

Laxman Devidas Khalse

Institute of Chemistry, Casali Center of Applied Chemistry
The Hebrew University of Jerusalem
Edmond J. Safra Campus
Givat Ram, Jerusalem, Israel
✉ laxman.khalse@mail.huji.ac.il, laxmankhalse9@gmail.com
☎ +91-9763598115,

ORCID  



Personal Information

- **Date of Birth:** 2 June 1992
- **Gender:** Male
- **Citizenship:** Indian
- **Languages Known:** Marathi, Hindi, English, Bengali

Education

- Post-Doctoral Fellow:** The Hebrew University of Jerusalem, Israel
Year: Feb 2024 - Present
Research Advisor: Dr. Zackaria Nairoukh
- Ph.D. (Chemistry):** Indian Institute of Science Education and Research, Bhopal
Year: Aug 2016 - Dec 2023
Research Advisor: Prof. Prasanta Ghorai
Thesis Title: Stereoselective Cu-Catalysed β -Borylative Cascade Cyclization Reactions of Activated Alkenes
- M. Sc. (Chemistry):** Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
Year: Aug 2013 - Aug 2015
Thesis Title: CuAAC Cycloaddition Reactions

Research Experience

- Methodology development for the carbo- and heterocycles synthesis via enantio- and diastereoselective copper-catalyzed borylation via cascade approach.
- Construction of stereoselective carbo- and heterocycles via rationally design spirocyclization reactions.
- Development of the new organocatalytic pathway to construct complex molecular assembly.

Scientific/Technical Skills

- Hands-on experience with an instrument like HPLC (Agilent 1200 infinity), Polarimeter (Perkin Elmer), IR Spectrometer, Cary 100 UV-Vis spectrophotometer (Agilent Technologies), Carry 5000 spectrophotometer (Agilent Technologies) and preparation of organocatalysts.
- Expertise in handling lab equipment and asymmetric synthesis.
- Skilled in preparing scientific manuscripts, reports, and conference poster presentations.
- Well-experienced in handling time-bound projects, excellent laboratory management skills, and trained many junior Ph.D. and BS-MS students.

Publications

- 1) **Khalse, L. D.**; Gorad, S. S.; Ghorai, P. Enantio- and Diastereoselective Cu(II)-Catalyzed Conjugate Borylation/Michael Addition Cascade: Synthesis of Spiroindane Boronates. *Org. Lett.* **2022**, *24*, 7566, DOI: [10.1021/acs.orglett.2c02955](https://doi.org/10.1021/acs.orglett.2c02955).
- 2) **Khalse, L. D.**; Ghorai, P. Stereoselective Borylcupration/Michael Addition on Symmetrical Dienones. *J. Org. Chem.* **2023**, *88*, 7918, DOI: [10.1021/acs.joc.2c02714](https://doi.org/10.1021/acs.joc.2c02714).
- 3) Midya, A.; **Khalse, L. D.**; Ghorai, P. Chiral Amine Catalyzed Reductive Aldol/Reductive Michael Addition Cascade Towards Enantioselective Synthesis of Benzannulated Diquinanes. *Eur. J. Org. Chem.* **2023**, *126*, DOI: [10.1002/ejoc.202201409](https://doi.org/10.1002/ejoc.202201409).
- 4) **Khalse, L. D.**; Patil, P. B.; Ghorai, P. Enantio- and Diastereoselective Spirocyclization via Tandem Borylative Aldol/Acetalization followed by Oxidation. (*manuscript under preparation*)
- 5) Midya, A.[†]; **Khalse, L. D.**[†]; Ghorai, P. Organocatalytic Enantioselective Intramolecular Michael Addition via In Situ Generated Aminoisobenzofulvenes: Construction of Spiro Quaternary Carbon Stereocenters. *Chem. Eur. J.* **2023**, e202301563. DOI: [10.1002/chem.202301563](https://doi.org/10.1002/chem.202301563) ([†]equal contribution).

Selected Conference/Symposium

- Poster presentation on “Enantio- and Diastereoselective Cu(II)-Catalyzed Conjugate Borylation/Michael Addition Cascade: Synthesis of Spiroindane Boronates” in International Conference on Sustainable Chemistry: 2023 at Department of Chemistry, IIT Indore, Feb 2023.
- Oral presentation on “Enantio- and Diastereoselective Borylcupration/Michael Cyclization for the Construction of Spiroindane Boronates” in IISTCS-2023 at Department of Chemistry, Deogiri College, Feb 2023. (First Prize)
- Poster presentation on “Diastereoselective Cu-Catalysed Borylative Michael/Michael Addition Cascade to Dienone” in InTeRaCTIONS 2020 at Department of Chemistry, IISER Bhopal, Feb 2020.
- Participated in “XVIII NOST” (National Organic Symposium Trust) meeting at IISER Bhopal, Aug. 2017.
- Participated in “Pre-ICOS” (International Conference on Organic Chemistry), at IISER Bhopal, Dec 2016.

Awards and Fellowships

- Qualified National Eligibility Test for CSIR- JRF held on December 2015.
- Senior Research Fellowship (July 2018-July, 2021): Awarded by the Council of Scientific and Industrial Research (CSIR), New Delhi, India, in Chemical Science.
- Qualified GATE held on Feb 2016.

Teaching Experience

- Teaching Assistant, Undergraduate Course, Basic Organic Chemistry 1 (CHM 112) Department of Chemistry, IISER Bhopal
Led Discussions, prepared quizzes, and graded a class comprising 200 undergraduate students.
- Teaching Assistant, Undergraduate Laboratory Course, Organic Chemistry Lab 2 (CHM 313) and Organic Chemistry Lab 1 (CHM 114) Department of Chemistry, IISER Bhopal
Led Discussions, trained undergraduates for practicals, and graded a class comprising 50 undergraduate students.