

Dr. Dhanraj O. Biradar, Ph.D.

Post.doc (Medicinal chemistry)

Assistant Professor (C. H. B)

Department of Chemistry,

Maharashtra Mahavidyalaya Nilanga,

Latur, India.

Email: drajiict@gmail.com

brajiict@gmail.com Mob. No. : +91-9529735411.

Objective:

- Looking for a full time position as an Assistant professor (Academic), where I can make use of my scientific knowledge through teaching and research and contribute to the development/ better understanding of science for benefit of society.

Work Experience:

Assistant Professor

Jan-2021-Present

Department of Chemistry, Maharashtra Mahavidyalaya Nilanga, Latur-413521. India.

Postdoctoral fellow

July-2018-Feb-2020

Masaryk University, Brno, Czech Republic

Research supervisor: Prof. Kamil Paruch

Organic Chemistry Divison, Masaryk University, Brno.

Research Associate

July-2017- July 2018

CSIR-Indian Institute of Chemical Technology, Tarnaka, Hyderabad, India.

Research supervisor: Dr. Subhash Ghosh

Educational Qualification:

Ph. D. in organic chemistry

Oct-2017

SIR-Indian Institute of Chemical Technology, Tarnaka, yderabad, India.

Thesis title: "Total synthesis of biologically active natural products using Prins cyclization approach and development of synthetic methodologies."

Research supervisor: Dr. J. S. Yadav (FNA, FTWASc).

CSIR-JRF NET-2004

CSIR-UGC-NET-2005

Qualified **CSIR-JRF NET** examination

Qualified **CSIR-UGC NET** examination for Lectureship.

GATE-2004	Indian Institute of Technology, India. Percentile score = 86.39% (All india rank-445)
GATE-2005	Indian Institute of Technology, India. Percentile score : 90.87% (All india rank-316)
Master of Science (M.Sc.) -2002	In Organic Chemistry University: Swami Ramanand Teerth Marathawada University Nanded (MH).
Bachelor of Science (B.Sc.) -2000	In PCM (Physics, Chemistry and Mathematics) group. University: Swami Ramanand Teerth Marathawada University Nanded (MH). Percentage = 64.20 %
H. S. C (Intermediate)-1997	[(General science- (Physics, Chemistry, Mathematics, Biology, English and Hindi.)] Board: Aurangabad. Percentage = 58.33 %
S. S. C-1994	(Subject: Marathi, Science, Social science, Mathematics, English and Hindi.) Board: Aurangabad Percentage = 87 %

Awards and Fellowships:

- **Senior Research Trainee (SRT)** awarded by Indian Institute of Chemical Technology (IICT), Hyderabad, A.P, India.
- Qualified **CSIR-JRF NET** examination conducted by Council of Scientific and Industrial Research (CSIR), New Delhi, India.
- **Senior Research Fellowship** (CSIR- based on National Aptitude Screening) for the period of 3 years in Indian Institute of Chemical Technology.
- **Junior Research Fellowship** (CSIR- based on National Aptitude Screening) for the period of 2 years in Indian Institute of Chemical Technology.

Research interest:

- Total synthesis of biological active natural products.
- Organic Synthesis / Medicinal Chemistry/Bio-Chemistry.
- Asymmetric Synthesis / Asymmetric Catalysis

- Development of new synthetic methodologies
- Carbohydrates chemistry

Professional Competence:

- Expertise in designing and executing the multi-step synthesis of complex bioactive natural products.
- Development of new methodologies for organic synthesis.
- Capable of carrying collaborative and independent research.
- Maintain good interpersonal relationships.
- Expertise in handling air and moisture sensitive compounds and their purification and Preparation Procedures.
- Demonstrated skills in spectroscopic and chromatographic techniques.
- Identifying research problems and solving them independently.

Conferences /Symposium attended:

- Participated in the **“INDO-FRENCH CONFERENCE ON ORGANIC SYNTHESIS”** held at IICT, Hyderabad, India.
- Participated in Joint International Conference on **“ADVANCES IN ORGANIC CHEMISTRY AND CHEMICAL BIOLOGY”** AOCCB 2006, Hyderabad, India (January 11-12, 2006).
- Participated in the International Conference on **“NEW BIOACTIVE MOLECULES IN PHARMACEUTICAL RESEARCH- CONTRIBUTION OF NATURAL PRODUCTS”** held at IICT, Hyderabad, India (November 13-14, 2006).
- Participated in the International Conference on **“ASIAN SYMPOSIUM ON MEDICINAL PLANTS, SPICES AND OTHER NATURAL PRODUCTS”** (ASOMPC) XII-2008, held at IICT, Hyderabad, India (November 3-6, 2008).
- Participated in the International Conference on **“CHEMISTRY AND CHEMICAL BIOLOGY OF NATURAL PRODUCTS”** (CCBNP) 2012, held at IICT, Hyderabad, India.

Publications:

1. Highly efficient, one-pot, solvent-free synthesis of tetra substituted imidazole using $\text{HClO}_4\text{-SiO}_2$ as novel heterogeneous catalyst. Srinivas Kantevari, Srinivasu V. N. Vuppapalapati, **Dhanraj O. Biradar**, Lingaiah Nagarapu. *Journal of Molecular Catalysis A: Chemical*. **2007**, 266, 1-2, 109-113.
2. Glycerin as alternative solvent for the synthesis of Thiazoles. A. Venkat Narsaiah, Ramesh S. Ghogare, **Dhanraj O. Biradar**. *Org. Commun.* **2011** 4:3; 75-81.
3. Substitution dependent stereoselective construction of bicyclic lactones and its application to the total synthesis of Pyranopyran, Tetraketides and Polyrhacitide A. B. V. Subba Reddy,* **Dhanraj O. Biradar**, Y. Vikram Reddy, J. S. Yadav, Kiran Kumar, Singarapu and B. Sridhar. *Org. Biomol. Chem.* **2016**, 14, 8832-8837.
4. First diastereoselective total synthesis of bicyclic styryl lactone: (1R,5R,7R)-7-((E)-styryl)-2,6-dioxabicyclo[3.3.1]nonan-3-one. **Dhanraj O. Biradar**, Yogesh D. Mane, A.V. Narsaiah, B.V. Subba Reddy, *Results in chemistry* **2023**, 5, 100717.
5. Stereoselective Synthesis of Euscapholide and Tetraketide via Prins Cyclisation and Ring-Closing Metathesis. **Dhanraj O. Biradar**, Yogesh D. Mane, Basi V. Subba Reddy, *SynOpen* **2022**, 6, 312-318.
6. Zn/ZnBr_2 Catalysed Reaction of Aldehydes with Allyl bromide: Synthesis of 2,6-Disubstituted 4-Bromotetrahydropyrans. **D. O. Biradar**, Y. D. Mane, Y. P. Sarnikar, S. G. Kulkarni, B. V. Subba Reddy, A. Venkat Narsaiah, *SynOpen* **2022**, 6, 263-269.
7. A 8-hydroxypyrene-1,3,6-trisulfonic acid tri sodium salt (HPTS) based colorimetric and green turn-on fluorescent sensor for the detection of arginine and lysine in aqueous solution. Rajesh S. Bhosale, Ganesh V. Shitre, Rajnish Kumar, **Dhanraj O. Biradar**, Sheshanath V. Bhosale, Ramanuj Narayan, Sidhanath V. Bhosale. *Sensors and Actuators B.* **2017**, 241, 1270–1275.
8. Asymmetric synthesis of tetrahydroisoquinoline alkaloids using Ellman's chiral auxiliary. Vikram Reddy, **Dhanraj. O. Biradar**, B. Jagan Mohan Reddy, B. V. Subba Reddy. *Nat. Prod. Commun.* **2017**, 12, 1599-1603.

9. Stereoselective Total Synthesis of 1,4-Dideoxy-1,4-imino-L-ribitol by an Intramolecular Ring Opening of Epoxide with a Tethered Amide. Dhudmal Chaya N, **Dhanraj O Biradar**, Maddipatla V. Satyanarayana and Basi V Subba Reddy, *Nat. Prod. Commun.* **2018**, *13*, 1011-1012.
10. Stereoselective Total Synthesis of (6S)-5,6-Dihydro-6-[(2R)-2-hydroxy-6-phenylhexyl]-2H-pyran-2-one from L-Malic Acid. Dandekar Chandrakanth, Yerragorla Gopala Rao, Tallapally Swamy, **Dhanraj O Biradar**, Lonavath Vishnupriya and Basi V Subba Reddy *Nat. Prod. Commun.* **2018**, *13*, 867-868.
11. B(C₆F₅)₃ catalyzed synthesis of dihydropyrano[3,2-b] chromenediones under solvent-free conditions Yuvaraj P. Sarnikar , Yogesh D. Mane , **Dhanraj O. Biradar** , and Bhimrao C. Khade. *Synthetic communications* **2019**, 49(9),1-10.
12. Design, Synthesis and antimicrobial activity of novel 5-substituted indole-2-carboxamide derivatives. Yogesh D Mane, Sarnikar Y. P, Surwase S M, **Dhanraj. O. Biradar**, Gorepatil P B, Shinde. V. S, Khade B C, *Research on Chemical Intermediates*, **2016**, 43(2): 1253-1275, DOI 10.1007/s11164-016-2696-3.
13. Design and Synthesis of Diverse Pyrrole-2-carboxamide Derivatives as a Potent Antibacterial Agents- Yogesh D. Mane, Y. P. Sarnikar, S. M. Survarse, **Dhanraj O. Biradar**, Balaji H. Jawale and B. C. Khade, *J. Heterocyclic Chem.*, 31 March **2017**, DOI 10.1002/jhet.2859.
14. Novel stereoselective oximes: Their synthesis and anti-leishmanial evaluation” Santosh M. Surwase, Yogesh D. Mane, Mahesh M. Surwase, **Dhanraj O. Biradar**, Yuvraj P. Sarnikar and Bhimrao C. Khade, *Current Bioactive Compounds*, **2017**, *13*, DOI: 10.2174/1573407213666170329132211.
15. Highly Efficient Direct Synthesis of Scaffold 9a,10,12,12aTetrahydrobenzo[b]cyclopenta[f]pyrrolo[1,2-d][1,4]diazepinone by Using Active Phoshomolybdic Acid Yuvaraj P. Sarnikar, **Dhanraj O. Biradar**, Yogesh D. Mane, and Bhimrao C. Khade. *J. Heterocyclic Chem.*, **2019**, DOI 10.1002/jhet.350.
16. 5-Bromo-1-(4-chlorobenzyl)-1H-indole-2- carboxamides as new potent antibacterial agents. Yogesh D. Mane, Smita S. Patil, **Dhanraj O. Biradar** and Bhimrao C. Khade *Heterocyclic communications.*, **2018**, doi.org/10.1515/hc-2018-0107
17. Stereoselective total syntheses of Dodoneine and its diastereomer, Epidodoneine via Prins cyclisation. **Dhanraj O. Biradar**, Yogesh D. Mane, B. V. Subba Reddy , J. S. Yadav,

Tetrahedron, **2023**, 132, 133242.

18. Prins Cyclization: Novel Strategy towards the Diastereoselective Total Synthesis of (-)-Cryptocaryolone. **Dhanraj O. Biradar**, Yogesh D. Mane, B. V. Subba Reddy, J.S. Yadav, . *Synthesis*. **2023**, 55, A-J
19. Prins Cyclization: New Strategy for the Diastereoselective Total Syntheses of Polyrhacitide A, **Dhanraj O. Biradar**, Yogesh D. Mane, B. V. Subba Reddy, J.S. Yadav, , *Natural product research*. **2023**.
20. Facile Synthesis of Substituted Pyrrole Using Silica Supported Catalysis. **Smita S. Patil**, **Dhanraj O. Biradar**, Yogesh D. Mane, Santosh M. Surwase, Vishnu S. Shinde & Y. P. Sarnikar , *Organic Preparations and Procedures international*. **2023**.
21. Sc(OTf)₃ catalysed regioselective Ring Opening of Thiiranes. **D. O. Biradara**, Y. D. Mane, Y. P. Sarnikar, S. G. Kulkarni, B. V. Subba Reddy, A. Venkat Narsaiah, (*Communicated*). *Synthetic communications*.