

## SUBHABRATA SEN, PH.D., FRSC

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DEPARTMENT OF CHEMISTRY,  
SCHOOL OF NATURAL SCIENCES, SHIV NADAR UNIVERSITY

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## APPOINTMENTS

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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

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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

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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

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ADVISOR: Ongoing: 5 and Completed: 8

CO-ADVISOR: Ongoing: 2 and Completed: 4

## AWARDS

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- (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

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IF

- 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. *Green Chemistry*, 2021, DOI: 10.1039/D1GC02797B **10.2**
- 76** Tejas Prabakar and **Subhabrata Sen (2021)** in 'Manganese Catalyzed C-H Functionalization Reactions' Debabrata Maiti, *Handbook of CH-Functionalization (CHF)*, 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. *Org. Biomol. Chem.* **2021**, DOI: 10.1039/D1OB01219C (This article is part of the themed collection: Synthetic methodology in OBC). **3.9**
- 74** Saibal Sar,<sup>‡</sup> Souvik Guha,<sup>‡</sup> Tejas Prabakar,<sup>‡</sup> Debajit Maiti and **Subhabrata Sen\***, Blue LED mediated *in situ* generation of pyridinium and isoquinolinium ylides from aryl diazoesters: Their application in the synthesis of diverse dihydroindolizine. *J. Org. Chem.* **2021**, doi.org/10.1021/acs.joc.1c01209. **4.3**
- 73** Jyoti Chauhan, Srinivas R Maddi, Kshatresh Dutta Dubey\* and Subhabrata Sen.\* Developing C2-aryl indoles as novel inhibitors of hIDO1 and understanding their mechanism of inhibition via mass spectroscopy, QM/MM calculations and molecular dynamics simulation. *Front. Chem.* **2021**, doi: 10.3389/fchem.2021.691319. **5.3**
- 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,<sup>§</sup> Ranajit Das<sup>§</sup> 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,<sup>‡</sup> Satyanarayana Gadde,<sup>‡</sup> Naresh Kumar, David StClair Black and **Subhabrata Sen\***, Orthogonal syntheses of  $\gamma$ -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**, **3.1**

<https://doi.org/10.1186/s12936-021-03632-2>.

- 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,<sup>5</sup> Saikat Chakrabarti,<sup>3</sup> Srinivas R. Maddi<sup>4</sup> and **Subhabrata Sen\***,<sup>1</sup> 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, <sup>§</sup> Akshay Kumar Nayak, <sup>§</sup> 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<sup>§</sup>, Santanu Hati<sup>§</sup>, 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, Santunu Paul, Debashish Nag, Saikat Chakrabarti, Gopal Chakrabarti and **Subhabrata Sen\***, Design, synthesis and biological evaluation of a novel library of antimetabolic C<sub>2</sub>-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  $\alpha$ -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- $\beta$ -carbolines: Facile synthesis of C<sub>2</sub> 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@TiO<sub>2</sub>). *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 C<sub>2</sub> 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  $\alpha$ -glucosidase: Their design, synthesis, *in vitro* and *in vivo* studies, *Scientific Reports*, **2017**, 7, 13246 (DOI:10.1038/s41598-017-13798-y). **4.3**
- 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 Sehwat, **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  $\beta$ -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  $\alpha$ -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-dihydro-*b*-carbolines from tetrahydro- $\beta$ -carbolines, *Tetlett*. 2016, 57, 1040-1043 **2.4**
- 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  $\alpha$ -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 **6.5**

- based DOS library of hybrid systems, *European Journal of Medicinal Chemistry*, 2015, 100, 188-196
- 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 Addepally, 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 Addepally, 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 Addepally, 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  $\alpha$ ,  $\beta$ -unsaturated- $\gamma$ -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 antagonists 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

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### 2021

SYNGENTA BIOSCIENCES Pvt. Ltd., Corlim, Goa, Illuminating diazoacetates with Blue LED, 31<sup>st</sup> 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, 28<sup>th</sup> July, 2020

### 2020

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

### 2019

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

### 2018

NTU-IISER-Bhopal Chemistry Workshop, 4<sup>th</sup>-6<sup>th</sup> January, 2018, IISER-Bhopal, Madhya Pradesh, India

### 2017

Conference on Frontiers in Organic Synthesis, 22<sup>nd</sup>-24<sup>th</sup> 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, 15<sup>th</sup>-19<sup>th</sup> May, 2016, Certosa di Pontignano, Siena, Italy.

### 2016

4<sup>th</sup> International Conference on Asian Network for Natural and Unnatural Materials, 8<sup>th</sup>-11<sup>th</sup> June, 2016, National

University of Singapore, Singapore. Intuitive scaffold hopping strategy towards substituted furopyridinediones as novel inhibitors of  $\alpha$ -glucosidase

**2016**

Medicinal Technology, Mahidol University, Nakhon Pathom, Thailand, 29<sup>th</sup> 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, 15<sup>th</sup>-19<sup>th</sup> May, 2016, Certosa di Pontignano, Siena, Italy.

**2015**

ANNUM in Department of Chemistry, University of Punjab, Chandigarh, 28<sup>th</sup> February-2<sup>nd</sup> 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 27<sup>th</sup>, 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 25<sup>th</sup>-26<sup>th</sup>, 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 2<sup>nd</sup> World Congress of Catalytic Asymmetric Synthesis, Beijing, China, May 12<sup>th</sup>-14<sup>th</sup>, 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 2<sup>nd</sup> –April 4<sup>th</sup>, 2012

## AWARDED RESEARCH SUPPORT

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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

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### **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

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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](mailto:dmaiti@iitb.ac.in)