Dr. Sanjay Paul,Ph.D

Assistant Professor
Department of Chemistry
Behala College
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Specialization

Organic Chemistry

Teaching experience

Guest Lecturer: Rammohan College, Kolkata, India (September 2014 to February 2015)

Assistant Professor: Yeungnam University, South Korea (March 2015 toMay 2017)

Assistant Professor:Behala College, Kolkata, India(June 2017topresent)

Courses taught

B. Sc. CHEMISTRY:

Semester-I

Theory: CC1/ GE 1:*Fundamentalsof Organic Chemistry, Stereochemistry, Nucleophilic Substitution and Elimination Reactions*

Practical Papers:*CEMA-CC-1-1-P, CEMA-CC-1-2-P and CC1/GE 1 Practical*

Semester-II

CEMA-CC-2-3-TH:*General Treatment of Reaction Mechanism III:Reaction thermodynamics, Concept of organic acids and base,Tautomerism, Reaction kinetics*

Practical Paper: CEMA-CC-2-3-P

Semester-III

CEMA-CC-3-7-TH:*Chemistry of alkenes and alkynes, Addition to C=C, Addition to C≡C (in comparison to C=C)*

Practical Paper: CEMA-CC-3-7-P

3rd Year:

Organic Spectroscopy: *UV Spectroscopy,IR Spectroscopy,NMR Spectroscopy*

Practical Paper: *VIB and Paper VIIIA*

M. Sc. CHEMISTRY:

Semester-I

Practical Paper: *CHEM – G14*

Semester-II

Practical Paper: *CHEM – G24*

Semester-III

CHEM-SO33

Unit-2: *Homo or Heteroatomic bond activation and functionalization: Metallic or non-metallic approach*

Practical Paper: *CHEM – SO34*

Semester-IV

CHEM-SO43

Unit-1: *Nanoscience and Organic Electronics*

Research

Research Areas:

- *Synthesis of heterocycles via C-H activation*
- *Design and synthesis of potent bio-active organic molecules*
- *Synthesis of homogeneous and heterogeneous catalyst*

Research experience:

April 2010 topresent (9 years)

Scopus Preview:

Author ID: *16422281600,* ***h-index****: 17,* ***Documents by author:*** *28,* ***Total citations:*** *701*

Publication of research papers in peer reviewed journals

2019

1. **Sanjay Paul**, HariDattaKhanal, ChayanDhar Clinton, Sung Hong Kim and Yong Rok Lee, "$Pd(TFA)_2$ -catalyzed direct arylation of quinoxalinones with arenes", *Org. Chem. Front.*, 2019, **6**, 231-235. (**Impact factor: 5.455**)

2017

1. **Sanjay Paul**, JiHyeon Ha, GaEul Park and Yong Rok Lee, "Transition Metal-Free Iodosobenzene-Promoted Direct Oxidative 3-Arylation of Quinoxalin-2(*H*)-ones with Arylhydrazines", *Advanced Synthesis & Catalysis*, 2017, **359**, 1515.(**Impact factor: 5.123**)

2016

1. **Sanjay Paul**, Rajeev Shrestha, T. N. J. I. Edison, Yong Rok Lee and Sung Hong Kim, "Copper(I) Bromide-Dimethyl Sulfide-Catalyzed Direct Sulfanylation of 4-Hydroxycoumarins and 4-Hydroxyquinolinones with Arylsulfonylhydrazides and Selective Fluorescence Switch- On Sensing of Cadmium(II) Ion in Water", *Advanced Synthesis & Catalysis,*2016, **358**, 3050. (**Impact factor: 5.123**)

2. **Sanjay Paul**, Yong Rok Lee, "Eco-friendly construction of highly functionalized chromenopyridinones by an organocatalyzed solid-state melt reaction and their optical properties", *Green Chemistry*, 2016, **18**, 1488. (**Impact factor:8.586**)

3. **Sanjay Paul***, KoyelPradhan, Asish R. Das, "Ethyl lactate as a green solvent: A promising bio-compatible media for organic synthesis", *Current Green Chemistry*, 2016, **3**, 111.

2015

1. Prasun Mukherjee, **Sanjay Paul**, Asish R. Das, "Expeditious synthesis of functionalized tricyclic 4-spiro pyrano[2,3-*c*]pyrazoles in aqueous medium using dodecylbenzenesulphonic acid as a Brønsted acid–surfactant-combined catalyst", *New Journal of Chemistry*, 2015, **39**, 9480. (**Impact factor:3.201**)

2. KoyelPradhan, **Sanjay Paul**, Asish R. Das, "Synthesis of indeno and acenaphtho core containing dihydroxyindolone, pyrrole, coumarin and uracil fused heterocyclic motifs under sustainable condition exploring the catalytic role of SnO_2 quantum dot", *RSC Advances*, 2015, **5**, 12062. (**Impact factor: 2.936**)

2014

1. Gargi Pal, **Sanjay Paul**, ParthaPratimGhosh, Asish R. Das, "PhIO promoted synthesis of nitrile imines and nitrile oxides within micellar core in aqueous media: A regiocontrolled approach to synthesize densely functionalized pyrazole and isoxazoline derivatives",*RSC Advances*, 2014, **4**, 8300-8307. (**Impact factor: 2.936**)

2. KoyelPradhan, **Sanjay Paul**, Asish R. Das "Magnetically retrievable nano crystalline $CuFe_2O_4$ catalyzed multi-component reaction: A facile and efficient synthesis of functionalized dihydropyrano[2,3-c]pyrazol, pyrano[3,2-c]coumarin and 4H-chromene derivatives in aqueous media", *Catalysis Science and Technology*, 2014, **4**, 822-831. (**Impact factor: 5.365**)

3. **Sanjay Paul**, Asish R. Das, "Magnetically retrievable nano crystalline $NiFe_2O_4$ catalyzed aerobic, ligand free C-N, C-O and C-C cross-coupling reactions for the synthesis of a diversified library of heterocyclic molecules", *Advanced Synthesis & Catalysis,* 2014, **356**, 1301 – 1316**, [Highlighted in Synfacts, 2014, 10(7), 0766]**.**(Impact factor:5.123)**

4. KoyelPradhan, **Sanjay Paul**, Asish R. Das, "Synthesis of a diversified combinatorial library of 1H-pyrazolo[1,2-*b*]phthalazine-5,10-dione derivatives applying sustainable carbon based solid acid catalyst involving domino four-component reaction", *MonatsheftefürChemie - Chemical Monthly,* 2014, **145**, 1343. (**Impact factor: 1.285**)

5. Gargi Pal, **Sanjay Paul**, Asish R. Das, "A facile and efficient synthesis of functionalized 4-oxo-2-(phenylimino)thiazolidin-5-ylideneacetate derivatives via $CuFe_2O_4$ magnetic nanoparticles catalyzed regioselective pathway" *New J. Chem*.; 2014, **38**, 2787. (**Impact factor: 3.201**)
6. **Sanjay Paul**, KoyelPradhan, Asish R. Das "Uncapped SnO_2 quantum dot catalyzed cascade assembling of four components: A rapid and green approach to the pyrano[2,3-c]pyrazole and spiro-2-oxindole derivatives" *Tetrahedron*, 2014, **36**, 6088. (**Impact factor: 2.377**)

2013

1. **Sanjay Paul**, Asish R. Das, "Dual role of the polymer supported catalyst PEG-OSO_3H in aqueous reaction medium: synthesis of highly substituted structurally diversified coumarin and uracil fused spirooxindoles", *Tetrahedron Lett.*, 2013, **54**, 1149. (**Impact factor: 2.125**)
2 **Sanjay Paul**, Gargi Pal and Asish R. Das, "Three-component synthesis of a polysubstitutedpyrrole core containing heterocyclic scaffolds over magnetically separable nanocrystalline copper ferrite", *RSC Advances*, 2013, **3**, 8637. (**Impact factor: 2.936**)

3. **Sanjay Paul**, SirshenduGhosh, Pranabes Bhattacharyya and Asish R. Das, "Synthesis of a SO_3H-bearing carbonaceous solid catalyst, PEG–SAC: application for the easy access to a diversified library of pyran derivatives", *RSC Advances*, 2013, **3**, 14254. (**Impact factor: 2.936**)

4. Pranabes Bhattacharyya, **Sanjay Paul**, Asish R. Das, "Facile synthesis of pyridopyrimidine and coumarin fused pyridine libraries over a Lewis base-surfactantcombined catalyst TEOA in aqueous medium", *RSC Advances*, 2013, **3**, 3203. (**Impact factor: 2.936**)

5. Gargi Pal, **Sanjay Paul**, Asish R. Das, "Alum-Catalyzed Synthesis of 3-(1H-Pyrrol-2-yl)-2H-chromen-2-ones: A Water-PEG 400 Binary Solvent Mediated, One-Pot, Three-Component Protocol", *Synthesis*, 2013, **45**, 1191. (**Impact factor: 2.722**)

6. ParthaPratimGhosh, **Sanjay Paul**, Asish R. Das, "Light induced synthesis of symmetrical and unsymmetrical dihydropyridines in ethyl lactate–water under tunable conditions", *Tetrahedron Lett.*, 2013, **54**, 138. (**Impact factor: 2.125**)

7. KoyelPradhan, **Sanjay Paul**, Asish R. Das, "$Fe(DS)_3$, an efficient Lewis acid-surfactant-combined catalyst (LASC) for the one pot synthesis of chromeno[4,3-b]chromene derivatives by assembling the basic building blocks", *Tetrahedron Lett.*, 2013, **54**, 3105. (**Impact factor: 2.125**)

2012

1. **Sanjay Paul**, Asish R. Das, "An efficient green protocol for the synthesis of coumarin fused highly decorated indenodihydropyridyl and dihydropyridyl derivatives", *Tetrahedron Lett*., 2012, **53**, 2206. (**Impact factor: 2.125**)

2. **Sanjay Paul**, Asish R. Das, "A new application of polymer supported, homogeneous and reusable catalyst PEG–SO_3H in the synthesis of coumarin and uracil fused pyrrole derivatives", *Catalysis Science & Technology*, 2012, **2**, 1130. (**Impact factor: 5.365**)

3. Pranabes Bhattacharyya, KoyelPradhan, **Sanjay Paul**, Asish R. Das, "Nano crystalline ZnO catalyzed one pot multicomponent reaction for an easy access of fully decorated 4H-pyran scaffolds and its rearrangement to 2-pyridone nucleus in aqueous media", *Tetrahedron Lett.*, 2012, **53**, 4687. (**Impact factor: 2.125**)

4. KoyelPradhan, Pranabes Bhattacharyya, **Sanjay Paul**, Asish R. Das, "Synthesis of 3,4-dihydropyridin-2-one derivatives in convergent mode applying bio catalyst vitamin B_1 and polymer supported catalyst PEG–SO_3H from two different sets of building blocks", *Tetrahedron Lett.*, 2012, **53**, 5840. (**Impact factor: 2.125**)

5. ParthaPratimGhosh, Gargi Pal, **Sanjay Paul**, Asish R. Das, "Design and synthesis of benzylpyrazolylcoumarin derivatives via a four-component reaction in water: investigation of the weak interactions accumulating in the crystal structure of a signified compound", *Green Chem.*, 2012, **14**, 269. (**Impact factor:8.586**)

2011

1. **Sanjay Paul**, Pranabes Bhattacharyya, Asish R. Das, "One-pot synthesis of dihydropyrano[2,3-c]chromenes via a three component coupling of aromatic aldehydes, malononitrile, and 3-hydroxycoumarin catalyzed by nano-structured ZnO in water: a green protocol", *Tetrahedron Lett.*, 2011, **52**, 4636. (**Impact factor: 2.125**)

2. BikashKarmakar**, Sanjay Paul**, Julie Banerji, **"**A highly efficient, one-pot synthesis of α-aminophosphonates over CuOnanopowder", *Arkivoc* 2011 **(ii)** 161. (**Impact factor: 1.165**)

Participation in conferences, symposia and workshops

1. Attended the full agenda of **ACS on campus events** atIndian Association for the Cultivation of Science, Kolkataon October 12, 2012.
2. Attended the full agenda of **RSC Road Show events** atIndian Association for the Cultivation of Science, Kolkataon February, 2013.

3 Participated the international Symposiumon **"Molecular Organization and Complexity: A Chemical Perspective**" organized by Department of Chemistry, University of Calcutta held at Saha Institute of Nuclear Physics, Kolkata, on February 6-8, 2013.