

Dr. Giribala Madhavrao Bondle

M.Sc. (Organic Chemistry), Ph.D., B.Ed., SET, NET (CSIR)

Associate professor

Department of Chemistry

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sammbhaji Nagar-431004, Maharashtra (India)

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No. Of Publications 32

Total Citations 334 (Google Scholar) 283 (Scopus)

h-index: 10 i10-index: 11

No. of Ph. D students working: 04

• (03 +01 foreigner) & **01** Project assistant

No. of P.G. Project/Dissertation > 100

Students Awarded:

Awards and Honours:

- SET Qualified
- NET-CSIR research Fellowship 2004
- Recognized by AD Scientific Index for the year 2020, 2021, 2022, 2023, 2024.
- DRC Member MGM Uni. Chh. Sambhaji Nagar

Life Member: ISCA

Research Experience: 16 Years

Teaching Experience: 18 Years

Assistant Professor in School of Chemical Sciences, SRTMUni, Nanded.
 (2005-2007)

Associate Professor (from 2023) in Dept. of Chemistry Dr. B A M Uni.
 Aurangabad. (2008 to till date)

Research Interests

- Synthesis of heterocyclic compounds by using greener solvents/ catalyst such as ionic liquid, PEG, biocatalyst eutectic solvents, homogeneous/ heterogeneous catalyst.
- Synthesis of potent Anticancer Agents.

Subject Taught Organic chemistry, Industrial chemistry, Environmental chemistry, Polymer Chemistry etc.

Projects completed/ongoing

Ongoing

1. DST-SERB SURE Major research project (sanctioned in 2023) on "<u>Novel Synthetic Routes</u> and anticancer Evaluation of Computationally Designed New Coumarines, Napthyridines and <u>Indoles</u>" (SUR/2022/001202)

Completed

- 1. University **Minor Research** project (2019-2020) of Rs. 1.5 lakh on "<u>Synthesis of Bioactive</u> molecules Using greener protocols" (STAT/VI/RG/Dept/2019-20/325-26)
- 2. Departmental combined Research project (5-year 2016-2021) of Rs. 140 lakh. "Synthesis of Bioactive Materials and Drug Designing" funded by UGC-SAP-DRS-I to II phase

Patents published / Submitted: 01

Design patent published and granted (Application No.382387-001) UV Cabinet

Professional Recognition/Award/ Prize/ Certificate, Fellowship received by the applicant

- [1] Year 2024: 18-19th Sept. A Certificate of oral presentation in international conference on Global Opportunities For Latest Developments In Chemistry and Technology (Gold-CT-2024) organized by School of Chemical Sciences Kavyitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, Maharashtra, India.[Enhanced Synthesis Of Pyrano (C)Chromenes Using Novel Composite Bi₂O₃-Cr₂O₃@SiO₂ by Muestsz Gamal Ahmed Sufyan Thabet]
- [2] **Year 2024:** 22nd-27^{rh} **July**. Certificate of participation Five days in National level one week FDP on Research Methodology Organized by Internal Quality Assurance Cell Kamala Neharu Mahavidyalaya, Nagpur.
- [3] Year 2024: 30-31st May. A Certificate of oral presentation in international conference on Advancement in Science, Engineering and Management (ICASEM-2024) Jointly organized by Vidya Vihar Institute of Technology, Purnea, Bihar, India & RSP Conference Hub, Coimbatore, Tamilnadu, India. [Zinc Sulfide Nanoparticles Catalyzed Synthesis of Thiazolidinone Derivatives: An Efficient and Sustainable Approach by Muestsz Gamal Ahmed Sufyan Thabet]
- [4] Year 2024: April 2024, Worked as Pre Ph.D Course work Coordinator in the subject of Chemistry Conducted by UGC-HRDC, Dr. BAMUni. Chattrapati Sambhaji Nagar.
- [5] Year 2024: 22nd-23^{rh} March. Certificate of oral paper presentation in two days International Conference on Green Chemistry and Intellectual property for United nations sustainable development goals Organized by Department of Chemistry in Association with The Directorate of Higher Education and Research Centre (DMC) Assagao, Bardez Goa.[Synthesis of potent dihydropyranochromene and chromenopyrimidine-2,5-diones in β-cyclodextrin cavity and evaluation of their anticancer activity Bhavana Ganesh Polke]
- [6] Year 2024: 11th-15th March Acted as liasoning Committee member for 19th state level

- Inter- University Youth Festival Indradhanushya program in 2023-24 organized by Dr. BAMUni. Chattrapati Sambhaji Nagar.
- [7] **Year 2023:** 15th **December,** Nomination by Hon'ble vice chancellor of Dr. BAMuni. CSN to serve as a member for the parameter teaching, learning & resources (TLR) for the national Institutional Ranking framework (NIRF) 2024.
- [8] **Year 2023:** 29th **Nov.** As a external examiner/member for Faculty wise committee to conduct the interview of MGM PET-2023 qualified student.
- [9] **Year 2023:** 7th **Feb**. As a Subject expert for SRF up gradation committee in the subject of chemistry by School of Chemical Sciences Kavayatri Bahinabai Chaudhari North Maharashtra University, Umavinagar Jalgaon.
- [10] **Year 2023: May** 2023, Ph.D thesis evaluator entitled "Development of new methods in functional group transformation" submitted by Mr. B D Kokane to SRTMUni, Nanded.
- [11] Year 2023: 2^{4th} & 2^{5th} Feb. Certificate of paper presentation in National Symposium on Innovative inclinations and Sustainable Technologies in Chemical Sciences Organized by IISTCS and Department of Chemistry, MSP Mandal's Deogiri College, Aurangabad. [CAN mediated one-pot Green Synthesis of Bio-active-2-Aminoyrimidine Derivatives Bhavana Ganesh Polke]
- [12] **Year 2023:** 15th-17th **Feb**, Coordinator for Barkley's Life Skill development Program supported by Rubicon foundation and organized by Training and placement cell, IQAC and department of Chemistry, Dr. BAMUni. Aurangabad.
- [13] **Year 2023:** 3rd-7th **Jan**. Certificate of poster presentation in 108th ISCA international conference ISCA-2023) Jointly organized by RTM Nagpur University and The Indian Science Congress (Association Kolkatta, India. [Polyethylene Glycol Mediated Ecofriendly Cyclocondensation Method For the Synthesis of 1, 3-thiazolidinon-4-ones Derivatives]
- [14] **Year 2022:**3rd **October** Resource person for national webinar on Green Chemistry future of Chemistry: an introduction and basic principles of Spectroscopy conducted by Govt. Degree College, Nirmal Telangana state affiliated to Kaktiya University.
- [15] **Year 2023:** 22nd **March**, Reviewer for reviewing the manuscript entitled, Comphrensive Review on one pot Green Synthesis of Pyran and Chrom Benzo[α]Phenazines for Polycyclic Aromatic Compounds.

- [16] **Year 2022:**10th **Sept**. Resource person for Pre Ph.D course work conducted by HRDC Dr.BAMUni. Aurangabad.
- [17] **Year 2022:**10-14th **January** Certificate of participation A five day workshop on "Scientific Project Management Organized by DST & IISER Pune.
- [18] **Year 2022:** 27-31St **January** Certificate of participation Five days virtual short term training programme on Emerging Trends in Synthesis of Chemical Scaffolds Organized by Page 3 Sardar Vallabhbhai National Institute of Technology (SVNIT), Gujarat, INDIA.
- [19] Dept. NAAC/ IQAC / NIRF Coordinator, UPSC and MPSC exam. Invigilator, Vigilance Squad committee member, Faculty In charge for CFART instrument, Dept. Placement Coordinator.
- [20] **Year 2021:** 19th **Sept.** Reviewer for journals like Polycyclic aromatic compounds, Arebian Journal of Chemistry.
- [21] **Year 2021:** Resource person for Pre Ph.D course work, HRDC Dr.BAMUni. Aurangabad.
- [22] **Year 2020**:7th **Feb.** Evaluator and referee for M.Sc. by research thesis Viva-voce examination, University of Mumbai.
- [23] **Year 2020:** 24th **Feb**-2020 Certificate of paper presentation in UGC sponsored national conference on recent Advances in Chemical Sciences (RACS-2020) Organized by Dept. of Chemistry, Sub-center Osmanabad, Dr. B. A. M. University.
- [24] **Year 2020**: 3rd-7th **Jan.** Certificate of poster presentation in 107th ISCA international conference (ISCA-2020) on Science and technology: Rural development Jointly organized by GKVK, University of Agriculture Banglore (Karnataka), India and The Indian Science Congress Association Kolkatta, India.
- [25] **Year 2019:** 3rd -7th **Jan**. Certificate of paper presentation 106th ISCA international conference (ISCA-2019) on Future India: Science and Technology by Lovely Professional university, Phagwara, Jalandhar (Punjab) India and The Indian Science Congress Association Kolkatta, India.
- [26] **Year 2019:** 16th **Feb.** Certificate of paper presentation in one day national conference on innovative research in Science and technology Organized by R.B. Attal Arts, Science & Commerce College GeoraiTq. Georai Dist. Beed.

- [27] **Year 2019:** Recognized Research Guide of Chemistry, Dr. BAMUni. Aurangabad since from 2019.
- [28] **Year 2019:** 20th -28th **August** Certificate of participation in training program- Nine Day FDP on "Global business foundation Skills," A CSR initiative Sponsored by IT-ITeS SSC NASSCOM Infosys BPM Ltd Pune.
- [29] **Year 2018:** 11th-13th **Jan.** Certificate of poster presentation in 24th ISCB international conference (ISCBC-2018) on frontier research in Chemistry and Biology interface Jointly Page 4 organized by Department of chemistry, Manipal university jaipur, India and Indian Society of chemists and biologists, Lucknow, India. Manipal university jaipur, India.
- [30] **Year 2017:** 17th-18th **March.** Certificate of Organizing Committee member of national conference on "Frontiers in Chemical Sciences and Drug development" organized by Dept. of Chemistry, Dr. BAMU.Aurangabad.
- [31] **Year 2017:** 4th **March**. Certificate of Poster presentation in national conference on Advances in Chemical Sciences ACS-2017 School of Chemical Sciences, North Maharashtra University, Jalgaon, MS.
- [32] **Year 2016**: 9th-10th **Dec**. Certificate of Poster presentation (Second prize) in national conference on Newest Developments in Chemical Sciences for Civilized Society (NDCSCS-2016) organized by Collegeof Arts, Commerce and Science, Parbhani.
- [33] **Year 2015**: 28th-29th **Dec.** Certificate of Paper presentation in national conference Recent Challenges in Advanced Material and Green Chemistry organized by Dept of Chemistry. Sub-Campus Osmanabad, Dr. BAMU, Aurangabad.
- [34] **Year 2014:**30th-31st **Dec.** Certificate of Help desk Committee member and Session member of Conference on Science and Technology for Human Development ISCA-Aurangabad (Pre-Science Congress).
- [35] **Year 2014:**19th **June.** Book research paper reviewer resource person for Pre Ph.D course work conducted by UGC- HRDC Dr.BAMUni. Aurangabad.
- [36] **Year 2014:** 21st-24th **March** organizing Committee member of workshop on Fundamental concepts in chemical Sciences jointly organized by Dept. of Chemistry & three Academies of Sciences IISC Banglore, Dr. BAM University.
- [37] **Year 2013:** 28th-30th **Nov.** A certificate of poster presentation for International conference

- on Emerging Horizons in Biochemical Sciences and Nanomaterials organized by Dept. of Chemistry and Microbiology, Shri Shivaji Mahavidyalaya, Barshi.
- [38] **Year 2004: Nov.** Certificate of NET(CSIR-JRF) and SET Qualifying exam.

Publications (List of papers published)

- [1] Silica-supported Bi₂O₃–Cr₂O₃ Nanocomposite: Efficient catalyst for Pyrano [3,2-c]chromenes synthesis and DFT studies. Mueataz G. Thabet, Mohd. Aslam, Prashant Singh, Giribala M. Bondle. *Journal of Molecular Structure*, 1319, 1, **2025**, 139624.
- [2] Design, synthesis and molecular docking study of novel triazole—quinazolinone hybrids as antimalarial and antitubercular agents. Udhav V Mhetre, Nitin B Haval, Giribala M Bondle, Sanket S Rathod, Prafulla B Choudhari, Jyothi Kumari, Dharmarajan Sriram, Kishan P Haval *Bioorganic & Medicinal Chemistry Letters*, 108, **2024**, 129800.
- [3] Efficient Synthesis of Densely Functionalized Pyrido[2,3-d]Pyrimidines via Three-component One-pot Domino Knoevenagel aza-Diels Alder Reaction and Induces Apoptosis in Human Cancer Cell Lines *via* Inhibiting Aurora A and B Kinases. Manisha R Bhosle, Amruta Palke, Giribala M Bondle, Aniket P Sarkate, Rajaram Azad, Prasad VLS Burra *Polycyclic Aromatic Compounds*, 2022, 1-18.
- [4] Convenient multicomponent synthesis of furo[3,2-c]coumarins in the promoting medium DIPEAc and assessment of their therapeutic potential through in silico pharmacophore based target screening. Shabnam M. Shaikh, Vinay K. Yadav, Ghanshyam Mali, Giribala M. Bondle, Akhilesh Kumar, Rohan D. Erande, Sudipta Bhattacharyya and Manisha R. Bhosle. *New Journal of Chemistry* 46, 22353-22362, **2022.** DOI: 10.1039/d2nj03838b
- [5] Synthesis, characterization and catalytic evaluation of ZrCl4: Mg (ClO4)2 for the synthesis of 1, 3-diaryl-3-(phenylthio) propan-1-one Sandeep T Atkore, Giribala M Bondle, Vinod T Kamble, Ravi Varala, Syed Farooq Adil, Mohammad Rafe Hatshan, Baji Shaik. *Journal of Saudi Chemical Society*, 25, 12, 101359, **2021.**
- [6] Synthesis of 14-Substituted-14H-Dibenzo [a, j] Xanthene Derivatives in Presence of Effective Synergetic Catalytic System Bleaching Earth Clay and PEG-600 Sandeep T Atkore, Giribala M Bondle, Pranita V Raithak, Vinod T Kamble, Ravi Varala, Mufsir

- Kuniyil, Mohammad Rafe Hatshan, Baji Shaik, Syed Farooq Adil, Mohammed Althaf Hussain. *Catalysts*, 11(11), 1294, **2021**. **DOI**: https://doi.org/10.3390/catal11111294
- [7] Design, Synthesis and Biological Evaluation of Tetrahydrodibenzo [b,g][1,8] napthyridinones as Potential Anticancer Agents and Novel Aurora Kinases Inhibitors. AV Chate, PA Tagad, GM Bondle, AP Sarkate, SV Tiwari, R Azad. *Chemistry Select*, 6(14), 3548-3552, **2021**.
- [8] Synthesis, Antimicrobial Evaluation and Docking Study of Novel Thiosemicarbazone clubbed with 1,2,3 Triazoles. Kishan P. Haval Adinath D. Badar, Shubham M. Sulakhe, Mahesh B. Muluk, Naziya N. M. A. Rehman, Prashant P. Dixit, Prafulla B. Choudhari, Giribala M. Bondle. *Current Bioactive Compounds*, 2020. DOI:10.2174/1573407216999200911121853.
- [9] 2-Aminoethanesulfonic acid: An efficient organocatalyst for green synthesis of spirooxindole dihydroquinazolinones and novel 1, 2-(dihydroquinazolin-3 (4 H) isonicotinamides in water. AV Chate, PP Rudrawar, GM Bondle, JN Sangeshetti *Synthetic Communications* 50 (2), 226-242, **2020**.
- [10] Supramolecular biomimetic catalysis by β-cyclodextrin for the synthesis of new antimicrobial chromeno [4, 3-b] quinolin-isonicotinamides in water MR Bhosle, SA Joshi, GM Bondle, JN Sangshetti. *Research on Chemical Intermediates* 46 (1), 737-753, **2020**.
- [11] Organocatalyzed Domino Synthesis of New Thiazole Based Decahydroacridine 1,8-diones and Dihydropyrido[2,3-d:6,5-d']dipyrimidines in Water as Antimicrobial Agents. M R Bhosle, S A Kharote, G M Bondle, J N Sangshetti, S A Ansari, Hamad M. Alkahtani. *Chemistry & biodiversity* 17 (2), e1900577, **2020.**
- [12] Multicomponent reactions and supramolecular catalyst: A perfect synergy for ecocompatible synthesis of pyrido[2,3-d] pyrimidines in water. Asha V. Chate, Ankita S. Kulkarni, Chetan K. Jadhav, Amol S. Nipte, Girabala M. Bondle. *J Heterocyclic Chem*.1–10, **2020**. DOI: 10.1002/jhet.3938
- [13] An efficient contemporary multicomponent synthesis for the facile access to coumarin fused new thiazolyl chromeno[4,3-b]quinolones in aqueous micellar medium. MR Bhosle, SA Joshi, GM Bondle. *Journal of Heterocyclic Chemistry* 57 (1), 456-468,

2019.

- [14] Identification of metabolites and Evaluation of the seeds of Abrus precatorius (L.) by high resolution mass spectrometry. Pranita V Raithak, Sandeep T Atkore, Giribala M Bondle *Caribbean Journal of Sciences and Technology* (CJST) 7 (1), 008-014, **2019**.
- [15] Efficient atom-economic one-pot multicomponent synthesis of benzyl pyrazolyl coumarins and novel pyrano[2,3-c]pyrazoles catalysed by 2-amino ethane sulfonic acid (taurine) as a bio-organic catalyst. AV Chate, BA Shaikh, GM Bondle, SM Sangle. *Synthetic Communications* 49 (17), 2244-2257, **2019**.
- [16] A new efficient domino approach for the synthesis of coumarin-pyrazolines as antimicrobial agents targeting bacterial d-alanine-d-alanine ligase. AV Chate, AA Redlawar, GM Bondle, AP Sarkate, SV Tiwari, DK Lokwani. *New Journal of Chemistry* 43 (23), 9002-9011, **2019.**
- [17] Synthesis and Biological Evaluation of Some Newly Synthesized Barbiturates and Their Derivatives by Using Task Specific Ionic Liquid [Bmim] OH. GM Bondle, ST Atkore. *Orbital: The Electronic Journal of Chemistry* 11 (3), 142-150, **2019.**
- [18] Multicomponent Synthesis of Spiro [4H-pyran-oxindole]derivatives using bimetallic catalyst zirconium tetrachloride and magnesium perchlorate. Giribala M Bondle *International Journal of Advancce and Innovative Research (Conference proceeding*, 6, Issue 1(XVI), 139-143, **2019**.
- [19] Tromethamine organo catalyzed efficient tandem-multicomponent synthesis of new thiazolyl-4-thiazolidinones in aqueous medium M R Bhosle, S A Kharote, G M Bondle, J R Mali. *Synthetic Communications* 49 (10), 1286-1300, **2019**.
- [20] ChCl:2ZnCl2 Catalyzed Efficient Synthesis of New Sulfonyl Decahydroacridine-1,8-Diones via One-Pot Multicomponent Reactions to Discover Potent Antimicrobial Agents. M R Bhosle, M A Shaikh, D Nipate, L D Khillare, G M Bondle, J N Sangshetti.
 Polycyclic Aromatic Compounds, 1175-1186, 2019.
 https://doi.org/10.1080/10406638.2018.1533875
- [21] Straightforward multicomponent synthesis of pyrano [2, 3-d] pyrimidine-2, 4, 7-triones in β-cyclodextrin cavity and evaluation of their anticancer activity. MR Bhosle, P Andil, D Wahul, GM Bondle, A Sarkate, SV Tiwari. *Journal of the Iranian Chemical Society.* 16(7), 1553-1561, **2019.**

- [22] An efficient multicomponent synthesis and *in vitro* anticancer activity of dihydropyranochromene and chromenopyrimidine-2,5-diones. MR Bhosle, DB Wahul, GMBondle, A Sarkate, SV Tiwari. *Synthetic Communications* 48 (16), 2046-2060, **2018.**
- [23] A rapid and green method for expedient multicomponent synthesis of N-substituted decahydroacridine-1, 8-diones as potential antimicrobial agents. MR Bhosle, D Nipte, J Gaikwad, MA Shaikh, GM Bondle, JN Sangshetti. *Research on Chemical Intermediates*,1-18, **2018**.
- [24] A highly efficient green synthesis of 1,8-dioxo-octahydroxanthenes using β-Cyclodextrin as an environmentally compatible catalyst. Akash B. Waghamare, Shivdeep S. deshmukh, Giribala M. Bondle, Asha V. Chate. *Chemistry & Biology Interface*. 8 (3), 151-161, **2018**.
- [25] β-CD-catalyzed multicomponent domino reaction: synthesis, characterization, in silico molecular docking and biological evaluation of pyrano [2, 3-d]-pyrimidinone derivatives AV Chate, RM Dongre, MK Khaire, G M Bondle, J N Sangshetti, M Damale *Research on Chemical Intermediates*, 1-18, **2018**.
- [26] N-methyl pyridinium-p-toluene Sulfonate (NMPyTs) catalyzed synthesis of pyrano [2, 3-c] pyrazoles. Sandeep T. Atkore, Vinod T. Kamble, Giribala M. Bondle. *IranianChemicalCommunication* 5, 268-277, **2017**.
- [27] Ultrasonic promoted catalyst-free N-formylation of amines in neutral ionic liquid 1-butyl-3-methylimidazolium tetrafluoroborate. VT Kamble, GM Bondle, PM Pisal. **Arabian Journal of Chemistry**. 10, S2436-S2442, **2017**.
- [28] Sulfonated cellulose, competent catalyst for synthesizing polyhydroquinolines inpresence of dicationic ionic liquid (C4 [mim]2 2[Br-]) Sandeep T Atkore, Giribala M Bondle *Der Pharma Chemica* 9 (3), 5-9, **2017**.
- [29] Synthesis of Hexahydro-Sym-Triazines Using PEG-400 as Superior Solvent. G M Bondle, RG Jadhav, V T Kamble, S T Atkore. *Letters in Organic Chemistry* 14(1), 18-23, **2017**.
- [30] Green approach for Synthesizing Pyrimido Pyrimidine Moities using TBAB Sandeep T Atkor Giribala M. Bondle. *Journal of Chemical and Pharmaceutical Research.* 8 ((7)), 717-72 **2016**.

- [31] Highly efficient synthesis of polyhydroquinoline derivatives catalyzed by sulphonated cellulose. VT Kamble, GM Bondle, AM Chaudhari. *Bull. Catal. Soc. India* 9, 91-94, **2010**.
- [32] Synthesis and antibacterial activity of some new Schiff benzylidenes-2-hydrazin benzothiazole. Shailaja D Wadaje, M.A. Sayyed, S.S. Mokle, G.M. Bondle *International journal of chemical Sciences* 1 ((4)), 407-409, **2003**.

Extra Curricular activities

- Central Interview committee member of Earn and Learn Scheme for the selection of students under this Scheme.(6th Sept. 2024)
- Anti ragging Squad Committee member for University Campus. (from 5thAug. 2024)
- ➤ Dept. NAAC/ IQAC / NIRF Coordinator (since from 2019)
- ▶ DRC member and external expert for FRC of MGM University, Chhat. Sambhaji Nagar.
 (July 2024)
- Scrutiny Committee member for university elections (**June 2022**)
- Committee member of product commercialization under research and development cell Dr. BAMUni. Aurangabad (from 2022)
- Dept. Placement Coordinator (2022)
- Faculty Incharge for CFART instrumentation facility. (from **2021**)
- Right to information Act Departmental officer. (from **2020**)
- > Dept. Organic Sectional Coordinator (since from 2018)
- Acted as Warden of Ph. D. Girls hostel university hostel no. 3 (3 years)
- Central NAAC Committee member -2018
- Scrutiny Committee member of CHB (Contractual teaching staff appointment) candidates.
- Vigilance Squad committee member
- Organizing Committee member of National Science day Celebration.
- Member of counselling centre for Aurangabad District during Covid Pandemic.
- Dept. Exam coordinator (2015--2018)