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Personal Profile

* Date of Birth: 10/03/1988
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**Professional Experience**

* **Currently working as** Assistant Professor at Department of Chemistry, University of Lucknow, Lucknow, UP-226007, India (w.e.f. 28 Dec 2023).
* Ex-Assistant Professor, Department of Chemistry, GLA University, Mathura-281406 (08-Jul-2016 to 27 Dec 2023).
* Ex-Assistant Professor (Adhoc), Department of Chemistry, Gurukul Kangri University, Haridwar from Feb, 2016- Apr, 2016

Education

Feb-2016 PhD in chemistry from **Indian Institute of Technology Roorkee**

**Title: Enantioseparation of certain pharmaceuticals by liquid chromatography**

Jul-2012 MSc. in Chemistry from Kurukshetra University Kurukshetra, India

(77.6 %)

Jun-2010 BSc. Non-Medical, Govt PG College Hisar, Haryana

(70.5%)

**Area of Research**

Chromatographic analysis; Analytical chemistry; Nanomaterials; Separation science; Electrochemical analysis, Chiral Separation

**Publications**

1. Vallamkonda, B., Satti, P., Das, D.K., Sharma, G., Yadav, S. and Vashistha, V.K., 2024. Enantiomeric resolution of three profen drugs using direct thin-layer chromatographic method. JPC–Journal of Planar Chromatography–Modern TLC, pp.1-8. <https://doi.org/10.1007/s00764-024-00305-z>
2. Vashistha, V. K.; Kumar, T.; Yadav, S.; Das, D. K. Enantioselective separation and determination of ibuprofen: Stereoselective pharmacokinetics, pharmacodynamics and analytical methods. *Chirality* **2024**, *36*(2), e23647. doi:10.1002/chir.23647.
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4. Sharma, S.; Sharma, P.; Singh, V.; Vaishali; Vashistha, V. K.; Das, D. K.; et al. Exploitation of pyrazole C-3/5 carbaldehydes towards the development of therapeutically valuable scaffolds: a review. *Chemical papers* **2024**. doi:10.1007/s11696-024-03534-y.
5. Vashistha, V. K.; Bala, R.; Mittal, A.; Pullabhotla, R. V. S. R.; Yadav, S.; Verma, N. Stereoselective analysis and enantioseparation of isoproterenol in spiked human plasma. *Chemical papers* **2024**, *78*(1), 613–622. doi:10.1007/s11696-023-03185-5.
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8. Vashistha, V. K.; Bala, R.; Das, D. K.; Mittal, A.; Vsr Pullabhotla, R. Transition metal nanoparticles as promising antimicrobial agents. *Surface review and letters* **2024**, *31*(04). doi:10.1142/s0218625x24300041.
9. Sharma, S.; Singh, V.; Vashistha, V. K.; Singh, M.; Sharma, A. Correction: A simple and efficient route to pyrazole-based dihydrofuranones via lactonization approach. *Chemical papers* **2024**. doi:10.1007/s11696-024-03352-2.
10. Mittal, A.; Nagpal, M.; Vashistha, V. K.; Arora, R.; Issar, U. Recent advances in the antioxidant activity of metal-curcumin complexes: a combined computational and experimental review. *Free radical research* **2024**, *58*(1), 11–26. doi:10.1080/10715762.2023.2298857.
11. Mittal, A.; Nagpal, M.; Chahal, V.; Vashistha, V. K. The electronic, structural and nonlinear optical properties of licochalcone L in the aqueous solution and gaseous phase: A DFT study. *Turkish Computational and Theoretical Chemistry* **2024**, *8*(2), 48–60. doi:10.33435/tcandtc.1327841.
12. Memetova, A.; Tyagi, I.; Memetov, N.; Gerasimova, A.; Mkrtchyan, E.; Ananyeva, O.; Babkin, A.; Blokhin, A.; Tkachev, A.; Suhas; Chaudhary, M.; Vashistha, V.K. Porous carbon adsorbents for highly efficient adsorption of malachite green dye from aqueous solutions: Kinetics, isotherms, and mechanism of adsorption. *Water Air Soil Pollut* **2024**, *235*, 439. https://doi.org/10.1007/s11270-024-07198-y
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88. Bhushan, R.; Vashistha, V. K. Synthesis of variants of Marfey’s reagent having d-amino acids as chiral auxiliaries and liquid-chromatographic enantioseparation of (RS)-Mexiletine in spiked plasma: assessment and comparison with L-amino acid analogs. *Journal of chromatography A* **2015**, *1379*, 43–50. doi:10.1016/j.chroma.2014.12.033.

**Patent Published**

1. Anuj Kumar, **Vinod Kumar Vashistha**, Dipak Kumar Das, [Cyanamide Derived Fe-Nx Core-Shell Nanoarchitecture as Superior ORR Electrocatalyst for Fuel Cell Applications](javascript:void(0)). IN Patent 202011042665 A
2. Anuj Kumar, **Vinod Kumar Vashistha**, Dipak Kumar Das, Iron Phthalocyanine, Supramolecular Engineering for Oxygen Reduction Activity, Submitted to Indian Patents,2021.
3. Anuj Kumar, Sonali Gautam, **Vinod Kumar Vashistha**, Kamal Sharma, Dipak Kumar Das, An efficient and low cost water purification device using eggshell membrane filter, IN Patent 202111050861 A.

**Book Chapters**

1. **Vinod Kumar Vashistha,** Sonika Sethi, Anuj Kumar, Dipak Kumar Das, Application of NMR in chirality recognition of chiral drugs, In: Application of NMR Spectroscopy, Ed-9, Editors: Atta-Ur-Rehaman, Applications of NMR Spectroscopy 9, 131-159 (Scopus Indexed).
2. **Vinod Kumar Vashistha,** Sonika Sethi, Detection and remediation of Chiral Organic Pollutants: In Sustainable Materials for Sensing and Remediation of Noxious Pollutants, 2022, Elsevier.

**Book Published**

1. **Vinod Kumar Vashistha** and Dipak Kumar Das, Disaster Management (Ed-1), Nath Ram Publication, Varanasi, India. ISBN: 9789387321106, 938732110X.
2. **Vinod Kumar Vashistha,** Engineering Chemistry Ed-1, Nath Ram Publication, Varanasi, India.

**Paper Presentation**

1. Poster presentation, titled “*Green Separation of (RS)-Baclofen Using Micellar Liquid Chromatography*, in “National Symposium on Environment” jointly organized by Health Safety and Environment Group, BARC, Bombay, Mumbai & Discipline of Earth Sciences, IIT-Gandhinagar on 13-15 December, 2018, IIT-Gandhinagar, Palaj, Ahmedabad.
2. Oral presentation, titled “*Synthesis of Cyanuric Chloride based Chiral derivatizing reagents and its application in separation of Chiral Drugs*” in National conference on Contemporary Facets of Organic Chemistry organized by department of chemistry, IIT Roorkee on 22-24 Dec 2017.
3. Poster presentation, titled ‘*Synthesis of two new derivatizing reagents and their application to separation of chiral drug*’, 4th World Congress on Chromatography, August 07-09, 2017, Rome, Italy.
4. Oral presentation, titled “*RP-HPLC Enantioseparation of (RS)-Ketamine in human plasma via chiral derivatization based on (S)-Levofloxacin*” in national conference on “Biotechnology and Environment”, organized by Department of Biotechnology, Jamia Milia Islamia, New Delhi on 10-11th Apr, 2017.
5. Poster presented, titled “*Green Separation of Ketamine enantiomers using derivatization approach*” in National conference on “Green Chemistry for Sustainable Development” organized by Department of Chemistry Ch. Chottu Ram (P.G.) College, Muzaffarnagar (U.P.) on 25th Feb,2017.
6. Poster presentation titled, *Chiral separation by electrochemical based methods using pure enantiomers of Isoprenaline*, in 3rd Indo-Italian workshop on Electrochemistry for Energy & Health (IIWEc-2015), Jun 3-4, 2015, organized by Department of Chemistry, DU, New Delhi.
7. Oral Presentation titled ‘*Enantioseparation of Cernitine using high performance liquid chromatography*’ in 3rd International conference on ‘Applied Sciences, Environmental enginnering and Clean Energy Technologies for Sustainable Development’(ASECET-2015) organised by Krishi Sanskriti, JNU, New Delhi, on 25-26 April 2015.
8. Virtual Poster presentation titled, “*Application of HPLC and TLC for Enantioresolution and Isolation of Diastereomers of (RS)-Betaxolol Prepared With (S)-Naproxen Based Chiral Derivatizing Reagent and Verification of Their Absolute Configuration by NMR and DFT Calculations*”, ISAET, IAAST 2015 International Conference Program, Jan. 11-12, 2015 Dubai (UAE), Paper ID: A0115006.

**Conferences/Workshops/Symposium/FDP Participations**

1. As organizing secretary ‘*National Conference On Materials & Nanotechnology: Ideas, Innovation &Initiatives*’, NCMN-2019, Feb 15-16, 2019, GLA University, Mathura
2. Organized a two-day Seminar on ***“****Prevention and Treatment of Cancer by Nano Materials and Other Molecules****”*** during November 12-13, 2016, Department of chemistry, GLA University, Mathura.
3. Participated in one day “Workshop on Scifinder” organized by Mahatma Gandhi Library, IIT Roorkee, held on March, 18, 2015.
4. Participated in one day “Workshop on Scopus, Mendeley and Reaxys”organized by Mahatma Gandhi Library, IIT Roorkee, held on March, 10, 2015.
5. Participated in one day workshop on “**Nano Drug delivery Systems (Industry-Academia interaction)”** organized by the Centre of Excellence: Nanotechnology, Indian Institute of Technology, Roorkee, Jan, 2015
6. Participated in one day “**RSC-Indian Roadshow Workshop** “organized by Indian Institute of Technology, Delhi, India, November 4, 2014.
7. Participated in three days “**Science conference to celebrate Dr. Homi Jahangir Bhabha Birth Centenary**” organized by Kurukshetra University, Kurukshetra and Department of science and Technology, Haryana, held on January 23-24, 2010.

**Invited Talks**

1. Invited Lecture in two-day International Conference on “Current Trends in Chemical Sciences for Sustainable Living» 4-5th April 2024, Shyam Lal College, University of Delhi, New Delhi-110032
2. Invited Lecture at ”Recent Advances in Basic & Applied Sciences" organized by Department of Chemistry and Physics along with IQAC, Shyam Lal College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi under the aegis of Madan Malaviya Mission Scheme is organizing a one-week (Online) Faculty Development Programme, from 11 December- 16 December 2023.
3. Invited lecture at 4th International Conference on "Multi Disciplinary Research and Innovations» organized by DHS Foundation in collaboration with Universiti Malaysia Kelantan, Malaysia and Janardan Rai Nagar Rajasthan Vidyapeeth, Udaipur on 16-17 December 2023.
4. Invited lecture on ‘Chiral Liquid Chromatography: Past, Present And Future’ 30 Sep 2022, Kalindi College, University of Delhi, New Delhi, India.
5. Invited lecture at National conference on “Modern Instumental and Characterization Techniques in Biotechnology & Applied Sciences-2021” on 3rd and 4th Sep, 2021 at MIET Kumaon, jointly organized by MIET Kumaon and Uttarakhand Biotechnology Council(UBC) Department of Agriculture,Government of Uttarakhand are jointly organizing conference on Haldwani, Nainital (Uttarakhand).
6. Invited lecture in Five days national webinar series, Chemistry for Society, Environment & Betterment’ organized by Department of Basic & Applied Sciences, School of Engineering & Sciences, G D Goenka University, Gurugram, Hayana (India) during 19-23 July 2021.
7. Invited lecture in One Week Faculty Development Program(FDP) on ‘Advancement and implementation of Chemistry concepts and teaching methodology for educators and learners’ held during 24-31 May 2021 organized by Christian Eminent College, Indore, MP, India.
8. Guest lecture on ‘Spectroscopy: A tool for organic chemist’ organized by SD Mahavidhalya, Hansi, Haryana, India.

**Member Editorial Board**

* **PLOS ONE**
* **BMC Chemistry**
* **Discover Electrochemistry**
* **Chemical Science & Engineering Research**
* **Science Journal of Analytical Chemistry**
* **Journal of Chemical Science and Chemical Engineering**

**Member Scientific Committee**

* **ICMEN 2021**, The 4th International Conference on Materials Engineering and Nanotechnology, (Online Conference), 3rd-4th April 2021, Kuala Lumpur, Malasiya.
* **ICMEN 2021**, The 5th International Conference on Materials Engineering and Nanotechnology, (Online Conference), 4th-5th Dec 2021, Kuala Lumpur, Malaysia.
* **ICPCE 2021**, International Conference on Applications of Physics, Chemistry & Engineering Sciences. (Webinar), 11th-12th Dec 2021, Kuala Lumpur, Malasiya.

**Thesis Guided**

* **Ph.D.:** 2 (Completed), 1 (Submitted)

**Technical Skills**

Expertise in the practical and theoretical knowledge of techniques like:

**HPLC, TLC, IR, NMR, UV, Polarimetry etc**

**Fellowships/Awards**

* **Junior Research Fellowship**, July, 2012-July, 2014
* **Senior Research Fellowship**, July, 2014-Dec, 2015

University Grants Commission,

New Delhi, India

* **Qualified CSIR-NET-JRF** (National Eligibility Test for Lectureship): Dec 2011 and Jun 2012
* **Best Syllabus Design Award** in a faculty development workshop organized by GLA University, Mathura, 2017.
* **Best faculty award** for the session 2018-19 by university management – GLA University, Mathura
* **Best Researcher Award** 2018-19, GLA University, Mathura, India.
* **Best faculty award** for the session 2019-20, GLA University, Mathura, India
* **Best Researcher Award** 2019-20, GLA University, Mathura, India.
* **Best faculty award** for the session 2020-21, GLA University, Mathura, India
* **Best Researcher Award** 2020-21, GLA University, Mathura, India
* **Best faculty award** for the session 2021-22, GLA University, Mathura, India
* **Best faculty award** for the session 2022-23, GLA University, Mathura, India
* **Chancellor’s Award** for being best faculty for three consecutive years 2021-24, GLA University, Mathura, India

**Positions Held**

* **Member NEP Core Working Committee, GLA University Mathura**
* **Administrative:** Warden, GLA University, Mathura, Aug 1 2016 to till now.
* **DQAC Member -** NAAC **from Jul 2017** to till now.
* As officials of **DOSW Organization**, for smooth conduct of the various events in **Thomso-2014, Thomso-2015, Cognizance-2015,** IIT Roorkee
* Nominated member of **Student affair council** by DOSW Organization, IIT Roorkee, 2014-2015
* Nominated member of **Bhawan council** by DOSW Organization, Rajendra Bhawan, IIT Roorkee, 2014-2015
* Nominated member of **Mess Council** by DOSW Organization, Rajendra Bhawan, IIT Roorkee, 2014-2015
* **Administrative:** Assistant/Residential Warden in Rajendra Bhawan, IIT Roorkee, Aug, 2014 to Dec, 2015.

**Other Teaching Experience**

* **Worked at regional institute of NET/GATE Coaching for more than 4 years in Roorkee.**
* **Courses Taught (UG/PG) in last 7 years:**
* Physical Chemistry
* General Organic Chemistry
* Organic Synthesis
* Engineering Chemistry
* Organic spectroscopic Techniques
* Pericyclic and Photochemistry
* Fundamentals of Chemistry
* Environmental Studies
* Chemical Dynamics and Ionic Equilibria

**Courses Developed**

* Prepared draft course structure of B. Sc. (H) Chemistry during session 2018-19 as active member of Board of Studies of the Department of Chemistry GLA University Mathura
* Prepared draft course structure of B. Sc. Chemistry as per NEP-20 as active member of Board of Studies of the Department of Chemistry GLA University Mathura

**Special Classes**

IIT-JAM competitive classes for BSc (H) Chemistry students

(Vinod Kumar Vashistha)