

Profile of Prof. Rajesh Kumar Malik

(H-index = 30 at SCOPUS, i-10 Index=74)

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A Noble Professor of Chemistry is not just a teacher or researcher—they are a leader, mentor, and ambassador for the scientific community and the institution. Their role bridges academia, industry, public outreach, and policy, while continuing to push the boundaries of chemical science.

Research fields:

- Analytical Chemistry & Polarography
- Luminescent materials/Nano phosphors
- **Best Research Award of M.D.U in March 2018-2023**

Number of Research Students 1+1+1+1+1+1+1+ 1+1+1 = 10

Educational qualifications

Degree	Year of passing	University/ Institute
Ph. D	1994	M. D. University, Rohtak, Haryana
M. Sc.	1991	M. D. University, Rohtak, Haryana
B. Sc	1988	M. D. University, Rohtak, Haryana

Career profile

Designation	Institute served	Duration	
Asst. Professor	A.I.J.H.M College, Rohtak	6August 2008	30April, 2010
Asst. Professor	Department of Chemistry, M.D. University, Rohtak	1 st May 2010	30 April 2022
Associate. Professor	Department of Chemistry, M.D. University, Rohtak	1 st May 2022	Till now
Professor	Dept. of Chemistry, M.D.U, Rohtak	1 st May 2025	Continue....

Life Member of following:

- Indian Council of Chemists
- Indian Science Congress

Research Publications, Total = 105 (**SCOPUS & Web of Science indexed Journals**)

(Elsevier, Springer-Nature, Taylor & Francis, RSC and Willey)	Annexure-1
Papers Presented in National Conferences, Total = 25	Annexure-2
International Conferences, Total = 11	Annexure-3
Workshops attended, Total = 10	Annexure-4
Seminars attended, Total = 15	Annexure-5
Courses Attended, Total = 9	Annexure-6
Participated as Organizer, Total = 08	Annexure-7
Key-Note Lectures / Resource Person in Conferences = 07	Annexure-8
Chaired-Sessions in conferences = 07	Annexure-9
My Ph. D Students = 08 (One Gold Medal)	Annexure-10
Books Published (International) = 10	Annexure-11

List of the publications**Annexure-1**

1. O.P. Agrawal, K.K. Verma, S.P. Khatkar and Rajesh Malik, Amperometric Trace Determination of Cu (II), Ag(I), Au (III), Pd (II) and Pt (IV) with 2-Mercapto and 3-Mercaptopropanoic acids, Asian journal of Chemistry, Vol. 6, No.4(**1994**), 911-916. **I.F =0.7**
2. O.P. Agrawal, S.P. Khatkar and Rajesh Malik, Amperometric Trace Determination of Rh (III), Os (III) and Ir (III) with 2-and 3-Mercaptopropanoic acids, SAEST, Vol. 31, No. 4(**1996**), 147-153. **I.F =0.7**
3. O.P. Agrawal, S.P. Khatkar and Rajesh Malik, Amperometric Determination of Metal Ions with Thioacids – Copper, Silver, Gold, Palladium and Platinum with Thioacetic acid J. Electrochem Soc., India, Vol. 47-1 (**1998**), 71-74. **I.F =0.7**
4. Agrawal, K.K. Verma, S.P. Khatkar and Rajesh Malik, Amperometric Trace Determination of Ir (III). Proc. 81st Ind. Sc. Cong. Part III (Abstracts).
5. O.P. Agrawal, K.K. Verma, S.P. Khatkar and Rajesh Malik, Amperometric Trace Determination of Ru(III) with the help of 2-mercaptopropanoic acid. Vijana Parishad Anusandhan Patrika; Vol. 36 NO. 4(1993), 261-265. **I.F =0.7**

6. O.P. Agrawal, S.P. Khatkar & Rajesh Malik, Exploitation of Maximum in the Metal Wave for the Amperometric Determination of Small Amounts of Pt.(IV). Journal of Scientific & Industrial Research, Vol. 57, September, (1998),536-538. **I.F =1.7**

7. O.P. Agrawal S.P. Khatkar, Dayawati and Rajesh Kumar Malik, Amperometric Trace Determination of Ru (III), Rh (III) and Os (VIII) with Ethanetic Acid: SAEST, Vol. 33, NO. 1 (1998) 28-31.

8. **Rajesh Kumar Malik** Jitender Kumar, Sapna Garg and K.K. Verma, “Study on the reducing properties of some diaryl ditellurides” in Indian J. Chem. Soc. Vol.11(3) 2013,1256-1260, **ISSN-0019-452 I.F =1** <https://www.tsijournals.com/abstract/study-on-the-reducing-properties-of-some-diaryl-ditellurides-10633.html>

9. **Rajesh Kumar Malik** Jitender Kumar and K.K. Verma, “Study on the Pyrazine Complexes of some Diary tellurium Dihalides” in **Oriental Journal of Chemistry 2013, Vol.29(4) 1339-1349. ISSN -0970-020X I.F = 1** <http://dx.doi.org/10.13005/ojc/290409>

10. **Rajesh Kumar Malik** Jitender Kumar, and Neelam Kumari, “An Efficient Solvent Free Synthesis of Coumarins via Solid Phase Packman Reaction”. in **Chemical science Transaction 2015,4(4), 1092-1094. ISSN: 2278-3458. I.F = 0.7**

https://scholar.google.co.in/scholar?q=An+Efficient+Solvent+Free+Synthesis+of+Coumarins+via+Solid+Phase+Packman+Reaction&hl=en&as_sdt=0&as_vis=1&oi=scholar

11. **Rajesh Kumar Malik** S.K Dewan, Anju and “Synthesis of tetra ketones from 5,5-dimethylcyclohexane-1,3-diones and arylaldehydes in water in presence of sodium bicarbonate, sodium sulphate, MgSO₄, NaCl, sodium lauryl sulphate, BaCl₂ polyethylene glycol and alumina in excellent yields with and without the assistance of microwaves”. Achievers of Applied Science Research, 2016, 8 (1): 1-6 **ISSN; 0975-508X Coden (USA) AASRC9**

12. **R.K. Malik**, S.K Dewan and Anju in Synthesis of 2- (benzylidene)-5,5-dimethylcyclohexane-1,3-diones and 2-(benzylidene)- malononitriles by condensation of dimedone and malononitrile with arylaldehyde in the presence of LiCl, CH₃COONa, MgSO₄, BaCl₂, CH₃COONa, NaCl, alanine, Na₂SO₄, (sodium sulphate + alanine) catalysts in high yields at room temperature in aqueous medium. Achievers of Applied Science Research: 2016,8(3); 29-33.

ISSN; 0975-508X Coden (USA) AASRC9.

13. **Rajesh Kumar Malik** “Synthesis of Novel 1,5-Benzothiazepine as CNS Agents” in **Acta Ciencia India**, Vol. XLIIIC, No.2,234-240 (2017) **ISSN-025-7338 (UGC No.605)**

14. **Rajesh Kumar Malik**, Jitender and Surendra, “Synthesis and Characterization of tris-(4-phenoxyphenyl) amine by Conventional method,” in Chemical science Transaction 2017, 6 (1), 8-12. **ISSN: 2278-3458. I.F = 0.7**

15. **R. K. Malik** and Anuradha, “Synthesis of Fluorescent Conjugated Polyacrylic acid” in Journal of Applied Chemistry, Vol.9 No. 1 (2018) 7-9. **ISSN 0976-7355 I.F = 0.3**

- 16. R. K. Malik** and Ashima Malik “Confined Space in Biomolecules” in Journal of Applied Chemistry, Vol.9 No.1 (2018) 21-25. **ISSN 0976-7355** **I.F = 0.3**
- 17. Anju Hood**, S.P. Khatkar, Avni Khatkar, Jyoti Dalal, Sushma Devi, R.K. Malik and V.B. Taxak Crystal structure, synthesis and photoluminescent properties of a reddish-orange light emitting SrGdAlO₄: Sm³⁺ nanophosphor in Journal of Materials Chemistry and Physics: <https://doi.org/10.1016/j.matchemphys.2019.04.05>. 232 (2019) 39-48. **I.F. 2.73**
<https://doi.org/10.1016/j.matchemphys.2019.04.054>
- 18. Anju Hooda**, S.P. Khatkar Avni Khatkar and V.B Taxak, Reddish orange light emission via combustion synthesis Ba₃Y₄O₉:Sm³⁺ nanocrystalline phosphor upon near ultraviolet excitation in **Journal of Luminescence:217(2020)116806**. **I.F = 2.79**
<https://doi.org/10.1016/j.jlumin.2019.116806>
- 19. Anju Hooda**, S.P. Khatkar Avni Khatkar, R.K. Malik and V.B Taxak, “Combustion Synthesis, Judd-Ofelt parameters and optical properties of color tunable Ba₃Y₄O₉:Eu³⁺ nanophosphor for near-UV based WLEDs” in **Journal of Material sciences: Materials in Electronics, (2019) 30:8751-8762**. **ISSN is 1573-482X SPRINGER NATURE** **I.P = 3.02**
<https://link.springer.com/article/10.1007/s10854-019-01199-y>
- 20. Anju Hooda**, Avni Khatkar, Mukesh Kumar, Sushma Devi, R.K. Malik, S.P. Khatkar & V.B. Taxak, Crystal Configuration & Photoluminescent aspects of red-emitting combustion synthesized BaYZn₃AlO₇:Eu³⁺ Nano-phosphor in **Journal of Alloys and Compounds, 823(2020) 153641**
Online ISSN: 1873-4669 ELSEVIER **I.F = 5.50**
<https://doi.org/10.1016/j.jallcom.2020.153641>
- 21. Priyanka Sehrawat**, Avni Khatkar, Anju Hooda, Mukesh Kumar, **R.K. Malik**, S.P. Khatkar & V.B. Taxak, An energy efficient novel emerald Er³⁺ doped SrGdAlO₄ nano-phosphors for PC WLEDs excitable by NUV light in **Journal of Ceramics International: 45(2019)24104-24114**
1873-3956 (Online) ELSEVIER **I.F = 5.10**
DOI: <http://doi.org/10.1016/j.ceramint.2019.08.188>
- 22. Priyanka Sehrawat**, Avni Khatkar, Sushma Devi, Anju Hooda, Sonika Singh, **R.K. Malik**, S.P. Khatkar, & V.B. Taxak, An effective emission of characteristic cool white light from Dy³⁺ doped perovskite type SrLa₂Al₂O₇ nano-phosphor in single-phase pc WLEDs in J. of Chemical Physics Letters, (2019): 737 (2019) 136842 **0009-2614 ELSEVIER** **I.F = 2.7**
DOI: <http://doi.org/10.1016/j.eplett.2019.136842>
- 23. Priyanka Sehrawat**, Avni Khatkar, Sushma Devi, **Rajesh Kumar Malik**, S.P. Khatkar & V.B. Taxak, Crystal structure and photophysical features of greenish perovskite type SrLa₂Al₂O₇:Er³⁺ nanocrystals for down conversion white LEDs in Materials Research Express: 6(2019)126213 **DOI 10.1088/2053-1591/ab6653** **I.F = 4.64**
- 24. Anju Hoods**, Priyanka Sehrawat, Avni Khatkar, Priti Boora, **Rajesh Kumar Malik**, S.P. Khatkar & V.B. Taxak, A novel strategy for high colour purity virescent Er³⁺ - doped SrLaAlO₄ nanocrystals for solid-state lightening applications in **Journal of Material Science: Materials in Electronics: 31(2020)6072-6083**. **DOI: 10.1007/s10854-020-03160-w** **I.F = 3.02**

25. Priyanka Sehrawat, Avni Khatkar, Priti Boora, Mukesh Kumar, **R.K. Malik**, S.P. Khatkar & V.B. Taxak, Emanating cool white light emission from novel down-converted SrLaAlO₄:Dy³⁺ nano-phosphors for advanced optoelectronic applications in **Journal of Ceramics International**
DOI: <http://doi.org/10.1016/j.ceramint.2020.03.184> I.F = 3.45
26. Priyanka Sehrawat, Avni Khatkar, Priti Boora, Mukesh Kumar, Sonika Singh, **Rajesh Kumar Malik**, S. P. Khatkar & V. B. Taxak, Fabrication of single-phase BaLaAlO₄:Dy³⁺ nanophosphors by combustion synthesis in **Materials and Manufacturing Processes: Volume 35, 2020 – Issue-11** ISSN. 10426914 Taylor and Francis I.F = 3.45
DOI: [10.1080/10426914.2020.1762206](https://doi.org/10.1080/10426914.2020.1762206).
27. Priyanka Sehrawat, Avni Khatkar, Priti Boora, Jyoti Khanagwal, Mukesh Kumar, **Rajesh Kumar Malik**, S.P. Khatkar & V.B. Taxak, Tailoring tunable luminescence from novel Sm³⁺ doped SLAO nanomaterials for NUV-excited WLEDs in **CPLETT:755(2020)137758**
0009-2614 ELSEVIER I.F = 2.7
DOI: <https://doi.org/10.1016/j.cplett.2020.137758>
28. Priyanka Sehrawat, Avni Khatkar, Priti Boora, Mukesh Kumar, **Rajesh Kumar Malik**, S.P. Khatkar, V.B. Taxak, Combustion derived colour tunable Sm³⁺ activated BaLaAlO₄ nanocrystals for various innovative solid-state illuminants in **CPLETT: 758(2020)137937** I.F = 2.32
<https://doi.org/10.1016/j.cplett.2020.137937> 0009-2614 ELSEVIER
29. Priyanka Sehrawat, Avni Khatkar, Priti Boora, Sonika Singh, Mukesh Kumar, **Rajesh Kumar Malik**, S.P. Khatkar and V.B. Taxak, Structural, spectroscopic and optical analysis of green glowing BaLaAlO₄:Er³⁺ nanomaterials for photonic applications in CPLETT: 760 (2020) 138004
<https://doi.org/10.1016/j.cplett.2020.138004> I.F = 2.38
ISSN: 0009-2614 ELSEVIER
30. Priyanka Sehrawat, Dayawati, Priti Boora, Mukesh Kumar, **Rajesh Kumar Malik**, S.P. Khatkar and V.B. Taxak, Crystal structure engineering and optical analysis of novel greenish Sr₉Al₆O₁₈:Er³⁺ nanomaterials for NUV excavatable cool-white LED applications in CPLETT: 759 (2020) 138044 ISSN: 0009-2614 ELSEVIER I.F = 2.38
<http://dx.doi.org/10.1016/j.cplett.2020.138044>
31. Priyanka Sehrawat, Dayawati, Priti Boora, Mukesh Kumar, **Rajesh Kumar Malik**, S.P. Khatkar, V.B. Taxak, achieving red emission with high colour purity from novel perovskite based Sr₉Al₆O₁₈:Sm³⁺ nano-cubes for advanced optoelectronic applications in Journal of Ceramics International: Volume 47, Issue 4, 15 February 2021, Pages 5432-5445
DOI: <https://doi.org/10.1016/J.ceramint.2020.10.125> I.F = 4.52
ISSN: 1873-3956 ELSEVIER
32. Priyanka Sehrawat, Jin-Kim, Pooja Chhillar, **Rajesh Kumar Malik**, S.P. Khatkar and V.B. Taxak, Realization of tricolor luminescence from novel Sr₅Al₂O₈:Sm³⁺, Re³⁺ & Dy³⁺ nanomaterials for advanced photonic applications in CPLETT: 762 (2021) 138134 I.F = 2.32
<http://dx.doi.org/10.1016/j.cplett.2020.138134> 0009-2614 ELSEVIER

33. Priyanka Sehrawat, Monika Punia, Priti Boora, Monika Shoeran, S.P. Khatkar, V.B. Taxak and **R. K. Malik**, Multicolor luminescence evolving from single-phase $\text{Eu}^{3+}/\text{Tb}^{3+}$ co-doped SrLaAlO_4 nanomaterials for advanced photonic appliances in **CPLETT: 763 (2021) 138243**
<https://doi.org/10.1016/j.cplett.2020.138243> ISSN: 0009-2614 ELSEVIER I.F = 2.7
34. Priyanka Sehrawat, S.P. Khatkar, V.B. Taxak and **R. K. Malik**, Highly efficient green-glimmering $\text{Y}_3\text{Al}_5\text{O}_{12}:\text{Er}^{3+}$ NPs for next generation electro-optic appliances, mainly white-LEDs and solar-cells in **CPLETT: 773 (2021) 138592** ISSN: 0009-2614 I.F=2.70
<https://doi.org/10.1016/j.cplett.2021.138592> ELSEVIER
35. Priyanka Sehrawat, R. Punia, Monika Shoeran, S.P. Khatkar, V.B. Taxak and **R.K. Malik**, Luminescence tuning and structural analysis of new $\text{BaYAlZn}_3\text{O}_7:\text{Sm}^{3+}$ nanomaterials with excellent performance for advanced optoelectronic appliances in **J. Mater Sc: Mater Electronics: ((2021)32:15930-15943** ISSN : 1573-482X I.F = 2.478
<https://doi.org/10.1016/j.jallcom.2021.160371> SPRINGER-NATURE
36. Priyanka Sehrawat, R. Punia, S.P. Khatkar, V.B. Taxak and **Rajesh Kumar Malik**, Augmenting the photoluminescence efficiency via enhanced energy-relocation of new white-emanating $\text{BaYAlZn}_3\text{O}_7:\text{Dy}^{3+}$ nano-crystalline phosphors for WLEDs in **Journal of Alloys and Compounds: 879(2021)100371** ISSN: 0925-8388 ELSEVIER I.F = 6.30
<http://dx.doi.org/10.1016/j.jallcom.2021.160371>
37. Priyanka Sehrawat, R. Punia, S.P. Khatkar, V.B. Taxak and **Rajesh Kumar Malik**, Probing into multifunctional deep orange-red emitting Sm^{3+} -activated zincate-based nanomaterials for wLED applications in **CPLETT: 777(2021)138743** I.F = 2.37
 ISSN: 0009-2614 ELSEVIER <http://dx.doi.org/10.1016/j.cplett.2021.138743>
38. **Rajesh Kumar Malik**, Priyanka Sehrawat, R. Punia and Monika Shoeran, Generating of cost-effective conventional-combustion derived novel green-luminous $\text{BaLa}_2\text{ZnO}_5:\text{Er}^{3+}$ nanomaterials for high quality illuminating in WLEDs and solar-cells in **CPLETT: 777(2021)138743**
<https://doi.org/10.1016/j.cplett.2021.138752> ISSN: 0009-2614 ELSEVIER I.F = 2.37
39. **Rajesh Kumar Malik**, Priyanka Sehrawat, R. Punia and Sanjeev Maken, Optimizing the highly effective cool-white luminescence via modulating Dy^{3+} ion into novel $\text{Sr}_6\text{Al}_4\text{Y}_2\text{O}_{15}$ nanocrystals for white LEDs in **J. Mater Sc: Mater Electronics: (2021)32:23486-23499**
<https://link.springer.com/article/10.1007%2Fs10854-021-06837-y> I.F = 2.478
40. **Rajesh Kumar Malik**, Priyanka Sehrawat, R. Punia and Monika Shoeran and Sonika Sing, New $\text{Ba}_2\text{YAlO}_5:\text{Dy}^{3+}$ nanomaterials for WLEDs: Propellant combustion synthesis and photometric features for enhanced emission of cool-white light under NUV excitation in **CPLETT: 781 (2021) 138985** ISSN: 0009-2614 ELSEVIER I.F = 2.37
<https://doi.org/10.1016/j.cplett.2021.138985>

41. Rajesh Kumar Malik, Priyanka Sehrawat, R. Punia, Sanjeev Maken and Neelam Kumari, Ecofriendly synthesis and white light-emitting properties of $\text{BaLa}_2\text{ZnO}_5:\text{Dy}^{3+}$ nanomaterials for lightening application in NUV-WLEDs and solar cells in **CPLETT:792(2021)139399**, **I.F = 2.37**
<http://dx.doi.org/10.1016/j.cplett.2022.139399> **ISSN: 0009-2614** **ELSEVIER**

42. R.K. Malik, Priyanka Sehrawat, R. Punia, Sanjeev Monika Shoeran and Mukesh Kumar, Nearly unity green with radiative and non-radiative itemization into novel energy-efficient $\text{Sr}_6\text{Al}_4\text{Y}_2\text{O}_{15}:\text{Er}^{3+}$ nanomaterials for WLEDs in **CPLETT:781(2021)139013**; **I.F = 2.37**
<https://doi.org/10.1016/j.cplett.2021.139013> **ISSN: 0009-2614** **ELSEVIER**

43. Rajesh Kumar Malik, Priyanka Sehrawat, R. Punia, Monika Shoeran and Hina Dalal, Opto-Electronic and Crystallographic Analysis of Orangish-Red Radiating $\text{Ba}_2\text{YAlO}_5:\text{Sm}^{3+}$ Nanomaterials for Potential wLED Applications in **Journal of Electronic Material (2021)506964-6073** **ISSN: 0361-5235** **SPRINGER-NATURE** **I.F = 2.1**
<https://link.springer.com/article/10.1007/s11664-021-09273-0>

44. Rajesh Kumar Malik, Priyanka Sehrawat, R. Punia and Neelam Kumari, Design of Bright-Green radiating Er^{3+} -Singly Activated Zincate-based Nanomaterials for High-Performance Optoelectronic Devices in **Journal of Electronic Material (Nov-2021)**:
ISSN: 0361-5235 **SPRINGER-NATURE** **I.F = 2.1**
 DOI: <http://doi.org/10.1007/s11664-021-09305-9>

45. Priyanka Sehrawat, Rajesh Punia, Monika Shoeran, Manisha Bedi, Hina Dalal and Rajesh Kumar Malik, Low-Cost Combustion Synthesis, Spectroscopic and Optoelectronic Analysis of Novel $\text{Ba}_2\text{YAlO}_5:\text{Er}^{3+}$ Nanomaterials for Competent Illumination Applications in **Transactions of Indian Ceramic Society: 80(4) pp-234-241 (2021)** **ISSN: 2165-5456** **I.F = 1.73**
<https://doi.org/10.1080/0371750X.2021.2004238> **Taylor & Francis**

46. P Sehrawat, R. K Malik, R Punia, N Kumari, Crystal configuration, luminescence dynamics and facile combustion-fabrication of high-brightness YAG: Sm^{3+} nanomaterials towards competent illuminating appliances, especially WLEDs and solar-cells in Chemical Physics Letters, 779 (2021) 138831. <https://doi.org/10.1016/j.cplett.2021.138831>
I.F = 2.328

47. P Sehrawat, RK Malik, N Kumari, M Punia, SP Khatkar, VB Taxak, Cool-white illumination characteristics of combustion-derived novel single-phase $\text{Sr}_9\text{Al}_6\text{O}_{18}:\text{Dy}^{3+}$ nanomaterials for NUV induced WLEDs and solar cells in Chemical Physics Letters Volume 792, **April 2022**, 139399
ISSN: 0009-2614 **ELSEVIER** **I.F = 2.80**
 DOI: <https://doi.org/10.1016/j.cplett.2021.138438>

48. Archana Chauhan, Rajesh Kumar Malik, Sheetal Lohra and Ritu Langyan, Investigation of photophysical properties of ternary Sm (III) complexes in Optik, Vol-242 (**Sept-2021**) 167078
ISSN: 1618-1336 **ELSEVIER** **I.F = 2.44**
<https://doi.org/10.1016/j.ijleo.2021.167078>

49. Priya Phogat, S.P. Khatkar, **R.K. Malik**, Sushma, Jyoti Dalal, Pooja Hooda and V.B. Taxak, Crystal chemistry and photoluminescent investigation of novel white light emanating Dy³⁺ doped Ca₉Bi(VO₄)₇ nanophosphor for ultraviolet based white LEDs in *Materials Chemistry and Physics*: 270 (June-2021) 124828 **ISSN: 0254-0584** **ELSEVIER** **I.F = 4.60**
<https://doi.org/10.1016/j.matchemphys.2021.124828> **I.F**
50. Priya Phogat, S.P. Khatkar, V.B. Taxak, **R.K. Malik**, Eu³⁺ incorporated Bi₄MgO₄(PO₄)₂: Derivation of the novel nanophosphor by solution combustion and investigation in to crystallographic and photometric characteristics in *Solid State Sciences*: 124 (2022) 106799 **ISSN: 1293-2558** **ELSEVIER** **I.F = 3.04**
<https://doi.org/10.1016/j.solidstatesciences.2021.106799>
51. Priya Phogat, S.P. Khatkar, V.B. Taxak and **R.K. Malik**, Sm³⁺ doped Bi₄MgO₄(PO₄)₂: crystal and optoelectronic investigation of the solution derived bright orange emanating novel nanophosphor for SSLs in *Materials Chemistry and Physics*: 270 (June2-21) 124828 **ISSN: 0254-0584** **ELSEVIER** **I.F = 4.09**
<https://doi.org/10.1016/j.matchemphys.2021.124828>
52. Priya Phogat, S. P. Khatkar, **R. K. Malik**, Jyoti Dalal, Monika Punia, and V. B. Taxak, Crystal structure and photoluminescent analysis of bright orange-red emanating Sm³⁺-doped Ca₉Bi(VO₄)₇ nanophosphor for WLEDs in *J Mater Sci: Mater Electron* (2021) 32:8615–8627 **ISSN: 1573-0282** **SPRINGER-NATURE** **I.F = 2.478**
<https://link.springer.com/article/10.1007/s10854-021-05504-6>
53. Priya Phogat, S.P. Khatkar, R.K. Malik, Jyoti Dalal, Anju Hooda, V.B. Taxak, Crystallographic and Judd-Ofelt Parametric investigation into Ca₉Bi(VO₄)₇: Eu³⁺ nanophosphor for NUV-WLEDs in *Journal of Luminescence*: 234(2021)117984 **ISSN: 0022-2313** **ELSEVIER** **I.F = 3.599**
<https://doi.org/10.1016/j.jlumin.2021.117984>
54. Priya Phogat· V. B. Taxak· **R. K. Malik** Crystallographic and Optical Characteristics of Ultraviolet Stimulated Dy³⁺Doped Ba₂GdV₃O₁₁ Nanorods in *Journal of Electronic Materials* **ISSN: 0361-5235** **SPRINGER-NATURE** **I.F = 2.047**
<https://doi.org/10.1007/s11664-022-09711-7>
55. Priya Phogat, V.B. Taxak, S.P. Khatkar, **R.K. Malik**, Sm³⁺ incorporated Ba₂GdV₃O₁₁: Photometric and crystal analysis of the ultraviolet triggered nanophosphor with white emission in *Journal of Chemical Physics*: Volume 561, 1 September-2022, 111623 **I.F = 3.488**
ISSN 1089-7690 **ELSEVIER**
<https://doi.org/10.1016/j.chemphys.2022.111623>
56. Priya Phogat, V.B. Taxak, **R.K. Malik**, Er³⁺ doped Ba₂GdV₃O₁₁: Synthesis and characterization for crystal and photoluminescent features of bright green emitting nanophosphor, in *Solid State Sciences*: 133(2022)107013. **I.F = 3.755**
ISSN: 1293-2558 **ELSEVIER**
<https://doi.org/10.1016/j.solidstatesciences.2022.107013>

57. Pooja Hooda, V.B. Taxak, **R.K. Malik**, Savita Khatri, Poonam Kumari, S.P. Khatkar and Rajesh Kumar, Applicability of Reddish-Orange Light Emitting Samarium(III) Complexes for Biomedical and Multifunctional Optoelectronic Devices in **Journal of Fluorescence: (Jan-2022)**:

ISSN: 1573-4994 **SPRINGER-NATURE** **I.F = 2.217**

DOI: <http://doi.org/10.1007/s10895-021-01887-s>

58. Pooja Hooda, Vinod Baal Taxak, **Rajesh Kumar Malik**, Monika Punia, Partibha Ahlawat, Satyender Pal khatkar and Rajesh Kumar, Designing of emerald terbium (III) ions β -ketocarboxylic acid and heterocyclic ancillary ligands for biological and optoelectronic applications in **Journal of Luminescence: (June-2022)** **I.F = 3.599**

ISSN: 0022-2313 **ELSEVIER** DOI: <http://doi.org/10.1002/bio.4106>

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<https://doi.org/10.1016/j.molstruc.2022.133423> **I.F = 4.0**

60. Pooja Hooda, V. B. Taxak, **R. K. Malik**, Savita Khatri, Priya Phogat, S. P. Khatkar, Mandeep Dalal, and Rajesh Kumar: Augmentation of photophysical features and Judd-Ofelt analysis of extensively green glowing terbium (III) complexes with nitrogen donor ancillary ligands: in Photochemical & Photo biological Science. (2022) 21:2011–2034,

ISSN: 1474-905X **SPRINGER NATURE** **I.F = 3.10**

DOI: <https://doi.org/10.1007/s43630-022-00275-3>

61. Shalini Kaushik, Suman Devi, Mukesh Kumar, Hina Dalal, Neeraj Sehrawat, **R. K. Malik**, Anamika Srivastava & Manish Srivastava, Crystallographic and optical features of combustion fabricated green-emitting $\text{BaYZn}_3\text{AlO}_7:\text{Tb}^{3+}$ nanophosphor for advanced lighting applications, in Applied Physics –A: (2022)128:198 **ISSN: 0947-8396** **SPRINGER-NATURE** **I.F = 2.98**

DOI: <https://link.springer.com/article/10.1007/s00339-022-05321-6>

62. Pooja Hooda, **R. K. Malik**, Pratibha Ahlawat, Monika Sheoran, S. P. Khatkar, V. B. Taxak and Rajesh Kumar, Exploration of photophysical and biological attributes of red-light emitting europium (III) chelates with β -keto acid and nitrogen donor ancillary ligands: in Research on Chemical Intermediates: (2023) 49:169–202 **ISSN: 1568-5675** **S/NATURE** **I.F = 3.14**

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63. Monika Sheoran, Priyanka Sehrawat, Neelam Kumari, Mukesh Kumar, Hina Dalal, **R.K. Malik**, Structural and optical conduct of cool white-light emanating $\text{BaGd}_2\text{ZnO}_5:\text{Dy}^{3+}$ nanocrystals for white LEDs in OPTIK-International Journal for Light and Electron Optics-257 (2022) 168772 **ISSN: 1618-1336** **ELSEVIER** **I.F = 2.44**

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64. Monika Sheoran, Priyanka Sehrawat¹, Mukesh Kumar¹, Neelam Kumari, V. B. Taxak and **R.K Malik**, Synthesis and crystal structural analysis of a green light-emitting $\text{Ba}_5\text{Zn}_4\text{Y}_8\text{O}_{21}:\text{Er}^{3+}$ nanophosphor for PCWLEDs applications in **J Mater Sci: Mater Electron: (2021)**

ISSN: 1573-0282 **SPRINGER-NATURE** **I.F = 2.478**

DOI: 10.1007/s10854-021-05787-9

65. Monika Sheoran, Priyanka Sehrawat, Neelam Kumari, S.P. Khatkar, **R.K. Malik**, Cool white light emanation and photo physical features of combustion derived Dy³⁺ doped ternary yttrate oxide-based nanophosphors for down converted WLEDs in **CPLETT: 773 ((2021) 138608**

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<http://dx.doi.org/10.1016/j.jle.2021.167041v>

67. Monika Sheoran, Priyanka Sehrawat, Neelam Kumari and **R. K. Malik** Structural and Optoelectronic Analysis of Ba₅Zn₄Gd₈O₂₁:Er³⁺ Nanomaterials Emitting Green Light for Modern Lighting Applications in Journal of Electronic Materials:(2021) 50: 6270–6282 **I.F = 2.78**

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68. Monika Sheoran, Priyanka Sehrawat, Mukesh Kumar, **R.K. Malik**, Crystal structure and optical analysis of new reddish-orange Sm³⁺ doped BaGd₂ZnO₅ nano-crystalline materials for multifunctional applications in **Materials Research Bulletin: 145 (2022)111522**

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ELSEVIER

I.F = 4.61

<https://doi.org/10.1016/j.materresbull.2021.111522>

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ISSN: 1573-482X

SPRINGER-NATURE

I.F = 2.478

DOI: <https://link.springer.com/article/10.1007%2Fs10854-021-06848-9>

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I.F = 3.488

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DOI: <https://doi.org/10.1016/j.cplett.2021.138608>

72. Hina Dalal, Priyanka Sehrawat, Monika Sheoran, Mukesh Kumar, and **R. K. Malik**, Optical, crystallographic and Judd–Ofelt analysis of europium doped Sr₆Y₂Al₄O₁₅ nanocrystals for NUVWLED fabrication in **J Mater Sci: Mater Electron (2022) 33:767–781**

ISSN: 1573-482X

SPRINGER-NATURE

I.F = 2.478

DOI: <https://doi.org/10.1007/s10854-021-07347-7>

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75. Rajesh Kumar Malik, Anuradha, Surendra Kumar and Neelam Kumari, Study the Antioxidant Activity of 2-Bromo-3-hydroxy-2-nitropropylcinnamate (BNPC) Against Alcohol-induced Oxidative Damage in **Asian Journal of Organic and Medicinal Chemistry: Vol. 5,2 (2020)-156-160**, **ISSN- 2456-8937** **SCOPUS** **Cosmos I.F = 5.6**

<https://doi.org/10.14233/ajomc.2020.AJOMC-P266>

77. Jyoti Dalal, Mandeep Dalal, Sushma Devi, Anju Hooda, Avni Khatkar, **Rajesh K. Malik**, V. B. Taxak & S. P. Khatkar, Magnetic and electric dipole radiative rates in multifunctional Ba₅Zn₄Y₈O₂₁:Tb³⁺ Nanorods in *Journal of Materials Science: Materials in Electronics* (2019) 30:17547–17558 **ISSN: 1573-482X** **SPRINGER-NATURE** **I.F = 2.478**

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DOI: <https://doi.org/10.1016/j.ijleo.2022.169389>

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ISSN: 1873-4944 **ELSEVIER** **I.F = 3.047**
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- 83.** Hina Dalal, Mukesh Kumar, Poonam Devi, Neeraj Sehrawat, Diksha Solanki, Surendra Kumar, Rajesh Kumar Malik, Study of crystallographic and optoelectronic behavior of single-phase $\text{Ca}_9\text{La}(\text{VO}_4)_7: \text{Sm}^{3+}$ nanophosphor for modern illumination sector in Journal of Optics **ISSN: 0972-8821** (June-2024) **I.F = 1.60**
 DOI: <https://doi.org/10.1007/s12596-024-02004-8>
- 84.** Ashima Makhija, Anjali Sharma, Sajjan Dahiya, Nisha Deopa, **Rajesh Malik**, R. Punia and A. S. Maan, Green emission from trivalent cerium doped $\text{LaAlO}_3/\text{MgO}$ nano-composite for photonic and latent finger printing applications in R S C Advances: 2023, 13, 15366
ISSN = 2046-2069 **Royal Society of London** **I.F = 3.90**
DOI: 10.1039/d3ra02078a
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- 86.** Sweety Verma, Payal Bhagat, Suman Gahlyan, Manju Rani, Naveen Kumar, Rajesh Kumar Malik, Yongjin Lee, Sanjeev Maken, Thermophysical properties of 2-amino-2-methylpropan-1-ol + alkanol mixtures: Investigation of molecular interactions by insight of FT-IR spectroscopy in Journal of Molecular Liquids: Volume 382, 15 July 2023, 121967 **ISSN = 0167-7322**
ISSN: 0167-7322 **ISSN: 1873-3166** **ELSEVIER** **I.F = 9.70**
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<https://doi.org/10.1007/s11664-023-10600-w>
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<http://dx.doi.org/10.1016/j.jlum.2021.117984>
- 89.** Poonam Devi, Hina Dalal, Neeraj Sehrawat, Diksha Solanki, Mukesh Kumar, Neelam Kumari, **Rajesh Kumar Malik**, Study of crystal structure and optical features of single-phase $\text{Ba}_2\text{BiV}_3\text{O}_{11}: \text{Dy}^{3+}$ nanophosphors for advanced solid-state illuminating applications in Solid State Communications 388 (2024) 115528. **ISSN: 0038-1098** **ELSEVIER** **I.F. = 2.90**
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<https://doi.org/10.1007/s10895-023-03356-3>

91. Poonam Devi, Priyanka Sehrawat, Hina Dalal, Monika Sheoran, Neeraj Sehrawat, Rajni Dua and R. K. Malik, Exploring the orange–red emission from novel vanadate-based nanomaterials for highly innovative photonic applications, **Bulletin of Materials Science: Vol-46, 101, (2023)** ISSN: 0973-7669 SPRINGER NATURE I.F = 1.9
 DOI: <https://doi.org/10.1007/s12034-023-02938-y>

92. Poonam Devi, Priyanka Sehrawat, Monika Sheoran, Hina Dalal, Neeraj Sehrawat Rajesh Kumar Malik, Crystal Chemistry and Photoluminescent Aspects of Bright Orange Light Emitting Sm^{3+} -Activated $\text{Ba}_2\text{BiV}_3\text{O}_{11}$ Nanomaterials for Advanced Illuminating Applications in Journal of Fluorescence: Vol-34, pages 397–409, (2024) ISSN: 1053-0509 S/NATURE I.F = 2.7
 DOI: <https://doi.org/10.1007/s10895-023-03275-3>

93. Poonam Devi, Priyanka Sehrawat, Hina Dalal, Monika Sheoran, Neeraj Sehrawat, Rajni Dua, R.K. Malik, Crystal configuration and optical traits of cool white light radiating Dy^{3+} - activated $\text{Ca}_9\text{Y}(\text{VO}_4)_7$ nanomaterials for solid-state lighting application, **Inorganic Chemistry Communications (2023): Vol-156, October 2023, 111255** ISSN: 1879-0259 I. F = 4.40
 ELSEVIER DOI: <https://doi.org/10.1016/j.inoche.2023.111255>

94. Poonam Devi, Hina Dalal, Neeraj Sehrawat, Diksha Solanki, Mukesh Kumar, Neelam Kumari, R. K. Malik, Study of crystal structure and optical features of single-phase $\text{Ba}_2\text{BiV}_3\text{O}_{11}: \text{Dy}^{3+}$ nanophosphor for advanced solid-state illuminating applications, **Solid State Communications: 2024, VI-388, 115528,** ISSN: 0038-1098 ELSEVIER I.F. = 2.90
<https://doi.org/10.1016/j.ssc.2024.115528>

95. Poonam Devi, Hina Dalal, Neeraj Sehrawat, Diksha Solanki, Mukesh Kumar, R. K. Malik, Combustion synthesis, structural and photoluminescent investigations of Eu^{3+} activated crystalline $\text{Ba}_2\text{BiV}_3\text{O}_{11}$ nanomaterials for multifunctional applications, **Inorganic Chemistry Communications, 2024, Vol-162, 112214,** ISSN: 1879-0259 ELSEVIER I. F = 4.40
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 DOI: <https://doi.org/10.1016/j.inoche.2024.112885>

97. Diksha Solanki, Poonam Devi, Hina Dalal, Neeraj Sehrawat, Mukesh Kumar, Surendra Kumar and Rajesh Kumar Mali, Structural and Luminescent Properties of Dy (III) Doped $\text{Ca}_{0.5}\text{Bi}_3\text{P}_2\text{O}_{10}$ Nanophosphors for Solid-State Lighting & Latent Fingerprinting Applications: in Journal of Fluorescence.

ISSN: 1053-0509

SPRINGER-NATURE

I.F = 2.70

DOI: <https://doi.org/10.1007/s10895-024-03863-x>

98. D. Solanki, P Devi, H Dalal, N Sehrawat, M Kumar, O Garg and R K Malik: Intense red emission from trivalent Eu^{3+} doped $\text{Ca}_9\text{La}(\text{VO}_4)_7$ nanophosphor for lighting and latent fingerprinting applications: in Indian J Physics:

ISSN: 0974-9845

SPRINGER-NATURE

I.F = 1.60

DOI: <https://doi.org/10.1007/s12648-024-03389-9>

99. Diksha Solanki, Poonam Devi, Hina Dalal, Neeraj Sehrawat, Neelam Kumari and Rajesh Kumar Malik, Crystal structure and photoluminescent study of bright orange light emitting $\text{Ca}_{0.5}\text{Bi}_3\text{P}_2\text{O}_{10}:\text{Sm}^{3+}$ nanophosphors for advanced illuminating and latent fingerprinting applications in Journal of Optics:

ISSN; 0974-6900

SPRINGER-NATURE

I.F = 2.0

DOI: <https://doi.org/10.1007/s12596-025-02486-0>

National Conferences Attended

Annexure- 2

1. Proceedings of the 81st Session of the Indian Science Congress Jaipur in **1994** and **paper presented** entitled, Amperometric Trace Determination of Ir(III).

2. 6th National Conference on Thermodynamics of Chemical and Biological Systems (NCTCBS-2011), organized by Dept. of Chemistry, M.D.U. Rohtak under the Auspices of The Indian Thermodynamics Society from **Nov. 2-4, 2011**.

3. 2nd National Conference on Recent Advances in Chemistry and their Impact on Environment organized by Arya P.G. College, Panipat, Sponsored by D.G. Higher Education, Haryana & Ministry of Science & Technology, New Delhi. (**Paper Presented**) **February 4-5, 2012**

4. National Conference on Global Challenges in Chemical Sciences organized by Dept. of Chem. K.U. Kurukshetra, Sponsored by U.G.C. (**Paper Presented**) **September 22-23, 2012**.

5. National conference on Advances of Chemistry, organized by Dept. of Chemistry MDU Rohtak on **1-2 March 2013**. **Paper presented** "Metalloid compounds as Drugs".

6. 3rd National Conferences on Advances in Chemical and Environmental Sciences organized by Arya PG College Panipat on **Feb 27-28 2014**. Sponsored by DGHE Haryana and DST New Delhi. **Paper presented**,

7. National conference on “Advanced scientific development in chemical sciences-2014”. Organized by DCRUT Murthal, on **March 14 ,2014. Paper presented.**

8. 4th National Conference on Recent Advances in Chemical and Environmental sciences, Organized by Arya P.G. college Panipat HR, on **Feb-27-28 ,2015**. Sponsored by DST New Delhi. **Paper presented.**

9. National conference on Science & Technology for Indigenous Development in India. Organized by ISCA-Haridwar Chapter on **28-30 September-2015. Paper presented.**

10. National conferences on Recent Advances in Science & Technology, organized by Arya PG College Panipat on **27-28 Feb.2016**. Sponsored by DGHE Haryana. **(Paper presented).**

11. National Conference on Latest Advancements in Physical Sciences and Life Sciences sponsored by Indian National Science Academy (INSA), New Delhi, organized by Meerut College, Meerut on **18-19 March, 2017. (Paper presented).**

12. 6th National conference on Chemical & environmental Sciences: Emerging Dimensions & Challenges ahead, organized by Arya PG College Panipat on **1st April 2017**. Sponsored by DGHE Haryana. **Paper presented.**

13. 1st National conference of Indian Science Congress Association – Rohtak Chapter on “Science & Technology for Sustainable Development” (NCSTSD – 2019) organized by Chemistry Department, M.D. University, Rohtak on **Feb. 12-13, 2019. Paper presented** “*Synthesis, Structural and Photoluminescent Properties of Trivalent Samarium Doped Aluminate Nanophosphor*”.

14. 2nd National Conference on “Science & technology for Rural Development” on **14th and 15th October-2020**, organized by Chemistry Dept. M.D.U. Rohtak in association with ISCA – Rohtak Chapter & sponsored by SAO-UGC. **Paper presented** “*Synthesis and optical properties of $Ca_2Zn_4(VO_4)_6$ nanophosphor*”.

15. 7th National Conference on Recent Advances in Chemical and Environmental sciences, Organized by Arya P.G. college Panipat HR, on **19th-Feb, 2022**, Sponsored by DST New Delhi. **Paper presented.** “*Structural, Optoelectronic and Crystallographic Analysis of Novel Dy^{3+} Doped BSG Nanophosphor for advanced Solid-State Lightings*”.

16. 8th National Conference on Science & technology for nation Development: Opportunities & global challenges, NCSTND-2023, under D.G.H.E Haryana on **28th of February 2023** at Arya College Panipat. **Paper presented** “*Synthesis and characterization of some rare -earth doped nanophosphors for simultaneous white light-emitting diodes and field emission display*”

17. National Conference on “Recent Trends in Materials & Life Sciences” organized by Dept. of Chemistry, M.D. university Rohtak on **September-29, 2023**. Paper presented:” *Crystal Configuration and Optical traits*

of Cool white Light Radiating Dy³⁺ activated Ca₉Y(VO₄)₇ nano-materials for solid-state lighting applications”

18. One-Day National Conference on “Sustainable Technologies for Ecological Restoration” organized by Dept. of Chemistry, Meerut College, Meerut on **March-30, 2025**. Paper presented:” The Study of Crystals and Photophysical Aspects of Combustion-Derived Eu³⁺-doped CBPO Nanophosphors for Enhanced Solid-State Lighting Applications”

International Conferences:

Annexure-3

1. International Conference on Energy, Environment and Electrochemistry, 10-12 February, 1993 Karaikudi – India, **paper presented** entitled, Amperometric Determination of Cu(II), Ag(I), Au(III) and Pd(II) with 3-Mercaptopropanoic Acid.

2. 1st International Conference on Recent Advances in Chemical Sciences organized by Arya P.G. College, Panipat sponsored by DHE Haryana and CSIR, New Delhi. **Paper Presented**, Novel Molecules for Diagnosis and Therapeutics. **February 24-26, 2013**

3. International Conference on Advances in Agricultural, Biological and Applied Sciences for Sustainable Future (ABAS-2018) organized by Subharti University, Meerut on **20-22 Oct., 2018**. **Paper presented** “Synthesis and Biological Evaluation of new Pyrimidines”.

4. 2nd International Conference on Innovations in Chemical, Biological & Environmental Sciences, organized by Arya PG College, Panipat on **27-28 Feb, 2019**. **Paper presented** “Synthesis of Benzimidazole and their Biological Activity”.

5. 3rd International Conference on “Innovations in Science, Engineering & Technology” organized by Arya PG College, Panipat on **09-10 November 2019**, in association with ISCA-Rohtak Chapter, sponsored by DGHE-Haryana. **Paper presented** “Structural & Optical Properties of Europium Doped CaMgY₈O₁₆ Red Nanophosphor”.

6. 1st International Conference of ISCA – Rohtak Chapter, on “Science & technology: Rural Development” on **4th and 5th March-2020**, organized by Chemistry Dept. M.D.U. Rohtak. **Paper presented** “Photoluminescence Characteristics of Tb doped Zn₄V₂O₉ Nanophosphor”

7. 1st International conference of ISCA-Rohtak Chapter “Science & Technology: Rural Development” organized by Dept. of Chemistry at MDU Rohtak, **presented paper** on **4-5 March, 2020**.

8. 1st International conference on “Technological Transformation and Presentation in the Post COVID world” at DCRUST Murthal, Sonapat, Paper Presented, on **22-23 March-2021**

9. 1st International conference on “Advanced Developments in Chemistry and Allied Sciences-2021 at DCRUST Murthal, Sonapat, Paper Presented, on **16-17th Dec-2021**

10. 2nd International Conference on Advanced Developments in Chemistry and Allied Sciences-2023 at DCRUST, Murthal, **Presented Paper** Constructing cool white illuminating BYAO:Dy³⁺ nanophosphors by propellant combustion synthesis, on 17th & 18th January-2023.

11. 3rd International Conference on Emerging Trends and Researches in Professional Development of Faculties in Multi-Disciplinary Domains, By JCD (PG) College of Education, SIRSA, on **27-28th May-2023**. Paper “Crystal phase evolution and optical aspects of bright orange light emitting Sm³⁺ activated vanadate-based nanophosphors for progressive lighting applications”

12. International Conference on Emerging Trends in Functional Materials in Sciences (ETFMS-2024), Paper presented “Intense-Red Emission from Trivalent Eu³⁺ Doped Vanadate Based nanophosphor for Photophysical and Latent Fingerprinting Applications”. By Dept. of Chemistry, M.D. University Rohtak & ISAS-DC on **Nov-21-22, 2024**.

Workshops Attended:

Annexure-4

1. One-day National Workshop on Recent Trends in Chemistry-2011 (RTC-2011) organized by Dept. of Chemistry, DCRUST, Murthal on **29th Sept., 2011**.

2. National Workshop on Current Perspectives in Advance Material Science organized by Pt. Neki Ram Sharma Government College, Rohtak under the auspices of DHE, Haryana, **February 8-9, 2012**

3. Workshop on Technology Development and Transfer to Industry-Challenges & Opportunities, organized by C. C. S. U., Meerut on **March 31, 2015**.

4. One Week National workshop on **Research Methodology in Science & Social Science**, organized by Meerut College, Meerut from **12th to 18th June, 2016**, sponsored by United Service Institution of India (USI), New Delhi.

5. One-Week Workshop on MOOC's and E-Learning Technologies (online mode), organized by FDC from **10th April to 15th April-2020** at M.D.U Rohtak.

6. One-week One-line faculty development program on G-Chem-Paint, organized by Rajdhani College of Delhi University, from 29th June to 3rd **July 2020**.

7. One Day faculty Capacity Building Workshop on e-Contents Development Centre, on **27th June-2022**.

8. One Day workshop by Faculty Development Centre - MMTTC on LOCF based Teaching Learning in Context of NEP-2020, on **9th May-2024**.

Seminar Attended

Annexure-5

1. 1st National Seminar on Microbes and Resource Management, organized by Association of Microbiologists of India-Rohtak Unit, M.D.U. Rohtak on **22nd Oct., 2011**.

2. Two Days National Seminar on Scientific Development sponsored by DGHE Haryana, For Human Welfare: Promises and Concerns, organized by JVMGRR, College, Dadri on **10-11 Feb, 2012**. **Paper presented** “Modern Method for Monitoring Air Pollution.

3. DHE Sponsored National Seminar on “Chemistry: Our Life Our Future”, organized by G.V.M. Girls College, Sonapat on **12 March, 2012**.

4. National Seminar on “Haryana in National Perspective” organized under the auspices of UGC’s Special Assistance Programme, Dept. of Economics, M.D.U. Rohtak on **14-15 March, 2012**.

5. 2nd National Seminar on Microbes in Human Welfare, organized by Dept. of Microbiology, M.D.U. Rohtak on **24th March, 2012**.

6. National Seminar on Interdisciplinary Approach in Science in Emerging Scenario (NSIES-2013), sponsored by DGHE Haryana, Panchkula on **March 16, 2013**.

7. National Seminar on India-Pakistan Relations: Issues and Challenges, Sponsored by: Indian Council of Social Science Research, New Delhi on **12-13 Sept., 2015**. **Paper presented** “Indo-Pak Relations and Kashmir Problem”.

8. National Seminar on India’s Internal Security Challenges, sponsored by ICSSR, New Delhi on **26 March, 2017**, organized by Allahabad State University, Allahabad in collaboration with ARIDSS, Meerut College, Meerut. **Paper presented** “Advancement of Technology to Counter Internal Problem.”

9. National Seminar on Innovative Techniques in Scientific Research and Skill Development, sponsored by U.G.C. under C.P.E. on **28-29 Jan, 2018**. **Paper presented** “Green Chemistry”.

Courses Attended**Annexure-6**

- 1. Orientation Course** at B.P.S. Mahila Vishwavidyalaya Khanpur Kalan, Sonapat from **13th December 2010 to 11th January, 2011**. Grade-A, NO. UGC/ASC/11/3739.
- 2. Refresher Course** in Chemistry with grade “A” organized by the UGC-ASC, Jamia Millia Islamia, New Delhi from **18 Nov. to 7th Dec., 2013**, sponsored by UGC.
- 3. Three-Week Interdisciplinary Refresher Course** in Research Methodology for Science and Social Science with grade “A”, organized by Meerut College, Meerut from **10th June to 30th June 2017** under UGC, CPE, Meerut College, Meerut.
- 4. Two Week Course**, Capacity Building Programme from **12th March to 24th March 2019**, organized by FDC in M.D.U. Rohtak as per UGC notification.
- 5. One week, Faculty** Development Programme on topic “MOOCs and e-Learning Technologies” in F.D.C. at M.D.U. Rohtak from 10-April to 17April-2020. (**Sr. No. 414**)
- 6. One week**, Faculty Development Programme on topic “Gender Sensitization and Women Empowerment” in F.D.C. at M.D.U. Rohtak from 8-December to 13-december-2021. (**Sr. No. 72**)
- 7. 5-Days** Online Faculty Development Program at Rajdhani College Delhi under D.U. from 29June to 3rd of July - 2020.
- 8. One week, Faculty** Development Programme on topic “Advance Materials for Aatam-Nirbhar Bharat” at J. C. Bose University of Science & Technology, YMCA- Faridabad from 13-Feb to 28Feb-2021.

Participated as Organizer**annexure-7**

1. Science Conclave 2011, organized by M.D.U. Rohtak and DST, Govt. of Haryana from **Dec. 2-3, 2011**. As **Organizer**
2. National Conference on Advances in Chemical Sciences (ACS-2013) organized by Department of Chemistry, M.D. University, Rohtak sponsored by Indian Society of Analytical Scientists –Delhi Chapter (ISAS-DC). (**Organizer**)**March 1-2, 2013**
3. Science Conclave 2014, organized by M.D.U. Rohtak and DST, Govt. of Haryana from **Feb. 22-23, 2014**. As **Organizer**.
4. National Seminar on India-China Bilateral Relations, organized by Meerut College, Meerut, sponsored by ICSSR, New Delhi on **1 and 2 March, 2015**. Participated as **Co-Convener**.
5. National Conference on Recent Advances in Chemical Sciences NCRACS-2018, organized by Dept. of Chemistry, M.D. University, Rohtak on **March 7, 2018**. Participated as **organizer**.

6. 1st National Conference of Indian Science Congress Association – Rohtak Chapter on “Science and Technology For Sustainable Development” on 12th and 13th February 2019 held at Chem. Dept. M.D.U. Rohtak. Participated as **Organizer**.
7. 1st National conference of Indian Science Congress Association – Rohtak Chapter on “Science & Technology for Sustainable Development” (NCSTSD – 2019) organized by Chemistry Department, M.D. University, Rohtak on **Feb. 12-13, 2019** as **Organizer**.
8. 2nd National Conference in Association with ISCA – Rohtak Chapter sponsored by UGC-SAP on “Science and Technology For Rural Development” on **14th and 15th October 2019** held at Chem. Dept. M.D.U. Rohtak. Participated as **Organizer**.
9. **1st International Conference** of ISCA – Rohtak Chapter, on “Science & technology: Rural Development” on **4th and 5th March-2020**, organized by Chemistry Dept. M.D.U. Rohtak. Participated as **Organizer**.
10. **1st International** conference of ISCA-Rohtak Chapter “Science& Technology: Rural Development” organized by Dept. of Chemistry at MDU Rohtak, on **4-5 March, 2020**. Participated as **Organizer**.
11. International Conference on Emerging Trends in Functional Materials in Sciences (ETFSM-2024), participated as organizer. By Dept. of Chemistry, M.D. University Rohtak & ISAS-DC on **Nov-21-22, 2024**.
12. National Science Day-2024, Indigenous technology for Viksit Bharat organized by All Science Faculties and R & d Cell, participated as Organizer on Feb-28, 2024.

Key-Note Lectures Delivered / Resource Person:

Annexure-8

1. **Lecture as Resource Person** in One Day National Workshop on “Analytical Tools of Chemistry” organized by MKM College for Girls, Hodal on **1st May-2019**. “delivered talk on topic Applications of NMR to Inorganic Chemistry”.
3. **Key-Note speaker** in National Seminar organized by Dept. of Physics & Chem. In V.A.K. Mahavidyalya Bahadurgarh. On **26th Feb- 2020**, sponsored by DGHE Haryana. Delivered talk on topic “Applications of NMR to Inorganic chemistry”.
4. **Expert Lecture** on topic “NMR to Inorganic Chemistry” in One Week Online Workshop on “Research Methodology in Physical Sciences” from **26th May to 1st June 2020** at CRSU-Jind.
5. **Lecture as Resource Person** in 1st International Conference on topic of “Inorganic Phosphor materials” organized by DCRUST-Murthal, Sonapat on **16-17 December -2021**.

6. **Key-Note speaker** in National Webinar organized by V.A.K. Mahavidyalya Bahadurgarh on **8th June-2021**, sponsored by DST Haryana. Delivered talk on topic “Role of Science & Technology in Pandemic Era”.
7. **Key-Note speaker** in National Webinar organized by V.A.K. Mahavidyalya Bahadurgarh on **8th June-2021**, sponsored by DST Haryana. Delivered talk on topic “Role of Science & Technology in Pandemic Era”.
8. **Key-Note Speaker** in One-Day National Conference on “Sustainable Technologies for Ecological Restoration” sponsored by UPHED and organized by Dept. of Chemistry, Meerut College Meerut on **March-30, 2025**.

Role as Chair- Person/Coordinator in Conference /Workshop: Annexure-9

1. **Chair-Person** in the National Seminar on Recent Development in Science and Technology on **19 Feb 2017**. Sponsored by ARIDSS New Delhi, organized by Meerut College Meerut.
2. **Chaired-Session** in 2nd National Conference of ISCA – Rohtak Chapter, on “Science & Technology for Rural Development” on **14th and 15th October-2019**, organized by Chemistry Dept. M.D.U. Rohtak.
3. **Chaired Session** in the One Week Online Workshop on “Research Methodology in Physical Sciences” at CRSU Jind, from **26th May to 1st June-2020**.
4. **Coordinator** in 1st International Conference of ISCA – Rohtak Chapter, on “Science & Technology: Rural Development” on **4th and 5th March-2020**, organized by Chemistry Dept. M.D.U. Rohtak
5. **Chaired Session** in One Week Online Workshop on “Research Methodology in Physical Sciences” from **26th May to 1st June 2020** at CRSU-Jind.
6. **Coordinator** in National Conference on “Recent Trends in Materials & Life Sciences” organized by Dept. of Chemistry, M.D. university Rohtak on September-29, 2023.
7. **Chair -Session** in One-Day National Conference on “Sustainable Technologies for Ecological Restoration” sponsored by UPHED and organized by Dept. of Chemistry, Meerut College Meerut on **March-30, 2025**.

My Ph. D. Students:

Annexure-10

1. Surendra Kumar (2014)
2. Monika Shoeran (2018)
3. Priyanka Sehrawat (2018)
4. Priya Phaugat (2018)
5. Pooja Hooda (2018)

6. Hina Dalal (2019)
7. Poonam Sindhu (2021)
8. Deeksha Solanki (2023)
9. Komal (2025)
10. Mausam (2025)

Books Published: -

Annexure-11

1. Flow through Nuclear Chemistry (**National**)
By R.K Malik, First Edition, ISBN-978-93-87812-18-5, Published in 2018
2. Bio-Inorganic Chemistry (**National**)
By R.K. Malik, 1st Edition, ISBN-978-93-83930-77-7, Published in 2017
3. CSIR-NET Vol.-1(1st Edition 2019) (**International, Glasgow-UK**)
By R.K. Malik, ISBN-978-93-87922-69-3, Published in 2019
4. CSIR-NET Vol.-1 (2nd Edition 2020) (**International, Glasgow-UK**)
By R.K. Malik, ISBN-978-93-87922-92-1, Published in 2020
5. CSIR-NET Vol.-1(3rd Edition 2021) (**International, Glasgow-UK**)
By R.K. Malik, ISBN-978-93-90879-16-8, Published in 2021(July)
6. CSIR-NET Vol.-2 (3rd Edition 2021) (**International, Glasgow-UK**)
By R.K. Malik, ISBN-978-93-90879-24-3, Published in 2021(July)
7. CSIR-NET Vol.-1(4th Edition 2023) (**International, Glasgow-UK**)
By R.K. Malik, ISBN-978-93-90879-16-8, Published in 2023(January)
8. CSIR-NET Vol.-2 (4th Edition 2023) (**International, Glasgow-UK**)
By R.K. Malik, ISBN-978-93-90879-78-6, Published in 2023(January)
9. Chemical Bonding & Crystal Structure (1st Edition) (**International, Glasgow-UK**) By R.K. Malik, ISBN-978-93-90115-66-2, Published in 2024(January).
10. M.O.T. and Electronic Spectra (**International. Anu BOOKS, U.K**)
By Dr. R.K. Malik: ISBN: 978-93-90115-66-2 (**Pub-Dec-2024**)