

Dr. Mahesh Bhat
Assistant Professor & Head,
Department of Chemistry



Contact: maheshbhat@ppc.ac.in

Working at Poornaprajna College since: 2021

Currently held positions/offices

- Convener of PTA
- Rovers- Officer
- Staff co-ordinator and treasurer-PPC old student Association
- Convener of Poornaprajna alumni social media content development
- Member of IQAC

Previously held positions/offices

- Convener for AQAR preparation and Submission, Poornaprajna College (2021-22 to 2022-23)
- Convener of Research and Development Cell
- Member of college Autonomous committee
- Convener of AQAR submission committee (2021-2023)
- Member-Science Association
- Convener of Stage committee in All India inter university Volleyball tournament.
- Over all in charge of Job fair held in College on 14.12.2022

Educational Qualification

- Ph.D. in Chemistry, University of Mysore (2018)
- KSET (2016)
- M.Sc. in Applied Chemistry from Mangalore University (2011)
- Diploma in Computer Application

Work experience

- Assistant Professor at Poornaprajna College, Udupi (2021-till date)
- Assistant Professor at JSS College for Women, Mysore (2019-2021)
- Lecturer at Bangur Nagar Degree College, Dandeli (2018-2019)
- Assistant Professor at JSS College for Women, Mysore (2017-2018)
- Research Associate at Syngene International Ltd (A Biocon Company), Bangalore (2011-2013)

Awards/Achievements

- Awarded **INSPIRE** Junior Research Fellowship by Department of Science & Technology (DST), Ministry of Science & Technology, New Delhi, Government of India in 2013.
- Senior Research Fellowship by Department of Science & Technology (DST), Ministry of Science & Technology, New Delhi, Government of India during March 2016.
- **Sequent Scientific Ltd** gold medal for securing first rank in Applied Chemistry from Mangalore University (2012).
- Received Sir C. V. Raman scholarship for the period 2006-2009 by the Government of Karnataka.

Areas of interest (Academic)

- Spectroscopy
- Organic Synthesis
- Designing and Planning of the reaction Schemes
- Chromatographic Techniques

Research Publications (In APA Style Manual)

1. Bhat, M. Belagali, SL. (2014). Synthesis of Azo-Bridged Benzothiazole-Phenyl Ester Derivatives via Steglich Esterification. *International Journal of current Engineering and Technology*, **2014**, 4(4), 2711-2715.
2. Bhat, M. Belagali, SL. Murali, M. Amruthesh, KN. (2014). Synthesis, characterization and biological activities of hydrazide Schiff's bases. *International Journal of Chemical and Physical Sciences*, 3(6), pp 82-90.
3. Bhat, M. Belagali, SL. (2015). A Study on the Crystal Structure of Ethyl 2-(2, 4-difluoro phenyl) acetate *International Journal of ChemTech Research*, 8, 1271-1274
4. Bhat, M. Belagali, SL. (2016). Theoretical Studies of 4-[(6-ethoxy benzothiazol-2-yl) diazenyl] Phenyl 2-(2,3-dihydro-1H-inden-2-yl) Acetate. *Der Pharma Chemica*, 8(24),36-41) (**Scopus Indexed**).
5. Shanthalakshmi, K. Bhat, M. Belagali, SL. (2016). Synthesis of Benzothiazole Schiff's Bases and screening for the Anti-Oxidant Activity. *Journal of Chemical and Pharmaceutical Research*, 8(10),240-243
6. Bhat, M. Belagali, SL. (2016). Guanidinyll benzothiazole derivatives: Synthesis and structure activity relationship studies of a novel series of

potential antimicrobial and antioxidants. *Research on Chemical Intermediates (Springer)*, 42(7), 6195-6208, **(Scopus Indexed)**.

7. Bhat, M. Belagali, SL. Shastry, RP. Rai, RV. (2016). Synthesis, characterization, and biological study of phenylalanine amide derivatives. *Monatshefte für Chemie -Chemical Monthly (Springer)*, 147(11), 2001-2008, **(Scopus Indexed)**.
8. Bhat, M. Belagali, SL. Hemanth Kumar, NK. Mahadev KS (2016). Synthesis and characterization of novel benzothiazole amide derivatives and screening as possible antimitotic and antimicrobial agents. *Research on Chemical Intermediates (Springer)*, 43(1), 361-378, **(Scopus Indexed)**.
9. Bhat, M. Belagali, SL. Madan, K. Byrappa, K.(2017). Synthesis, Characterization and Crystal Structure of 4-[(6-ethoxy benzothiazol-2-yl) diazenyl] phenyl 2-(2, 3-dihydro-1H-inden-2-yl) acetate. *Chemical Data Collections*, 7-8, 1-7, **(Scopus Indexed)**.
10. Bhat, M. Belagali, SL. Shyamala, DC.(2017). Synthesis of Benzothiazolyl Guanidinyll Derivatives and Their *In-Vitro* Antimicrobial and Antioxidant Activity, *The Natural Products Journal*, 7(4), 286-290, **(Scopus Indexed)**.
11. Bhat, M. Belagali, SL. (2017). Synthesis, Characterization and Biological screening of Pyrazoline conjugated Benzothiazole Analogues, *Future Medicinal Chemistry*, 10(1), 71-87. **(Scopus Indexed)**.
12. Bhat, M. Ganavi, BC. Sagar, BK. Shekhar EV (2018). Sulfadiazine Guanidyl Derivatives: Synthesis, Characterization and Docking Studies for Potential Antituberculosis Agents *Asian Journal of Chemistry*, 30(9), 2141-214, **(Scopus Indexed)**.

13. Bhat, M. Belagali, SL. (2018). Guanidinyl and amide conjugated Benzothiazoles as potential anti-tubercular agent and their cytotoxicity study, *Anti-Infective Agents*, 16(2), 121-128, **(Scopus Indexed)**.
14. Bhat, M. Hemanth Kumar, NK. Jagannatha, S. Belagali, SL. (2019). Anti-mitotic activity of the benzothiazole-pyrazine hybrid derivatives, *Anti-Infective Agents*, 2019, 17, 66-73, **(Scopus Indexed)**.
15. Bhat, M. Belagali, SL. (2019). Structural Activity Relationship and Importance of Benzothiazole Derivatives in Medicinal Chemistry: A Comprehensive Review, *Mini-Reviews in Organic Chemistry*, 16, 1-28, **(Scopus Indexed)**.
16. Shekhar, EV. Bhat, M. Shrihari S. (2019). Synthesis and Characterization of the Metal Complexes of Pyrazine-2-Carboxamide Schiff Base. *Journal of Applicable Chemistry*, 8(2), 581-585, **(Scopus Indexed)**.
17. Bhat, M. Madhu, N. Sagar, BK. Shekhar EV (2019). Sulfoxazole guanidinyl derivatives: Synthesis, Characterization and docking studies for potential anti-TB agents, *Research Journal of Pharmacy and Technology*, 12(4), 1726-1730, **(Scopus Indexed)**.
18. Bhat, M. Belagali, SL. (2020). Benzothiazole azo-ester derivatives as anti-TB agents, in-vitro and in-silico studies, *Anti-Infective Agents*, 18(1), 15-23, 2020, **(Scopus Indexed)**.
19. Mamatha, SV. Bhat, M. Sagar, BK. Meenakshi, SK (2019). Synthesis, characterization, crystal structure Biological activity of 4-{2-[5-(4-

Fluoro-phenyl)-[1,3,4]oxadiazol-2-ylsulfanyl]-ethyl}-morpholine.
Journal of Molecular structure, 1196, 186-193, **(Scopus Indexed)**.

20. Mamatha, SV. Bhat, M. Belagali, SL. (2020). Synthesis and SAR Evaluation of Mercaptotriazolo derivatives as anti-inflammatory agents. *International Journal of ChemTech Research*, 01, 187-198
21. Mamatha, SV. Belagali, SL. Bhat, M. mounika, T. (2020). Synthesis, Characterization and Antimicrobial Activity of Mercapto oxadiazole Aanalogs. *Journal of Applicable Chemistry*, 2020, 9(1), 38-46, **(Scopus Indexed)**.
22. Mamatha, SV. Belagali, SL. Bhat, M (2020). Synthesis and SAR Evaluation of Mercapto Triazolobenzothiazole Derivatives as Anti-tuberculosis Agents, Anti-Infective Agents, 2020, 18, 15-213, **(Scopus Indexed)**.
23. Mamatha, SV. Bhat, M. Kumar, HK. Gowda, DC. Mounika, T. Meenakshi, SK (2020). Design, synthesis and SAR evaluation of mercaptooxadiazole analogs as anti-tubercular, anti-diabetic and anti-bacterial agents, *Chemical Data Collection*, 26, 1-11, **(Scopus Indexed)**.
24. Mamatha, SV. Belagali, SL. Bhat, M (2020). Design, synthesis and SAR bioevaluation of benzophenone-mercaptooxadiazole analogs. *Medicine in Drug Discovery*, 3, 1-9, **(Scopus Indexed)**.
26. Mamatha, SV. Belagali, SL. & Bhat, M (2020). Synthesis, characterization and evolution of oxadiazole as promising anticancer agent. *SN Applied sciences*, 2: 882-896, **(Scopus Indexed)**.

27. Mamatha, SV. Belagali, SL. Bhat, M. & Kumbar VM. (2020). Design and Synthesis of Novel Coumarin Conjugated Acetamides as Promising Anticancer Agents: An In Silico and In Vitro Approach, *Anti-Cancer Agents in Medicinal Chemistry*, 20: 1-10. **(Scopus Indexed)**.
28. Sekhar, EV. Karki, SS. Rangaswamy, J. Bhat, M. & Kumar, S. (2021). Synthesis, characterization, and biological evaluation of some 4-((thiophen-2-ylmethylene) amino)benzenesulfonamide metal complexes, *Beni-Suef University Journal of Basic and Applied Sciences*, 10(28), 1-9, **(Scopus Indexed)**.
29. Sagar, BK. Kumar, MD. Bhat, M & Sekhar, EV. (2021). Synthesis, characterization and anticancer activity of piperazine amide derivative, *IJPSR*, 12(10), 1000-1007, **(Scopus Indexed)**.
30. Sekhar, EV. Rangaswamy, J. **Bhat, M.** & Naik, N. (2021). 2-(4-nitrophenyl)iminomethyl phenol Schiff base metal complexes: Synthesis, spectroscopic characterization, anticancer and antimicrobial studies. *Inorganic Nano-metal Chemistry*, 52(9), 1-10, **(Scopus Indexed)**.
31. Mahesh Bhat, Mamatha SV, Belagali SL, Design, synthesis and characterization of novel Benzothiazolyl pyrazoles as potential anti-tubercular scaffold, *Chemical Data Collection*, 2022, 41, 100930. **(Scopus Indexed)**.
32. **Mahesh Bhat**, EV Sekhar, BK Sagar, (2023) Synthesis, characterization, and photo catalytic applications of ZnO-Fe₂O₃/PVA Nanocomposite, (Manuscript ID: lianbs-1730), *Letters in Applied NanoBioScience* (Accepted for publications)

33. **Mahesh Bhat**, Abhilsh MR, Mamatha SV, Soumyadip Das, and Gourisankar Roymahapatra, (2023) Photocatalytic Degradation of Dyes by Titania/ Ferric Oxide/Polyvinyl Alcohol Nanocomposites, ES General ES General, 2, 981
34. Soumyadip Das, Tapanjyoti Goswami, Anjana Ghosh, **Mahesh Bhat**, Milan Hait, Ramzi T. T. Jalgham, Vidya L, Radharani Das, Jyoti Goswami, and Gourisankar Roymahapatra, (2024) Biodiesel from Algal Biomass: Renewable and environment friendly solution to global Energy needs and its current status, ES General.
35. Mamatha S.V., Belagali S.L., **Mahesh Bhat**, Bhagyashree K Joshi (2024) Antimicrobial, Anti-Oxidant and Anti-Tubercular Activity of Coumarin Tethered Thiazole Derivatives, ES General, 2, 2024, 981
36. **Mahesh Bhat**, Ranjitha M T, Mamatha SV, Roopa Nayak, Radharani Das, and Gourisankar Roymahapatra (2024) Removal of Congo red, Patton reeder's and Rhodamine B dyes from aqueous solution using Tabebuia rosea Peel as Natural Adsorbent, ES Food and Agroforestry. **(Scopus Indexed)**.
37. Mamatha S V, Belagali S L, **Mahesh Bhat**, (2024), Antimicrobial, anti-oxidant and anti-tubercular activity of Coumarin tethered Thiazole derivatives, Russian Journal of Organic Chemistry, (Accepted for publication), **(Scopus Indexed)**.
38. Mahima Samanth, **Mahesh Bhat**, (2024), Synthesis and Importance of Coumarin derivatives in medicinal chemistry: A comprehensive review, Russian Journal of Bioorganic Chemistry (Accepted for publication), **(Scopus Indexed)**.

Books edited

1. Bhat, M & Belagali, S. L. (2021). *In-Silico and In-Vitro Approaches to Screen the Anti-tuberculosis Activity of Benzathiazole Analogs*, Singapore: Bentham Science Publishers Pvt. Ltd. ISBN: 978-981-14-9463-5
2. Co-author of the book A text book of Chemistry, for B. Sc. third semester (As per Mangalore University NEP Syllabus-2021), Published by Association of Chemistry teachers of Mangalore University. ISBN 978-93-91679-48-48
3. Co-author of book 'A textbook of Chemistry', for B. Sc. Sixth semester. As per Mangalore University CBCS Syllabus-2021. Published by association of Chemistry teachers of Mangalore University. ISBN: 978-93-91679-97-2
4. Bhat, M. Belagali, SL. Mamatha, SV. Sekhar EV & Supreeth, M. (2021) Design, Synthesis of Sulfadiazine and Sulfoxazole Guanidine Derivatives as Promising Anti-TB agents: An *in-silico* and *in-vitro* Approach, Current Perspectives on Chemical Sciences Vol. 5, pp 29-38. Book Publisher International, ISBN-978-93-90516-13-1
5. Bhat, M. Belagali, SL. Mamatha, SV. & Sekhar EV. (2021). Importance of Quinazoline and Quinazolinone derivatives in Medicinal Chemistry, published in Studies in Natural Chemistry Products, Vol 71, Elsevier book series, ISBN 9780323910965

Seminars/Workshops organized

- One day Faculty Development programme for faculties on “Effective writing of research papers and project proposals” on 13th July 2023
- Joint Secretary of NATIONAL SEMINAR on Recent Developments in Chemical Sciences (RDCS) on 27th July 2022
- Organizing Secretary of ‘Recent Developments in Research Methodologies of Medicinal Chemistry (RDRMMC-2022)’ 25th February, 2022
- Organising Committee member of State Level Workshop on Scope of Research in Basic Science – Apprentice With Scientists 27th to 29th December 2021

Seminars/Workshops attended

- *Presented a paper entitled “Synthesis of 2-Amino-3-(4-nitro phenyl) propanoic acid amide derivatives as an *Microsporium gypseum* inhibitors” in the International conference on: New Dimensions in Chemistry & Chemical Technologies- Application in Pharma Industry, held at, Jawaharlal Nehru Technological University, Hyderabad (June, 2014).*
- *Presented a paper entitled “Synthesis, Characterization and Biological Screening of Benzothiazole Guanidine Derivatives in the national conference on: Pure and applied chemistry, held at, University of Mysore, Mysuru, Karnataka (December, 2014).*
- *Presented a paper entitled “Synthesis and Anti-oxidant study of Benzothiazole Schiff’s Bases in the national conference on: Pure and*

applied chemistry, held at, University of Mysore, Mysuru, Karnataka (December, 2014).

- *Presented a paper entitled* “Synthesis, Characterization and Biological activity comparison of 2- and 6-substituted Benzothiazole derivatives in the 103rd Indian Science Congress held at University of Mysore, Mysore (January-2016).
- *Presented a paper entitled* “Synthesis, Analytical and Biological studies of benzothiazole Schiff’s bases in the 103rd Indian Science Congress held at University of Mysore, Mysore (January-2016).
- *Presented a paper entitled* “Synthesis, Structure Activity Relationship and Anti-TB activity of novel Pyrazole derivatives in the national conference on AFMEEHC-2019 held at Vijnana Bhavan, University of Mysore (March-2019)
- Presented a paper entitled “Synthesis, Structure Activity Relationship and docking studies of Benzothiazole Guanidine derivatives as potential anti-Mycobacterial agents” in the national conference on: Current Trends in Chemical Research and Development, CTCRD-2019, held at Vivekananda College, Puttur, Karnataka (September, 2019).
- Presented a paper entitled “Synthesis, characterization and anti-TB activity of Pyrazole-conjugated benzothiazole derivatives” in the National conference on “Science and Technology: Rural Development – 2019” (NCSTRD), held at University of Mysore (October-2019)
- Presented a paper entitled “Synthesis, Characterization and docking studies of Benzothiazole amide derivatives as potential anti-TB agents in the National conference on “Innovations in Chemical Science” held at University of Mysore (January-2020)
- Presented a paper entitled “Benzothiazole amide derivatives: Molecular docking, Synthesis and anti-TB activity” in international Conference on Recent Global trends in Science, Technology, Commerce and

Management, organised by St. Anne's degree College, Kodagu held on 19.05.2023

- Presented a paper entitled "Synthesis of $\text{TiO}_2/\text{Fe}_2\text{O}_3/\text{PVA}$ Nanocomposite for the aqueous dye degradation" in International Conference on Recent Trends in Advanced Material organised by P.C Jabin Science College, Hubli on 02.09.2023
- Attended one day National Conference on Recent Advances in Science and Technology organized by Dr. G Shankar Government Women's first grade College and PG Centre, Ajjarakadu, Udupi held on 24.08.2022.
- Attended International Conference on Recent Advances on Green and Sustainable Developments (ICRAGSD 2023)", organised by the Department of Chemistry, Akal University, Talwandi Sabo, Bathinda, Punjab in collaboration with Green Chemistry Network Center (North India Chapter), University of Delhi, New Delhi on 6-8th September, 2023
- Attended National Education Summit, Held at Mahatma Mandir, Gandinagar, Gujarat, conducted by Govt. of Gujarat (Janaury-2014).
- Attended UGC sponsored Work Shop on Spectroscopic Techniques, Held at JSS Arts and Science College, Nanjanagud, Conducted by Department of Chemistry, JSS College of Arts and Science, Mysore.
- Attended work shop on Plagarism, Held at university of Mysore, conducted by University Library, University of Mysore, Mysore-570 006.
- Attended workshop on Scifinder, Held at university of Mysore, conducted by University Library, University of Mysore, Mysore-570 006.
- Attended workshop on "Technology in Higher Education" held at University of Mysore, conducted by Karnataka Jnana Ayoga (Feb - 2015).

- Participated in UGC sponsored National Conference on “Frontier Areas in Chemical Science, held at Bharathi College, Bharathi Nagar, Mandya (Jan- 2015).
- Participated in One-day National Seminar on “Chemistry and Chemical Biology”, held at University of Mysore, Mysore (May- 2015).
- Participated in Seminar on “Benefits of nuclear and material science in day to day life”, organized by Indian Nuclear Society, held at University of Mysore, Mysore (August- 2015).
- Participated in Seminar on “Genetics Today”, held at University of Mysore, Mysore (Oct- 2015).
- Participated in UGC sponsored National Conference on “Applications of modern analytical techniques to fundamental research in chemistry, held at JSS college of arts, Commerce and Science College, Ooty road, Mysore (March- 2016).
- Participated in International Conference on “Science and Technology: future Challenges and Solutions”, organized by IJAA, held at University of Mysore, Mysore (August- 2016).
- Participated in Symposium on advance material, held at Department of Chemistry, SJCE, JSS Science & Technological University on 27th December-2017
- Participated in International Conference on Nanomaterials and their applications held at University of Mysore, Mysuru (March 1-2, 2018).
- Participated one day International Webinar on “Recent Trends in Photochemistry, organized by St. Joseph’s College, Bangalore on 14th May 2022
- Participated one day International Webinar on “Recent Trends in Photochemistry, organized by St. Joseph’s College, Bangalore on 14th May 2022

- Participated in the National Level seminar on Advances in Chemical research, organized by St. Aloysius College, Mangalore.
- Participated in the one day webinar on ‘Intellectual Property Rights’ organized by Institution’s Innovation Council (IIC), in Association with Department of Chemistry, KLE Society’s J. T. College, Gadag.
- Participated in the National Level seminar on Advances in Chemical research, organized by St. Aloysius College, Mangalore.
- Attended three days workshop on Equipping Educators with research methodology, Investment and Technology, organized by St. Annes degree college, Virajpet on 19.10.2023 to 21.10.2023.
- Attended International Conference on Recent Advances on Green and Sustainable Developments (ICRAGSD 2023)”, organised by the Department of Chemistry, Akal University, Talwandi Sabo, Bathinda, Punjab in collaboration with Green Chemistry Network Centre (North India Chapter), University of Delhi, New Delhi on 6-8th September, 2023.

Short Term Courses attended

- FDP on Digital Teaching Techniques organized by ICT Academy from 21st September 2021 to 25th September 2021
- Completed 4 weeks Faculty Induction Programme with A+ grade conducted by Teaching Learning centre, Ramanujan College, Delhi.
- Computer literacy course (three months) completed from Kionics
- Completed one week online Faculty Development Program on “Incubation, Entrepreneurship and Innovation” from 28 November – 04 December, 2022 conducted by Ramanujan College, Delhi.
- Completed two week refresher course in Chemistry (Online mode) from 30 June 2023 to 14 July 2023 organized by Ramanujan College, Delhi.
- Completed three week refresher course in Chemistry from Pt. Ravishankar Shukla University, Raipur, Chhattisgarh during 24th July 2023 to 11th August 2023.

Any relevant information

- BOS (PG) member (2019-2021) at JSS College for Women, Mysore
- Reviewer for Medicinal Chemistry Research (Springer US, ISSN: 1054-2523), Chemical Data Collections and Mediterranean Chemistry Research Journals (Morocco, ISSN: 2028-3997).
- Editorial member for Current Electronics and Telecommunications journal

Talk delivered

- Delivered introductory talk on “Introduction of outreach program” on the occasion of JNCASR outreach program at Poornaprajna Education centre, Sangameshwarapet on 08.07.2022
- Delivered the guest talk on “Career Opportunities” at Sarvodaya High school, Vajralli on 14.03.2023
- Delivered the talk on “Chemistry in day today life” at PPC admar, on the occasion of FDP for highschool teachers on 19.08.2023
- Conducted experimental demonstration and delivered the talk on basic chemistry Knowledge at Ganapathi Highschool, Padubidri on 3rd November 2023
- Resource person for Science Olympiad at Poornaprajna Highschool, Sangameshwarpet on 21st November, 2023.
- Resource person for Vikasana Summer camp organised by Siddhanth Foundation on 19th April 2024 held at Ambalpady.