

Faculty Profile

1. Personal Details:

Name: Rathin Jana

Qualification: M.Sc., Ph.D

Designation: Assistant Professor

Department: Chemistry

Email id: rathinj83@gmail.com

Teaching Experience [substantive post only]: 13 years

2. Previous work places: Jhargram Raj College (WBES, Govt. of West Bengal)

3. Academic Credentials: 2005 M. Sc. (1st Class) Vidyasagar University (specialization in Organic Chemistry)

2003 B. Sc. (Hons.) (1st Class) Haldia Government College.

Awards 2004 Qualified in NET (CSIR) India

2005 Qualified in GATE, Qualified in NET (CSIR) India

2005 Qualified in SLET

2010 PhD (IIT Kharagpur) under the supervision of Prof. J.K. Ray

4. Courses Taught: B.Sc., B.Sc (CBCS), M.Sc

5. Administrative Experience (if any): No

6. Specialization and Research Interests: Organic chemistry and Palladium catalysed reaction.

7. Publications: (Research article, General article, Books, Books chapter etc.)

Sl No._ Title of Publication_ Level (international/national/state) _Publishing Agency or Journal Name_ Year, Volume, Page_ ISBN/ISSN/DOI

Research article

| Sl. No | Title of Publications | Level | Journal Name | Year, Volume, Page | Link | DOI |
|--------|---|---------------|--------------------|--------------------|------|---|
| 1. | Substrate dependent intramolecular palladium-catalysed cyclisation and subsequent β -H elimination or C-H activation: a general method for the synthesis of fused pyran rings | International | Tetrahedron letter | 2008, 49, 851 | | https://doi.org/10.1016/j.tetlet.2007.11.172 |

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|----|--|---------------|---------------------------|-------------------------|--|---|
| 2. | Novel and Rapid Palladium-Assisted 6π Electrocyclic Reaction Affording 9,10-Dihydrophenanthrene and Its Analogues | International | Organic Letter | 2008, 10, 21, 4795–4797 | | https://doi.org/10.1021/ol801882t |
| 3. | Sodium borohydride or potassium carbonate-mediated intramolecular Michael addition: a general method for the synthesis of fused dihydrofuran and furan derivatives | International | Tetrahedron letter | 2009, 50, 6751-6754 | | https://doi.org/10.1016/j.tetlet.2009.09.071 |
| 4. | Pd(0) catalyzed intramolecular Heck reaction: a versatile route for the synthesis of 2-aryl substituted 5-, 6-, and 7-membered O-containing heterocycles | International | Tetrahedron letter | 2008, 49, 7153-7156 | | https://doi.org/10.1016/j.tetlet.2008.09.162 |
| 5. | Copper-catalyzed addition of water affording highly substituted furan and unusual formation of naphthofuran ring from 3-(1-alkenyl)-2-alkene-1-al | International | Tetrahedron letter | 2010, 51, 273-276 | | https://doi.org/10.1016/j.tetlet.2009.10.125 |

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|-----------|--|---------------|--|-----------------------|------------------------------|---|
| 6. | Synthesis of Phenanthrene and Alkyl Phenanthrenes by Palladium(0)-Catalyzed Pericyclic Reactions | International | Synthesis | 2010, (12): 2092-2100 | | DOI: 10.1055/s-0029-1218726 |
| 7. | Palladium-Catalyzed Intramolecular C-H Activation: A Synthetic Approach towards Polycyclic Aromatic Hydrocarbons | International | Synlett | 2010(10): 1463-1468 | | DOI: 10.1055/s-0029-1220070 |
| 8. | Synthesis of Fused Pyran and Tetracyclic Pyran Rings by Intramolecular Palladium-catalyzed β -H elimination and C-H bond Functionalization, | International | ES Materials and Manufacturing | 2012, 13,40-52 | 2578-062X (E)/ 2578-0611 (P) | http://dx.doi.org/10.30919/esmm5f455 |
| 9. | Synthesis of 9,10-dihydrophenanthrene, phenanthrene, mono- and Dialkyl Phenanthrene and Octa-hydro Phenanthrene by Palladium-catalyzed Heck Reactions, | International | ES Materials and Manufacturing | 2021, 14,51-58 | 2578-062X (E)/ 2578-0611 (P) | http://dx.doi.org/10.30919/esmm5f477 |
| 10 | Synthesis of 1-Methoxyphenanthrene by Palladium-Catalyzed Heck Reaction | International | International Journal of HIT Transaction on ECCN | 2021, 7, 12-15 | Online ISSN:2365-6549 | DOI: 10.5281/zenodo.5893120 |

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| 11. | Intramolecular palladium-catalyzed reaction β -H elimination or C-H activation: A general method for the synthesis of fused pyran ring | International | International Journal of HIT Transaction on ECCN | 2021, 7 90-99 | ISSN: 0973-6875 | DOI: 10.5281/zenodo.589308 |
| 12. | A short review on synthesis of substituted furan by metal catalyzed reaction of 3-(1-alkenyl)-2-alkene-1-al | International | Journal of HIT Transaction on ECCN | 2022, 8, 31- 41 | ISSN: 0973-6875 | https://doi.org/10.5281/zenodo.7307727 |
| 13. | A short review on synthesis of dihydrophenanthrene, phenanthrene and its analogues by palladium-catalyzed reaction | National | Prayogik Rasayan | 2021, 5(3), 93 - 101 | | https://doi.org/10.53023/p.rasayan-20211214 |
| 14. | Covalent surface modification of nickel ferrite nanoparticles for electrochemical supercapacitor performance | International | New Journal of Chemistry | | | https://doi.org/10.1039/d2nj05566j |
| 15. | Recent synthetic journey on pyrrole-fused compounds | International | New Journal of Chemistry | | | https://doi.org/10.1039/d2nj05797b |
| 16. | Synthesis of Multifused Pyrrolo[1,2-a]quinoline Systems by Tandem Aza-Michael-Aldol Reactions and Their Application to | International | Journal of Organic Chemistry | 2023, 88, 9, 5622- 5638 | | https://doi.org/10.1021/acs.joc.3c00109 |

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| | Molecular Sensing Studies | | | | | |
| 17. | Recent advances in the (3+2) cycloaddition of azomethine ylide | International | New Journal of Chemistry | | | https://doi.org/10.1039/D3NJ01018J |
| 18. | Recent development of solvent-free synthesis of heterocycles | International | New Journal of Chemistry | | | https://doi.org/10.1039/D3NJ01991H |
| 19. | Bromoaldehyde as a Useful Starting Materials for the Synthesis of Various Hetero Cyclic and Carbocyclic Molecules by Pd-catalyzed Reaction | International | Current green chemistry | 2023, 10, 118-130 | | http://dx.doi.org/10.2174/2213346110666230508154324 |

Books chapter:

| Sl. No. | Title of the publication with page no. and year of publication | Name of the of publisher | ISSN/ ISBN No. | No. of Co-author | Whether you are the main author |
|---------|--|--------------------------|------------------------|------------------|---------------------------------|
| 1. | Recent advancement in therapeutic use of chemical compounds and drug delivery | Walnutpublication.com | ISBN-978-939078516-2 | 1 | Yes |
| 2. | The contributions of Indian women to science | Scientific world | ISBN-978-93-84387-75-4 | 1 | No |
| 3. | Synthesis of substituted furan and naphthofuran by copper catalyzed reaction starting from bromo vinyl aldehydes | Scientific world | ISBN-978-93-84387-76-1 | 1 | Yes |
| 4. | Development and evaluation of poloxamer 407 based thermoreversible ocular in-situ gel of ketorolac tromethamine | Scientific world | ISBN-978-93-84387-76-1 | 1 | No |
| 5. | Synthesis of 9,10-dihydrophenanthrene, alkyl phenanthrene and octahydrophenanthrene by palladium-catalyzed 6π electrocyclic reaction | Techno world | ISBN 978-93-92145-05-6 | 1 | Yes |
| 6. | A short note on intramolecular palladium-catalyzed synthesis of fused pyran rings | Techno world | ISBN 978-93-92145-29-2 | 1 | Yes |
| 7. | A review on synthesis of substituted furan and naphthofuran by copper and gold catalyzed reaction | Midnapur college | 978-81-954721-3-0 | 1 | Yes |
| 8. | Synthesis of polynuclear aromatic hydrocarbon by palladium-catalyzed reaction | walnutpublication | 978-811923279-6 | 1 | yes |

8. Patents (if any): No

9. Research Project (if any): No

Serial No._Title_Funding Agency_ Duration of the Project_ Grants Amount_ Date of Award_
Status of the Project

10. Research Supervision (Ph.D./M.Phil.) No

Serial No._Name of the student_Research Topic_Name of the institution_Date of
Registration _Year of Award of the Degree

11. Seminar/Workshop participated:

Serial No._Title_Date_Organized by_Place

| Sl. No. | Title of Conference/ Seminar with date | Date | Organized by | Whether International/ National/State or University level |
|---------|---|--|---|---|
| 1. | International Webinar On "Chemistry and Biology: Sustainable Progress of Human Civilization" | June 29-30 th 2020 | Department of Chemistry, Prabhat Kumar College, Contai in collaboration with Indian Chemical Society | Prabhat Kumar college, Contai, Purba Medinipur, W.B., India |
| 2. | Three-Day International Symposium on "Exploring Molecules, Materials and Biomaterials for Sustainable society (EMMBSS-22)" | 8-10 th September, 2022 | Department of Chemistry, Midnapur College | Midnapur College, Paschim Midnapur, W.B., India |
| 3. | International Conference on "Indian Science: Achievements and Aspirations" | 17-18 th January, 2023 | Science Forum and IQAC, Prabhat Kumar College in association with Indian Science Congress Association (Kolkata Chapter) | Prabhat Kumar college, Contai, Purba Medinipur, W.B., India |

12. Programmes Conducted / Organised as Convenor / Organising Secretary etc.

1. Chemistry: The challenges and Opportunities, on 13th October, 2020, Dept of Chemistry, Shahid Matangini Hazra Govt College for Women

13. Achievements/Awards/Membership: Ph. D. Degree, 7th July 2010, Life Fellow and member of Indian Chemical Society (ICS).

14. Any Other Relevant Information: