

## Resume

1. Name and full correspondence address

Prof. Niranjan Panda  
Department of Chemistry  
National Institute of Technology Rourkela  
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2. Email(s) and contact number(s)

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3. Institution: National Institute of Technology Rourkela

4. Date of Birth: 21.06.1976

5. Academic Qualification (Undergraduate onwards)

	Degree	Year	Subject	University/Institute	%age of Marks
1	B. Sc. (Chem.)	1996	Chem. Hons.	Utkal University	74.6
2	M. Sc. (Chem.)	1998	Org. Chem.	Ravenshaw College, Utkal University	77.7 (secured highest %age of marks )
3	Ph.D.	2006	Organic Synthesis	IIT, Kharagpur	

Thesis Title: Generation and Trapping of Pyridine *o*-Quinodimethanes and Their Functional Analogues: Synthesis of Heterolignans and Conformationally Restricted Analogues of Nicotine.

**Guide's Name: Prof. T. K. Sarkar , IIT Kharagpur**

6. Work experience (in chronological order)

S.No.	Positions held	Name of the Institute	From	To
4	Professor	NIT Rourkela	Feb. 2020	Till date
3	Asso. Professor	NIT Rourkela	01.07.2008	Feb. 2020
2	Asst. Professor	NIT Rourkela	13.07.2006	30.06.2008
1	Postdoc	Technion-Israel Institute of Technology, Israel With Prof. E. Keinan		

7. Publications

**Total No. of Publications: 48**

**Total No. of citation: 1453, h-index: 18; i10-index: 32 (google scholar)**

## List of Publications

S. No.	Author(s)	Title	Name of Journal	Volume	Page	Year
48	S. K. Gupta and N. Panda*	Palladium-Catalyzed C3-Carbaldehyde Directed Regioselective C2-Thioarylation of Indoles <a href="https://doi.org/10.1002/asia.202400272">https://doi.org/10.1002/asia.202400272</a>	<b>Chem. Asian J</b>		e202400272	2024
47	S. Maity and N. Panda,*	Access to 2,3-Unsubstituted Imidazo[2,1-b][1,3]benzothiazole Using Ethylene Glycol as a C2 Precursor and Subsequent Regioselective C3-Functionalization	<b>Chemeselect</b>	9	e20240020	2024
46	P. G. Dalai, S. Swain, and N. Panda*	DMSO–DCE Triggered Chemodivergent C-Methylenation of Electron-Rich Arenes: An Easy Access to Diarylmethanes	<b>J. Org. Chem.</b>	89	2599	2024
45	K. Palit and N. Panda*	Metal-Free Regioselective Chlorosulfonylation of Indoles by Dimethylsulfoxide and 1,2-Dichloroethane	<b>Eur. J. Org. Chem.</b>	2024	e202400110	2024
44	P. G. Dalai, S. Swain, S. Mohapatra and N. Panda,*	Metal-Free C–H Sulfamidation of 1,4-Naphthoquinone in Water	<b>J. Org. Chem.</b>	88	13760	2023
43	S. K. Gupta and N. Panda*	Weak Chelating Group Directed Palladium-catalyzed C-4 Arylation of Indoles,	<b>J. Org. Chem.</b>	88	4254	2023
42	K. Palit, N. Sepay, and N. Panda*	Arylative Methylation of 2,3-Dihydropyrazines and Pyrazinones Using Dimethyl Sulfoxide as a C1 Source	<b>J. Org. Chem.</b>	88	2931	2023
41	P. G. Dalai, and N. Panda,*	Benzannulation and N-Annulation of $\beta$ -Ketoenamines for Synthesizing Aniline and Pyridine Derivatives Using DMSO as a Methine Source	<b>Adv. Synth. Catal.</b>	364	3736	2022
40	K. Sahoo, and N. Panda*	Iron(III) Chloride Mediated <i>para</i> -Selective C-H Functionalization: Access to C5-Chloro and C5,C7-Dichloro/Dianisyl Substituted 2-Arylbenzoxazoles	<b>Adv. Synth. Catal.</b>	364	1023	2022
39	P. G. Dalai, K. Palit and N. Panda,*	Generation of Dimethyl Sulfoxide Coordinated Thermally Stable Halogen Cation Pools for C-H Halogenation	<b>Adv. Synth. Catal.</b>	364	1031	2022
38	S. Ojha and N. Panda,*	Pd-Catalyzed desulfitative arylation of olefins by N-	<b>Org. Biomol. Chem.</b>	20	1292	2022

		methoxysulfonamide,				
37	P. Mishra, and N. Panda*	Total Synthesis of AGI-7 and Sescandelin from Enol Esters	<b>Chemselect</b>	7	e202201791	<b>2022</b>
36	S. Ojha and N. Panda *	Pd-Catalyzed desulfitative arylation of olefins by N-methoxysulfonamide	<b>Org. Biomol. Chem.</b>	20	1292	<b>2022</b>
35	P. Mishra, N. Sepay, N. Panda*	Access to chromone-3-carboxylic acid via silver mediated coupling of 4-hydroxy coumarin and enol ester,	<b>Tetrahedron Lett.</b>	75	153206	<b>2021</b>
34	S. Ojha and N. Panda,*	N-Methoxy arenesulfonamide as a Sulfonyl Equivalent For Palladium-Catalyzed Sulfonylation of Arenes Through C-H Activation	<b>Asian J. Org. Chem.</b>	10	1665	<b>2021</b>
33	S. Maity, S. K. Gupta, and N. Panda*	Iron(II)-catalyzed Oxidative Coupling of Vicinal Diols and 2-Amino-1,4-naphthoquinone for the Synthesis of Pyrrolonaphthoquinones and Furanonaphthoquinones	<b>Asian J. Org. Chem.</b>	10	3355	<b>2021</b>
32	K. Sahoo, P. Pradhan and N. Panda, *	Access to C4-arylated benzoxazoles from 2-amidophenol through C-H activation	<b>Org. Biomol. Chem.</b>	18	1820	<b>2020</b>
31	S. Ojha and N. Panda,*	Palladium-catalyzed <i>ortho</i> -benzoylation of sulfonamides through C–H activation: Expedient synthesis of cyclic <i>N</i> -sulfonyl ketimines	<b>Adv. Synth. Catal.</b>	362	571	<b>2020</b>
30	N. Panda,* and S. A. Yadav	Ni-catalyzed deacylative oxosulfonamidation of vinyl acetate	<b>Asian J. Org. Chem</b>	8	266	<b>2019</b>
29	N. Panda,* and K. Sahoo	Niranjan Panda,* and Kanchanbala Sahoo, Synthesis of 4-alkenyl benzoxazoles via Pd-catalyzed <i>ortho</i> C-H functionalization of 2-amidophenols	<b>Adv. Synth. Catal.</b>	361	617	<b>2019</b>
28	N. Panda* and S. Ojha	Facile Synthesis of Pyrazoles by Iron-catalyzed Cyclization of Hydrazone and 1,2-diol under Ligand-free Conditions,	<b>J. Organometallic Chem.</b>	861	244	<b>2018</b>
27	N. Panda,* I. Mattan, S. Ojha, C.S. Purohit	Synthesis of medium-sized (6-7-6) ring compounds by iron-catalyzed dehydrogenative C-H activation/annulation,	<b>Org. Biomol. Chem.</b>	16	7861	<b>2018</b>
26	N. Panda* and I. Mattan	One-pot two-step synthesis of 3-iodo-4-aryloxy coumarins and their Pd/C-catalyzed annulation to coumestans,	<b>RSC Adv.</b>	8	7716	<b>2018</b>
25	N. Panda,* S.A. Yadav	Palladium-Catalyzed Oxamidation of Alkenes: A New Approach to Benzoxazolidines,	<b>Tetrahedron</b>	74	1497	<b>2018</b>

24	S. Panda, A. Jadav, N. Panda and S. Mohapatra*	A novel carbon quantum dot-based fluorescent nanosensor for selective detection of flumioxazin in real samples	<b>New J. Chem.</b>	42	2074	2018
23	N. Panda* and D. K. Nayak,	Facile Synthesis of 3(2H)-Furanones	<b>Monatsh. Chem.</b>	149	1093	2018
22	D. K. Nayak, N. Panda*	Synthesis of 2-Aryl Benzoxazoles from Aldoximes	<b>MOJ Bioorg. Org. Chem.</b>	1	32	2017

21	N. Panda,* S. A. Yadav, S. Giri	Palladium-Catalyzed Oxidative Sulfamidation: A Stereoselective Synthesis for Enesulfonamides	<b>Adv. Synth. Catal.</b>	359	654	<b>2017</b>
20	N. Panda,* P. Mishra, I. Mattan	Synthesis of Isocoumarins via Silver(I)-mediated Annulation of Enol-esters	<b>J. Org. Chem.</b>	81	1047	<b>2016</b>
19	N. Panda,* I. Mattan, D. K. Nayak	Synthesis of Dibenzofurans via C-H Activation of ortho-Iodo Diarylethers	<b>J. Org. Chem.</b>	80	6590	<b>2015</b>
18	N. Panda,* A. K. Jena	Cu/Fe-Catalyzed Carbon-Carbon and Carbon-Heteroatom Cross-Coupling Reactions	<b>Org. Chem. Curr. Res.</b>	4	1	<b>2015</b>
17	N. Panda,* and R. Mothkuri	Synthesis of Substituted Oxazoles from Enamides	<b>New J. Chem.</b>	35	5727	<b>2014</b>
16	N. Panda, R. Mothkuri and D. K. Nayak	Copper-Catalyzed Regioselective Synthesis of N-aryl Amides from Aldoximes and Aryl Halides	<b>Euro. J. Org. Chem.</b>		1602	<b>2014</b>
15	N. Panda,* R. Mothkuri, A. Pal, A.R. Paital	Copper -catalyzed Synthesis of $\alpha$ -Naphthols from Enol Esters	<b>Adv. Synth. Catal.</b>	355	2809	<b>2013</b>
14	N. Panda,* A. K. Jena	Fe-catalyzed one-pot Synthesis of 1,3- and 1,3,5-substituted pyrazoles from hydrazones and vicinal diols"	<b>J. Org. Chem.</b>	77	9401	<b>2012</b>
13	N. Panda,* M. Raghavender	Stereoselective synthesis of enamides by Pd-catalyzed hydroamidation of electron deficient terminal alkynes	<b>J. Org. Chem.</b>	77	9407	<b>2012</b>
12	N. Panda,* A. K. Jena, M. Raghavender,	Stereoselective synthesis of enamides by palladium catalyzed coupling of amides with electron deficient olefins	<b>ACS catalysis</b>	2	539	<b>2012</b>
11	N. Panda,* A. K. Jena, S. Mohapatra,*	Heterogeneous magnetic catalyst for S-arylation reactions	<b>Applied Catalysis A: General</b>	433-434	258	<b>2012</b>
10	N. Panda,* A. K. Jena, S. Mohapatra	Ligand-Free Fe-Cu Co-catalyzed Cross-coupling of Phenyl Acetylene with Aryl Halides	<b>Chemistry Letters</b>	40	956	<b>2011</b>
9	N. Panda,* A. K. Jena, S. Mohapatra, S. R. Rout	Copper Ferrite Nanoparticle Mediated N-Arylation of Heterocycles: A Ligand Free Reaction	<b>Tetrahedron Letters</b>	52	1924	<b>2011</b>
8	N. Panda,* S. Karmakar, A. K. Jena,	Synthesis and antibacterial activity of some novel pyrazolopyridine derivatives Chemistry of Heterocyclic compounds	<b>Chem. Heterocyclic Comp</b>	46	1500	<b>2011</b>
7	N. Panda,* H	Decolourization of Methyl	<b>J. Hazard.</b>	185	359	<b>2010</b>

	Sahoo, S. Mohapatra	Orange	<b>Mater.</b>			
6	S Mohapatra,* N Panda, Pramanik	Boronic acid functionalized superparamagnetic iron oxide nanoparticle as a novel tool for adsorption of sugar	<b>Materials Science and Engineering: C</b>	29	2254	<b>2009</b>
5	T. K. Sarkar,* A. Hazra, P. Gangopadhyay, N. Panda, Z. Slanina, C.-C. Lin, H.-T. Chen,	Synthesis of the necine bases ( $\pm$ )-macronecine and ( $\pm$ )-supinidine via an aza-ene reaction and allylsilane induced ring closure,	<b>Tetrahedron</b>	61	1155	<b>2005</b>
4	T. K. Sarkar, N. Panda, S. Basak	A Sequential Pummerer-Diels-Alder Route for the Generation and Trapping of Furo[3,4-c]pyridines: Synthesis of Heterocyclic Analogues of 1-Arylnaphthalene Lignans	<b>J. Org. Chem.</b>	68	6919	<b>2003</b>
3	H.-K. Fun,* A. Usman, I. A. Razak, S. Chantraprom, T. K. Sarkar, S. Basak, N. Panda	Dimethyl 1,3-dichloro-8-phenyl-5-phenylsulfanyloquinoline-6,7-dicarboxylate	<b>Acta Cryst.</b>	E58	0215	<b>2002</b>
2	Usman, T. K. Sarkar, N. Panda, H.-K. Fun,*	Methyl (1 SR,8 RS,10 SR)-3,5-dichloro-1-(4-methoxyphenyl)-8-(phenylthio)-11-oxa-4-azatricyclo[6.2.1.0] <sup>2,7</sup> undeca-2,4,6-triene-10-carboxylate	<b>Acta Cryst.</b>	E58,	01402.	<b>2002</b>
1	T. K. Sarkar,* S. Basak, N. Panda	A Pummerer-based generation and trapping of furo[3,4-c]pyridines: an approach to nitrogen containing heterocyclic analogues of 1-arylnaphthalene lignans	<b>Tetrahedron Lett.</b>	43	1341	<b>2002</b>

#### Ph.D. Awarded as PI

Sl. No.	Name of the student	Thesis Title	Year of Award	Current position of the student
1	Ashis Kumar Jena	Cu/Fe-Catalyzed C-C, C-N and C-S Cross-Coupling Reactions: Synthesis of Biologically Important Heterocycles	2015	Asst. Professor at Maharaja Sriram Chandra Bhanjdeo University (Erstwhile North Orissa University) Odisha, Odisha
2	Raghavender Mothkuri	Generation of Enamides and Enol Esters: Their Application in Oxazole and $\alpha$ -Naphthol Synthesis	2015	Scientist, Natco Pharma Hyderabad

3	Dinesh Kumar Nayak	C-N and C-O Bond Formation Reactions: Synthesis of N-Aryl Amides, Benzoxazoles and 3(2H)-Furanones	2018	Lecturer, in Odisha state college.
4	Irshad Mattan	Hypervalent iodine-mediated synthesis of ortho-iododiaryl ether and subsequent annulation to biologically potent heterocycles	2018	Research Scientist - Jubilant Biosys Limited
5	Sushree Arpitabala Yadav	Synthesis of Enesulfonamides and Benzoxazolidines Through Transition-metal Catalyzed C-N Bond Formation	2019	Post-doctoral Fellow at IIT Bombay
6	Priyadarshini Mishra	Enol ester: A Versatile Synthetic Equivalent for Isocoumarin and Chromone Synthesis	2022	Postdoctoral fellow at IIT Kanpur
7	Subhadra Ojha	Transition Metal-Catalyzed C-C and CHeteroatom Bond Formation through Radical Process	2023	Post-doctoral Fellow at IIT Gandhinagar
8	Kanchanbala Sahoo	Transition Metal-Promoted Synthesis of Remotely Functionalized 2-Aryl Benzoxazoles from 2-Amidophenol through C-H Functionalization	2023	Post-doc at IISER Berhampur
9	Pallaba Ganjan Dalai	Thermally Stable Cation-Pools in C-X (X = Halogen) and C-C Bond Formation	2024 (Thesis Submitted)	NIT Rourkela

### List of Sponsored Projects implemented/continuing (As PI)

- Project Title:** Generation and Trapping of Furo[3,4-c]pyrazoles: Synthesis of Biologically Potent Heterocyclic Analogues. Ref: SR/FTP/CS-101/2006 Dt. 27.08.2007
- Project Title:** Magnetic Nanoparticle Mediated Cross-coupling Reactions: Synthesis of Biologically Potent Molecules. Reference: SR-S1/OC-60/2011 Dt. 30.04.2012
- Project Title:** Iron-catalyzed cross-coupling reactions: An expedite synthesis of Heterocycles Reference: 2012/37C/3/BRNS Dt. 28-May- 2012
- Project Title:** *Development and reactions of stereoselective enamids and enol-esters* Reference: SB/S1/OC-21/2014 Dt. 31-10-2014
- Project Title:** Transition-Metal Catalyzed C-H activation and functionalization: Synthesis of Heterocycles. Reference: : 02(0278)/16/EMR-11 dated 6.12.2016
- Project Title:** Reusable Transition Metal Catalyst mediated C-C and C-heteroatom Bond Formation through C(sp<sup>2</sup>)-H Activation Reaction Reference: EMR/2017/002827 dated 14, Nov. 2018

7. **Project Title:** Synthesis of remotely C-H functionalized heterocycles for photo-physical applications  
Reference: 02(0444/21/EMR-II) dated 08.06.2021 (continuing)
8. **Project Title:** "Cation Pool" Mediated carbon-carbon and carbon-heteroatom bond formation.  
Reference: CRG/2023/000857 dated 16.03.2024 (continuing)

#### **List of Sponsored Projects implemented/continuing (As co-PI)**

- 1) **Project Title:** Development of functionalized ferrite nanoparticles for targeted Tumor Therapy.  
Reference: BT/PR11548/NNT/28/420/2008 (completed)
- 2) **Project Title:** Analysis of role of MTP18-dependent mitophagy in oral carcinogenesis and its targeting to activate m. Reference: 202112HLC01RP07021-BRNS (continuing)

#### **Member of professional Society**

**Life member:** Orissa Chemical Society (OCS) and  
Chemical Research Society of India (CRSI)  
Indian Chemical Society (ICS)

Member of Board of Studies, VSSUT, Burla

#### **Administrative Responsibility taken at NIT Rourkela**

1. Warden M. Vusveswaray Hall of Residence (2010-2013)
2. Head, Department of Chemistry (2013-2016)
3. PIC, Institute Seminar (2017-2019)
4. Chief Warden (2021-2024)

#### **Honors and awards**

Awarded for securing highest marks in M.Sc., 1998

**National conferences attended** - More than 20

**International conferences attended**-6

#### **Invited Talks delivered**

1. Transition metal catalyzed Cross-Coupling Reactions: Synthesis of pyrazoles and oxazoles, Ravenshaw University, Cuttack, 2012.
2. Copper Ferrite: A Greener Catalyst for Cross-coupling Reactions at Nilasaila College, 2013.
3. Synthetic Applications of Enamides and Enol-esters, at Berhampur University, 2015.
4. Synthesis and reactivity of Enamides and Enol-esters, at BARC, Mumbai, 2015.
5. Synthetic Applications of Enamides and Enol-esters, at Berhampur University, 2015.
6. Transition metal catalyzed Cross-Coupling Reactions: Application to pyrazole and oxazole synthesis, at Municipal College, Rourkela, 2017.
7. Enamides and Enol-esters in Organic Synthesis, at Manipal University, 2017.
8. Synthesis Reactivity of Enamides and Enol-esters, at Calcutta University, 2018.
9. Synthesis and Reactivity of Enamides and Enol-esters, at IIT Kharagpur, 2019.
10. Cu/Fe-based catalysts for Cross-coupling Reactions, at Centurian University, Bolangir, 2020.
11. Transition metal mediated C-C and C-heteroatom bond formation: An approach to access newer heterocycles, at Department of Chemistry, Ravenshaw University, 2022.
12. Synthesis of substituted N-heterocycles through site-selective C-H Functionalization, at North Eastern Hill University (NEHU), Shillong, 2023.



13. Synthesis of site-selective functionalized *N*-heterocycles through C-H Functionalization: A sustainable approach, IIT Indore, 2023.

**Teaching interest**

1. Pericyclic reactions
2. Methods in Organic synthesis
3. Name Reactions and Rearrangements
4. Organic Spectroscopy