



TEACHER PROFILE/ CV

1. Full name of the faculty member: **Dr. RUPANKAR PAIRA**
2. Designation: **Assistant Professor (Stage-II)**
3. Department: **CHEMISTRY**
4. Specialization (if any): **Organic Chemistry**
5. Contact Information: **12/1 Baguiati 1st Lane, Kolkata-700028**
Email: rupankarpaira@gmail.com

6. Academic qualifications

College/ university	Abbreviation of the Degree
University of Calcutta	B. Sc.
Indian Institute of Technology - Kharagpur	M.Sc.
Jadavpur University	Ph.D

7. Post holding after appointment at this institution

Designation	Department	Duration		Institution
		From	To	
Assistant Professor (Stage-II)	Chemistry	2015	Till date	Maharaja Manindra Chandra College

8. Post held before appointment at this institution

Designation	Department	Duration		Institution
		From	To	
Post-Doctoral Research Fellow	Chemistry	2012	2013	National University of Singapore (Guide: Prof. Chang Young-Tae)



Post-Doctoral Research Fellow	Chemistry & Biological Chemistry	2013	2014	Nanyang Technological University, Singapore (Guide: Prof. Naohiko Yoshikai)
Post-Doctoral Research Associate	Chemistry	2014	2015	Indian Institute of Science Education & Research – Kolkata (Guide: Prof. Swadhin K. Mandal)

9. Research interests:

- a) C-H Activation Chemistry,
- b) Phenalenyl Chemistry in C-H functionalization,
- c) Bioimaging and Chemosensing,
- d) Synthetic Methodology development of Polynuclear Heteroaromatics.

10. Research Project

(a) Completed projects:

I. DST-SERB Young Scientist Scheme (start-up grant), January-2016 (Approved Budget : 25.52 lacs).

II. UGC-Minor Research Project Grant-2017 (Approved Budget : 4.48 lacs)

11. Publications:

- (a) Published paper in Journals: Total 40 publications (Appended below)**



List and details of publications (2009-2023):

1. Sumit Das, Bhagat Singh, Pulak Fadikar, Piyali Deb Barman, **Rupankar Paira***,
“*Application of recyclable base-washed graphene oxide for one-pot conversion of 2-aminopyridines into 5-iodo-imidazo[1,2-a]pyridines at room temperature in water*”
Results in Chemistry, 2022, 4, 100323 (**Publication as corresponding author**)
(Impact Factor : **2.303**)
2. Bhagat Singh, Jasimuddin Ahmed, **Rupankar Paira*** and **Swadhin K. Mandal***,
“*Reduced Phenalenyl in Catalytic Dehalogenative Deuteration and Hydrodehalogenation of Aryl Halides*” (**Publication as corresponding author**)
The Journal of Organic Chemistry, 2021, 86, 7242–7255 (Impact Factor : **4.849**)
3. Bhagat Singh, **Rupankar Paira***, Goutam Biswas, Bikash Kumar Shaw, and **Swadhin K. Mandal***,
“*Graphene oxide-phenalenyl composite: transition metal-free recyclable and catalytic C-H functionalization*” (**Publication as corresponding author**)
Chemical Communications, 2018, 54, 13220–13223 (Impact Factor : **6.222**)
4. Ananya Banik, **Rupankar Paira***, Bikash Kumar Shaw, Gonela Vijaykumar, and **Swadhin K. Mandal***,
“*Accessing Heterobiaryls through Transition-Metal-Free C–H Functionalization*”(Publication as corresponding author)
The Journal of Organic Chemistry, 2018, 83, 3236-3244. (Impact Factor : **4.849**)
5. **Rupankar Paira**, Bhagat Singh, Pradip Kumar Hota, Jasimuddin Ahmed, Samaresh Chandra Sau, Justin P. Johnpeter and Swadhin K. Mandal, “*Open-Shell Phenalenyl in Transition Metal Free Catalytic C-H Functionalization*”
The Journal of Organic Chemistry, 2016, 81, 2432-2441. (Impact Factor : **4.849**)
6. Wengang Xu, **Rupankar Paira** and Naohiko Yoshikai, “*Ortho C-H Benzylolation of Aryl Imines with Benzyl Phosphates under Cobalt-Pyphos Catalysis*”
Organic Letters, 2015, 17, 4192-4195. (Impact Factor : **6.364**)



7. Ke Gao, **Rupankar Paira** and Naohiko Yoshikai, “Cobalt-Catalyzed Ortho C–H Alkylation of 2-Arylpyridines via Ring-Opening of Aziridines”
Advanced Synthesis & Catalysis, 2014, 356, 1486 – 1490.(Impact Factor : 5.535)
8. **Rupankar Paira**, Tarique Anwar, Maitreyee Banerjee, Yogesh P. Bharitkar, ShyamalMondal, SandipKundu, AbhijitHazra, Prakas R Maulik andNirup B. Mondal. “Copper-Phenanthroline catalysts for regioselective synthesis of Pyrrolo [3',4':3,4]pyrrolo[1,2-a]furoquinolines / Phenanthrolines under mild reaction conditions”
Bellistein Journal Of Organic Chemistry, 2014, 10, 692-700.(Impact Factor : 2.801).
9. **Paira, Rupankar**;Mondal, Shyamal; Maity, Arindam; Sahu, KrishnenduBikash; Naskar, Subhendu; Saha, Pritam; Hazra, Abhijit; SandipKundu; Banerjee, Sukdeb; Mondal, NirupBikash. “An easy access to diversely fused dioxo-2-azatricyclo[n.3.1.0^{2,n}]tetra/pentadecanes under solvent-free condition”
Tetrahedron Letters, 2011, 52, 5516-5520.(Impact Factor : 2.347)
10. **Rupankar Paira**, ShyamalMondal, ArpanChowdhury, Maitreyee Banerjee, ArindamMaity, AbhijitHazra and Nirup B Mondal. “Traceless synthetic approach towards oxaza-dicyclopenta[a,h]naphthalenes under solvent-free condition : A Basic Alumina-supported green protocol.”
Tetrahedron Letters, 2013, 54, 3046-3050. (Impact Factor : 2.347)
11. **Paira, Rupankar**; Maity, Arindam; Mondal, Shyamal; Naskar, Subhendu; Sahu, KrishnenduBikash; Saha, Pritam; Hazra, Abhijit; E. Padmanaban; Banerjee, Sukdeb; Mondal, NirupBikash. “Basic alumina supported one-pot synthesis of structurally diverse pyridine/quinolinine-fused novel diazepanium, diazocanium, imidazodilinium and tetrahydro-pyrimidiniums”
Tetrahedron Letters,2011, 52, 1653-1657. (Impact Factor : 2.347)



- 12. Paira, Rupankar;** Paira, Priyankar; Maity, Arindam; Mondal, Shyamal; Hazra, Abhijit; Sahu, K. B; Naskar, Subhendu; Saha, Pritam; Banerjee, Maitreyee; Mondal, N. B. “*Amberlite IRA 402(OH): An efficient mediator for the exclusive synthesis of fused tricyclic oxa-azaquinolinium salts*”

(Highlighted in *Synfacts*, 2010, 8, 0960-0960)

Tetrahedron Letters, 2010, 51, 3200–3204. (Impact Factor : 2.347)

- 13. Paira, Rupankar;** Maity, Arindam; Naskar, Subhendu; Mondal, Shyamal; Paira, Priyankar; Hazra, Abhijit; Sahu, K. B; Saha, Pritam; Banerjee, Sukdeb; Mondal, N. B.; “*Naphtho- and Benzo[g]quinoxalino-fused oxazocinoquinolinones and their diaryl and alkynyl analogues from quinoline-8-ols: A library of novel polynuclearheteroaromatics*”

Synthesis, 2010, 20, 3520–3535. (Impact Factor : 2.652)

- 14. Paira, Rupankar;** Sahu, Krishnendu B.; Mondal, Shyamal; Maity, Arindam; Hazra, Abhijit; Naskar, Subhendu; Saha, Pritam; Padmanaban, E.; Banerjee, Sukdeb; Mondal, NirupBikash. “*Effective Suzuki-MiyauraArylation and Sonogashira Aryl Alkynylation on N-HeteroaromaticCations: Synthesis of Substituted Pyridine-Fused Cationic Heterocycles*”

Synthesis, 2011, 18, 3006-3014. (Impact Factor : 2.652).

- 15. Dey, RamendraSundar;** Gupta, Susmita; **Paira, Rupankar;** Raj, C. Retna. “*Electrochemically Derived Redox Molecular Architecture: A Novel Electrochemical Interface for Voltammetric Sensing*”

ACS Applied Materials & Interfaces, 2010, 2, 1355–1360. (Impact Factor : 7.145)

- 16. Dey, RamendraSundar;** Gupta, Susmita; **Paira, Rupankar;** Chen, Shen-Ming; Raj, C. Retna. “*Flow injection amperometric sensing of uric acid and ascorbic acid using the self assembly of heterocyclic thiol on Au-electrode*”



Journal of Solid State Electrochemistry, 2012, 16, 173-178. (Impact Factor : 2.327).

17. Saha, Pritam; Naskar, Subhendu; Paira, Priyankar; Hazra, Abhijit; Sahu, K. B.; **Paira, Rupankar**; Banerjee, Sukdeb; Mondal, N. B. “*Basic alumina-supported highly effective Suzuki-Miyaura cross-coupling reaction under microwave irradiation: Application to fused tricyclic oxa-aza-quinolones*”

Green Chemistry, 2009; 11, 931–934. (Impact Factor : 8.506).

18. Abhijit Hazra, Yogesh P. Bharitkar, Debanjana Chakraborty, Susanta Kumar Mondal, Nupur Singal, Shyamal Mondal, Arindam Maity, **Rupankar Paira**, Sukdeb Banerjee and Nirup B. Mondal. “*Regio- and Stereoselective Synthesis of a Library of Bioactive DispiroOxindolo/AcenaphthoquinoAndrographolides via 1,3-Dipolar Cycloaddition Reaction Under Microwave Irradiation.*”

ACS Combinatorial Science, 2013, 15, 41-48. (Impact Factor : 3.317)

19. Paira, Priyankar; **Paira, Rupankar**; Hazra, Abhijit; Naskar, Subhendu; Sahu, K. B., Saha, Pritam; Mondal, Shyamal; Maity, Arindam; Banerjee, Sukdeb; Mondal, N. B. “*Facile synthesis of 6,6,8,6,6-ring fused pentacyclheterocycles: Annelation of quinolines to quinoxalines under PTC condition*”

Tetrahedron letters, 2009; 50, 4619–4623. (Impact Factor : 2.347)

20. Paira, Priyankar; **Paira, Rupankar**; Hazra, Abhijit ; Naskar, Subhendu ; Sahu, K. B., Saha, Pritam; Mondal, Shyamal; Maity, Arindam; Banerjee, Sukdeb; Mondal, N. B. “*Synthesis of biarylpentacyclicquinolonoquinoxalino-oxazocines in aqueous medium using Amberlite IRA 402 (OH)*”

Tetrahedron letters, 2009; 50, 5505-5509. (Impact Factor : 2.347)

21. Mondal, Shyamal; **Paira, Rupankar**; Maity, Arindam; Naskar, Subhendu; Sahu, KrishnenduBikash; Hazra, Abhijit; Saha, Pritam; Banerjee, Sukdeb; Mondal, NirupBikash. “*Basic alumina supported tandem synthesis of bridged polycyclic quinolino/isoquinolino-oxazocines under microwave irradiation*”

Tetrahedron Letters, 2011, 52, 4697-4700. (Impact Factor : 2.397).



22. Naskar, Subhendu; Paira, Priyankar; **Paira, Rupankar**; Hazra, Abhijit; Sahu, K. B., Saha, Pritam; Mondal, Shyamal; Maity, Arindam; Banerjee, Sukdeb; Mondal, N. B. “*Facile synthesis of bis-indolyl indan-1,3-dione, bis-indolylidine indan-1,3-dione and bis-indolylindenoquinoxaline catalyzed by montmorillonite K-10*”
Tetrahedron, 2010, 66, 5196-5203. (Impact Factor : **2.645**)
23. Naskar, Subhendu; Saha, Pritam; **Paira, Rupankar**; Mondal, Shyamal; Maity, Arindam; Sahu, K. B; Hazra, Abhijit; Paira, Priyankar; Banerjee, Sukdeb; Mondal, N. B. “*Efficient Synthesis of Polycyclic Fused 2-Quinolones by Micellar Phase-Transfer Catalyst (MPTC) in water*”
Tetrahedron letters, 2010, 51, 1437–1440. (Impact Factor : **2.347**)
24. Maity, Arindam; Mondal, Shyamal; **Paira, Rupankar**; Hazra, Abhijit; Naskar, Subhendu; Sahu, KrishnenduBikash; Saha, Pritam; Banerjee, Sukdeb; Mondal, NirupBikash. “*A novel approach for the one-pot synthesis of linear and angular fused quinazolinones*”
Tetrahedron Letters, 2011, 52, 3033-3037. (Impact Factor : **2.347**)
25. ShyamalMondal, ArindamMaity, **RupankarPaira**, Maitreyee Banerjee, Yogesh P. Bharitkar, AbhijitHazra, Sukdeb Banerjee, Nirup B. Mondal. “*Efficient synthesis of novel tetrahydropyrrolo[3',4':3,4]pyrrolo[2,1-a]isoquinoline derivatives via a simple and convenient MCR in aqueous micellar system*”
Tetrahedron Letters, 2012, 53, 6288–6291. (Impact Factor : **2.347**).
26. Saha, Pritam; Naskar, Subhendu; **Paira, Rupankar**; Mondal, Shyamal; Maity, Arindam; Sahu, K. B.; Paira, Priyankar; Hazra, Abhijit; Banerjee, Sukdeb; Mondal, N. B. “*One pot tandem synthesis of furo[3,2-h]quinolines via Sonogashira cross-coupling reaction supported by basic alumina under microwave irradiation: A green methodology*”
Synthesis, 2010, 3, 486–492. (Impact Factor : **2.500**)



27. Paira, Priyankar; Hazra, Abhijit; Kumar, Shrabanti; **Paira, Rupankar**; Sahu, K. B.; Naskar, Subhendu; Saha, Pritam ; Mondal, Shyamal; Maity, Arindam; Banerjee, Sukdeb; Mondal, N. B. “Efficient synthesis of 3,3-diheteroaromatic oxindole analogues and their in vitro evaluation for spermicidal potential”
Bioorganic & Medicinal Chemistry Letters, 2009; 19, 4786–4789. (Impact Factor :2.338)
28. Mondal, Shyamal; Maity, Arindam; Naskar, Subhendu; **Paira, Rupankar**; Hazra, Abhijit; Sahu, Krishnendu Bikash; Saha, Pritam; Das, Saktipada; Banerjee, Sukdeb; Mondal, Nirup Bikash. “Facile synthesis of tricyclic oxazino- or oxazepino-fused tetrahydroquinolines via intramolecular reductive amidation”
Synthesis, 2011, 2079-2084. (Impact Factor :2.500)
29. Sahu, K. B; Hazra, Abhijit; Paira, Priyankar; Saha, Pritam; Naskar, Subhendu; **Paira, Rupankar**; Banerjee, Sukdeb; Sahu, N. P.; Mondal, N. B. Luger, Peter; Weber, Manuela. “Synthesis of novel Benzoxazocinoquinoliniums and quinolones under PTC conditions and their application in Suzuki cross coupling reaction for the construction of polynuclearheteroaromatics”
Tetrahedron, 2009, 65, 6941–6949. (Impact Factor :2.803)
30. Hazra, Abhijit; Paira, Priyankar; Sahu, K. B.; Naskar, Subhendu; Saha, Pritam; **Paira, Rupankar**; Mondal, Shyamal; Maity, Arindam; Banerjee, Sukdeb; Mondal, N. B. “Chemistry of Andrographolide: Formation of novel di-spiropyrrolidino and di-spiropyrrolidino-oxindole adducts: One pot three-component [3+2] azomethineylidene cycloaddition to andrographolide”
Tetrahedron Letters, 2010, 51, 1585–1588. (Impact Factor :2.397)
31. Abhijit Hazra, Shyamal Mondal, Arindam Maity, Subhendu Naskar, Pritam Saha, **Rupankar Paira**, Krishnendu B. Sahu, Priyankar Paira, Soma Ghosh, Chandrima Sinha, Amalesh Samanta, Sukdeb Banerjee, Nirup B. Mondal. “Amberlite IRA-402



(OH) ion exchange resin mediated synthesis of indolizines, pyrrolo [1,2-a] quinolines and isoquinolines: Antibacterial and antifungal evaluation of the products”

European Journal of Medicinal Chemistry, 2011, 46, 2132-2140. (Impact Factor :3.499)

32. Naskar, Subhendu; Banerjee, Maitreyee; Hazra, Abhijit; Mondal, Shyamal; Maity, Arindam; **Paira, Rupankar**; Sahu, Krishnendu Bikash; Saha, Pritam; Banerjee, Sukdeb; Mondal, Nirup Bikash. “*Novel route for the synthesis of structurally diverse pyrrolo[2,1-a]isoquinoline in aqueous micellar medium”*

Tetrahedron Letters, 2011, 52, 1527-1531. (Impact Factor :2.397)

33. Yogesh P. Bharitkar, Maitreyee Banerjee, Shrabanti Kumar, **Rupankar Paira**, Ravindra Meda, Ketousetu Kuotsu, Nirup B. Mondal. “*Search for a potent microbicidal spermicide from the isolates of Shorearobustaresin”*

Contraception, 2013, 88, 133-140. (Impact Factor :3.090)

34. Saha, Pritam; Naskar, Subhendu; Maity, Arindam; Mondal, Shyamal; **Paira, Rupankar**; Hazra, Abhijit; Sahu, Krishnendu B.; Banerjee, Sukdeb; Mondal, Nirup B. “*Palladium-catalyzed 8-exo-trigintramolecular Heck reaction under microwave irradiation in the presence of basic alumina”*

Synthetic Communications, 2012, 42, 3166-3176. (Impact Factor :1.060)

35. Sahu, Krishnendu Bikash; Maity, Arindam; Mondal, Shyamal; **Paira, Rupankar**; Saha, Pritam; Naskar, Subhendu; Hazra, Abhijit; Banerjee, Sukdeb; Mondal, Nirup Bikash. “*Basic Alumina-Supported Synthesis of Aryl-Heteroarylmethanes via Palladium-Catalyzed Cross-Coupling under Microwave Irradiation”*

Journal of Heterocyclic Chemistry, 2013, 50, 148-155. (Impact Factor :1.224)

36. Sahu, Krishnendu B.; Ghosh, Soma; Banerjee, Maitreyee; Maity, Arindam; Mondal, Shyamal; **Paira, Rupankar**; Saha, Pritam; Naskar, Subhendu; Hazra, Abhijit;



- Banerjee, Sukdeb; Samanta, Amalesh; Mondal, NirupBikash. “*Synthesis and in vitro study of antibacterial, antifungal activities of some novel bisquinolines*”
Medicinal Chemistry Research, 2013, 22, 94-104. (Impact Factor :**1.612**)
37. Sahu, Krishnendu B.; Banerjee, Maitreyee; Ghosh, Soma; Maity, Arindam; Mondal, Shyamal; **Paira, Rupankar**; Hazra, Abhijit; Karmakar, Sanmoy; Samanta, Amalesh; Mondal, Nirup Bikash. “*I₂ catalyzed Friedel–Crafts alkylation reaction of substituted anilines with ninhydrin: formation of novel products and their antimicrobial evaluation*”
Medicinal Chemistry Research, 2013, 22, 2023-2037. (Impact Factor :**1.612**)
38. Maitreyee Banerjee, Shrabanti Kumar, Soma Ghosh, **Rupankar Paira**, Shyamal Mondal, Sanmoy Karmakar, Debprasad Chattopadhyay, Rupak K. Bhadra, Nirup B. Mondal. “*Amberlite IRA 402(OH)-mediated synthesis and evaluation of fused tricyclic quinolinium salts as potent non-detergent type microbicidal spermicides*”
Medicinal Chemistry Research, 2014, 23, 1488–1500. (Impact Factor :**1.612**)
39. Banerjee, Maitreyee; Kumar, Shrabanti; Maity, **Paira, Rupankar**; Ghosh Soma; Karmakar, Sanmoy; Mondal, N. B. “*Synthesis and Characterization of Furo[3,2-h]Quinoliniums as Potent Non-Detergent Spermicides*”
Letters in Drug Design and Discovery, 2014, 11, 104-113. (Impact Factor :**0.845**)
40. Naskar, Subhendu; Saha Pritam; **Paira Rupankar**; Paira, Priyankar; Hazra, Abhijit; Sahu, Krishnendu.B.; Banerjee, Sukdeb.; Mondal, N.B. “*Aqueous phase supramolecular synthesis of 3,3 and 3,2-diheteroaromatic oxindoles catalyzed by β -cyclodextrin*”
Journal of Chemical Research, 2009, 3, 174-177.

(b) Conference/ seminar volumes:



I. Poster presented at International Symposium on “Facts of Chemistry in Biology” (FOCB-II, 2017), organized by St. Xavier’s College, Kolkata.

II. Poster presented at International conference on “current trends in materials science and engineering” (CTMSE-2018), jointly organized by IEM, Kolkata and SNBNCBS, Kolkata.