 2022	International
32	Synthesis and luminescent characteristics of fluorinated diketone based Eu <sup>3+</sup> compounds for display applications	1st International Conference on Indian Science Congress Association-Rohtak Chapter on Science & Technology: Rural development (ICSTRD 2020)	March 4-5, 2020	International
31	Structural and photoluminescent analysis of trivalent europium doped MLaAl <sub>3</sub> O <sub>7</sub> (M = Ba, Ca, Mg and Sr) nanophosphors	Indian Analytical Congress-2019 (An International Analytical Conference and Exhibition)	December 12-14, 2019	International
30	Synthesis and Optical Investigation of M <sub>2</sub> Si <sub>3</sub> O <sub>8</sub> :Eu <sup>3+</sup> (M=Ca and Sr) Nanophosphors for Display Devices	National Conference on Science & Technology for Rural development (NCSTRD 2019)	Oct, 14-15, 2019	National
29	Luminescence and structural Characteristics of Europium(III) activated SrGdAl <sub>3</sub> O <sub>7</sub> Nanophosphor	National Conference on Science & Technology for Sustainable development (NCSTSD 2019)	Feb, 12-13, 2019	National
28	Preparation and Optoelectronic Characterization of Zinc-Complexes for display applications	National Conference on Nano Structured Materials and Device Technologies (NCNSMDT-2018)	Dec, 21-22, 2018	National
27	Synthesis and Luminescent Characterization of Color-Tunable Mixed Ligand Based Light Emitting Zinc-Complexes	International Conference on Advances in Analytical Sciences (ICAAS-2018), Dehradoon, Uttarakhand, India	15-17 March, 2018	International
26	Luminescence Characterization of Silicate Nanophosphors for Display Applications	National conference held at Gurukul Kangri Visvidhalaya, Haridwar, Uttarakhand	20-22 Nov, 2016	National
25	Optical Characterization of Trivalent Europium Doped M <sub>2</sub> SiO <sub>4</sub> (M=Sr, Ca, Mg) Nanophosphors for Optoelectronic Applications	International Conference IUMRS-ICEM2016 held at Suntec, Singapore	4-8 July, 2016	International

24	Synthesis and luminescent characterization of CaMgSi <sub>2</sub> O <sub>6</sub> :RE <sup>3+</sup> (RE <sup>3+</sup> =Eu or Tb) nanophosphors	International Conference on Materials Science & Technology held at University of Delhi, Delhi, India	1-4 march, 2016	International
23	Synthesis and Optical Characteristics of Color- Tunable Mixed Ligand Based Zinc Complexes for Organic Light Emitting Devices	NCOSC-2016, Department of Chemistry, Guru Jambheswar University of Science and Technology, Hisar, Haryana	17-18 Feb, 2016	National
22	Enhanced optical characterization of the terbium (III)-complexes of β-diketone and ancillary ligands	Presented at International conference held at Birla Institute of Technology and Science, Pilani	16-18 Oct. 2015	International
21	Synthesis and improved optical properties of the $\beta$ -diketone based Eu(III)-complexes	Presented at National conference held at Gurukul Kangri Vishvidhalaya, Haridwar	28-30 Sept 2015	National
20	Preparation and optical characterization of the blue-green nanophosphors	NSAS held at Jamia Humdard University, New Delhi	Feb, 2015	National
19	Synthesis and Spectral Characterization of Europium doped MY <sub>2</sub> O <sub>4</sub> phosphors	Indian Science Congress, hled at University of Mumbai, Maharastra	3-7 Jan, 2015	National
18	Synthesis and Optical Characterization of Terbium Doped M <sub>2</sub> SiO <sub>4</sub> Nanophosphors	Presented in the National conference (NCNRE-2014) held at Jamia Milia Ishlamia University, New Delhi	28-29 April, 2014	National
17	Synthesis and characterization of Zinc-schiff base complex as a blue electroluminescent material	Presented in the Indian Science Congress (ISCA), Jammu University, Jammu.	3-7 Feb, 2014	National
16	Synthesis and Optoelectronic Characterization of SrAl <sub>4</sub> O <sub>7</sub> : Eu <sup>2+</sup> ,(Dy, Y) <sup>3+</sup> nano phosphor	Presented in the National conference on <b>Advances in Chemical Sciences</b> (ACS-2013), held at Department of Chemistry, Maharshi Dayanand University, Rohtak, Haryana.	1-2 Mar, 2013	National
15	Synthesis and Optoelectronic Characterization of the Green Nano Phosphor	Presented in the 31 <sup>st</sup> Annual Conference of Indian Council of Chemists (ICC), held at Department of Chemistry, Saurashtra University, Rajkot, Gujrat.	26-28 Dec., 2012	National
14	Synthesis and Characterization of the SrLa <sub>2</sub> O <sub>4</sub> :Eu phosphor	Presented in National Conference on "Global Challenges: New Frontiers in Chemical Sciences" (GC-NFCS-2012), held at Kurukshetra University, Kurukshetra.	22-23Sep, 2012	National
13	Micro-determination of Lead(II) in Environmental and Biological samples	Presented in the National Seminar on Environmental Pollution and its Mitigation Strategies, held at JNU, New Delhi.	28-29 Mar, 2012	National
12	Enhanced Red emission from europium doped Yttrium oxide Nano phosphor	Presented in the International Conference on Global Trends in Pure & applied Chemical Sciences (ICGTCS-2012), held at Udaipur, India	3-4 Mar, 2012	International
11	Determination of Uranium Using a Heterocyclic Azo Dye as a Colorimetric Reagent	Presented in the National conference on SETMRC, held at Ujjain, M.P.	25-26 Nov 2011	National
10	Synthesis and optical characterization of nano ZnS phosphor	Presented in the Indian Science Congress, SRM University, Chennai	3-7 Jan 2011	International
9	Synthesis and Optical properties of red nano $(Y_{1-x}Eu_x)_{2-y}K_yO_{3-y}$ phosphor	Presented in the Indian Council of Chemist, Punjab University, Chandigarh	Dec 2010	National
8	Synthesis of green (ZnS:Cu,Cl) electroluminescent phosphor for thick-film EL devices	Presented in the Indian Science Congress, KERELA, Jan 2010	3-7 Jan, 2010	National
7	Synthesis and Optical Characterization of Nanocrystalline Y <sub>2</sub> O <sub>3</sub> :Tb <sup>3+</sup> Phosphor By Novel Method	Presented in the 27 <sup>th</sup> Annual conference of Indian Council of Chemist held at Haridwar	Dec, 2008	National
6	Preparation and Optical Properties of Green Eu- Doped Long Persistent Aluminate Phosphor	95 <sup>th</sup> Indian Science Congress, Visakhapatnam, Andhra Pardesh	3-7 Jan, 2008	National
5	Synthesis and optical characterization of nano $(Y_{1-x}Eu_x)_2O_3$ : MX phosphor	International Workshop on Advanced Materials and Technologies for Nano and Oxide Electronics,IIT, Delhi	Feb. 2007	International
4	A new method for the preparation of nano long persistent aluminate phosphor and their optical properties	18th Annual General Meeting of the Materials Research Society of India (MRSI), NPL, New Delhi	Feb. 2007	National
3	Synthesis and luminescence characterization of Eu-doped Y <sub>2</sub> O <sub>3</sub> phosphor by improved combustion method	National Symposium on Modern Trends in Chemical Sciences, KU, Kurukshetra	Oct, 2006	National
2	Synthesis and optical characterization of Eudoped Y <sub>2</sub> O <sub>3</sub> and [(Y,Gd) <sub>2</sub> O <sub>3</sub> ] phosphor by improved method	ASID 06, New Delhi	Oct, 2006	International
1	Micro-determination of copper in foodstuffs and biological samples with the help of a new bis- azo dye.	Presented in '90th Indian Science Congress' held at Banglore	Jan 2003	National