

Biodata



1. Name: Dr. (Mr.) Pragati Biswal, Chemistry

2. Qualification:

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| Research Associate-1: (May 2022- Sept 2022) | National Institute of Science Education and Research (NISER), Bhubaneswar, India |
| Ph. D, Chemistry (2016-2022): | National Institute of Science Education and Research (NISER), Bhubaneswar, India. Thesis title: 'Syntheses and Functionalization of N-Heterocycles via Rhodium-Catalyzed C-H Activation.' http://hdl.handle.net/10603/380574 |
| M. Phil., Chemistry (2014-2015): | School of Chemistry, Sambalpur University, Burla, Odisha, India. (1st Class) Thesis title: 'Studies on the synthesis of N-containing mixed heterocycles from cyclic 1,3-dicarbonyl precursor' |
| M. Sc., Chemistry (2011-2013): | School of Chemistry, Sambalpur University, Sambalpur, Odisha, India. (1st Class) |
| B. Sc., Chemistry (2011): | Bhima Bhoi College, Rairakhol, Sambalpur, Odisha, India. (1st Class in Hons. with distinction) |

3. Designation: Guest Lecturer, Department of Chemistry, B. J. B. (Auto.) College, Bhubaneswar

4. Email Id: p.p.biswal.7@gmail.com

5. Area of interest:

- Teaching the UG and PG students
- Research (Green synthesis)

6. Area of research:

- **Organic Synthesis:** Synthesis of bio-active compounds and natural products
- **Molecular Catalysis:** Metal catalysis, Organo-catalysis, Photoredox catalysis, Electro-catalysis
- **Development of new methodology:** For the formation of C-C and C-hetero bond
- **Green Synthesis:** One-pot synthesis, cascade reactions

7. Teaching Area:

- **UG Classes (as per the CBCS Syllabus, Odisha):**
 - **Core Paper-1:** Periodicity of elements, Chemical bonding-II (1st Semester)
 - **Core Paper-2:** Liquid State (1st Semester)
 - **Core Paper-3:** Basics of Organic Chemistry, Aromaticity, Conformational Analysis (2nd Semester)
 - **Core Paper-5:** Chemistry of s and p-block element II (3rd Semester)
 - **Core Paper-8:** Coordination chemistry, Transition elements-I, Bio-inorganic Chemistry (4th Semester)

- **Core Paper-9:** Terpenes (4th Semester)
- **Core Paper-11:** Organic Spectroscopy (NMR, UV) (5th Semester)
- **Core Paper-12:** Quantum Chemistry (5th Semester)
- **Core Paper-13:** Organometallics-I/II, Catalysis by Organometallic Compounds (6th Semester)
- **DSE 1:** Introduction and History of Polymeric Material (5th Semester)
- **Value Added Course** (6th Semester)

➤ **PG:** - N.A.

8. Total No. of Teaching Experience (Yrs): Two (2)

- **UG:** Two (2)
- **PG:** N.A

9. Research Supervision: N.A.

- **Completed (M.Phil./Ph.D./D.Sc./D.Litt.)**

| Srl. No. | Name of the Student | Degree | University | Title of the Thesis | Date of Registration | Date of Submission | Date of Award of Degree |
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- **Ongoing (M.Phil./Ph.D./D.Sc./D.Litt.)**

| Srl No. | Name of the Student | Degree | University | Title of the Thesis | Date of Registration |
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10. Publication Profile

a) Research Articles Published:

- N*-allyl benzimidazole as a Strategic Surrogate in the Rh-catalyzed Stereoselective *trans*-propenylation of Aryl C(sp²)-H Bonds. **P. Biswal**; T. Nanda; S. K. Banjare; S. R. Mohanty; R. Mishra; P. C. Ravikumar*. *Chem. Commun.*, 2023, 59, 2, 199-202.
- Rhodium-Catalyzed Synthesis of 2-Methylindole via C-N bond Cleavage of *N*-allylbenzimidazole. **P. Biswal**; T. Nanda; N. Prusty; S. R. Mohanty; P. C. Ravikumar*. *J. Org. Chem.* 2023, 88, 13, 7988-7997. **ACS Editors' Choice Article. The most-read new #JOrgChem articles from the merry month of May.**
- Nickel-Catalyzed Aryl-Aryl Bridging C-N Bond activation of 2-Pyridylpyridones and 6-Purinylypyridones. N. Prusty; L. Gamango; **P. Biswal**; S. R. Bag; P. C. Ravikumar. (**Communicated**).
- Breaking the Monotony: Cobalt and Maleimide as an Entrant to the Olefin-Mediated *Ortho* C-H Functionalization. T. Nanda; S. K. Banjare; W-Y. Kong; W. Guo; **P. Biswal**; L. Gupta; A. Linda; B. V. Pati; S. R. Mohanty; D. J. Tantillo and P. C. Ravikumar*. *ACS Catal.* 2022, 12, 19, 11651-11659.

8. Co (II)-Catalyzed C-H/N-H Annulation of Cyclic Alkenes with Indole-2-Carboxamides at room temperature: A one-step access to β -carboline-1-one derivatives. G. Das Adhikari; B. V. Pati; T. Nanda; **P. Biswal**; S. K. Banjare; P. C. Ravikumar*. *J. Org. Chem.* 2022, 87, 6, 4438-4448.
7. Recent Advancement in Palladium-Catalyzed C–C Bond Activation of Strained Ring Systems: Three- and Four-Membered Carbocycles as Prominent C3/C4 Building Blocks. T. Nanda; M. Fastheem; A. Linda; B. Pati; S. K. Banjare; **P. Biswal**; P. C. Ravikumar*. *ACS Catal.* 2022, 12, 21, 13247–13281.
6. O-Directed C–H functionalization via cobaltacycles: a sustainable approach for C–C and C–heteroatom bond formations. S. K. Banjare; T. Nanda; B. V. Pati; **P. Biswal**; P. C. Ravikumar*. *Chem. Commun.* 2021, 57, 30, 3630–3647.
5. Palladium-Catalyzed C–C Bond Activation of Cyclopropanone: Modular Access to Trisubstituted α , β -Unsaturated Esters and Amides. T. Nanda; **P. Biswal**; B. V. Pati; S. K. Banjare; P. C. Ravikumar*. *J. Org. Chem.* 2021, 86, 3, 2682–2695.
4. Rhodium-Catalyzed One-Pot Access to *N*-Polycyclic Aromatic Hydrocarbons from Aryl Ketones through Triple C–H Bond Activations. **P. Biswal**; S. K. Banjare; B. V. Pati; S. R. Mohanty; P. C. Ravikumar*. *J. Org. Chem.* 2021, 86, 1, 1108–1117.
3. Cobalt(III)-Catalyzed C-6 Alkenylation of 2-Pyridones by Using Terminal Alkyne with High Regioselectivity. S. R. Mohanty; N. Prusty; L. Gupta; **P. Biswal**; P. C. Ravikumar*. *J. Org. Chem.* 2021, 86, 14, 9444–9454.
2. Cobalt-Catalyzed One-Step Access to Pyroquilon and C-7 Alkenylation of Indoline with Activated Alkenes Using Weakly Coordinating Functional Groups. S. K. Banjare; **P. Biswal**; P. C. Ravikumar*. *J. Org. Chem.* 2020, 85, 8, 5330–5341.
1. Hydroxylamine-*O*-Sulfonic Acid (HOSA) as a Redox-Neutral Directing Group: Rhodium-Catalyzed, Additive Free, One-Pot Synthesis of Isoquinolines from Arylketones. **P. Biswal**; B. V. Pati; R. Chebolu; A. Ghosh; P. C. Ravikumar*. *Eur. J. Org. Chem.* 2020, 2020, 8, 1006–1014. Editor choice: **Very Import Paper (VIP), Highlighted in Synfacts: Synfacts 2020; 16(07): 0776.**

b) Books Chapters Published:

‘Synthesis of Hetero-Polycyclic Aromatic Hydrocarbons through Directed C-H Functionalization’. **P. Biswal**; N. Prusty; P. C. Ravikumar*. **Handbook of C-H Functionalization**. Wiley Publishers, 2022. ISBN: 9783527834242. (doi.org/10.1002/9783527834242.chf0215).

c) Books Published: - N.A.

d) Articles Published in Newspapers/Magazines: - N.A.

11. Research Projects: N.A.

| Name | Department | Type (major/minor) | Name of the funding agency | Funds provided (in Rs. in lakhs) | Title of the project | Month and year of receiving grant | Duration of the project | Completed/ongoing (Date of Completion/expecting completion) |
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12. Paper presented in Conferences/Seminars:

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| 2022 | National Conference on Recent Advances in Heterocyclic Chemistry (RAHC-2022). The Department of Chemistry, Ravenshaw University during 15-16 January 2022. (Oral presentation). |
| 2020 | First Virtual JNOST Conference (JNOST-16) For Research Scholars. Organized by the IISC, Bangalore, India from October 31–Nov. 1, 2020. (Oral presentation). |
| 2020 | National Conference on Organic Synthesis (NCOS-2020). Organized by PG Department of Chemistry, Berhampur University, Odisha. during 02-03 March 2020. (Oral and Poster presentation - 3rd Best Poster Presentation Awardee). |

13. Invited Lectures/Special Lectures/Resource persons or presentations at Conferences/Workshops: -

14. Awards and Distinctions:

- 2023- **Qualified CSIR NET**, Rank-54
- 2022- **Qualified for Research Associate-I position at NISER**, Bhubaneswar
- 2020- **3rd Best Poster Presentation Awardee** of National Conference on Organic Synthesis (NCOS-2020), Berhampur University, Odisha
- 2018- **Qualified for Senior Research Fellowship**
- 2015- **Qualified for Institute fellowship** for Ph. D program at NISER, Bhubaneswar
- 2014- **Qualified CSIR NET**, Rank-44/688
- 2011- **Best Student of the Year** in B. Sc.

15. Association with Professional Bodies:

- 2018-2020: **Student (Ph. D.) representative** and a member of the Post Graduate Committee of the Institute (**PGCI**), NISER
- 2008-2011: **Student Coordinator** during B. Sc.

