Name: Dr. Anupama Parmar

Designation: Assistant Professor

Specialization: Organic Chemistry

Email: anupama.parmar1969@gmail.com

Contact Number: +91- 9417270250

Education

M.Sc. Chemistry (1990, Punjabi University, Patiala),
M. Phil. Organic Chemistry (1991, Punjabi University, Patiala)
Ph.D. (1994, Punjabi University, Patiala)

Title of Ph. D Thesis: Iron (III) Perchlorate: A Novel Reagent in Organic Synthesis.

Professional Experience:

Research Fellow, Department of Chemistry, Punjabi University, Patiala, India (Dec., 1991-Jan., 1996)

Research Associate, Deptt. of Pharma. Sci. & Drug Research, Punjabi University, Patiala, India (January 1996- January 2001)

Senior Research Associate (Pool Officer), Department of Chemistry, Punjabi University, Patiala, India (May 2001- August-2001)

Lecturer, Department of Chemistry, Sant Longowal Institute of Engg. & Technology, Longowal, India (August 2001-May 2002)

Senior Research Associate (Pool Officer), Department of Chemistry, Punjabi University, Patiala, India (May 2002- Sept.1,2002).

Senior Research Associate (Pool Officer), Department of Chemistry, Sant Longowal Institute of Engg. & Technology, Longowal, India (Sept.1, 2002 - Jan. 12, 2004)

Lecturer, Department of Chemistry, Sant Longowal Institute of Engg. & Technology, Longowal, India (Jan. 13, 2004- Dec. 2007)

Assistant Professor, Post-Graduate Department of Chemistry, Multani Mal Modi College, Patiala, India (July, 2007 – till date)

Teaching Interests:

- Organic Chemistry
- Medicinal Chemistry
- Natural Product Chemistry

Research Interest:

Medicinal Chemistry and Bio-catalysis, Synthesis and biological activity of Heterocyclic Compounds, Study of organic functional group transformations using inorganic perchlorates.

Publications

1. Baldev Kumar, Harish Kumar & **Anupama Parmar**, Facile Conversion of halides, alcohols and olefins to Esters using Iron(III) Perchlorate, *Synth. Commun.*,(22)7, 1087 (1992).
   https://www.tandfonline.com/doi/abs/10.1080/00397919208019301?journalCode=lsyc20
2. Baldev Kumar, Harish Kumar & **Anupama Parmar**, Iron (III) Perchlorate: A Reagent for Trans-esterification, *Indian J. Chem.*, 32B(2), 292 (1993).
   https://drive.google.com/open?id=1S_QhwWpPLFku6eultkGcOk0Jb_k1x9MF
3. Baldev Kumar, Harish Kumar & **Anupama Parmar**, Facile Esterification of Succinanilic acids with Iron (III) Perchlorate, *Indian J. Chem.*, 33B(7), 698 (1994).
4. Baldev Kumar, **Anupama Parmar**, Anita Rajpal & Harish Kumar**,** Iron (III) Perchlorate: A novel Reagent for Functional Group as well as Ring Transformations in Organic Synthesis, *Indian J. Chem.*, Vol. 37(B): 593 (1998).
   https://drive.google.com/open?id=1SN2vDXYtl-t7hdEFHU2ltln_RnysyQ6i
5. **Anupama Parmar**, Jatinder Kaur, Rita Goyal, Baldev Kumar & Harish Kumar**,** Esterification in Dry Media using Ferric Perchlorate Adsorbed on Silica Gel, *Synth. Commun*., 28 (15): 2821 (1998).
   https://www.tandfonline.com/doi/abs/10.1080/00397919808004858
6. **Anupama Parmar**, Rita Goyal, Baldev Kumar & Harish Kumar**,** Ferric Perchlorate Adsorbed on Silica Gel: An Efficient Reagent for Cleavage of Carbon-Nitrogen Double Bond, *Indian J. Chem.,* 37(B): 941 (1998).
   https://drive.google.com/file/d/1RqV6Up3hEqQQOmA-_P1Qfk96LVdgpHTs/view?usp=sharing
7. **Anupama Parmar**, Rita Goyal, Baldev Kumar and Harish Kumar**,** Trans-esterification in Dry Media using Iron (III) perchlorate adsorbed on Silica Gel, *Synth. Commun.* 29 (1): 139 (1999).
   https://www.tandfonline.com/doi/abs/10.1080/00397919908085746
8. **Anupama Parmar**, Harish Kumar, S. S. Marwaha & J. F. Kennedy, Enzymatic Conversion of Penicillins to 6-Aminopenicillanic acid (6-APA) and Semi-Synthetic Penicillins. *Biotech. Adv.,* 18(4), 289-301 (2000).
   https://www.sciencedirect.com/science/article/abs/pii/S0734975000000392

9. Baldev Kumar, Balbir Kaur, Jatinder Kaur, **Anupama Parmar**, R.D. Anand and Harish Kumar,Thermal/Microwave assisted Synthesis of Substituted Tetrahydropyrimidies as Potent Calcium Channel Blockers, *Indian J. Chem.,* 41B(7):1526-30 (2002)**.**
http://nopr.niscair.res.in/handle/123456789/22007

10. Harish Kumar, Rita Goyal and Sukhwinder Kaur, R.D.Anand, **Anupama Parmar**, and Baldev Kumar, Synthesis of 1,5-Substituted-s-triazolinodino [1,2a]-s-triazolidine-3,7-dithione & 1,2,4-Triazolidine-3-thione Derivatives from Azines, *Indian J. Chem.,* 41B(10):2182-84(2002).
http://nopr.niscair.res.in/handle/123456789/22076

11. Harish Kumar, Rita Goyal, **Anupama Parmar** and Sukhwinder Kaur, Synthesis of hexahydro-1,3,5-triazines: A new approach from N-substituted-α-aminoisothiocyanates, *Indian J. Chem.,* 45B(2): 552-57(2006).
https://scholar.google.com/scholar?hl=en&as_sdt=0,5&cluster=12461102483418363158

12. **Anupama Parmar** and Harish Kumar**,** Iron (III) perchlorate adsorbed on Silica Gel: A Reagent for Organic Functional Group transformations, *Synth. Commun.* 37: 2313-2320 (2007).
https://www.tandfonline.com/doi/abs/10.1080/00397910701410772

13. Harish Kumar* and **Anupama Parmar**, Ultrasound Promoted $ZrCl_4$ Catalyzed Rapid Synthesis of Substituted 1,2,3,4-Tetrahydropyrimidine-2-ones in Solvent or Dry media, *Ultrasonic Sonochem.,* 15: 129-132 (2008).
https://www.sciencedirect.com/science/article/abs/pii/S1350417707000491

14. Saurabh Puri, Balbir Kaur, **Anupama Parmar** and Harish Kumar, Ultrasound Promoted $Cu(ClO_4)_2$ Catalyzed Rapid Synthesis Of Substituted1,2,3,4-Tetrahydropyrimidine-2-Ones & Hantzsch 1,4-Dihydropyridines in Dry Media, *Heterocyclic Communications,* 15 (1):51-55 (2009)**.**
https://www.degruyter.com/view/journals/hc/15/1/article-p51.xml

15. Saurabh Puri, Balbir Kaur, **Anupama Parmar** and Harish Kumar, Ultrasound-promoted greener synthesis of 2H-chromen-2-ones catalyzed by Copper perchlorate in solventless media, *Ultrasonic Sonochem.,* 16: 705-709 (2009).
https://www.sciencedirect.com/science/article/abs/pii/S1350417709000492

16. Saurabh Puri, Balbir Kaur, **Anupama Parmar** and Harish Kumar, Sonochemical aldol condensation using copper perchlorate as catalyst in solvent-less media, *Proc. 6th International Conf. on Hands on Science,* held at Ahemdabad (India), 146-150 **(2009).**

17. Saurabh Puri, Balbir Kaur, **Anupama Parmar**, Harish Kumar*, Copper Perchlorate Hexahydrate: An efficient catalyst for the green synthesis of polyhydroquinolines under ultrasonication, *ISRN Org. Chem.,* 2011: 1-4 **(2011).**
doi:10.5402/2011/948685

18. Bhupinder Kaur, Anupama Parmar and Harish Kumar*, Manganese perchlorate catalyzed facile synthesis of polyhydroquinolines via hantzsch multi-component condensation under ultrasonication, *Heterocyclic Lett.*, 1(1), 55-59 **(2011).**
https://pdfs.semanticscholar.org/60de/35a891ead93cbb58272845efd595b0c4b8b4.pdf

19. Saurabh Puri[1], Balbir Kaur[1], Anupama Parmar[2] and Harish Kumar[3*], Ultrasound assisted efficient and greener one pot synthesis of aryl-14-H-dibenzo[a,j]xanthene derivatives, *Heterocyclic Lett.*, 1(3), 269-74 **(2011)**
https://www.heteroletters.org/issue3/pdf/paper-11.pdf

20. Bhupinder Kaur, Anupama Parmar and Harish Kumar*, Manganese perchlorate catalyzed efficient greener sono-chemical synthesis of aryl-14-H-dibenzo[a,j]xanthenes and 4-substituted 2H-chromen-2ones, *Heterocyclic Lett.*, 1(3), 213-19 **(2011).**
http://mail.heteroletters.org/issue3/pdf/paper-3.pdf

21. Bhupinder Kaur, Anupama Parmar and Harish Kumar*,Manganese perchlorate catalyzed greener synthesis of 12 - Aryl or 12 - Alkyl-8,9,10,12 - terahydrobenzo[α]xanthen-11-one derivatives under Ultra-sonication, *Synth. Commun.,* 42, 447-53 **(2012).**
https://www.tandfonline.com/doi/full/10.1080/00397911.2010.525677

22. Saurabh Puri[1], Balbir Kaur, Anupama Parmar and Harish Kumar*, One pot solvent free sonochemical synthesis of 1-amidoalkyl-2-naphthols, *Org. Prep. Proc. Int.*, 44:1, 91-95 **(2012).**
https://www.tandfonline.com/doi/abs/10.1080/00304948.2012.643200?journalCode=uopp20

23. Bhupinder Kaur, Anupama Parmar, Harish Kumar, Applications of transition metal perchlorates in organic functional group transformations, *Curr. Org. Chem.,* 16, 897-912 **(2012).**
https://www.ingentaconnect.com/content/ben/coc/2012/00000016/00000007/art00005

24. Bhupinder Kaur[1], Anupama Parmar, Harish Kumar*, Environmentally benign, efficient, sono-chemical synthesis of octahydroquinazolinone derivatives using manganese perchlorate hydrate as catalyst under aqueous media, *Heterocyclic Communications,* Accepted **(2012).**

25. Study of Antibacterial Activity on the Bark of *Moringa oleifera* (Sahanjan), Anupama Parmar and Garima Singh, J. Punjab Academy Sci., 18-19 (1&2): 39-44 (2019)

26. *The Fundamental Perspectives of Greener Synthesis, Avtar Singh, Nirmaljeet Kaur, Anupama Parmar and Harish Kumar Chopra* in "Handbook of Greener Synthesis of Nanomaterials and Compounds", Edited by Boris I. Kharisov and Oxana V. Kharissova,* **Elsevier**, *Vol. 1, 3-36* **(2021)**

27. *Ultrasound Assisted Reactions, Saurabh Puri, Anupama Parmar and Harish Kumar Chopra*, "Handbook of Greener Synthesis of Nanomaterials and Compounds", Edited by Boris I. Kharisov and Oxana V. Kharissova,* **Elsevier**, *Vol. 1, 177-246* **(2021)**

28. *Structure and properties of Ionic liquids: Green aspects, Avtar Singh, Nirmaljeet Kaur, Anupama Parmar, Harish Kumar Chopra in "Ionic Liquids in Analytical Chemistry", Edited by Samuel Carda-Broch Maria Ruiz-Angel,* **Elsevier**, *1-32* **(2022)**

29. *Water-mediated heterogeneous catalysis for organic functional group transformations and synthesis, P Malik, A Singh, A Parmar, HK Chopra – in Book entitled, "Aqueous Mediated Heterogeneous Catalysis", Edited by: Prof. C. Mukhopadhyay & B. Banerjee,* **De Gruyter , Germany**, *Chapter 9, 201- 227* **(2022)**

30. *Tree Bark and Their Role in Nanomaterials Synthesis and Applications, Avtar Singh, Payal Malik, Anupama Parmar, Rohini, and Harish Kumar Chopra in "Secondary Metabolites Based Green Synthesis of Nanomaterials and Their Applications", Edited by Azmal Husen,* **Springer**, *291-308* **(2023)**
31. *Recent updates on chiral ionic liquid–mediated asymmetric organic synthesis, Avtar Singh, Nirmaljeet Kaur, Rohini, Anupama Parmar, Payal Malik and Harish Kumar Chopra, in a book entitled 'Non-conventional solvents: Role in organic synthesis, industry and environment' , Edited by: Prof. C. Mukhopadhyay & B. Banerjee,* **De Gruyter , Germany**, *Chapter 4, 87-105* **(2023)**
32. *Recent Advances in Synthesis and Applications of Organic Ionic Saltsbased Sensor Arrays, P Kaur, A Parmar,* **HK Chopra**, *Mini-Reviews in Organic Chemistry, 21(6), 655-70* **(2024)**

Review Articles

1. Saurabh Puri, Balbir Kaur, Anupama Parmar and Harish Kumar*,Applications of Ultrasound in Organic Synthesis - A Green Approach, *Curr. Org. Chem.,* 17, 1790-1828 **(2013).**
   https://www.ingentaconnect.com/content/ben/coc/2013/00000017/00000016/art00012
2. **Anupama Parmar**, Sukhwinder Kaur, Parmjit Singh, Harish Kumar, S.S. Marwaha & J.F. Kennedy, Enzyme Catalyzed Regioselective Esterification/Trans-esterification of Sugars and Related Compounds, *Journal of Chemical Technology & Biotechnology,* 81; 866-876 (2006).
   https://onlinelibrary.wiley.com/doi/abs/10.1002/jctb.1473
3. **Anupama Parmar**, Harish Kumar, S. S. Marwaha & J. F. Kennedy, Recent Trends in Enzymatic Conversion of Cephalosporin C to 7-Aminocephalosporanic Acid (7-ACA), *Crit. Rev. Biotechnol.,* 18(1) : 1-12 (1998).
   https://www.tandfonline.com/doi/abs/10.1080/0738-859891224194

Book/Book chapter

1. Harish Kumar and **Anupama Parmar**, Engineering Chemistry: A Textbook, ISBN No. 81-7319-784-9 **(2007)**, Published by Narosa Publishing House Pvt. Ltd., New Delhi**.** [**International Edition** of this book has been published by **alpha Science International, Harrow, U.K.,** ISBN No. 1-84265-362-8]**.**
2. Harish Kumar**, Anupama Parmar** and Parmjit S. Panesar, Bio-organic Chemistry, ISBN No. 978-81-8487-231-6 **(2013)**, Published by Narosa Publishing House Pvt. Ltd., New Delhi**.** [**International Edition** of this book has been published by **alpha Science International, Harrow, U.K.,** ISBN No. 978-1-84265-773-7]
3. Harish Kumar**,** and **Anupama Parmar**, Chemistry for Engineers, **(2016)**; by Narosa Publishing House Pvt. Ltd., New Delhi**.** [**International Edition** of this book has been published by **alpha Science International, Harrow, U.K.**]**.**

4. *Practical Chemistry-II, BSc II (Sem IV); R. D. Publications, Jalandhar [ISBN No: 81-952545-9-4]*

Conference / Seminars

Paper presented:

1. The Wonderful Success of the Finnish Educational System in Context of the Global Environment, Anupama Parmar, National Conference on Education Transform Lives at SLIET, Longowal 2018
2. Application of ionic liquids for synthesis of 5-hydroxymethyl-2-furaldehyde (HMF) from renewable biomass resources – a green approach, Anupama parmar* at NSETB, SLIET, Longowal 2016
3. Study of anti- Bacterial activity on the Leaves of *Carica papaya* , Anupama Parmar, Presented at 8th International Conference on Chemical Sciences at UK, London on June 14-15, 2018
4. Study of anti-bacterial activity on the bark of *Alkanna tinctoria,* Anupama Parmar* and Alisha Doomra, Presented at National Conference at Punjabi University, Patiala on Feb 08-09, 2019
5. Webinar on, "Advanced Carbon Materials for Energy Storage" on July 25, 2020 organized by PG and Research Department of Chemistry, Chikkanna Government Arts College, Tirupur
6. 9th National Level Webinar on, "Global Energy Scenario & Need for Effective Energy Management" on Aug 01, 2020 organized by Department of Mech. Engg., TJS Engineering College.
7. 4-Day International Webinar on, "Bio-Conclave – An Intellectual war against Covid-19 Pandemic" from June 19-22, 2020 organized by Department of Pharmaceutical Biotechnology, Hindu College of Pharmacy, Guntur (AP).

M.Sc. Dissertations:

23 (Completed, 2006-2019)

Workshops and training courses

1. Attended UGC Sponsored Faculty Development Program at Multani Mal Modi College, Patiala. (1-15 July, 2014)

2. Attended UGC Sponsored Faculty Development Program at Multani Mal Modi College, Patiala. (9-16 January, 2017)
3. Attended UGC Sponsored Faculty Development Program at Multani Mal Modi College, Patiala. (20-26 July, 2018)
4. 4-Week Induction Programme/Orientation Programme for Faculty in Universities/Colleges/ Institutes of Higher Education from June 26 – July 24, 2020, organized by Ramanujan College, University of Delhi
5. Faculty Development Programme – "IPRs for Professional Innovators " from June 16-20, 2020 organized by Institution Innovation Council- AVIT and Vinayaka Mission's Research Foundation.
6. 7-Day Faculty Development Programme – "Research Methodology for Social Sciences" from June 20-26, 2020 organized by MM Modi College, Patiala
7. One Week ATAL FDP on Sensors Technology from Feb 22-26, 2021 organized by Department of Chemistry, MRSPTU, Bathinda

FDPs

1. *One Week ATAL FDP on Sensors Technology from* **Feb 22-26, 2021** *organized by Department of Chemistry, MRSPTU, Bathinda*
2. *7-Day Virtual National Level Capacity Building Programme on "Integration of Pedagogy & Technology in Teaching-Learning" from* **July 13-19, 2021** *organized by MM Modi College, Patiala in collaboration with CTEF.*
3. *4-Week Induction Programme/Orientation Programme for Faculty in Universities/Colleges/ Institutes of Higher Education from* **Feb 15 – March 16, 2022**, *organized by Ramanujan College, University of Delhi.*
4. *2-Week Refresher Course in Chemistry from* **June 30 – July 14, 2023**, *organized by Ramanujan College, University of Delhi.*
5. *Faculty Development Programme in Sanskrit Speaking Certificate Course from* **Oct 30 – Nov 10, 2023**, *organized by Central Sanskrit University, Delhi.*
6. *NEP-2020 – Orientation & Sensitization Program under MMTTP from* **Jan 16 – Jan 25, 2024**, *organized by Punjabi University, Patiala.*
7. *1-Week Faculty Development Programme (FDP) on Developing MOOCS from* **March 24 – March 30, 2024**, *organized by Ramanujan College, University of Delhi.*

Webinars

1. *International Webinar on, "Innovations in Science & Technology" on Feb. 27, 2021 organized by Department of Chemistry, Smt Narsamma Arts, Commerce & Science College, Amravati (Maharashtra).*

Achievements, Awards and Recognitions

- Successfully organized **Two National Conferences,**
- Awarded Senior Research Associate **(Pool Officer)** by CSIR, GOI, New Delhi in 2001

Membership

- Life Member Punjab Academy of Sciences, Pbi. Uni. Patiala