Dr. Vinod



**Cell: +91 8266807046**

**Email: *vkviitr@gmail.com***

Personal Profile

* Date of Birth: 10/03/1988
* Marital Status: Married
* Language proficiency: Hindi, English
* Permanent address: 530/12, Multan Nagar Colony, Hansi, Haryana-125033

**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.
3. Vashistha, V. K.; Sethi, S.; Mittal, A.; Das, D. K.; Pullabhotla, R. V. S. R.; Bala, R.; Yadav S. Stereoselective analysis of chiral pesticides: a review. *Environmental monitoring and assessment* **2024**, *196*(2), 153. doi:10.1007/s10661-024-12310-0.
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.
6. Bhardwaj, S.; Vashistha, V. K.; Bala, R. Enantiomeric resolution of ketoprofen using validated thin layer chromatographic method involving frovatriptan as chiral selector. *Journal of research in pharmacy* **2024**, 28(1), 326–334. doi:10.29228/jrp.699.
7. Mkhize, N.; Vashistha, V. K.; Pullabhotla, V. S. R. Catalytic oxidation of 1,2-dichlorobenzene over metal-supported on ZrO2 catalysts. *Topics in catalysis* **2024**, *67*(5–8), 409–421. doi:10.1007/s11244-023-01876-7.
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
13. Vashistha, V. K.; Mittal, A.; Bala, R.; Pullabhotla, R. V. S. R. Triazole moieties as potent drug molecules: Synthetic approaches and application as promising candidates as anticancer agents (A review). *Russian journal of bioorganic chemistry* **2023**, *49*(S1), S13–S30. doi:10.1134/s1068162023080034.
14. Sharma, S.; Singh, V.; Vashistha, V. K.; Singh, M.; Sharma, A. A simple and efficient route to pyrazole-based dihydrofuranones via lactonization approach. *Chemical papers* **2023**. doi:10.1007/s11696-023-03257-6.
15. Vashistha, V. K.; Mittal, A.; Bala, R.; Das, D. K.; Singh, P. P. Synthesis, characterization, electrochemical and antibacterial studies of MN4-type macrocyclic complexes of Ni(II). *Revue roumaine du chimie* **2023**, *68*(9), 447–452. doi:10.33224/rrch.2023.68.9.05.
16. Mittal, A.; Nagpal, M.; Vashistha, V. K. Recent advances in the pharmacological activities of glycyrrhizin, glycyrrhetinic acid, and their analogs. *Revista brasileira de farmacognosia: orgao oficial da Sociedade Brasileira de Farmacognosia* **2023**, *33*(6), 1154–1169. doi:10.1007/s43450-023-00451-1.
17. VK Vashistha, R Bala, A Mittal, DK Das, S Sharma, RVSR Pullabhotla. Nanocomposite based Electrochemical Sensors for Determination of Some Biologically Important Compounds: A Review. *Analytical and Bioanalytical Electrochemistry* **2023**, *15*(8), 668–695.
18. Vashistha, V. K.; Bala, R.; Kumar, R.; Gupta, H.; Pullabhotla, R. V. S. R. Thin-layer chromatographic enantioresolution of gatifloxacin using levocetirizine and levosalbutamol as chiral selectors. *JPC - Journal of Planar Chromatography - Modern TLC* **2023**, *36*(2–3), 191–200. doi:10.1007/s00764-023-00244-1.
19. Nayak, J.; P, S. V.; Sahoo, S. K.; Kumar, M.; Vashistha, V. K.; Kumar, R. Computational insight of antioxidant and doxorubicin combination for effective cancer therapy. *Journal of biomolecular structure & dynamics* **2023**, 1–9. doi:10.1080/07391102.2023.2242507.
20. Vashistha, V. K.; Bala, R.; Mittal, A.; Pullabhotla, R. V. Development of a liquid chromatographic method for enantioseparation of Eflornithine using (*S*)-α-ethyl benzylamine as a chiral derivatizing agent. *Separation science and technology* **2023**, *58*(12), 2138–2144. doi:10.1080/01496395.2023.2240496.
21. Vashistha, V. K.; Sharma, V.; Kumar, A.; Das, D. K. Synthesis and characterization of MIIN4-macrocyclic complexes of iron and cobalt and their electrochemical studies. *Russian journal of electrochemistry* **2023**, *59*(7), 538–545. doi:10.1134/s1023193523070091.
22. Vashistha, V. K.; Bala, R.; Mittal, A.; Das, D. K.; Pullabhotla, R. V. Synthesis, characterization and application of Cr2O3 nanoparticles as an efficient antibacterial agent. *Journal of the Indian Chemical Society* **2023**, *100*(8), 101069. doi:10.1016/j.jics.2023.101069.
23. Vashistha, V. K.; Mittal, A.; Upadhyay, P. K.; Nagar, H.; Kumar, R.; Gupta, H.; et al. Erratum to: G4 ligands and their interaction diversity with G-quadruplex. *Russian journal of bioorganic chemistry* **2023**, *49*(3), 710–710. doi:10.1134/s1068162023330014.
24. Vashistha, V. K.; Gautam, S.; Bala, R.; Kumar, A.; Das, D. K. Transition metal-based nanoparticles as potential antimicrobial agents. *Reviews and Advances in Chemistry* **2022**, *12*(4), 222–247. doi:10.1134/s2634827622600244.
25. Vashistha, V. K.; Bala, R.; Pullabhotla, R. V.; Mittal, A. Enantiomeric separation of ketoprofen using Frovatriptan as a chiral derivatizing reagent. *Separation science plus* **2023**. 6(9), 2300087. doi:10.1002/sscp.202300087.
26. Vashistha, V. K.; Mittal, A.; Upadhyay, P. K.; Nagar, H.; Kumar, R.; Gupta, H.; et al. G4 ligands and their interaction diversity with G-quadruplex. *Russian journal of bioorganic chemistry* **2023**, *49*(3), 469–480. doi:10.1134/s1068162023030238.
27. Kumar Vashistha, V.; Bala, R.; VSR Pullabhotla, R. Derivatizing agents for spectrophotometric and spectrofluorimetric determination of pharmaceuticals: a review. *Journal of Taibah University for Science: JTUSCI* **2023**, *17*(1). doi:10.1080/16583655.2023.2206363.
28. Mittal, A.; Vashistha, V. K.; Das, D. K. Free radical scavenging activity of gallic acid toward various reactive oxygen, nitrogen, and sulfur species: a DFT approach. *Free radical research* **2023**, *57*(2), 81–90. doi:10.1080/10715762.2023.2197556.
29. Kumar Vashistha, V. Chiral analysis of pharmaceuticals using NMR spectroscopy: A review. *Asian journal of organic chemistry* **2022**, *11*(12). doi:10.1002/ajoc.202200544.
30. Nayak, J.; Prajapati, K. S.; Kumar, S.; Vashistha, V. K.; Sahoo, S. K.; Kumar, R. Thiolated β-cyclodextrin modified iron oxide nanoparticles for effective targeted cancer therapy. *Materials today. Communications* **2022**, *33*(104644), 104644. doi:10.1016/j.mtcomm.2022.104644.
31. Vyas, R.; Vashistha, V. K.; Sharma, A.; Kumar, R.; Bhardwaj, S.; Meena, J. S.; et al. Enantioresolution of three β-blockers using l-glutamic acid as chiral selector by thin-layer chromatographic methods. *JPC - Journal of Planar Chromatography - Modern TLC* **2022**, *35*(5), 533–541. doi:10.1007/s00764-022-00200-5.
32. Ravinder; Das, D. K.; Vashistha, V. K.; Kumar, A. Synthesis, electrochemical and antibacterial studies of hexa-aza-macrocyclic complexes of Ni(II) and Cu(II) ions. *Nano LIFE* **2022**, *12*(03). doi:10.1142/s1793984422500076.
33. Vashistha, V. K.; Das, D. K.; Kumar, A. Metal–organic frameworks-based nanomaterials for nanogenerators: a mini review. *International nano letters* **2022**, *12*(3), 215–221. doi:10.1007/s40089-021-00361-x.
34. Kumar, A.; Vashistha, V. K.; Das, D. K.; Gupta, R. K.; Yasin, G. Ct-DNA binding and antimicrobial studies of MnII and FeII macrocyclic complexes. *Journal of inclusion phenomena and macrocyclic chemistry* **2022**. 102, 683–692. doi:10.1007/s10847-022-01150-5.
35. Vashistha, V. K.; Verma, N.; Kumar, R.; Tyagi, I.; Gaur, A.; Bala, R. Enantioseparation of linezolid and tedizolid using validated high-performance liquid chromatographic method. *Chirality* **2022**, *34*(8), 1044–1052. doi:10.1002/chir.23472.
36. Mittal, A.; Vashistha, V. K.; Das, D. K. Recent advances in the antioxidant activity and mechanisms of chalcone derivatives: a computational review. *Free radical research* **2022**, *56*(5–6), 378–397. doi:10.1080/10715762.2022.2120396.
37. Vashistha, V. K. Detection and remediation of chiral pharmaceuticals from wastewater: A review. *Chirality* **2022**, *34*(6), 833–847. doi:10.1002/chir.23437.
38. Sharma, V.; Das, D. K.; Vashistha, V. K.; Gupta, R. K.; Yasin, G.; Kumar, A. Covalent Organic Frameworks-based Nanocomposites for Oxygen reduction reaction. *Journal of inclusion phenomena and macrocyclic chemistry* **2022**, *102*(5–6), 477–485. doi:10.1007/s10847-022-01140-7.
39. Vashistha, V. K.; Sethi, S.; Tyagi, I.; Das, D. K. Chirality of antidepressive drugs: an overview of stereoselectivity. *Asian biomedicine: research, reviews and news* **2022**, *16*(2), 55–69. doi:10.2478/abm-2022-0008.
40. Sharma, V.; Vashistha, V. K.; Das, D. K. MOFs-DERIVED METAL OXIDES FOR FLEXIBLE SUPERCAPACITORS. *Surface review and letters* **2022**, *29*(06). doi:10.1142/s0218625x22300064.
41. Mishra, A.; Singh, P. P.; Vashistha, V. K. Synthesis, Characterization and Redox studies of perchlorate-coordinated-Cu(II)N4-macrocyclic complex and its application as potent antibacterial agent. *Research journal of chemistry and environment* **2022**, *26*(3), 17–21. doi:10.25303/2603rjce1721.
42. Bireddy, S. R.; Bantu, T. R.; Alwera, V.; Vashistha, V. K.; Alwera, S.; Sehlangia, S. Synthesis of Levofloxacin based Chiral Reagent and its Application in Determination of Optical Purity of Essential Racemic Amino Acids using RP-HPLC. *Research journal of chemistry and environment* **2022**, *26*(2), 1–8. doi:10.25303/2602rjce0108.
43. Gupta, D.; Bhardwaj, S.; Sethi, S.; Pramanik, S.; Kumar Das, D.; Kumar, R.; et al. Simultaneous spectrophotometric determination of drug components from their dosage formulations. *Spectrochimica acta. Part A, Molecular and biomolecular spectroscopy* **2022**, *270*(120819), 120819. doi:10.1016/j.saa.2021.120819.
44. Vashistha, V. K.; Kumar, A.; Tevatia, P.; Das, D. K. Synthesis, characterization, electrochemical and antimicrobial studies of iron(II) and nickel(II) macrocyclic complexes. *Èlektrohimiâ* **2022**, *58*(3), 150–150. doi:10.31857/s0424857022030112.
45. Bhardwaj, S.; Vashistha, V. K. β-Cyclodextrin-based chiral nanocomposite for thin-layer chromatographic detection of enantiomers of fluoxetine. *JPC - Journal of Planar Chromatography - Modern TLC* **2022**, *35*(1), 83–88. doi:10.1007/s00764-022-00161-9.
46. Ncanana, Z. S.; Vashistha, V. K.; Singh, P. P.; Pullabhotla, R. V. S. R. Degradation of *o*-, *m*-, *p*-cresol isomers using ozone in the presence of V2O5-supported Mn, Fe, and Ni catalysts. *Pure and applied chemistry* **2022**, *94*(7), 859–867. doi:10.1515/pac-2021-1005.
47. Vashistha, V. K. Enantioselective analysis of mexiletine using chromatographic techniques: A review. *Current analytical chemistry* **2022**, *18*(4), 440–455. doi:10.2174/1573411016999201008125143.
48. Gautam, S.; Kumar, A.; Vashistha, V. K. Phyto-assisted synthesis and characterization of Ta2O5 nanoparticles and their theoretical and electrochemical studies. *Russian journal of inorganic chemistry* **2021**, *66*(13), 1980–1985. doi:10.1134/s0036023621130039.
49. Kumar, Y.; Sharma, V.; Vashistha, V. K.; VSR Pullabhotla, R.; Das, D. K. Cobalt ferrite nanocomposite as electrochemical sensor for the detection of guanine, uric acid and their mixture. *Chemistry & Chemical Technology* **2021**, *15*(4), 520–525. doi:10.23939/chcht15.04.520.
50. Kumar, A.; Vashistha, V. K.; Das, D. K.; Ibraheem, S.; Yasin, G.; Iqbal, R.; et al. M-N-C-based single-atom catalysts for H2, O2 & CO2 electrocatalysis: activity descriptors, active sites identification, challenges and prospects. *Fuel (London, England)* **2021**, *304*(121420), 121420. doi:10.1016/j.fuel.2021.121420.
51. Pramanik, S.; Kumar, Y.; Gupta, D.; Vashistha, V. K.; Kumar, A.; Karmakar, P.; et al. Recent advances on structural and functional aspects of multi-dimensional nanoparticles employed for electrochemically sensing bio-molecules of medical importance. *Materials science & engineering. B, Solid-state materials for advanced technology* **2021**, *272*(115356), 115356. doi:10.1016/j.mseb.2021.115356.
52. Ahmed, S.; Ahmad, Z.; Kumar, A.; Rafiq, M.; Vashistha, V. K.; Ashiq, M. N.; et al. Effective removal of methylene blue using nanoscale manganese oxide rods and spheres derived from different precursors of manganese. *The Journal of physics and chemistry of solids* **2021**, *155*(110121), 110121. doi:10.1016/j.jpcs.2021.110121.
53. Vashistha, V. K.; Kumar, A. Kinetic and biological studies of nickel(II) and copper(II) macrocyclic complexes. *Russian journal of inorganic chemistry* **2021**, *66*(6), 834–838. doi:10.1134/s0036023621060218.
54. Kumar, A.; Vashistha, V. K.; Sharma, V. Substituent effect on catalytic activity of Co phthalocyanines for oxygen reduction reactions. *Inorganic chemistry communications* **2021**, *127*(108518), 108518. doi:10.1016/j.inoche.2021.108518.
55. Vashistha, V. K.; Kumar, A.; Tevatia, P.; Das, D. K. Synthesis, characterization, electrochemical and antimicrobial studies of iron(II) and nickel(II) macrocyclic complexes. *Russian journal of electrochemistry* **2021**, *57*(4), 348–356. doi:10.1134/s1023193521040091.
56. Kumar, A.; Yasin, G.; Vashistha, V. K.; Das, D. K.; Rehman, M. U.; Iqbal, R.; et al. Enhancing oxygen reduction reaction performance via CNTs/graphene supported iron protoporphyrin IX: A hybrid nanoarchitecture electrocatalyst. *Diamond and related materials* **2021**, *113*(108272), 108272. doi:10.1016/j.diamond.2021.108272.
57. Kumar, A.; Kumar Vashistha, V.; Kumar Das, D. Recent development on metal phthalocyanines based materials for energy conversion and storage applications. *Coordination chemistry reviews* **2021**, *431*(213678), 213678. doi:10.1016/j.ccr.2020.213678.
58. Vashistha, V. K.; Kumar, A. Development of a thin-layer chromatographic method for the enantioresolution of sotalol using levofloxacin as chiral selector. *JPC - Journal of Planar Chromatography - Modern TLC* **2021**, *33*(6), 663–667. doi:10.1007/s00764-020-00068-3.
59. Das, D. K.; Kumar, A.; Vashistha, V. K. Advancement in nanomaterials for rapid sensing, diagnosis, and prevention of COVID-19. *Nano LIFE* **2021**, *11*(03), 2130007. doi:10.1142/s1793984421300077.
60. Vashistha, V. K.; Kumar, A.; Das, D. K.; Alwera, S.; Vyas, R.; Sharma, V.; et al. Different approaches in thin-layer chromatography for enantioresolution of acebutolol using colistin sulfate as chiral selector. *JPC - Journal of Planar Chromatography - Modern TLC* **2021**, *34*(3), 211–215. doi:10.1007/s00764-021-00109-5.
61. Kumar, A.; Das, D. K.; Vashistha, V. K.; Ibraheem, S.; Yasin, G.; Gautam, S.; et al. A novel CoN4-driven self-assembled molecular engineering for oxygen reduction reaction. *International journal of hydrogen energy* **2021**, *46*(52), 26499–26506. doi:10.1016/j.ijhydene.2021.05.114.
62. Vashistha, V. K.; Kumar, A.; Kundi, V. K.; Das, D. K. Synthesis and electrochemical studies of novel isothiocyanato macrocyclic Mn(III) complexes: Experimental and theoretical studies. *Russian journal of inorganic chemistry* **2021**, *66*(1), 61–67. doi:10.1134/s0036023621010101.
63. Vashistha, V. K.; Kumar, A. Synthesis of co(II) and Ni(II) asymmetric tetraazamacrocyclic complexes and their electrochemical and antimicrobial studies. *Russian journal of inorganic chemistry* **2020**, *65*(14), 2028–2032. doi:10.1134/s0036023620140077.
64. Gautam, S.; Kumar, A.; Vashistha, V. K.; Das, D. K. Phyto-assisted synthesis and characterization of V2O5 nanomaterial and their electrochemical and antimicrobial investigations. *Nano LIFE* **2020**, *10*(03), 2050003. doi:10.1142/s1793984420500038.
65. A Kumar, VK Vashistha, S Ahmed, A Ali, DK Das. Electrochemical and Antimicrobial Studies of N4-Macrocycles of Cobalt (II) and Nickel (II) Metal Ions. *Analytical and Bioanalytical Electrochemistry* **2020**, *12*(7), 922–930.
66. Y Kumar, VK Vashistha\*, V Sharma, R Patil, DK Das. Manganese Ferrite Nanocomposite Modified Electrochemical Sensor for the Detection of Guanine and Uric Acid. *Analytical and Bioanalytical Electrochemistry* **2020**, *12*(6), 653–662.
67. Y Kumar, VK Vashistha, and D.K. Das, Praseodymium ferrite nano-particles based modified electrode and its application in determination of dopamine. *Biointerface Research in Applied Chemistry* **2020**, *10*(4), 5855–5859. doi:10.33263/briac104.855859.
68. VK Vashistha, DK Das, A Yadav, D Saini, A Kumar. Structure and Catalytic Performance of N4-Macrocycles of FeIII and CoII for Oxidation of Hydroquinone. *Analytical and Bioanalytical Electrochemistry,* **2020**, *12*(8), 318–328.
69. Vashistha, V. K.; Bhushan, R. Thin-layer chromatographic enantioseparation of atenolol and propranolol using (S)-naproxen as chiral selector: direct and indirect approaches. *JPC - Journal of Planar Chromatography - Modern TLC* **2020**, *33*(2), 101–107. doi:10.1007/s00764-020-00017-0.
70. Vashistha, V. K.; Kumar, A. Stereochemical facets of clinical β-blockers: An overview. *Chirality* **2020**, *32*(5), 722–735. doi:10.1002/chir.23200.
71. Vashistha, V. K.; Kumar, A. Design and synthesis of MnN4 macrocyclic complex for efficient oxygen reduction reaction electrocatalysis. *Inorganic chemistry communications* **2020**, *112*(107700), 107700. doi:10.1016/j.inoche.2019.107700.
72. Vivek Sharma, Vinod Kumar Vashistha, Deepak Kumar Das, Biological and electrochemical studies of macrocyclic complexes of iron and cobalt. *Biointerface Research in Applied Chemistry* **2020**, *11*(1), 7393–7399. doi:10.33263/briac111.73937399.
73. Kumar, Y., Vashistha, V.K. and Das, D.K., Synthesis of perovskite type NdFeO3 nanoparticles and used as electrochemical sensor for detection of paracetamol. *Letters in Applied Nanobioscience* **2020**, *9*(1), 866–869. doi:10.33263/lianbs91.866869.
74. Vashistha, V. K.; Bhushan, R. Sensitive enantioseparation and determination of isoprenaline in human plasma and pharmaceutical formulations. *Biomedical chromatography: BMC* **2019**, *33*(8), e4550. doi:10.1002/bmc.4550.
75. Sweety; Vashistha, V. K.; Kumar, A.; Singh, R. Synthesis, electrochemical and antimicrobial studies of Me6-dibenzotetraazamacrocyclic complexes of Ni(II) and cu(II) metal ions. *Russian journal of electrochemistry* **2019**, *55*(3), 161–167. doi:10.1134/s1023193519020113.
76. Sharma, V.; Srivastava, A.; Vashistha, V. K. The effect of ultraviolet light exposure on proximate composition, amino acid, fatty acid, and micronutrients of Cold Water fish, “Barilius vagra.” *Oriental journal of chemistry* **2019**, *35*(3), 1220–1226. doi:10.13005/ojc/350344.
77. Vashistha, V. K.; Sharma, N.; Kumar, A.; Sharma, U. R. Synthesis and electrochemical studies of hexamethyldibenzotetraaza N4-macrocyclic complexes of Ni(II) and Cu(II) metal ions. *Asian journal of chemistry* **2019**, *31*(9), 2116–2120. doi:10.14233/ajchem.2019.21952.
78. Sharma, N.; Vashistha, V. K.; Sharma, U. R. Computer assisted thermal complexation studies of vanadium with benzodiazepine drugs. *Asian journal of chemistry* **2019**, *31*(10), 2351–2356. doi:10.14233/ajchem.2019.21998.
79. Synthesis and Electrochemical Analysis of Biologically Active Novel NiIIHMTAA and CuIIHMTAA Complexes. *Journal of Scientific and Industrial Research* **2019**, *78*(11), 788–792.
80. Kumar, A.; Vashistha, V. K. Design and synthesis of CoIIHMTAA-14/16 macrocycles and their nano-composites for oxygen reduction electrocatalysis. *RSC advances* **2019**, *9*(23), 13243–13248. doi:10.1039/c9ra02169h.
81. Vashistha, V. K.; Martens, J.; Bhushan, R. Sensitive RP-HPLC enantioseparation of (RS)-ketamine via chiral derivatization based on (S)-levofloxacin. *Chromatographia* **2017**, *80*(10), 1501–1508. doi:10.1007/s10337-017-3367-2.
82. Kumar, A.; Vashistha, V. K.; Tevatia, P.; Singh, R. Electrochemical studies of DNA interaction and antimicrobial activities of MnII, FeIII, CoII and NiII Schiff base tetraazamacrocyclic complexes. *Spectrochimica acta. Part A, Molecular and biomolecular spectroscopy* **2017**, *176*, 123–133. doi:10.1016/j.saa.2016.12.011.
83. Kumar, A., Vashistha, V.K., Tevatia, P. and Sweety, S.R., Antimicrobial studies of tetraazamacrocyclic complexes of Fe (III) and Co (II). Der Pharma Chemica, **2016**, 8(1), pp.146-151.
84. Kumar, A.; Vashistha, V. K.; Tevatia, P.; Singh, R. Voltammetric Determination of Molecular Modeling Parameters for Pentaazamacrocyclic Complexes of Mn (II) and Co (II). *Analytical and Bioanalytical Electrochemistry* **2016**, *8*(7), 848–861.
85. Vashistha, V. K.; Bhushan, R. Bioanalysis and enantioseparation of dl-carnitine in human plasma by the derivatization approach. *Bioanalysis* **2015**, *7*(19), 2477–2488. doi:10.4155/bio.15.155.
86. Vashistha, V. K.; Bhushan, R. Preparative enantioseparation of (RS)-baclofen: determination of molecular dissymmetry: Determining absolute configuration by 1 h nmr. *Chirality* **2015**, *27*(4), 299–305. doi:10.1002/chir.22428.
87. Vashistha, V. K.; Bhushan, R. Chirality recognition for assessing the enantiomeric purity of Betaxolol. *Tetrahedron, asymmetry* **2015**, *26*(5–6), 304–311. doi:10.1016/j.tetasy.2015.01.017.
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. 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)