


Dr. Ankita Chaudhary		
Designation	Assistant Professor	
Address	Department of Chemistry, Maitreyi College, University of Delhi, Chanakyapuri, New Delhi-110021, India	
Email	<u>achaudhary@maitreyi.du.ac.in</u>	
Educational Qualifications		
Degree	Institution	Year
Ph.D.	Department of Chemistry, University of Delhi, Delhi Thesis Title: "Oxidations and syntheses of N/O- containing heterocycles using ionic liquids, water and PEG-400 as green media"	2013
M.Sc. (Organic Chemistry)	Department of Chemistry, University of Delhi, Delhi	2008
B.Sc. (Chemistry)	Sri Venkateswara College, University of Delhi, Delhi	2006
Career Profile		
<ul style="list-style-type: none"> • Assistant Professor at Maitreyi College, University of Delhi, India (January 17, 2015-till date) • Assistant Professor at Sri Venkateswara College, University of Delhi (August 11, 2014 – January 15, 2015) • Assistant Professor at Department of Chemistry, University of Delhi (from July 21, 2011-August 11, 2014) • Trainee- Research Associate in the synthesis Department of Jubilant Chemsys Ltd. (July 7, 2008 - January 2, 2009) 		
Awards/Fellowships		
<ul style="list-style-type: none"> • Junior/Senior Research Fellowship sponsored by CSIR • Science Meritorious Award • Jean and Ashit Ganguly Education Scholarship • UGC-Start Up Research Grant. 		
Areas of Interest / Specialization		
Development of novel synthetic methodologies Multicomponent reactions Synthesis of novel heterocyclic scaffolds Green Chemistry		

Research Projects (Major Grants/Research Collaboration)

- Start-Up Research Grant funded by University Grant Commission (UGC)-(2017-2019).
Title: *Development of proficient novel green synthetic approach for the synthesis of biologically relevant heterocycles and their biological evaluation*
Budget: Rs. 6,00,000
Reference: F.30-312/2016(BSR)
- Guided B.Sc. students for summer project on “*To explore green pathway for the synthesis of spiropyrans via multicomponent approach*” under DBT-Star College Scheme-2015.
- Guided B.Sc. students for project on “*Evaluation of Antioxidant Activity of Various Fruits and Vegetables by DPPH Assay*” under DBT-Star College Scheme-2015.
- Guided B.Sc. students for project on “*Relationship between Molecular Structure and Relative Sweetness of Various Artificial Sweeteners*” under Summer Internship Programme-2017-18.
- Guided B.Sc. students for project on “*Eco-friendly magnetic biopolymer nanocomposites for removal of heavy metals from waste water*” under Summer Internship Programme-2018-19.
- Guided B.Sc. students for project on “*Magnetic chitosan films*” under Summer Internship Programme-2018-19.
- Guided B.Sc. students for project on “*Development of a proficient novel green synthetic approach for the construction of biologically relevant heterocycles and to carry out their molecular modelling studies*” under Annual research Project 2022-23.
- Guided B.Sc. students for project on “*Target Modification, Docking studies and pharmacokinetic evaluation of Ayurvedic Compounds*” under SIP 2023-24.

Administrative/Academic Assignments

- Co-convener, Vatavaran Committee, 2023-24
- Co-convener, Advisory Committee for Professional Grooming, 2023-24
- Member, Interview Board for selection of teachers in Kendriya Vidyalaya Sangathan w.e.f. May 20 -25, 2023.
- Member, Committee for Formulating Courses under Undergraduate Curriculum Framework (UGCF-2022)”, University of Delhi
- Member, Committee for Closing Ceremony Centenary Year celebration, University of Delhi, 2022-23.
- Member, Canteen Committee, 2022-23.
- Member, Website Committee, 2022-23
- Convenor, IQAC, 2021-23
- Co-convener, Student’s Union Advisory Committee, 2016-2023
- Member, Ethics Committee, 2021-22
- Member of Career counselling (Placement cell): 2015-2016
- Member Time Table committee, 2018-2019
- Member, M.Sc. (Chemistry) Entrance Exam Evaluation Board, 2014

Refresher Courses/ Faculty Development Programme/ Workshops Attended

- Orientation Programme organized by Centre for Professional Development in Higher Education (CPDHE), University of Delhi from May 25 - June 20, 2015.
- Refresher Course in “*Climate Change and Disaster Management*” organized by CPDHE, University of Delhi from June 9 - 30, 2017.
- Faculty Development Program cum National Workshop on “*Greening an Undergraduate Chemistry Lab (GUCL-2018)*” from August 8-9, 2018, organized by Sri Venkateswara College, University of Delhi.
- Faculty Development Program on “*Sustainable Development*” from October 15-22, 2018, organized by Atma Ram Sanatan Dharam College, University of Delhi and Interdisciplinary Faculty Development Programme on “*Disabilities studies: perspectives and emerging trends*” (For Humanities, Sciences, Commerce Teachers and Research Scholars) from December 17-23, 2018 organised by Enabling Unit Maitreyi college (under the aegis of IQAC) in collaboration with TLC, Ramanujan college under PMMMNTT, Ministry of HRD, Government of India.
- Faculty Development Programme: National Webinar on “*Roles of Teachers in technology driven higher education*” Organized by Guru Angad Dev Teaching Learning Centre Sri Guru Tegh Bahadur Khalsa College University of Delhi under PMMMNTT, MHRD, Government of India on April 25, 2020
- ARPIT Course for Career Advancement Scheme (CAS) promotion: Online Refresher Course "*In Chemistry For Higher Education*" Sri Guru Tegh Bahadur Khalsa College, University of Delhi -16 February, 2020.
- Two-Week FDP on “*Managing online classes and co-creating MOOCS 3.0*” organised by TLC, Ramanujan college University of Delhi Under the aegis of MHRD, PMMMNTT from July 25 - August 10,2020.
- Two -Week FDP on “*Research Methodology*”, organized by TLC, Ramanujan college University of Delhi Under the aegis of MHRD, PMMMNTT, MHRD, Government of India from October 1-15, 2020.
- Two-Week FDP on “*Chemistry-the catalyst for change*” organised by TLC, Ramanujan college University of Delhi Under the aegis of MHRD, PMMMNTT in Collaboration with Department of Chemistry Miranda House from July 14-28, 2021.

PUBLICATION PROFILE (2012-TILL DATE)

h-index: 12

ORCID iD: <https://orcid.org/0000-0001-6208-9221>

2012

1. An expedient four-component domino protocol for the synthesis of novel benzo[a]phenazine annulated heterocycles and their photophysical studies. Khurana, J.M.; **Chaudhary, A.**; Lumb, A.; Nand, B. *Green Chemistry*, 2012, 14, 2321. (Impact Factor: 9.45). <https://pubs.rsc.org/en/content/articlelanding/2012/gc/c2gc35644a#!divAbstract>

2. Aqua mediated indium(III) chloride catalysed synthesis of fused pyrimidines and pyrazoles. Khurana, J.M.; **Chaudhary, A.**; Nand, B.; Lumb, A. *Tetrahedron Letters*, 2012, 53, 3018. (Impact Factor: 2.397). <https://www.sciencedirect.com/science/article/pii/S0040403912005655>
3. Rapid oxidation of 1,2-diols, α -hydroxyketones and some alcohols using N-bromosuccinimide in ionic liquid. Khurana, J.M.; **Chaudhary A.**; Sanjay. *Organic Preparation Procedure & International*, 2013, 45, 241. (Impact Factor: 1.645). <https://www.tandfonline.com/doi/abs/10.1080/00304948.2013.786585>
4. Efficient and green synthesis of 4H-pyrans and 4H-pyrano[2,3-c]pyrazoles catalysed by TSIL [bmim]OH under solvent-free conditions. Khurana, J.M.; **Chaudhary, A.** *Green Chemistry Letters & Review*, 2012, 5, 633. (Impact Factor: 1.392). <https://www.tandfonline.com/doi/full/10.1080/17518253.2012.691183>
5. Efficient and green approaches for the synthesis of 4H-benzo[g]chromenes in water, neat conditions and using task-specific ionic liquid. Khurana, J.M.; Magoo, D.; **Chaudhary, A.** *Synthetic Communications*, 2012, 42, 3211. (Impact Factor: 1.060) <https://www.tandfonline.com/doi/abs/10.1080/00397911.2011.580069>
6. Efficient one-pot syntheses of dibenzo[a,i]xanthene-diones and evaluation of their antioxidant activities. Khurana, J.M.; **Chaudhary, A.**; Lumb, A.; Nand, B. *Canadian Journal of Chemistry*, 2012, 90, 739. (Impact Factor: 0.964) <https://www.nrcresearchpress.com/doi/abs/10.1139/v2012-033#.XyPUBSgzaks>

2013

7. Synthesis and in vitro evaluation of antioxidant activity of diverse naphthopyranopyrimidines, diazaanthra[2,3-d][1,3]dioxole-7,9-dione and tetrahydro benzo[a]xanthen-11-ones. Khurana, J.M.; Lumb, A.; **Chaudhary, A.**; Nand, B. *RSC Advances*, 2013, 3, 1844. (Impact Factor: 3.84). <https://pubs.rsc.org/en/content/articlelanding/2013/RA/C2RA22406B#!divAbstract>
8. Efficient and green syntheses of 12-aryl-2,3,4,12-tetrahydrobenzo[b]xanthene-1,6,11-triones in water and task specific ionic liquid. Khurana, J.M.; Lumb, A.; **Chaudhary, A.**; Nand, B. *Synthetic Communications*, 2013, 43, 2147. (Impact Factor: 1.060). <https://www.tandfonline.com/doi/abs/10.1080/00397911.2012.688230>

2014

9. Acid catalyzed efficient syntheses of aryl-5H-dibenzo[b,i]xanthene-5,7,12,14-(13H)-tetraones, 3,3-(arylmethylene)bis(2-hydroxynaphthalene-1,4-diones) and in vitro evaluation of their antioxidant activity. Khurana, J.M.; Lumb, A.; **Chaudhary A.**; Nand, B. *Journal of Heterocyclic Chemistry*, 2014, 51, 1747. (Impact Factor: 1.224). <https://onlinelibrary.wiley.com/doi/abs/10.1002/jhet.1871>
10. Application of acidic and basic TSIL in multicomponent reactions. Chaudhary, A.; Saluja, P.; Aggarwal, K.; Khurana, J.M. *Journal of Indian Chemical Society*, 2014, 91, 1399. (Impact Factor: 0.301)

11. Synthesis of novel fluorescent benzo[a]pyrano[2,3-c]phenazine and benzo[a]chromeno[2,3-c]phenazine derivatives via facile four-component domino protocol. Saluja, P.; **Chaudhary, A.**; Khurana, J.M. Tetrahedron Letters, 2014, 55, 3431. (Impact Factor: 2.397). <https://www.sciencedirect.com/science/article/pii/S0040403914006972>

2015

12. An efficient catalyst-free synthesis of novel benzo[a][1,3]oxazino[6,5-c]phenazine derivatives via one pot four-component domino protocol in water. Khanna, G.; **Chaudhary, A.**; Khurana, J.M. Tetrahedron Letters, 2015, 55, 6652. (Impact Factor: 2.397). <https://www.sciencedirect.com/science/article/pii/S004040391401750X>
13. “1, 8-Diazabicyclo [5.4.0] undec-7-ene (DBU): A Versatile Reagent in Organic Synthesis” Nand, B.; Khanna, G.; **Chaudhary, A.**; Lumb A.; Khurana, J.M. Current Organic Chemistry, 2015, 19, 790. (Impact Factor: 2.537). <https://www.eurekaselect.com/129994/article>
14. Multicomponent Domino Process for the Synthesis of Some Novel Benzo[a]chromenophenazine Fused Ring Systems Using H₂SO₄, Phosphotungstic Acid, and [NMP]H₂PO₄. Rajeswari M.; Khanna, G.; **Chaudhary, A.**; Khurana, J.M. Synthetic Communications, 2015, 45, 1426. (Impact Factor: 1.060). <https://www.tandfonline.com/doi/abs/10.1080/00397911.2015.1024324>
15. Synthesis and characterization of hybrid chloroquinoline–xanthene derivatives, Nand, B.; **Chaudhary, A.**; Lumb, A.; Khurana, J.M. Cogent Chemistry, 2015, 1, 1071227. <https://www.tandfonline.com/doi/full/10.1080/23312009.2015.1071227>

2016

16. 2-Hydroxy-1,4-Naphthoquinone: A Versatile Synthone in Organic Synthesis. **Chaudhary, A.**; Khurana, J.M. Current Organic Chemistry, 2016, 20(12), 1314-1344. (Impact Factor: 2.537). ISSN: 1875-5348 (Online) 1385-2728 (Print). <https://www.eurekaselect.com/137260/article>
17. Recent Advances in the Application of Meldrum’s Acid in Multicomponent Reactions, **Chaudhary, A.**; Khurana, J.M.; Saluja, P. Current Green Chemistry, 2016, 3, 328-345. ISSN (Print): 2213-3461. <https://www.eurekaselect.com/150004/article>

2017

18. NaBrO₃/bmim[HSO₄]: a versatile system for the selective oxidation of 1,2-diols, αhydroxyketones, and alcohols. Khurana, J.M.; Lumb A.; **Chaudhary, A.** Monatshefte fuer Chemie., 2017, 148, 381-386. (Impact Factor: 1.13). ISSN: 0026-9247 (print version) 1434-4475 (Online). <https://link.springer.com/article/10.1007%2Fs00706-016-1749-z>

2018

19. Advances in the Synthesis of Xanthenes: An Overview. **Chaudhary, A.**, Khurana, J.M. Current Organic Synthesis, 2016, 15(3), 341-369. ISSN (Print): 1570-1794. <https://www.eurekaselect.com/156351/article>
20. Synthetic routes for phenazines: an overview. **Chaudhary, A.**, Khurana, J.M. Research on Chemical Intermediates, 2018, 44, 1045-1083. ISSN (Print): 1568-5675. <https://link.springer.com/article/10.1007/s11164-017-3152-8>
21. A Catalyst-Free Domino Protocol for the Chemoselective Synthesis of Multifunctionalised Pyrroles in Aqueous Media via Nitroketene- N,S -Acetal Chemistry. **Chaudhary, A.**, Khurana, J.M., Khanna, G., Saroha, M. ChemistrySelect, 2018, 3(23), 6334-6337. ISSN (Print): 2365-6549. (Impact Factor: 1.811). <https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/slct.201800831>
22. Recent advances in the catalytic exploitation of chitosan based catalysts in organic transformations. Chopra, H., **Chaudhary, A.**, Gaba, R. The Pharma Innovation Journal , 2018, 7(10): 311-318. ISSN (Print): 2349-8242. <http://www.thepharmajournal.com/archives/?year=2018&vol=7&issue=10&ArticleId=2610>

2019

23. Arylglyoxals as Versatile Synthons for Heterocycles Through Multi-Component Reactions, **Chaudhary, A.** Current Organic Chemistry, 2019, 23, 1945 - 1983. ISSN: 1875-5348 (Online) 1385-2728 (Print). (Impact Factor: 2.157). <https://www.eurekaselect.com/node/175885/article/arylglyoxals-as-versatile-synthons-for-heterocycles-through-multi-component-reactions>

2020

24. Recent development in the synthesis of heterocycles by 2-naphthol-based multicomponent reactions, **Chaudhary, A.** Molecular Diversity, 2020, DOI: <https://doi.org/10.1007/s11030-020-10076-4>. ISSN: 1381-1991 (Print). (Impact Factor: 2.29). <https://link.springer.com/article/10.1007/s11030-020-10076-4>
25. Recent Advances in the Exploitation of Kojic Acid in Multicomponent Reactions, **Chaudhary, A.** Current Organic Chemistry, 2020, 24, 1643 - 1662 . DOI : 10.2174/1385272824999200622113153. ISSN: 1875- 5348 (Online) 1385-2728 (Print). (Impact Factor: 2.157). <https://www.eurekaselect.com/node/183035/article/recent-advances-in-the-exploitation-of-kojic-acid-in-multicomponent-reactions>
26. Relationship between Molecular Structure and Relative Sweetness of Various Artificial Sweeteners, Chopra, H., Gaba, R., **Chaudhary, A.**, Chugh, M., Rawat, K. Vantage: Journal of Thematic Analysis, 2020, 1, 155-168. <http://maitreyi.ac.in/Datafiles/cms/2020/magazine/vantage/august/12.pdf>

27. Eco-friendly magnetic biopolymer nanocomposites for removal of organic dye /heavy metals from waste water, Bhandari, H., Ruhi , R., Gaba, R., **Chaudhary, A.**, Johar, R., Singh, T., Rawat, A., Kapoor, S., Sharma, V., Chadha, Y. *Vantage: Journal of Thematic Analysis*, 2020, 1, 17-31. <http://maitreyi.ac.in/Datafiles/cms/2020/magzine/vantage/august/2.pdf>

2021

28. Multicomponent Approach for the Sustainable Syntheses of Pyrido[2,3-d]pyrimidine Scaffold, **Chaudhary, A.** *Current Organic Chemistry*, 2021, 25(23), 2856-2884. <https://www.eurekaselect.com/article/118898>
29. Multicomponent reactions through pristine and modified chitosans: current status and future prospects , **Chaudhary, A.**; Pasricha, S.; *Journal of the Iranian Chemical Society*, 2022, 19, 2191–2253. <https://link.springer.com/article/10.1007/s13738-021-02477-5>

2022

30. Deep eutectic solvent-mediated expedient multicomponent synthesis of oxazine scaffolds, **Chaudhary, A.** ; Khanna, G.; Chopra, H.; Gaba, R. *Research on Chemical Intermediates* , 2022, 48, 2267–2278. <https://link.springer.com/article/10.1007/s11164-022-04674-0>
31. 2,3-Diaminomaleonitrile: A Multifaceted Synthone in Organic Synthesis, **Chaudhary, A.** **Current Organic Synthesis* , 2022, 9(5):616-642. <https://www.eurekaselect.com/article/120058>.

2023

32. Odyssey of Deep Eutectic Solvents as Sustainable media for Multicomponent Reactions: An Update **Chaudhary, A.***, *Mini-Reviews in Organic Chemistry* 2023; 20(2), 156 – 189. <https://benthamscience.com/public/article/122111>
33. Sugars in Multicomponent Reactions: A Toolbox for Diversity-Oriented Synthesis, Maikhuri, V.K.; Verma, V.; **Chaudhary, A.**; Mathur, D.; Kumar, R.; Prasad, A.K.; *Synthesis*, 2023, 55(07): 1007-1041. <https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0042-1751418>

2024

34. Transition-Metal Catalysed Synthesis of Pyrimidines: Recent Advances, Mechanism, Scope and Future Perspectives, Maikhuri, V.K.; Mathur,D.; **Chaudhary, A.**; Kumar, R.; Parmar, V.S.; Singh, B.K., *Topics in Current Chemistry*, 2024, 382:4. <https://link.springer.com/journal/41061/volumes-and-issues/382-1>

BOOKS PUBLISHED

1. Sharda Pasricha, Ankita Chaudhary, Practical Organic Chemistry, Vol-1, I.K International Pvt. Ltd., 2021, ISBN : 978-9355810328
2. Sharda Pasricha, Ankita Chaudhary, Practical Organic Chemistry, Vol-2, I.K International Pvt. Ltd., 2021, ISBN : 978-9390620227

BOOK CHAPTERS PUBLISHED

1. Multicomponent approach for the sustainable synthesis of lawsone-based heterocycles, Editor(s): Goutam Brahmachari In "Green Synthetic Approaches for Biologically Relevant Heterocycles (Second Edition)", Elsevier, 2021, 383-419, ISBN 9780128205860. <https://doi.org/10.1016/B978-0-12-820586-0.00016-9>.
2. Multicomponent Approach for the Synthesis of Xanthenes, **Chaudhary, A.** Advances in Organic Synthesis, Bentham Science Publisher, (2022) 16: 165-211. Online ISSN: 2212-408X <https://doi.org/10.2174/9789815039269122160006>.
3. Green Synthesis of Spirooxindoles via Multicomponent Approach, **Chaudhary, A.**; Gaba, R.; Sharma, K.; Upadhyay, A.; Mathur, P.; Sharma, N.; Kapoor, K.; 'In Proceedings of National Conference in Chemistry (NCC 2016): "Environmental and Harmonious Development", New Delhi, Page 190-192. (ISBN: 9789385824012).
4. Synthesis of Spiro[Indene-2,2'-Naphthalene]-4'-Carbonitriles and Spiro[Naphthalene- 2,5'-Pyrimidine]-4-carbonitriles via One-pot Three Component Reaction Using Task Specific Ionic Liquid. Saluja P., Khanna G., **Chaudhary A.**, Khurana J.M. (2018) In: Parmar V., Malhotra P., Mathur D. (eds) Green Chemistry in Environmental Sustainability and Chemical Education. Springer, Singapore. (ISBN (print): 978-981- 10-8389-1, ISBN (Online) : 978-981-10-8390-7. <https://www.springer.com/gp/book/9789811083891>
5. Expedient Synthesis of Diverse Spirooxindoles via Multicomponent Approach in Presence of Green Catalyst. **Chaudhary A.**, Saluja, P., Khanna, G. (2018) In: Parmar V., Malhotra P., Mathur D. (eds) Green Chemistry in Environmental Sustainability and Chemical Education. Springer, Singapore. ISBN (print): 978-981-10-8389-1, ISBN (Online) : 978-981-10-8390-7. 1. <https://www.springer.com/gp/book/9789811083891>

e-Modules

Following e-Module were prepared for Guru Angad Dev Teaching Learning Centre of MHRD, A Centre of MHRD, Govt. of India, under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT)

1. Aldol Condensation
2. Bromination of Acetanilide
3. Haloform reaction of ethanol/Acetone/Acetophenone to form iodoform
4. Nitration of Nitrobenzene
5. Qualitative Analysis of Unknown Organic Compound (Nitrogen Containing Functional Groups): Module 2-Amides
6. Qualitative analysis of unknown organic compound (Nitrogen containing functional groups): Module 1-Amines
7. Qualitative analysis of unknown organic compound (Nitrogen containing functional groups): Module 3- Nitro compounds.
8. Selective reduction of m-dinitrobenzene.
9. Preparation and Synthetic Applications of Ethyl Acetoacetate
10. Pyridine: Structure, Synthesis and Reactions Part –I
11. Pyridine: Reactions-Part-II

* ALL Modules are available at <https://nmtt.gov.in/content/tlc/PMMMNTT-2019-100023>