Dr. Niranjan Panda
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Academic profile

Ph.D. Indian Institute of Technology, IIT Kharagpur
Ph. D. Thesis: Generation and Trapping of Pyridine *o*-Quinodimethanes and Their Functional Analogues: Synthesis of Heterolignans and Conformationally Restricted Analogues of Nicotine.
Supervisor: Prof. T. K. Sarkar. IIT Kharagpur
M. Sc. Ravenshaw College, Cuttack, Odisha (77.7 % Marks, Rank 1st position for the year 1998)
B. Sc. (Chem. Hons): Utkal University, 1st division with 74% marks
+2Sc. (CHSE, Odisha) 1st division with 69 % Marks
10th (BSE Odisha) 1st division with 63.3% marks

Research & Professional Experience :

· Associate Professor, NIT Rourkela, India (July 2008 – till date)
· Assistant Professor, NIT Rourkela, India (July 2006 – June 2008)
· Postdoctoral Researcher, Technion-Israel Institute of Technology, Israel (Nov. 2005-June 2006).
(Mentor: Prof. Ehud Keinan)

Research Interest:

- Transition metal catalyzed cross-coupling reactions and their application towards the synthesis of heterocycles
- Synthesis of natural and non-natural products of biological significance
- Magnetic nanoparticles mediated cross-coupling reactions

Ph.D. Students:

(1) M. Raghavender (Since Jan. 2011)
(2) Dinesh K. Nayak (Since December 2012)
(3) Irshad Motton (Since Jan 2014)
(4) Ashis K. Jena (**Ph.D. Degree awarded in 2014**)

***Ongoing* R&D Projects (2012-2015)**

1. Development and Reactions of stereoselective enamids and enol-esters *(Funded by SERB, DST, India).* Total cost of the project: 40,70,000/-
   Duration: 2014-2017
2. Magnetic Nanoparticle Mediated Cross-coupling Reactions: Synthesis of Biologically Potent Molecules *(Funded by DST, India).* Total cost of the project: 30,90,000/-
   Duration: 2012-2015
3. Iron-catalyzed cross-coupling reactions: An expedite synthesis of Heterocycles
   Total cost of the project: 19,20,000/-
   Duration: 2012-2015

Completed R&D Projects (2007-2010)

Generation and Trapping of Furo[3,4-*c*]pyrazoles: Synthesis of Biologically Potent Heterocyclic Analogues *(Funded by DST, India).*

Publications from NIT Rourkela as Principal Investigator

1. N. Panda,* A. K. Jena, A review on "**Cu/Fe-Catalyzed Carbon-Carbon and Carbon-Heteroatom Cross-Coupling Reactions**" Organic Chemistry: Current Research (Accepted).

2. N. Panda,* and R. Mothkuri "**Synthesis of Substituted Oxazoles from Enamides**" *New J. Chem.,* **2014,** *38*, 5727-5735. *[Impact factor 3.1].*

3. N. Panda,* R. Mothkuri and D. K. Nayak "**Copper-Catalyzed Regioselective Synthesis of *N*-aryl Amides from Aldoximes and Aryl Halides**" *Euro. J. Org. Chem.,* **2014**, 1602-1605. *[Impact factor 3.4].*

4. N. Panda,* R. Mothkuri, A. Pal, A.R. Paital "**Copper-catalyzed Synthesis of α-Naphthols from Enol Esters**" *Advanced Synthesis & Catalysis,* **2013**, *355*, 2809-2814. [Impact Factor: 5.6]

5. N. Panda,* Ashis K. Jena "**Fe-catalyzed one-pot Synthesis of 1,3- and 1,3,5-substituted pyrazoles from hydrazones and vicinal diols**"*Journal of Organic Chemistry*, **2012**, *77*, 9401-9406. [Impact Factor: 4.6] *(This article has been selected for highlights in current synthetic organic chemistry, Synfacts, 2013, 9, 28)*

6. N. Panda,* M. Raghavender, "**Stereoselective synthesis of enamides by Pd-catalyzed hydroamidation of electron deficient terminal alkynes**"*Journal of Organic Chemistry,* **2012,** *77*, 9407-9412. [Impact Factor: 4.6]

7. N. Panda,* A. K. Jena, M. Raghavender, "**Stereoselective synthesis of enamides by palladium catalyzed coupling of amides with electron deficient olefins**" *ACS catalysis*, **2012**, *2*, 539. [Impact Factor: 7.5]

8. N. Panda,* A. K. Jena, S. Mohapatra, "**Heterogeneous magnetic catalyst for S-arylation reactions**" *Applied Catalysis A: General* **2012**, *433-434*, 258. [Impact Factor: 3.7]

9. N. Panda,* A. K. Jena, S. Mohapatra, "**Ligand-Free Fe-Cu Co-catalyzed Cross-coupling of Phenyl Acetylene with Aryl Halides**" *Chemistry Letters*, **2011**, *40*, 956. [Impact Factor: 1.6]

10. N. Panda,* A. K. Jena, S. Mohapatra, S. R. Rout, **Copper Ferrite Nanoparticle Mediated N-Arylation of Heterocycles: A Ligand Free Reaction**, *Tetrahedron Letters*, **2011**, *52*, 1924-1927. [Impact Factor: 2.4]

11. N. Panda,* S. Karmakar, A. K. Jena, "**Synthesis and antibacterial activity of some novel pyrazolopyridine derivatives Chemistry of Heterocyclic compounds**" *Chemistry of Heterocyclic Compounds,* 2011, *46*, 1500. [Impact Factor: 1.0]

12. N. Panda,* H Sahoo, S. Mohapatra, "**Decolourization of Methyl Orange Using Fenton-like Mesoporous Fe_2O_3-SiO_2Composite**" *J. Hazard. Mater.* **2010***, 185,* 357. [Impact Factor: 4.7]

Publications from IIT Kharagpur (During Ph.D. as student)

1. T. K. Sarkar,* A. Hazra, P. Gangopadhyay, N. Panda, Z. Slanina, C.-C. Lin, H.-T. Chen, Synthesis of the necine bases (±)-macronecine and (±)-supinidine via an aza-ene reaction and allylsilane induced ring closure, *Tetrahedron* 2005, *61*, 1155.
2. 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" *J. Org. Chem.* 2003, *68*, 6919.
3. 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" *Tetrahedron Lett*. 2002, *43*, 1341.
4. H.-K. Fun, A. Usman, I. A. Razak, S. Chantrapromma, T. K. Sarkar, S. Basak, N. Panda, "Dimethyl 1,3-dichloro-8-phenyl-5-phenylsulfanylisoquinoline-6,7-dicarboxylate *Acta Cryst*. 2002, *E58*, 0215.
5. A. 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]^{2,7}undeca-2,4,6-triene-10-carboxylate" *Acta Cryst*. 2002, *E58*, 01402.