Dr. Nivedita Chatterjee

Date of Birth: 23rd February 1989
Nationality: Indian
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Educational Qualification

Degree/Examination	Institution/University	Year	Division	Percentage
Ph.D	CSIR-Indian Institute of Chemical Biology	2016	-	-
M. Sc (Organic Chemistry)	University of Burdwan	2011	1st Class	83.5%
B. Sc	University of Burdwan	2009	1st Class	72.4%
Higher Secondary (XIIth std.)	W.B.C.H.S.E.	2006	1st Division	80.7%
Madhyamik (Xth std.)	W.B.B.S.E.	2004	1st Division	82.7%

Other Achievements

- CSIR-NET Examination December 2010, December 2011
- Received CSIR-JRF fellowship, 2011
- Received CSIR-SRF fellowship, 2013

Research Experience

- Worked as Senior Research Fellow (SRF) at CSIR-Indian Institute of Chemical Biology, Kolkata, India (July 2013-May 2016).
- Worked as Junior Research Fellow (JRF) at CSIR-Indian Institute of Chemical Biology, Kolkata, India (July 2011–June 2013).

Doctoral Thesis

Title of the thesis: '**Synthetic Studies On Fused N-/O- Based Heterocycles And Sugar Containing Heterocyclic Molecules Of Biological Importance.**' under the joint supervision of Dr. Asish Kumar Sen, Emeritus Scientist, CSIR-Indian Institute of Chemical Biology, Govt. of India, and Dr. P. Jaisankar, Senior principal Scientist, CSIR-Indian Institute of Chemical Biology, Govt. of India.

Research Area

- Development of green methodology for the synthesis of novel heteroaromatics/small molecules and synthesis of carbohydrate-based heterocycles.
- Novel metal catalyzed tandem reactions to construct structurally unique 'small molecules' (isoindolinones, indolyl-isoindolinones, benzimidazoles, furo[3,2-*h*] quinolines etc.) involving tandem Sonogashira/Heck-cyclization in aqueous medium or under anhydrous medium or by chemoselective functional group inter conversion.
- Use of metal nanoparticles in organic synthesis.

Technical Skill

- Purification and characterization of organic compounds (oligosaccharides and small molecules) by NMR (1D and 2D), IR and Mass spectrophotometer.
- Experience in operation of instruments like GC, NMR and HPLC.

Scholarships awarded

- Senior Research Fellowship awarded by Council of Scientific and Industrial Research (CSIR), Govt. of India (2013).
- Junior Research Fellowship awarded by Council of Scientific and Industrial Research (CSIR), Govt. of India (2011).
- Qualified NET (CSIR) in December 2010 (National level examination).
- Qualified NET (CSIR) in December 2011 (National level examination).

Publications

1. **Nivedita Chatterjee**, Swarbhanu Sarkar, Rammyani Pal, Asish Kumar Sen*, A green approach for the regio- and stereo-selective syntheses of (Z)-3-methyleneisoindoline-1-ones in aqueous medium, ***Tetrahedron Letters***, **2013**, *54*, 3748–3751.
2. **Nivedita Chatterjee**, Swarbhanu Sarkar, Rammyani Pal, Asish Kumar Sen*****, An approach toward the syntheses of triazolo benzoxazines, triazole quinoxalines, triazolo benzodiazepines, triazolo benzoxazepines, and triazolo benzothiazines via a simple and convenient protocol using basic

alumina as solid support, ***Tetrahedron Letters***, **2014**, 55, 2261–2265.

3. **Nivedita Chatterjee**, Rammyani Pal, Swarbhanu Sarkar, Asish Kumar Sen*, Application of nanodomain cubic cuprous oxide as reusable catalyst in one-pot domino Sonogashira-cyclization: Synthesis of triazole-fused tetracyclic glycosides in aqueous only medium, ***Tetrahedron Letters***, **2015**, 56, 3886-3889.
4. **Nivedita Chatterjee**, Rammyani Pal, Swarbhanu Sarkar,* Asish Kumar Sen*, Cubic nano-copper(I) oxides as reusable catalyst in consecutive decarboxylative CAH arylation and carbonylation: rapid synthesis of carbonyl dibenzofurans, ***Tetrahedron Letters,* 2016,** *57,* 4956–4960**.**
5. **Nivedita Chatterjee**, Priyajit Chatterjee, এ বছর শারীরবিদ্যা অথবা চিকিৎসাবিজ্ঞান এবং রসায়নে নোবেল পুরস্কার, **জ্ঞান ও বিজ্ঞান** (ISSN 2454-7727), **2023**, 811-815.
6. **Nivedita Chatterjee**, Priyajit Chatterjee, পরিবেশ বান্ধব বায়োপ্লাস্টিক, **জ্ঞান ও বিজ্ঞান** (ISSN 2454-7727), **2024**, 269-271.
7. Swarbhanu Sarkar, **Nivedita Chatterjee**, Manas Roy, Rammyani Pal, Sabyasachi Sarkar, Asish Kumar Sen*, Nanodomain cubic cuprous oxide as reusable catalyst in one-pot synthesis of 3-alkyl/aryl-3-(pyrrole-2-yl/indole-3-yl)-2-phenyl-2,3-dihydro-isoindolinones in aqueous medium, ***RSC Adv.***, **2014**, 4, 7024-7029.
8. Rammyani Pal, Swarbhanu Sarkar, **Nivedita Chatterjee**, Asish Kumar Sen*****, A green-chemistry approach for the efficient synthesis of triazole benzoxazepines or triazolo benzodiazepines in aqueous micellar system**,** ***Tetrahedron Letters***, **2014,** 55, 1452–1455.
9. Rammyani Pal, Swarbhanu Sarkar, **Nivedita Chatterjee**, Asish Kumar Sen*****, Efficient synthesis of 1,4-disubstituted triazolyl N-carboxamides via a simple and convenient MCR using basic alumina as solid support, ***Tetrahedron Letters***, **2013**, 54, 5642–5646.
10. Swarbhanu Sarkar,*‡ Rammyani Pal,‡ Manas Roy,‡ **Nivedita Chatterjee**,‡ Sabyasachi Sarkar, Asish Kumar Sen*, Nanodomain cubic copper (I) oxide as reusable catalyst for the synthesis of amides by amidation of aryl halides with isocyanides, ‡ Contributed equally to the work, ***Tetrahedron Letters,* 2015,** 56, 623-626**.**
11. Rammyani Pal, **Nivedita Chatterjee**, Manas Roy, El Said A. Nouh, Sabyasachi Sarkar, Parasuraman Jaisankar, Swarbhanu Sarkar* and Asish Kumar Sen*, Reusable palladium nanoparticles in one-pot domino Sonogashira-cyclization: Regio- and stereo- selective syntheses of (Z)-3-methyleneisoindoline-1-ones and furo[3,2-h]quinolines in water, ***Tetrahedron Letters,* 2016,** 57, 43–47**.**
12**.** Swarbhanu Sarkar, Rammyani Pal, **Nivedita Chatterjee**, Samrat Dutta, Subhendu Naskar, Asish Kumar Sen*, A green approach for highly regioselective syntheses of furo[3,2-h]quinolines in aqueous medium, ***Tetrahedron Letters***, **2013**, *54*, 3805–3809.
13. Shyam Ji Gupta, **Nivedita Chatterjee**, Rammyani Pal, Samrat Dutta, Swarbhanu Sarkar, Asish Kumar Sen*Four component one-pot synthesis of a branched mannose pentasaccharide: p-methoxy benzyl ether used as an in situ removable carbohydrate protecting group, ***Trends in Carbohydrate Research,* 2013,** 5, 49-52.

Poster/Oral presentation in symposium/conference

- "A green approach for the regio- & stereo-selective syntheses of (Z)-3-methyleneisoindoline-1-ones in aqueous medium" at *National Carbohydrate conference, CFTRI, Mysore, 13-15 December, 2012.*
- An approach towards one-pot syntheses of branched-oligomers: combining glycodesilylation, regioselective reductive cleavage of arylidene acetals and glycodeetherylation. *International symposium on challenges in chemical biology; Kolkata, India, January 27-29, 2013.*
- National Seminar on "Design, Synthesis, Interactions, Chemical and Biochemical Activities of Different Functional Molecules, The University of Burdwan, 4-6th February 2016.

Workshops and conferences

- National Seminar on "Chemistry Today", The University of Burdwan, 18-20 March, 2010.
- CARBO XXVI, CSIR-IICB, Kolkata, 23-25 November, 2011.
- Participated in Training Programme on Laboratory Safety: Radiation Safety, Chemical safety & Bio safety, IICB, Kolkata, 18th September, 2013.
- Participated in the International Symposium on Challenges in Chemical Biology, CSIR-IICB, Kolkata, 27-29th January, 2013.
- National Seminar on "Centenary Celebration of Bose Statistics", The University of Burdwan, 22nd May, 2024.