Dr. PRITI MALHOTRA

Designation:	Associate Professor
Department:	Department of Chemistry, Daulat Ram College, University of Delhi
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Educational Qualification:	M.Sc, MPhil, PhD
Teaching Experience:	Kalindi College, Delhi University (1991-93) Daulat Ram College, Delhi University (1993-Present) Years of Teaching Experience: 27 Years

Publications (Starting from Latest):

1. Maruf Chauhan, Sushma Yadav, Rama Pasricha, and **Priti Malhotra***, Water Chestnut Peel Facilitated Biogenic Synthesis of Zinc Oxide Nanoparticles and their Catalytic Efficacy in the Ring Opening Reaction of Styrene Oxide, Chemistry Select, doi.org/10.1002/slct.202102031. (***UGC Listed, IF- 2.1***)
2. **Priti Malhotra** and Arti Jain, Graphene oxide-based nanocomposites for adsorptive removal of water pollutants, *Contamination of Water*, 2021, DOI: 10.1016/B978-0-12-824058-8.00031-1
3. Sushma Yadav, Arti Jain, **Priti Malhotra*.** Bioinspired synthesis and green ecological applications of reduced graphene oxide based ternary nanocomposites, *Sustainable Materials and Technologies,* Volume 29, 2021, e00315, ISSN 2214-9937, https://doi.org/10.1016/j.susmat.2021.e00315. ***(UGC Listed, IF-7.05)***

4. Arti Jain, Sushma Yadav, **Priti Malhotra***, Accidental synthesis of a trimer of pyrazolone and comparison of its antioxidant activity: an investigatory report. *J Chem Sci* **133,** 77 (2021). https://doi.org/10.1007/s12039-021-01943-0 ***(UGC Listed, IF-1.5).***

5. Anita Garg Mangla, Neeru Dhamija, Priti Malhotra, Tanya Kalra, Parthvi Mahendru, Shreya Kandpal and Divyangi Dubey, INDIA SEEMS TO BE BETTER PLACED IN FIGHTING AGAINST COVID-19: A REVIEW, *Int. J. Adv. Res.,* 2020, 8(06), 711-717. ***(Peer***

reviewed)

6. SushmaYadav, Maruf Chauhan, Divya Mathur, Arti Jain, Priti Malhotra*, Sugarcane bagasse-facilitated benign synthesis of Cu_2O nanoparticles and its role in photocatalytic degradation of toxic dyes: a trash to treasure approach. *Environ Dev Sustain* (2020). https://doi.org/10.1007/s10668-020-00664-7 ***(UGC Listed, IF-2.19)***

7. Sushma Yadav, Arti Jain, **Priti Malhotra*** A review on the sustainable routes for the synthesis and applications of cuprous oxide nanoparticles and their nanocomposites, **Green Chem.**, 2019,**21**, 937-955. ***(UGC Listed, IF-9.45)***

8. **Priti Malhotra**, Arti Jain and Ritu Payal**,** Porous Silica nanoparticles from Rice Husk for the Elimination of Erichrome Black T (EBT) from Laboratory Waste Water, *Chapter in Green Chemistry and Environmental Sustainability*, published by Springer, ISBN: 978-981-10-8389-1, 2018. ***(Peer reviewed)***

9. Ritu Payal, Arti Jain and **Priti Malhotra**, Use of Cost Effective Kitchen Ingredients in Acid-Base Titrations: A Greener Approach, *Chapter in Green Chemistry and Environmental Sustainability*, published by Springer, ISBN: 978-981-10-8389-1, 2018. ***(Peer reviewed)***

10. **Priti Malhotra** and Divya Mathur, Exploring New Dimensions of Polyvinyl-alcohol (PVA), *Conference Proceedings of the National Conference on Innovations in Sciences and Emerging Challenges in Health and Environment*, Page 40-46, 2018, ISBN: 9788192981246. ***(Peer reviewed)***

11. Divya Mathur, **Priti Malhotra**, Maruf Chauhan and Sushma Yadav, Biogenic Synthesis of Iron Nanoparticles and their Applications, *Conference Proceedings of the National Conference on Innovations in Sciences and Emerging Challenges in Health and Environment*, Page 78-85, 2018, ISBN: 9788192981246. ***(Peer reviewed)***

12. **Priti Malhotra**, Arti Jain and Ritu Payal, Low-cost nanoparticles sorbent from modified agricultural waste efficient removal of Pb(II) from water, *Conference Proceedings of theUGC-sponsored National Conference in Chemistry: Environment and Harmonious Development* organized by ShyamLal College, University of Delhi, 159-161, 2016, ISBN:9789385824012. ***(Peer reviewed)***

13. Anjali Verma, Divya Mathur and **Priti Malhotra**, Green Synthesis of Zero Valent Iron Nanoparticles (Fe NP) Employing Plant Extracts, *Conference Proceedings of the UGC-sponsored National Conference in Chemistry: Environment and Harmonious Development* organized by Shyam Lal College, University of Delhi, Page 84, 2016, ISBN: 9789385824012. ***(Peer reviewed)***

14. Rekha Kathal, **Priti Malhotra**, Lalit Kumar and Prem Uniyal, Phytoextraction of Pb and Ni from the Polluted Soil by Brassica juncea L.. *Journal of Environmental & Analytical Toxicology*, 2016, 6, DOI-10.4172/2161-0525.1000394. ***(Peer reviewed)***

15. **Priti Malhotra** and Arti Jain; Role of Nanotechnology As A Tool for Sustainability: Potential of Zerovalent Metal Naoparticles (ZVN) and Their Metal Composites in Environmental Remediation, *International Journal of Mathematics and Physical Sciences Research*, 2016, 3, 2, 143-150. ***(Peer reviewed)***

16. **Priti Malhotra**, Rekha Kathal and Aditi Puri, Iron Nanoparticles Catalyzed Degradation of Organic Dyes in Water for Environmental Remediation, *Journal of Basic and Applied Engineering Research*, 2016, 3, 1, 41-43. ***(Peer reviewed, IF-0.26)***

17. **Priti Malhotra**, Arti Jain and RituPayal, Drinking Water and Health: A Unique Solution for Remediation of Contaminated Water for Sustainable Health, *Journal of Basic and Applied Engineering Research*, 2016, 3, 44-47. ***(Peer reviewed)***

18. Rekha Kathal, **Priti Malhotra** and Vidhi Chaudhary, Phytoremediation-A Greener and Sustainable Technology for Controlling Toxicity of Copper in Soil, *Journal of Basic and Applied Engineering Research*, 2016, 3, 1, 56-59. ***(Peer reviewed, IF-0.26)***

19. **Priti Malhotra**, Ritu Payal and Arti Jain, Whether to Worry with Waste: A Review On Activated Carbon Precursors From Various Waste Materials, *International Journal ofAdvanced Research*, 2016, 4 14-20. ***(Peer reviewed)***

20. **Priti Malhotra**, Divya Mathur and Jitendra Singh, Green Synthesis of Iron Oxide Nanoparticles using Cinnamon Zeylanicum Powder extract. *International Journal ofChemistry and Pharmaceutical Science*, 2016, 4,7, 366. ***(Peer reviewed)***

21. Asha Chilwal, **Priti Malhotra** and A.K. Narula. Thermal analysis of new dimethyl/ dibutyl Tin(IV) compounds with amino acids, *Journal of Thermal Analysis and Calorimetry*, 2013, 114, 345-351. ***(UGC Listed, IF-2.7)***

22. Asha Chilwal, **Priti Malhotra** and A.K. Narula, Synthesis, characterization, thermal and antibacterial studies of organotin (IV) complexes with indole-3-butyric acid and indole-3-propionic acid, *Phosphorus, Sulfur, and Silicon and the Related Elements*, 2014, 189, 410-421. ***(UGC Listed, IF-1.04)***

23. Asha Chilwal, Gagan Deep, **Priti Malhotra** and A.K. Narula, Diorganotin complexes of carboxylates: Synthesis and characterization, *Journal of Coordination Chemistry*, 2013, 66,

1046–1057. ***(UGC Listed, IF-1.3)***

24. Darshan, **Priti Malhotra** and A.K. Narula, Studies on the curing kinetics and thermal stability of Diglycidyl ether of bisphenol-A (DGEBA) using mixture of novel, environment friendly sulphur containing amino acids and 4,4'-diaminodiphenylsulfone, *Journal of Applied Polymer Science*, 2009, 113, 216-225. ***(UGC Listed, IF-2.1)***

25. Darshan**, Priti Malhotra** and A.K. Narula, Synthesis, Characterization of Diamide-Diimide-Diamines based on L-Cysteine amino acid and their effect on the Thermal properties of Diglycidyl Ether of Bisphenol-A (DGEBA), *Chinese Journal of Polymer Science*, 2009, 27, 647-658. ***(UGC Listed, IF-3.1)***

26. Darshan, **Priti Malhotra** and A.K. Narula, Effect of structure of diamide-diimide-diamines based on L-methionine on curing behaviour and thermal stability of DGEBA, *Indian Journalof Chemistry*, 2009, 48B 893-903. ***(UGC Listed)***

27. Darshan, Pooja Sharma, **Priti Malhotra** and A.K. Narula, Synthesis, Characterization and Thermal Properties of Tris (3-Aminophenyl) Phosphine Oxide-Based Nadimide Resin, *Journal of Applied Polymer Science*, 2008, 107, 1628-1634. ***(UGC Listed, IF-3.1)***

28. Beer Singh, G. K. Prasad, D. Pandey and **Priti Malhotra**, Dynamic Adsorptive Removal of Toxic Chemicals for purification of water, Amit Saxena, *Defence Science Journal*, 2005, 55, 117-123. ***(UGC Listed, IF-0.589)***

29. Beer Singh, Sushma Kher, **Priti Malhotra** and P.N. Kapoor, Beta -diketonates of bimetallic μ-oxoisopropoxides Mn [OAl(Opri)2]and [OAl(Opri)2]2. *Main Group Metal Chemistry*, 1988, Vol. 4. ***(UGC Listed, IF-0.42)***

30. **Priti Malhotra**, Waste to wealth approach: Removing toxic heavy metals and organic dyes from waste water using agricultural waste. Conference Proceedings of International conference on biology and medicinal sciences, Dubai, 2017, ISBN: 9789384422776 ***(Peer reviewed)***

31. **Priti Malhotra**, Removal of heavy metals from laboratory wastewater using waste precursors: A sustainable approach, Conference Proceedings of International conference on waste management, Dubai, 2017, ISBN: 9789384422776 ***(Peer reviewed)***

32. Book Joint Editor Conference Proceedings of International conference in Green Chemistry (ICGC-2016), Springer Book DOI 10.1007/978-981-10- 8390-7

33. Book authored on "Analytical Chemistry Basic concepts" by Ane's publication. ISBN No.

978-93-8365-601-1.

Projects:

S.No.	Topic	Funding Authority	Budget	Whether Continuing or Completed (Year)
1.	Trapping the waste: Rice husk as an agent to remove heavy metal ions, surfactants and organic dyes from waste water	University of Delhi	5 Lac	Continuing (2015-2016)
2.	Green Synthesis of Iron Nanoparticles for Environmental Remediation and Organic Catalysis.	University of Delhi	5.5 Lac	Continuing (2015-2016)
3.	Synthesis of Biobased Mesoporous material and its Application in water purification.	University of Delhi	15 Lac	Continuing (2016-2019)
4.	Recycled Polyvinyl Alcohol (PVA) from E-waste and its Application	University of Delhi	15 Lac	Continuing (2016-2019)

5.	DBT Star College Project 2014-2017 on "**Green Chemistry"**	DBT	18.75 Lac	Continuing (2014-2017)
6.	Innovation project in the year 2012-2013 on "**Metal Scavengers based on functionalized Silica Gels and Microorganism**	University of Delhi	10 Lac	Completed (2012-2013)
7.	Innovation Project: **Controlling heavy metal soil pollution by phytoremediation: A greener and sustainable approach**	University of Delhi	5 Lac	Completed (2013-2015)
8.	DBT Star College Project 2011-2013 on "**Green Chemistry"**	DBT	13.5 Lac	Completed (2011-2013)

Advisor/ Supervisor of the Ph.D Thesis

- Synthesis and characterization of new organotin derivatives (Asha Chilwal Awarded in 2015)
- Synthesis of metal and metal oxide nanoparticles from E-waste and its application (Maruf Chauhan registred in 2016)
- Synthesis of metal, metal oxide and mixed metal oxide nanoparticles and their applications (Sushma Yadav registered in 2018)
- Co-supervisor (Roopa registered in 2019)

Workshops/ Conferences Organized

- Three Days Inter-college workshop and conference on Green Chemistry at Daulat Ram College in 2012.
- Two Days Workshop and lecture series on Green Chemistry at Daulat Ram College in 2013.

- One Day Workshop and lecture series on Green Chemistry at Daulat Ram College in 2014.
- Co-supervised one PhD student, Ph.D. awarded in 2014.
- Conducted a skill development course of three weeks on "**Skill development inapplied chemistry and Instrumentation**" from 8th to 26th June, 2015 at DaulatRam College.
- Conducted a skill development course of two weeks on "**Skill development inCosmetics and Perfumeries**" from14th to 28th December, 2015 at Daulat Ram College.
- Conducted a skill development course of two weeks on "**Skill development ingenesis and sustainability of personal care products and food stuff**" from 1st to 15th July, 2016 at Daulat Ram College.
- Conducted **International Conference on "Green Chemistry in Environmental Sustainability & Chemical Education" (ICGC-2016)** from Thursday, 17 November to Friday, 18 November 2016 at Daulat Ram College Auditorium, University of Delhi.
- Conducted Indo-French Symposium on Recent Advances in BiomedicalEngineering on 6 February 2017.
- Conducted Faculty Development Programme on "From Chemistry of Life to Chemistry of Diseases: Understanding Clinical Biochemistry from 15 June 2017 to 22 June 2017.
- Conducted National Conference on "Innovations in Sciences and Emerging Challenges in Health and Environment" (NSHE-2018) on 20th March 2018 at Daulat Ram College, University of Delhi.
- Conducted Online Summer Internship Programme on Research methodology for chemistry from 16th May 2020 to 20th May 2020 at Daulat Ram College, University of Delhi.

Oral/Poster Presentation:

- Poster presented in Innovations in ChemistryLaboratory Teaching, Zakir Hussain College, 2017.
- Delivered an oral presentation in 9th International Conference on Waste Management (ICWM'17) on May 10-11, 2017 Dubai (UAE)
- Delivered an oral presentation in National Seminar On a Paradigm Shift Towards Empowerment of WomenKalindi College in 2017
- Poster presented in National Conference in Chemistry: Environment & Harmonious Development (NCC 2016) "Low cost nanoparticles sorbent from modified agricultural waste effiecient removal of Pb(II) from water" in 2016
- Delivered an oral presentation in National Conference on "Nanoscience – Opportunities and Challenges "**Water Purification on the Scaffolds of Rice Husk DerivedTemplates**" in 2016.
- Poster presented in National Conference in Chemistry: Environment & Harmonious Development (NCC 2016) "Low cost nanoparticles sorbent from modified agricultural

waste effiecient removal of Pb(II) from water" in 2016

- Poster presented in National Conference on Emerging Economics and challenges to Sustainability towards Developing nations "Surface Chemistry modifications of rice husk towards enhancement of Cr(VI) adsorption from aqueous solution" in 2016
- Delivered an oral Presentation in Gargi College on **Mesoporous Materials – Synthesisand Applications**" in 2016.
- Delivered an oral Presentation in Jaipur on **Nanosensors and their Applications in Environmental Monitoring** " in 2016.
- Poster presented in Gargi College on "**Agricultural Waste: A Unique solution for thesynthesis of nanosilica and its further application**" in 2016.
- Delivered an oral presentation in 6th world congress on biotechnology "**Synthesis of ironnanoparticles from natural extracts and its characterization**".
- Delivered an oral presentation in National Seminar on Innovative, Advanced Research in Bio-medical and Environmental Dynamics "**Green synthesis of zero-valent ironnanoparticles employing plant extracts**".
- Poster presented in Innovative, Advance research in Bio-medical and environmental dynamics "Trapping the waste: rice husk as a precursor to remove heavy metal ions" in 2015
- Poster presented in the RSC workshop on Chemistry for Tomorrow's World held on 2-3 Dec, 2015, New Delhi, India **"Removal of Cr from tannery waste employing silicaobtained from rice husk**".
- Poster presented in International Conference on Green Chemistry held at Jaipur Dec-2012 "**Metal scavengers based on functionalized silica gels and microorganisms:Greener and sustainable approach for treatment of contaminated soil and water**"
- Poster accepted in National Conference on Green Chemistry held at Manav Rachna University on 15th Jan 2015 "**Controlling heavy metal soil pollution byphytoremediation: A greener and sustainable approach**".
- Poster presented in the 5th Asia Oceania Conference on Green and Sustainable Chemistry (AOC-5 GSC) held on 15th to 17th Jan, 2015, New Delhi, India **"Phytoremediation of Cadmium from polluted soil"**
- Delivered lecture series on **You Tube at CBSE site Udaan**. Delivered four lectures of 2 hours 30 minutes each from Jan-march, 2015.

Administrative Work

- Head of the Department of Chemistry in Chemistry Department Daulat Ram College, University of Delhi (2003-2004).
- Convener of Student Advisory Board in 2006-2007
- Teachers Representative of Governing Body in 2008-2009.
- Council Secretary in2010
- Head of the Department of Chemistry in Chemistry Department Daulat Ram College,

University of Delhi (2009-2010).

- Practical Exam Convenor in 2015-2016
- Convener of Fashion Society in 2016-2017.
- Undergraduate EVS paper coordinator in Daulat Ram College, University of Delhi in 2016-2017.
- Head of the Department of Chemistry in Chemistry Department Daulat Ram College, University of Delhi (2016-2017).
- Theory Paper Setter (HEAD) in University of Delhi in 2016-2017.
- Convener of Fashion Society in 2017-2018.
- Theory Paper Setter (HEAD) in University of Delhi in 2017-2018.
- Convener, Student advisory board in Chemistry Department Daulat Ram College, University of Delhi (2017-2018).
- Convener of Fashion Society in 2018-2019.
- Admission Core committee convener science in Daulat Ram College (2018-2019).
- Admission Core committee convener science in Daulat Ram College (2019-2020).
- Convener of Fashion Society in 2019-2020.
- Design of New Curricula and Courses in University of Delhi in 2019.
- Design of New Curricula and Courses in IGNOU in 2019.

Dr. Priti Malhotra