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DEPARTMENT OF CHEMISTRY,
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APPOINTMENTS

Professor, 07/2019-Present: Department of Chemistry, Shiv Nadar University, UP
Professor, 08/2018-06/2019: Department of Chemistry, SRM University, AP
Adjunct Professor, 10/2018-06/2019: Department of Chemistry, Shiv Nadar University
Associate Professor and Head, 07/2016-07/2018: Department of Chemistry, Shiv Nadar University
Associate Professor, 02/2013 – 06/2016: Shiv Nadar University
Associate Director, 03/2010 – 12/2012: GVK Bioscience Hyderabad, AP, India,
Principal Scientist, 02/2009 – 02/2010: Jubilant Chemsys, Noida, UP, India
Senior Manager, 02/2008 – 01/2009: Pfizer VMPS, Mumbai, India.
Senior Scientist, 03/2006 – 01/2008: BASF-India, Mumbai India
Scientific manager, 04/2004 – 02/2006: Syngene International Private Limited, Bangalore, India.
Scientist-1, 09/2002 – 03/2006: Chemocentryx Inc., Mountain View, California, USA
Postdoctoral Research Associate, 2001-2002: Department of Chemistry, Colorado State University, Fort Collins, CO, USA Advisor: Professor Albert I. Meyers

EDUCATION

2002	Ph.D. Organic Chemistry, University of Missouri, Columbia, MO, USA
1996	M. Sc. Kalyani University, Kalyani, West Bengal, India
1994	B. Sc. Narendrapur Ramkrishna Mission Residential College, Narendrapur, WB, India

RESEARCH INTEREST

Metal catalyzed C-H activation/ functionalization.
Photochemical and mechanochemical reactions of diazoesters
Hypervalent iodine mediated synthesis of heterocycles
Target based drug discovery research in (a) Malaria; (b) Type-I and II diabetes; (c) Breast cancer
Diversity oriented synthesis, phenotypic screening and their target identification

EXPERIENCE AS MENTOR

ADVISOR: Ongoing: 5 and Completed: 8

CO-ADVISOR: Ongoing: 2 and Completed: 4

AWARDS

- | | |
|---|------|
| (1) "Make it Happen" Award: Chemcentryx Inc., Mt. View, California, USA | 2003 |
| (2) Department of Science and Technology Travel Grant, India | 2015 |
| (3) Seibold-Collegium Fellowship, University of Würzburg, Würzburg, Germany | 2016 |
| (4) Fellow of Royal Society of Chemistry, UK | 2021 |
| (5) Shiv Nadar University Research Excellence Award, SNU, India | 2021 |
| (6) Guest Researcher Faculty Program, University of Paris, France | 2021 |

PUBLICATIONS AND PATENTS

IF

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| 81 Souvik Guha, Ibrahim Yussif El-Deeb, Shalini Yadav, Ranajit Das, Kshatresh Dutta Dubey, Mousumi Baruah, Gremaud Ludovic,* and Subhabrata Sen* (2022) in Capturing a Pentacyclic Fragment-Based Library Derived from Perophoramidine: Their Design, Synthesis and Evaluation as Anticancer Compounds via DNA Double-Strand Breaks (DSB) and PARP-1 Inhibition. <i>Chem. Eur. J.</i> , e202202405 | 5.02 |
| 80 Ludovic Gremaud* and Subhabrata Sen* (2022) in Blue LED Mediated C-H and N-H Insertion of Indoles into Aryldiazoesters and Iodonium Ylides. <i>CHIMIA</i> , DOI:10.2533/chimia.2022.483 | 1.51 |
| 79 Debajit Maiti, [§] Ranajit Das, [§] Tejas Prabakar, and Subhabrata Sen* (2022) in Blue LED induced solvent-free multicomponent reaction among aryl diazoacetates, pyridine derivatives and maleimides: Direct eco-friendly synthesis of densely functionalized Itaconimides. <i>Green Chemistry</i> , DOI: 10.1039/D1GC03546K | 10.2 |
| 78 Anil Kumar, Jyoti Chauhan, Kshatresh Dutta Dubey, Subhabrata Sen , and Parthapratim Munshi* (2022) in Tuning Potency of Bioactive Molecules via Polymorphic Modifications: A Case Study. <i>Mol. Pharmaceutics</i> , 2022, DOI: 10.1021/acs.molpharmaceut.1c01018 | 4.91 |
| 77 Debajit Maiti, [§] Ranajit Das [§] and Subhabrata Sen* (2021) in Photolytic amino etherification reactions of aryldiazoacetates with N-heterocycles and stoichiometric amount of dioxane/ tetrahydropyran in aqueous medium: Synthesis of 1, 4-dioxepane/ 1, 4, 7-dioxazonan-6-one systems. <i>Green Chemistry</i> , 2021, DOI: 10.1039/D1GC02797B | 10.2 |
| 76 Tejas Prabakar and Subhabrata Sen (2021) in 'Manganese Catalyzed C-H Functionalization Reactions' Debabrata Maiti, <i>Handbook of CH-Functionalization (CHF)</i> , USA, WILEY, just accepted. | |
| 75 Saibal Sar, Ranajit Das, Dhiraj Barman, Pikaso Latua, Souvik Guha, Ludovic Gremaud and Subhabrata Sen* , A Sustainable C-H functionalization of indoles, pyrroles and furans in blue LED with iodonium ylides. <i>Org. Biomol. Chem.</i> 2021 , DOI: 10.1039/D1OB01219C (This article is part of the themed collection: Synthetic methodology in OBC). | 3.9 |
| 74 Saibal Sar, [‡] Souvik Guha, [‡] Tejas Prabakar, [‡] Debajit Maiti and Subhabrata Sen* , Blue LED mediated <i>in situ</i> generation of pyridinium and isoquinolinium ylides from aryl diazoesters: Their application in the synthesis of diverse dihydroindolizine. <i>J. Org. Chem.</i> 2021 , doi.org/10.1021/acs.joc.1c01209. | 4.3 |
| 73 Jyoti Chauhan, Srinivas R Maddi, Kshatresh Dutta Dubey* and Subhabrata Sen.* Developing C2-aryloxy indoles as novel inhibitors of hIDO1 and understanding their mechanism of inhibition via mass spectroscopy, QM/MM calculations and molecular dynamics simulation. <i>Front. Chem.</i> 2021 , doi: | 5.3 |

10.3389/fchem.2021.691319.

- 72 **Subhabrata Sen**, Ralf Jockers, Kshatresh Dutta Dubey, Jyoti Chauhan, Tania Luthra. THERAPEUTIC NOVEL CHEMICAL ENTITIES AND METHOD THEREOF. International Patent filed (Patent App. No.: PCT/IN2021/050361). -
- 71 Saibal Sar,[§] Ranajit Das[§] and **Subhabrata Sen*** Blue LED Induced Manganese(I) Catalyzed Direct C2-H Activation of Pyrroles with Aryl Diazoesters. *Adv. Synth. Catal.* **2021**, 10.1002/adsc.202100305. 5.9
- 70 Souvik Guha,[‡] Satyanarayana Gadde,[‡] Naresh Kumar, David StClair Black and **Subhabrata Sen**,* Orthogonal syntheses of γ -carbolinone and spiro[pyrrolidinone-3, 3']indole derivatives in one pot through reaction telescoping. *J. Org. Chem.* **2021**, doi.org/10.1021/acs.joc.1c00141. 4.3
- 69 **Sen, Subhabrata.**, Maiti, Debajit. (in press). 8-Rings 1 S. Reference Module in Chemistry, Molecular Sciences and Chemical Engineering (planned for publication in the Comprehensive Heterocyclic Chemistry IV edited by Christian Stevens, David Black and Janine Cossy) Elsevier, doi: 10.1016/B978-0128186558-00066-4. -
- 68 Akshaykumar Nayak, Himani Saxena, Chandramohan Bathula, Tarkeshwar Kumar, Souvik Bhattacharjee, **Subhabrata Sen***, Ashish Gupta* Diversity-oriented synthesis derived indole based spiro and fused small 1 molecules kills artemisinin-resistant Plasmodium falciparum; *Malaria Journal* **2021**, https://doi.org/10.1186/s12936-021-03632-2. 3.1
- 67 Debajit Maiti, Ranajit Das and **Subhabrata Sen*** Blue LED mediated N-H insertion of indoles into aryldiazoesters at room temperature in batch and flow: Reaction kinetics, DFT and mechanistic study; *J. Org. Chem.* **2021**, just accepted, DOI: 10.1021/acs.joc.0c02649 4.3
- 66 **Subhabrata Sen**, Ralf Jockers, Jyoti Chauhan, Kshatresh Dutta Dubey and Tania Luthra THERAPEUTIC NOVEL CHEMICAL ENTITIES AND METHOD THEREOF" Application No. 202011016011; TEMP/E-1/17132/2020-DEL (Indian Provisional Patent Application)
- 65 Jyoti Chauhan, Mahesh Ravva, Ludovic Gremaud and **Subhabrata Sen*** Blue LED Mediated Intramolecular CH Functionalization and Cyclopropanation of Tryptamines: Synthesis of Azepino[4, 5-b]indoles and Natural Product Inspired Polycyclic Indoles; *Org. Lett.* **2020**, 22, 4537-4541. 6.1
- 64 Swati Garg, Abhishek Shivappagowdar, Rahul S. Hada, Rajagopal Ayana, Chandramohan Bathula, **Subhabrata Sen**, Inderjeet Kalia, Soumya Pati, Agam P. Singh, Shailja Singh* Plasmodium Perforin-like Protein pores on the host cell membrane contribute in its multistage growth and erythrocyte senescence; *Front. Cell. Infect. Microbiol.* 2020, doi.org/10.3389/fcimb.2020.00121. 5.2
- 63 Saibal Sar, Jyoti Chauhan and **Subhabrata Sen*** Generation of aryl radicals from aryl hydrazine via catalytic iodine in air: Arylation of substituted 1,4-naphthoquinones; *ACS Omega* **2020**, doi: 10.1021/acsomega.9b04014. 3.5
- 62 Saibal Sar, Ankita Tripathi, Kshatresh Dutta Dubey, **Subhabrata Sen***, Iodine catalyzed aerobic diazenylation-amination of indole derivatives; *J. Org. Chem.* 2020, DOI: 10.1021/acs.joc.9b03392. 4.3
- 61 Tania Luthra, Venkanna Banothu, Uma Adepally, Krishna Kumar, Swathi M,⁵ Saikat Chakrabarti,³ Srinivas R. Maddi⁴ and **Subhabrata Sen***,¹ Discovery of novel pyrido-pyrrolidine hybrid compounds as alpha-glucosidase inhibitors and alternative agent for control of Type 1 diabetes; *Eur. J. Med. Chem.* **2020**, 188, 112034. 6.5
- 60 Poonam Dangi, Ravi Jain, Rajanikanth Mamidala, Vijeta Sharma, Shalini Agarwal, Chandramohan Bathula, M. Thirumalachary, **Subhabrata Sen** and Shailja Singh*, Natural Product Inspired Novel Indole based Chiral Scaffold Kills Human Malaria Parasites via Ionic Imbalance Mediated Cell Death; *Scientific Reports*, **2019**, 10.1038/s41598-019-54339-z. 4.3
- 59 Jyoti Chauhan, Mahesh Kumar Ravva and **Subhabrata Sen***, Harnessing autooxidation of aldehydes: In situ iodoarene catalysed synthesis of substituted 1, 3, 4-oxadiazole, in presence of molecular oxygen; *Org. Lett.*, **2019**, 10.1021/acs.orglett.9b02542. 6.1

- 58 Pratip Kumar Dutta, Jyoti Chauhan, Mahesh Kumar Ravva, and **Subhabrata Sen***, Directing group assisted manganese catalyzed cyclopropanation of indoles; *Org. Lett.*, **2019**, 21, 2025-2028. **6.1**
- 57 Pratip K Dutta, Mahesh Kumar Ravva, **Subhabrata Sen***, Cobalt catalysed, hydroxyl assisted C-H bond functionalization: Access to diversely substituted polycyclic pyrans, *J. Org. Chem.* **2019**, doi: 10.1021/acs.joc.8b02446. **4.3**
- 56 Tania Luthra, [§] Akshay Kumar Nayak, [§] Sarpita Bose, Saikat Chakrabarti, Ashish Gupta * and **Subhabrata Sen***, Indole based antimalarial compounds targeting the melatonin pathway: Their design, synthesis and biological evaluation, *Eur. J. Med. Chem.* **2019**, DOI: 10.1016/j.ejmech.2019.02.019. **6.5**
- 55 Deepika Chauhan[§], Santanu Hati[§], Richa Priyadarshini*, **Subhabrata Sen***, Transcriptome analysis predicts mode of action of benzimidazole molecules 1 against *Staphylococcus aureus* UAMS-1, *Drug Dev. Res.* **2019**, DOI: 10.1002/DDR.21523. **4.3**
- 54 Dandugudumula Ramu, Ravi Jain, Ravi Ranjan Kumar, Veena Sharma, Swati Garg, R Ayana, Tania Luthra, Preeti Yadav, Soumya Pati, **Subhabrata Sen**, and Shailja Singh*, Design and synthesis of imidazolidinone derivatives as potent anti-leishmanial agents by bioisosterism, *Archiv der Pharmazie*, **2019**, DOI: 10.1002/ardp.201800290 **3.8**
- 53 Kunal Kumar Jha, Sanjay Dutta, Saibal Sar, **Subhabrata Sen** and Parthapratim Munshi*, Harnessing sun for catalyst and sensitize free regio- and stereo-selective [2+2] cycloaddition, *Tetrahedron*, **2018**, doi: 10.1016/j.tet.2018.10.065 **2.6**
- 52 Jyoti Chauhan, Moumita Dasgupta, Tania Luthra, Akanksha Awasthi, Sayantan Tripathy, Anindyajit Banerjee, Santanu Paul, Debashish Nag, Saikat Chakrabarti, Gopal Chakrabarti and **Subhabrata Sen***, Design, synthesis and biological evaluation of a novel library of antimitotic C₂-aroyl/arylimino tryptamine derivatives that are also potent inhibitors of indoleamine-2, 3-dioxygenase (IDO), *European Journal of Pharmaceutical Sciences*, **2018**, doi:10.1016/j.ejps.2018.08.033 **4.4**
- 51 Tania Luthra, K. Naga Lalitha, A. Uma and **Subhabrata Sen***, Design, synthesis and in vitro study of densely functionalized oxindoles as potent α -glucosidase inhibitors. Just accepted, *Bioorganic and Medicinal Chemistry*, **2018**, doi.org/10.1016/j.bmc.2018.08.022 **3.6**
- 50 Pratip Dutta and **Subhabrata Sen***, (Benz)imidazole directed cobalt (III) catalysed C-H activation of Arenes: A facile strategy to access polyheteroarenes via oxidative annulation. Just Accepted, *European Journal of Organic Chemistry*, **2018**, doi: 10.1002/ejoc.201801056. **3.0**
- 49 Jyoti Chauhan, Tania Luthra and **Subhabrata Sen***, An iodine catalyzed metal free oxidative ring opening of 1-aryltetrahydro- β -carbolines: Facile synthesis of C₂ aroyl and aryl methanimino indole derivatives. *European Journal of Organic Chemistry*, **2018**, 10.1002/ejoc.201800879 **3.0**
- 48 Pratip Dutta, Basabbijayi Dhar and **Subhabrata Sen***, Aerobic oxidative amidation of alkynes using titanium oxide encapsulated cuprous iodide nanoparticles (CuI@TiO₂). *New Journal of Chemistry*, **2018**, 42, 12062 **3.6**
- 47 Chandramohan Bathula, Catarina Roma-Rodrigues, Jyoti Chauhan, Alexandra R. Fernandes* and **Subhabrata Sen***, Synthesis of tetrahydro-1H-indolo[2, 3-b]pyrrolo[3, 2-c]quinolones via intramolecular oxidative ring rearrangement of tetrahydro-b-carbolines and their biological evaluation. *New Journal of Chemistry*, **2018**, DOI: 10.1039/C7NJ04616B. **3.6**
- 46 Pratip K. Dutta, **Subhabrata Sen***, Debasree Saha* and Basabbijayi Dhar, Solid Supported nano structured Cu-Catalyst for solvent/ligand free C₂ Amination of Azoles, *Eur. J. Org. Chem.* **2017**, DOI: 10.1002/ejoc.201701669. **3.0**
- 45 Jyoti Chauhan, Tania Luthra, Rambabu Gundla, Antonio Ferraro, Ulrike Holzgrabe, **Subhabrata Sen***, A diversity oriented synthesis of natural product inspired molecular libraries. *Organic and Biomolecular Chemistry*, **2017**, 15, 9108-9120. **3.9**
- 44 Tania Luthra, Rahul Agarwal, **Uma Adepally***, Mamidala, Estari, **Subhabrata Sen*** A novel library of a-arylketones as potential inhibitors of a-glucosidase: Their design, synthesis, *in vitro* and *in vivo* studies, **4.3**

Scientific Reports, **2017**, 7, 13246 (DOI:10.1038/s41598-017-13798-y).

- 43** Santanu Hati, Ulrike Holzgrabe, **Subhabrata Sen*** Oxidative dehydrogenation of C-C and C-N bonds: A convenient approach to access diverse (dihydro) heteromatic compound, *Beilstein J. Org. Chem.* **2017**, 13, 1670-1692. **2.9**
- 42** Suresh Poudapally, Shankar Battu, Loka Reddy Velatooru, Murali Satyanarayana Bethu, Janapala Venkateswara Rao, Somesh Sharma, **Subhabrata Sen**, Narender Pottabathini, Vijaya Bhaskara Reddy Iska, Vidya Katangoor, Synthesis and Biological Evaluation of Novel Quinazoline-Sulfonamides as Anti-Cancer Agents, *Bioorganic and Medicinal Chemistry Letters*, **2017**, <http://dx.doi.org/10.1016/j.bmcl.2017.03.042> **2.8**
- 41** Santanu Hati and **Subhabrata Sen*** Cerium Chloride Catalyzed, 2-Iodoxybenzoic Acid Mediated Oxidative Dehydrogenation of Multiple Heterocycles at Room Temperature, *European Journal of Organic Chemistry*. **2017**, 1277-1280 **3.0**
- 40** Pratip Kumar Dutta, Arpi Majumder, Sanjay Dutta, Basab Bijayi Dhar, Parthapratim Munshi and **Subhabrata Sen*** Solvent free, palladium catalyzed highly facile synthesis of diaryl disulfides from aryl thiols, *Tetrahedron Letters*, **2017**, 58, 527-530 **2.4**
- 39** Naveen Kumar, Santanu Hati, Parthapratim Munshi, Seema Sehrawat, **Subhabrata Sen** and Shailja Singh* A novel spiroindoline targets cell cycle and migration via modulation of microtubule cytoskeleton, *Molecular and Cellular Biochemistry*, **2017**, 429, 11-21 -
- 38** Dandugudumula Ramu, Swati Garg, R. Ayana, A. K. Keerthana, Vijeta Sharma, **Subhabrata Sen**, Soumya Pati and Shailja Singh* Novel β -carboline-quinazolinone hybrids disrupt *Leishmania donovani* redox homeostasis and show promising antileishmanial activity, *Biochemical Pharmacology*, **2017**, 129, 26-42 **5.9**
- 37** Chandramohan Bathula, Shreemoyee Ghosh, Santanu Hati, Sayantan Tripathi, Shailja Singh, Saikat Chakrabarti, **Subhabrata Sen*** Bioisosteric modification of known fucosidase inhibitors to discover a novel inhibitor of α -L-fucosidase, *RSC Advances*, **2017**, 7, 3563-3572. **3.4**
- 36** Santanu Hati, Sayantan Tripathi, Pratip K. Dutta, Rahul Agarwal, Ramprasad Srinivasan, Ashutosh Singh, Shailja Singh, **Subhabrata Sen*** Spiro[pyrrolidine-3, 3'-oxindole] as potent anti-breast cancer compounds: Their design, synthesis, biological evaluation and cellular target identification, *Scientific Report* 2016, 6: 32213, 1-10. **4.3**
- 35** Chandramohan Bathula, Sayantan Tripathi, Ramprasad Srinivasan, Kunal Kumar Jha, Arnab Ganguly, G. Chakraborty, Shailja Singh, Parthapratim Munshi, **Subhabrata Sen*** Synthesis of novel 5-arylidenethiazolidinones with apoptotic properties via a three component reaction using piperidine as a bifunctional reagent, *Organic and Biomolecular Chemistry*, 2016, 14, 8053-8063 (Accepted as inner cover page). **3.9**
- 34** Santanu Hati, Pratip K. Dutta, Sanjay Dutta, Parthapratim Munshi and **Subhabrata Sen*** Accessing Benzimidazoles via a Ring Distortion Strategy: An Oxone Mediated Tandem Reaction of 2-Aminobenzylamines, *Organic Letters*, 2016, 18, 3090-3093. **6.1**
- 33** Rajanikanth Mamidala, Papiya Mazumdar, Chandramohan Bathula, Rahul Agarwal, Kunal Kumar Jha, Hemanta Majumdar, Parthapratim Munshi, **Subhabrata Sen*** Identification of *Leishmania donovani* Topoisomerase 1 inhibitors via intuitive scaffold hopping and bioisosteric modification of known Top 1 inhibitors, *Scientific Reports*, 2016, 6:26603, 1-12 **4.3**
- 32** Rahul Agarwal, Ashutosh Singh and **Subhabrata Sen***, Role of Molecular Docking in Computer Aided Drug Design and Development, Chapter-1, *Applied Case Studies and Solutions in Molecular Docking-Based Drug Design*, ISBN 9781522503620, 2016, Publisher: IGI Global -
- 31** Santanu Hati and **Subhabrata Sen*** Synthesis of Quinazolines and Dihydroquinazolines: o-Iodoxybenzoic Acid Mediated Tandem Reaction of o-Aminobenzylamine with Aldehydes, *Synthesis*. 2016, 48, 1389-1398 **3.2**
- 30** Santanu Hati and **Subhabrata Sen*** N-Bromo-succinimide promoted synthesis of b-carbolines and 3, 4- **2.4**

- dihydro-b-carbolines from tetrahydro- β -carbolines, *Tetlett.* 2016, 57, 1040-1043
- 29 Chandramohan Bathula, R. Mamidala, C. Tulluri, Rahul Agarwal, K. K. Jha, U. Adepally, Ashutosh Singh, Parthapratim Munshi, M. Thirumalacharya and **Subhabrata Sen*** Substituted furopyridinediones as novel inhibitors of α -glucosidase, *RSC Advances*, 2015, 5, 90374-90385 **3.4**
 - 28 Chandramohan Bathula, Poonam Dangi, Santanu Hati, Rahul Agarwal, Ashutosh Singh, Parthapratim Munshi, Shailja Singh and **Subhabrata Sen*** Diverse synthesis of natural product inspired fused and spiro-heterocyclic scaffolds via ring distortion and ring construction strategies, *New Journal of Chemistry*, 2015, 39, 9281-9292 **3.6**
 - 27 Papiya Majumdar, Chandramohan Bathula, Suparna M. Basu, Subhendu K. Das, Rahul Agarwal, Santanu Hati, Ashutosh Singh, **Subhabrata Sen***, Benu Brata Das*, Design, synthesis and evaluation of thiohydantoin derivatives as potent topoisomerase I (Top1) inhibitors with anticancer activity, *European Journal of Medicinal Chemistry*, 2015, 102, 540-551 **6.5**
 - 26 Santanu Hati, Sanjay M. Madurkar, Chandramohan Bathula, Chiranjeevi Thulluri, Rahul Agarwal, Faiza Amber Siddiqui, Poonam Dangi, Uma Adepally, Ashutosh Singh, Shailja Singh*, **Subhabrata Sen***, Design, synthesis and biological evaluation of small molecules as potent glucosidase inhibitors, A natural product based DOS library of hybrid systems, *European Journal of Medicinal Chemistry*, 2015, 100, 188-196 **6.5**
 - 25 Ganesh Prabhu, Shalini Agarwal, Vijeta Sharma, Sanjay M. Madurkar, Parthapratim Munshi, Shailja Singh,* **Subhabrata Sen***, A natural product based DOS library of hybrid systems, *European Journal of Medicinal Chemistry*, 2015, 95, 41-48 **6.5**
 - 24 Chandramohan Bathula, Shailja Singh and **Subhabrata Sen***, Diversity oriented synthesis for novel anti-malarials, *Systems and Synthetic Biology*, 2015, 9 (Supp 1), 49 -
 - 23 Santanu Hati, Sudepto Bhattacharya, **Subhabrata Sen***, Innovative techniques to discover novel antimalarials, *Systems and Synthetic Biology*, 2015, 9 (Supp 1), 39 -
 - 22 Vijeta Sharma, Shalini Agarwal, Sanjay M Madurkar, Gaurav Datta, Poonam Dangi, Ramu Dandugudumula, **Subhabrata Sen***,* and Shailja Singh*, Diversity-oriented synthesis and activity evaluation of substituted bicyclic lactams as anti-malarial against Plasmodium falciparum, *Malaria Journal*, 2014, 13, 1-11 **3.0**
 - 21 Sudepto Bhattacharya and Subhabrata Sen, Chapter-14, Applications of Metaheuristics in Process Engineering, ISBN 978-3-319-06507-6, 2014, Publisher: Springer -
 - 20 **Subhabrata Sen***, Ganesh Prabhu, Chandramohan Bathula, Santanu Hati, Diversity Oriented Asymmetric Synthesis, *Synthesis*, 2014, 46, 2099-2121 **3.1**
 - 19 Rajinikanth Mamidala, V. Surendra Babu Damerla, Rambabu Gundla, M. Thirumala Chary, Y. L. N. Murthy and **Subhabrata Sen***, Pyrrolidine and piperidine based chiral spiro and fused scaffolds via build/couple/pair approach *RSC Adv.*, 2014, 4, 10619-10626 **3.4**
 - 18 Nagamani Sukumar, Michael P. Krein, Ganesh Prabhu, Sudepto Bhattacharya and **Subhabrata Sen**, Network Measures for Chemical Library Design, *Drug Development Research*, 2014, 75, 402-411 **4.3**
 - 17 **Subhabrata Sen***, Rajanikanth Mamidala, Rambabu Gundla and M. T. Charya, Diversity Oriented Synthesis of Macrocyclic Diaryl Ethers by Doetz Benzannulation, *Asian Journal of Organic Chemistry*, 2013, 2, 862-868 **3.3**
 - 16 Ramu Surakanti, S. Sanivarapu, Chiranjeevi Thulluri, Pravin S. Iyer, Raghuram S. Tangirala, Rambabu Gundla, Dr. Uma Adepally, Y. L. N. Murthy, Lakshmi Velide and **Subhabrata Sen***, Synthesis of Privileged Scaffolds by Using Diversity-Oriented Synthesis *Chemistry An Asian Journal*, 2013, 8, 1168-1176 **4.6**
 - 15 **Subhabrata Sen***, Siva R. Kamma, Rambabu Gundla, Uma Adepally, Santosh Kuncha, Sridhar Thirnathi and U. Viplava Prasad, A reagent based DOS strategy via Evans chiral auxiliary: highly stereoselective Michael reaction towards optically active quinolizidinones, piperidinones and pyrrolidinones, *RSC Adv.*, 2013, 3, 2404-2411 **3.4**

- 14 Andrew M.K. Pennell, James B. Aggen, **Subhabrata Sen**, Wei Chen, Yuan Xu, Edward Sullivan, Lianfa Li, Kevin Greenman, Trevor Charvat, Derek Hansen, Daniel J. Dairaghi, J.J. Kim Wright, Penglie Zhang, 1-(4-Phenylpiperazin-1-yl)-2-(1H-pyrazol-1-yl)ethanones as novel CCR1 antagonists *Bioorganic & Medicinal Chemistry Letters*, 2013, 23, 1228-1231. **2.8**
- 13 V. Surendra Babu Damerla, Chiranjeevi Tulluri, Dr. Rambabu Gundla, Lava Naviri, Prof. Uma Adepally, Pravin S. Iyer, Prof. Y. L. N. Murthy, Nampally Prabhakar and **Subhabrata Sen*** Reagent-Based DOS: Developing a Diastereoselective Methodology to access Spirocyclic- and Fused Heterocyclic Ring Systems, *Chemistry An Asian Journal*, 2012, 7, 2351–2360. **4.5**
- 12 **Subhabrata Sen,*** Siva R. Kamma, Venkata R. Potti, Y.L.N. Murthy, Avinash B. Chaudhary, Diversity-oriented synthesis of amino acids using chiral enolates, *Tetrahedron Letters*, 2011, 52, 5585-5588. **2.4**
- 11 **Subhabrata Sen,*** Venkata R. Potti, Ramu Surakanti, Y. L. N. Murthy and Raghavaiah Pallepogu, Enantioselective synthesis of spirooxindoles via chiral auxiliary (bicyclic lactam) controlled SNAr reactions, *Org. Biomol. Chem.*, 2011, 9, 358-360 **3.9**
- 10 Dibenzofurans and their use as a medicament or as a fungicide. **Subhabrata Sen***, Parag Kulkarni, Kailaskumar Borate and Nandini R Pai. *Indian Patent Application*, 2010, 46pp, IN2008KO01638 -
- 9 **Subhabrata Sen,*** Kailaskumar Borate, Parag Kulkarni, Nandini R. Pai, Reaction of substituted alkynols with alkoxy-carbene complexes of chromium: a facile synthesis of substituted α , β -unsaturated- γ -butyrolactones, *Tetrahedron Letters*, 2009, 50, 5001-5004 **2.4**
- 8 **Subhabrata Sen,*** Parag Kulkarni, Kailaskumar Borate, Nandini R. Pai, Synthesis of novel oxygen heterocycles: 1,10-dioxo-cyclopenta[a]fluorine and benzo[b]naphtho[2, 1-d]furans via Dötz intramolecular benzannulation, *Tetrahedron Letters*, 2009, 50, 4128-4131 **2.4**
- 7 Samir Ghosh, A. Sanjeev Kumar, G. N. Mehta, R. Soundararajan* and Subhabrata Sen, Formal synthesis of piperazinomycin, a novel antifungal antibiotic *ARKIVOC*, 2009, vii, 72-78 **1.0**
- 6 Substituted piperazines. Andrew M. K. Pennell, James B. Aggen, J. J. Kim. Wright, **Subhabrata Sen**, Brian E. McMaster, Daniel Dairaghi, *US 7449576*, 2008 -
- 5 Bicyclic and bridged nitrogen heterocycles. Wei Chen, Penglie Zhang, James B. Aggen, Daniel Dairaghi, Andrew M. K. Pennell, Subhabrata Sen, J. J. Kim Wright. *US 7435831*, 2008 -
- 4 Substituted Piperazines. Andrew M. K. Pennell, James B. Aggen, J. J. Kim Wright, **Subhabrata Sen**, Brian E. McMaster, Daniel J. Dairaghi. *WO/2005/056015*, 2005 -
- 3 Anuradha Gupta, **Subhabrata Sen**, Michael Harmata, and Shon R. Pulley, Synthesis of (S, S)-Isodityrosine by Dötz Benzannulation, 2005, *Journal of Organic Chemistry* 18, 7422-742 **4.3**
- 2 1-aryl-4-substituted piperazines derivatives for use as CCR1 antagoisys for the treatment of inflammation and immune disorders. Andrew M. K. Pennell, James B. Aggen, J. J. Kim Wright, **Subhabrata Sen**, Brian E. McMaster, Daniel J. Dairaghi. *WO/2003/105853*, 2003. -
- 1 Shon R. Pulley, **Subhabrata Sen**, Andrei Vorogushin, and Erika Swanson, Diaryl Ethers Using Fischer Chromium Carbene Mediated Benzannulation, 1999, *Organic Letters* 1, 1721-1723. **6.1**

INVITED LECTURES

2021

SYNGENTA BIOSCIENCES Pvt. Ltd., Corlim, Goa, Illuminating diazoacetates with Blue LED, 31th August, 2021

2021

Functionalization of indoles *via* metal catalysts and photolysis. In The Present and Future of Excellence in Organic Synthesis, Tezpur University, January 7-8, 2021, Tezpur University, Assam, India,

2020

Macquarie University, Department of Molecular Sciences, NSW, Australia, Iodine and its derivatives for the synthesis of heterocycles, 28th July, 2020

2020

Glenmark Pharmaceutical, NCE Division, Navi Mumbai, Maharashtra, Heterocycles and their application as therapeutic agents: Few case studies, 28th August, 2020

2019

Heterocycles and their application as medicines, 7th ANNUM, Gujarat University, Ahmedabad, 27th to 29th of September, 2019

2018

NTU-IISER-Bhopal Chemistry Workshop, 4th-6th January, 2018, IISER-Bhopal, Madhya Pradesh, India

2017

Conference on Frontiers in Organic Synthesis, 22nd-24th December, 2017, IIT-Roorkee, Uttarakhand, India

2016

Novel multicomponent reactions in the synthesis of bioactive heterocycles. Invited Presentation in Sixth European Workshop in Drug Synthesis, 15th-19th May, 2016, Certosa di Pontignano, Siena, Italy.

2016

4th International Conference on Asian Network for Natural and Unnatural Materials, 8th-11th June, 2016, National University of Singapore, Singapore. Intuitive scaffold hopping strategy towards substituted furopyridinediones as novel inhibitors of α -glucosidase

2016

Medicinal Technology, Mahidol University, Nakhon Pathom, Thailand, 29th January, 2016. Diverse synthesis of natural product inspired fused and spiro scaffolds *via* ring distortion and construction strategy

2015

Novel multicomponent reactions in the synthesis of bioactive heterocycles. Invited Presentation in Sixth European Workshop in Drug Synthesis, 15th-19th May, 2016, Certosa di Pontignano, Siena, Italy.

2015

ANNUM in Department of Chemistry, University of Punjab, Chandigarh, 28th February-2nd March, 2015. Natural product inspired chiral hybrid systems *via* biology driven diversity oriented synthesis (BDDOS)

2014

Invited lecture in Department of Physical Sciences and Mathematics in Nanyang Technical University, Singapore, October 27th, 2014. Synthesis of novel and privileged scaffolds *via* diversity-oriented synthesis followed by phenotypic screening against cancer cell lines.

2013

Invited Lecture on Medchem 2013, IIT-Chennai, Chennai, Tamil Nadu, India, October 25th-26th, 2013. Michael reaction of oxazolidinones with Nitrostyrene: Efficient Accesses to Optically Active Quinolizidinones, Piperidinones and Pyrrolidinones Evolution from auxiliary to catalytic asymmetric synthesis.

2012

Invited Lecture on 2nd World Congress of Catalytic Asymmetric Synthesis, Beijing, China, May 12th-14th, 2012. Natural Product Inspired Spirocyclic and Fused systems from chiral Bicyclic Lactams.

2012

Invited Lecture Practical Applications of Modern Tools in Organic Synthesis and Purifications II, Pune, Maharashtra, India, April 2nd –April 4th, 2012

AWARDED RESEARCH SUPPORT

Academic Lead Investigator/ SBIRI (BIRAC)/ 2019-2021/ 70 lacs;

Consultant w/ University of Arkansas, Ft. Smith: Arkansas)/ INBRE Grant/ 2021 (8 months); 38,250 USD

Co-Investigator w/ Prof. Ludovic Gremaud/ Bridging Grant 2019- Zurich University of Applied Sciences/ 2020-2021 (6 months); 25000 CHF

Co-Investigator: Department of Biotechnology: 2016-2019; 25 lacs;

Co-Investigator: Department of Science and Technology: 2017-2020: 45 lacs;

TEACHING EXPERIENCE

Shiv Nadar University| Gautam Buddha Nagar, India

2019-present Heterocyclic Chemistry (CHY 322); Named Reactions and Mechanism (CHY 321); Medicinal Chemistry of Organic Molecules (CHY424/ 501)

Shiv Nadar University| Gautam Buddha Nagar, India

2013-2018 General Chemistry (CHY 101); Molecules and medicines (CHY 120); Advanced Synthetic Organic Chemistry (CHY 502); Chemical Analysis lab (CHY 213)

EDITORIAL AND EDITORIAL ADVISORY BOARDS

Editorial Board, Drug Development Research, 2019 – present

Referee details

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Associate Professor Debabrata Maiti, Department of Chemistry, IIT-Bombay, Mumbai, India. Email: dmaiti@iitb.ac.in