



Research Experiences

Ph.D + 6.5 years of Postdoc experience
+ 3 years as Research Professor

Academic Identity

Orcid ID: 0000-0003-1480-7799
Scopus ID: 47761432400

Publication Details

24 Journal Articles
5 corresponding author articles



Personal Informations

Dr. Tapas R. Pradhan

Post Doctoral Research Associate

Department of Chemistry Education

Seoul National University, S. Korea

Oct 2025 – till date

✉ tapasranjan3486@gmail.com

☎ +82-1073041543 (South Korea)

Educational Qualification and Post Ph.D Experiences

2006: **B.Sc** (N. K. Mahavidyalaya, Talcher, Utkal University, Odisha, India)

2008: **M.Sc** (Ravenshaw University, Cuttack, Odisha, India)

2015: **Ph.D** (CSIR-IICT, Hyderabad & JNTU-Hyderabad, India)

2016-Aug to 2020-May: **Post Doctoral Researcher**
2020-Sept to 2020-March: **Post Doctoral Researcher**
2021-April to 2023-March: **Research Professor**
2023-May to 2024-June: **Post Doctoral Researcher** (Cardiff University, UK)
2024-Sept to 2025-Sept: **Research Professor** (PNU, South Korea)

Pusan Nat'l.

University (PNU),

South Korea

References

1 Ph.D Supervisor

Prof. Debendra. K. Mohapatra

Professor of Chemical Sciences

IISER, Berhampur

Odisha, India-760003

✉ mohapatradk@iiserbpr.ac.in

2 Post-doc Supervisor

Prof. Jin Kyoong Park

Professor of Chemistry

Dept. of Chemistry Education

Seoul National University

South Korea-08826

✉ pjkyoon@pusan.ac.kr

3 Post-doc Supervisor

Prof. Dr. Thomas Wirth

Professor of Chemistry

School of Chemistry

Cardiff University

Cardiff, Wales

UK – CF10 3AT

✉ wirtht@cardiff.ac.uk

Objectives

Motivated to advance in the pharmaceutical field, combining my dedication to organic chemistry with a strong interest in both academic research and industrial applications

Research Interests

• Natural Products Synthesis • Synthetic Methodologies
• Study of Reaction Mechanism
• π -Scaffolds' synthesis using N-integrated π -Systems

Skills and Expertise

- Expertise in multi-step organic synthesis and development of synthetic methods
- Proficiency in handling MPLC, GC, HPLC, IR, and NMR instruments
- Highly experienced in literature searching using Sci-Finder and Reaxys
- Good oral and writing skills in English (Manuscript and research proposal)
- Expertise in MS word, Powerpoint, Excel and Chemdraw

Awards and Fellowship

- 2022: Best poster award in **KCS**-conference (Sept) held at South Korea
- 2009: Qualified **CSIR-NET** (Dec) and **GATE** exam for doctoral research study

Research Accomplishments

1 Post Ph.D

- Design and execution of synthetic methods employing allen(yn)amides and ynamides
- Devising the exact reaction mechanism (in collaboration with PHYC's Laboratory)

2 Ph.D

- Involved in devising carbonyl-assisted synthetic methods using propargylic acetates
- Actively indulged in asymmetric total synthesis of natural products

Collaboration

1 Academic

- with PHYC' Lab
Oregon State university
USA, (for DFT study)
- with Dingwall's Lab
Queen's university
Belfast, Ireland
(for mechanism study)

2 Industrial

- with Aragen Life Sciences
Research collaboration
with two Ph.D students



An admirer of
 π -bond's
choreographer

27. Tapas R. Pradhan and Jin Kyoong Park*

Synergistic Chelation and Aryl Directivity in Pd-Catalyzed Hydroarylation: Access to Diarylated Dienamides

Article details: *xxx. xxxx. 2026*, xx, xxxx–xxxx. Impact factor = x, DOI: xxxxxx (under preparation)**26. Raju Teegala, Purna C. R. Bhavnari,* Kadiyala Sagar, Arun B. Ingle, Tapas R. Pradhan,*** and Jin Kyoong Park*Hydro/Fluoro-phospho(di)thiolation of Allenamides: Toward S_N2 -selective Transition-Metal-Free Formal Hydrocarbonation.Article details: *Org. Lett. 2026*, xx, xxxx–xxxx. Impact factor = 5.0, DOI: xxxx (accepted) (as co-corresponding author)**25. Michael Bingham, Tapas R. Pradhan, D. Bhattacharjee, Rawiyah Alkahtani, Paul Kavanagh,* Thomas Wirth,*** and Paul Dingwall*

Revealing the Mechanism of TEMPO-Hypervalent Iodine(III) Oxidation of Alcohols.

Article details: *J. Am. Chem. Soc.*, **2026**, xx, xxxx–xxxx. Impact factor = 15.6, DOI: <https://doi.org/10.1021/jacs.xxxxx> (in revision)**24. Tapas R. Pradhan,**✎ Alina Dzhaparova,✎ Gisela A. González-Montiel,✎ Eunseok Park, Paul Ha-Yeon Cheong,* and Jin Kyoong Park*
Mechanistic Insights into Atom-Economical Bromoalkynylation of Ynamides: 1,3-Alkynyl Migration Explored through ^{13}C Kinetic Isotope Effects, XPS, and DFT Analysis.Article details: *ACS Catal. 2025*, 15, 21077–21087. Impact factor = 13.1, DOI: <https://doi.org/10.1021/acscatal.5c05612>**23. Hae Eun Lee,**✎ **Tapas R. Pradhan,**✎ Youngsuk Kim, and Jin Kyoong Park*Stable Vinylogous Amino Salt as a Reactive Synthone for the Synthesis of Homologated β -Fluoroenamides.Article details: *Org. Lett. 2025*, 27, 7342–7348. Impact factor = 5, DOI: <https://doi.org/10.1021/acs.orglett.5c02033>**22. Raju Teegala, Purna C. R. Bhavnari,* Kadiyala Sagar, Arun B. Ingle, Tapas R. Pradhan,*** and Jin Kyoong Park*

Chemo- and Regioselectivity in Allenamide-Homoenolate Coupling. (as co-corresponding author)

Article details: *Org. Lett. 2025*, 27, 1706–1713. Impact factor = 5, DOI: <https://doi.org/10.1021/acs.orglett.5c00124>**21. Tapas R. Pradhan** and Jin Kyoong Park*

Intermediate Control: Unlocking Hitherto Unknown Reactivity and Selectivity in N-Conjugated Allenes and Alkynes.

Article details: *Acc. Chem. Res. 2025*, 58, 281–298. Impact factor = 17.7, DOI: <https://doi.org/10.1021/acs.accounts.4c00712>**20. Kadiyala Sagar, Malempati Srimannarayana, Raju Teegala, Bhailal C. Merja, Tapas R. Pradhan,*** and Jin Kyoong Park*

Difluoroenoxyasilane: Expanding Allenamide Hydrodifluoroalkylation for Diverse Carbon Frameworks. (as co-corresponding author)

Article details: *Org. Lett. 2024*, 26, 5676–5681. Impact factor = 5, DOI: <https://doi.org/10.1021/acs.orglett.4c01703>**19. Tapas R. Pradhan*** and Jin Kyoong Park*

Intermolecular Allene–Alkyne Coupling: A Significantly Useful Synthetic Transformation (as co-corresponding author)

Article details: *ACS Catal. 2024*, 14, 7814–7845. Impact factor = 13.1, DOI: <https://doi.org/10.1021/acscatal.4c01333>**18. Tapas R. Pradhan,**✎ Abdikani O. Farah,✎ K. Sagar, Henry R. Wise, M. Srimannarayana, Paul Ha-Yeon Cheong,* and Jin Kyoong Park*

Acetate Assistance in Regioselective Hydroamination of Allenamides: A Combined Experimental and Density Functional Theory Study

Article details: *J. Org. Chem. 2024*, 89, 5927–5940. Impact factor = 3.6, DOI: <https://doi.org/10.1021/acs.joc.3c02509>**17. Kadiyala Sagar,**✎ **Tapas R. Pradhan,**✎ Abdikani O. Farah,✎ Henry R. Wise, Bhailal C. Merja, M. Srimannarayana,* Paul Ha-Yeon Cheong,* and Jin Kyoong Park*

General Hydroamination of Allenamides: Mechanistic Insights with an Acetate Adduct and 1,1,1,3,3,3-Hexafluoro-2-propanol.

Article details: *Org. Lett. 2023*, 25, 5574–5578. Impact factor = 5, DOI: <https://doi.org/10.1021/acs.orglett.3c01820>**16. Hyun Gyu Shin, Tapas R. Pradhan, Jin Kyoong Park,*** and Jeung Gon Kim*

Postpolymerization Modification of Sterically Demanding Poly(methacrylic acid) with Allenamides.

Article details: *Polym. Chem. 2023*, 14, 111–115. Impact factor = 3.9, DOI: <https://doi.org/10.1039/D2PY01363K>**15. Tapas R. Pradhan** and Jin Kyoong Park*Chemoselective Coupling of π -Systems to Access Metallated 1,4- or 1,5-Skipped Dienes in Multicomponent Reactions.Article details: *Chem. Eur. J. 2022*, 28, e202202120. Impact factor = 3.7, DOI: <https://doi.org/10.1002/chem.202202120>

14. Tapas R. Pradhan,[✉] Mukti Paudel,[✉] Taisiia Feoktistova, Paul Ha-Yeon Cheong,* and Jin Kyoong Park*

Silaborative Assembly of Allenamides and Alkynes: Highly Regio- and Stereocontrolled Access to Bi- or Trimetallic Skipped Dienes.

Article details: *Angew. Chem. Int. Ed.* **2022**, *61*, e202116154. Impact factor = 16.6, DOI: <https://doi.org/10.1002/anie.202116154>

13. Tapas R. Pradhan, Mukti Paudel, Jordan L. Harper, Paul Ha-Yeon Cheong,* and Jin Kyoong Park*

Characterization and Utilization of the Elusive α,β -Unsaturated N-Tosyliminium: The Synthesis of Highly Functionalizable Skipped Halo Enynes

Article details: *Org. Lett.* **2021**, *23*, 1427–1433. Impact factor = 5, DOI: <https://doi.org/10.1021/acs.orglett.1c00103>

12. Tapas R. Pradhan* and Jin Kyoong Park*.

(as co-corresponding author)

An Overview of Water-Mediated Alkyne Functionalization by Neighboring Group Participation of Carbonyl Groups.

Article details: *Adv. Synth. Catal.* **2020**, *362*, 4833–4860. Impact factor = 5.8, DOI: <https://doi.org/10.1002/adsc.202000826>

11. Tapas R. Pradhan,[✉] Hae Eun Lee,[✉] Gisela A. Gonzalez-Montiel, Paul Ha-Yeon Cheong,* and Jin Kyoong Park*

Highly Chemoselective Esterification from O-Aminoallylation of Carboxylic Acids: Metal- and Reagent-Free Hydrocarboxylation of Allenamides

Article details: *Chem. Eur. J.* **2020**, *23*, 13826–13831. Impact factor = 3.7, DOI: <https://doi.org/10.1002/chem.202000778>

10. Tapas R. Pradhan, Hong Won Kim, and Jin Kyoong Park*

Harnessing the Polarizability of Conjugated Alkynes toward [2 + 2] Cycloaddition, Alkenylation, and Ring Expansion of Indoles.

Article details: *Org. Lett.* **2018**, *20*, 5286–5290. Impact factor = 5, DOI: <https://doi.org/10.1021/acs.orglett.8b02230>

9. Tapas R. Pradhan, Hong Won Kim, and Jin Kyoong Park*

Regiodivergent Synthesis of 1,3- and 1,4-Enynes through Kinetically Favored Hydropalladation and Ligand-Enforced Carbopalladation.

Article details: *Angew. Chem. Int. Ed.* **2018**, *57*, 9930–9935. Impact factor = 16.6, DOI: <https://doi.org/10.1002/anie.201805408>

☉ List of Ph.D Publications

* Corresponding author

8. Kishor L. Mendhekar, Tapas R. Pradhan, and Debendra K. Mohapatra*

[3,3]-Acyloxy Rearrangement-Triggered Regioselective Hydration of δ -Acetoxy- α,β -Alkynoates/Halo Alkynes.

Article details: *J. Org. Chem.* **2020**, *85*, 4881–4895. Impact factor = 3.6, DOI: <https://doi.org/10.1021/acs.joc.0c00061>

7. Kishor L. Mendhekar, Tapas R. Pradhan, and Debendra K. Mohapatra*

Neighboring Carbonyl Group Assisted Hydration of Unsymmetrical Aryl Alkynes Overriding Regular Selectivity.

Article details: *Eur. J. Org. Chem.* **2019**, *33*, 5787–5797. Impact factor = 2.7, DOI: <https://doi.org/10.1002/ejoc.201900941>

6. Tapas R. Pradhan* and Debendra K. Mohapatra*

(as co-corresponding author)

Neighboring Carbonyl Group Assisted Oxyacetoxylation of Propargylic Carboxylates with Retention of Chirality under Metal Free Condition.

Article details: *Adv. Synth. Catal.* **2019**, *361*, 3605–3611. Impact factor = 5.8, DOI: <https://doi.org/10.1002/adsc.201900314>

5. Tapas R. Pradhan and Debendra K. Mohapatra*

Synthetic Study Toward the Core Structure of (–)-Apicularen A

Article details: *Org. Biomol. Chem.* **2018**, *16*, 8810–8818. Impact factor = 2.7, DOI: <https://doi.org/10.1039/C8OB02301H>

4. Tapas R. Pradhan, Kishor L. Mendhekar, and Debendra K. Mohapatra*

Synthesis of γ -Acetoxy β -Keto Esters Through Regioselective Hydration of γ -Acetoxy- α,β -alkynoates.

Article details: *J. Org. Chem.* **2015**, *80*, 5517–5531. Impact factor = 3.6, DOI: <https://doi.org/10.1021/acs.joc.5b00400>

3. Tapas R. Pradhan, Pragna P. Das, and Debendra K. Mohapatra*

Total Synthesis of the Z-Isomers of the Proposed and Revised Structures of Aspergillide B via an Iodocyclization and Ring-Closing Metathesis Strategy.

Article details: *Synthesis* **2014**, *46*, 1177–1184. Impact factor = 2.3, DOI: <https://doi.org/10.1055/s-0033-1340853>

2. Tapas R. Pradhan and Debendra K. Mohapatra*

Total synthesis of Amphidinolactone A.

Article details: *Tetrahedron: Asymmetry*. **2012**, *23*, 709–715. Impact factor = 1.78, DOI: <https://doi.org/10.1016/j.tetasy.2012.04.019>

1. Debendra K. Mohapatra,* Manas R. Pattanayak, Pragna P. Das, [Tapas R. Pradhan](#), and J. S. Yadav*

Ring-Closing Metathesis (RCM) Based Synthesis of the Macrolactone Core of Amphidinolactone A.

Article details: *Org. Biomol. Chem.* **2011**, 9, 5630–5632. Impact factor = 2.7, DOI: <https://doi.org/10.1039/C1OB05335C>