# CURRICULUM VITAE

## Current position and corresponding Address:

### Name: Dr. Satinath Sarkar

### **Designation: Assistant Professor**

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## **Residential address:**

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## Educational qualifications

**Ph. D. (**2014): University of Kalyani, Kalyani, West Bengal and Central Drug Research Institute (CSIR-CDRI), Lucknow, U.P., India.

Major: Synthetic Organic Chemistry (Other: Medicinal Chemistry).

*Title of the PhD Thesis:* Synthesis of Natural Products Analogues of Biological Importance and Development of New Synthetic Methodologies

M. Sc.: (2007): University of Kalyani, Kalyani, West Bengal, India.Major: Organic Chemistry (Other Subjects: Physical and Inorganic Chemistry).

B. Sc. (2005): University of Kalyani, Kalyani, West Bengal, India.
Major: Chemistry Honours (Other Subjects: Physics, Mathematics & English).

## Professional experiences

**1. 2018 (March onwards): Assistant Professor**: Department Of Chemistry, Netaji Mahavidyalaya, Arambagh Hooghly.

2. 2016 (April) to 2018 (March): DST-SERB National Post-Doctoral Fellow: University of Calcutta, University College of Science & Technology, 92, A. P. C. Road, 700009,West Bengal, India.

Major: Synthetic Organic Chemistry (Other: Nanomaterial Chemistry).



**Title of Project**: *N*-Heterocyclic Carbenes Catalyzed Synthesis of Sugar-Based Novel Carbocyclic Scaffolds and Heterocycles: Fabrication of Organic Nanomaterials and Development of their Nanoscale Properties

3. 2013 (August) to 2016 (March): UGC-Dr. D.S. Kothari Post Doctoral Fellow: University of Calcutta, University College of Science & Technology, 92, A. P. C. Road, Kolkata-700009,West Bengal, India.

Major: Synthetic Organic Chemistry (Other: Nanomaterial Chemistry). Title of Project: *N*-Heterocyclic Carbenes Catalyzed Synthesis of Sugar-Based Novel Carbocyclic Scaffolds and Heterocycles Towards Fabrication of Organic Nanomaterials and Development of their Nanoscale Properties

## Area of Research

Synthesis of bio active molecules, medicinal chemistry, materials science, and. nanoscience.

#### List of Publications

1. S. Mal, <u>S. Sarkar</u>, and M. Jana<sup>\*</sup>, "Metal-free C(sp3)-H Bromination: Synthesis of Phenacyl bromide and Benzyl bromide derivatives" *Journal of Chemical Sciences*, **2022**, 134, 118, 1-6.

2. S. Mal, <u>S. Sarkar</u>, and M. Jana<sup>\*</sup>, "Recent Update on Transition Metal-Free C(sp2)-H Bond Halogenation in (Hetero) Arenes" *Chemistry Select*, **2021**, 6, 11299-11330.

3. R. N. Mitra, K. Show, D. Barman, <u>S. Sarkar\*</u>, and Dilip K. Maiti\*, "NHC-Catalyzed Dual Stetter Reaction: A Mild Cascade Annulation for the Syntheses of Naphthoquinones, Isoflavanones, and Sugar-Based Chiral Analogues" *J. Org. Chem.* **2019**, 84, 1, 42–52.

4. <u>S. Sarkar</u>, R. M. Laha, R. N. Mitra and D. K. Maiti\*, "Pd<sup>II</sup>- Catalyzed Oxidative Aldehyde-sp<sup>2</sup>C-H Functionalization and Cyclization Using NHC with Mild Oxidant DMSO for the Selective Synthesis of Esters, Sugar-Based Analogues, and β-Hydroxy Chromanones: An <sup>18</sup>O-Labeling Study" *ACS Omega*, **2016**, *1*, 981–995.

5. N. Pramanik, <u>S. Sarkar</u>, D. Roy, S. Debnath, S. Ghosh, S. Khamarui and D. K. Maiti<sup>\*</sup>, "Synthesis and diverse general oxidative cyclization catalysis of high-valent Mo<sup>VI</sup>O<sub>2</sub>(HL) to ubiquitous heterocycles and their chiral analogues with outstanding selectivity" *RSC Advances* (IF 3.289), **2015**, *5*, 101959–101964.

6. D. Roy, <u>S. Sarkar</u>, R. M. Laha, N. Pramanik and D. K. Maiti\*, "Ni(0)-Cu(I): A powerful combo catalyst for simultaneous coupling and cleavage of C-N bond with cyclization to valuable amide-based pyrroles and 4-pyridones" *RSC Advances* (IF 3.289), **2015**, *5*, 73346– 73351.

7. <u>S. Sarkar</u> and T. Narender<sup>\*</sup>, "PhI(OAc)<sub>2</sub>–BF<sub>3</sub>–OEt<sub>2</sub> mediated domino imine activation, intramolecular C–C bond formation and  $\beta$ elimination: new approach for the synthesis of fluorenones, xanthones and phenanthridines" *RSC Advances* (IF 3.289), **2014**, *4*, 40964–40968.

8. <u>S. Sarkar</u>, M. Jana and T. Narender<sup>\*</sup>, "Transition Metal Free Domino Sequential Synthesis of (*E*)-Stilbenes, Biarylmethanes and Biarylethers using Diethylaluminium chloride as a Lewis acid" *RSC Advances* (IF 3.289), **2013**, *3*, 18755-18758.

9. <u>S. Sarkar</u>, M. Jana and T. Narender<sup>\*</sup>, "Metal Free Directed Ortho C-H lodination: Synthesis of 2'-lodobiaryl-2-Carbonitriles" *European Journal of Organic Chemistry* (IF 3.068), **2013**, *29*, 6491-6495.

10. <u>S. Sarkar</u>, R. Sonkar, G. Bhatia and T. Narender\*, "Synthesis of new *N*-acryl-1-amino-2-phenyl ethanol and *N*-acyl-1-amino-3-aryloxy propanols and evaluation of their antihyperlipidemic, LDL-oxidation and antioxidant activity" *European Journal of Medicinal Chemistry* (IF 3.902), **2014**, *80*, 135-144.

11. T. Narender\*, <u>S. Sarkar</u>, K. Rajendar and S. Tiwari, "Synthesis of Biaryls *via* AICI<sub>3</sub> Catalyzed Domino Reaction Involving Cyclization, Dehydration and Oxidation" *Organic Letters* (IF 6.732), **2011**, *13*, 6140-6143.

12. T. Narender<sup>\*</sup>, K. Rajendar, <u>S. Sarkar</u>, V. K. Singh, U. Chaturvedi, A. K. Khanna and G. Bhatia, "Synthesis of Novel *N*-(2-

hydroxy-2-*p*-tolylethyl)-amide and *N*-(2-oxo-2-*p*-tolylethyl)-amide Derivatives and their Antidyslipidemic and Antioxidant Activity" *Bioorganic & Medicinal Chemistry Letters* (IF 2.420), **2011**, *21*, 6393-6397.

13. T. Narender<sup>\*</sup>, K. Venkateswarlu, B. V. Nayak and <u>S. Sarkar</u>, "A New Chemical Access for 3*o*-acetyl-4*o*-hydroxychalcones using Borontrifluoride–etherate *via* a Regioselective Claisen-Schmidt Condensation and its Application in the Synthesis of Chalcone Hybrids" *Tetrahedron Letters* (IF 2.379), **2011**, *52*, 5794-5798.

14. T. Narender<sup>\*</sup>, G. Madhur, Dharamsheela, K. P. Reddy, <u>S. Sarkar</u>, J. Sarkar and R. K. Tripathi, "One-pot Synthesis of Cationic Amphiphiles from n-Alcohols and Allyl alcohols" *Synlett* (IF 2.323), **2011**, *12*, 1687-1692.

15. T. Narender<sup>\*</sup>, <u>S. Sarkar</u>, K. Venkateswarlu and J. K. Kumar, "New Chemical Access for Pyran Core Embedded Derivatives from Bisalkenylated 1,3-Diketones and 1,3-Diketoesters *via* Tandem C-Dealkenylation and Cyclization" *Tetrahedron Letters* (IF 2.379), **2010**, 51, 6576-6579.

#### **Citations**

1. "6 research works with 52 citations and 124 reads"

2. " 4 research works with 19 citations and 229 reads"

#### Presentations in Conference:

1. <u>S. Sarkar</u>, R. M. Laha, R. N. Mitra and D. K. Maiti<sup>\*</sup>, "Pd<sup>II</sup>- Catalyzed Oxidative Aldehyde-sp<sup>2</sup>C-H Functionalization and Cyclization Using NHC with Mild Oxidant DMSO for the Selective Synthesis of Esters, Sugar-Based Analogues, and  $\beta$  Hydroxy Chromanones: An <sup>18</sup>O-

Labeling Study" poster presentation in "6<sup>th</sup> International Symposium on Current Trends in Drug Discovery and Research (CTDDR-2016) " Organized by CSIR-CDRI, Lucknow, India, Feb 25-28, 2016. 2. <u>S. Sarkar</u>, M. Jana and T. Narender<sup>\*</sup>, "Metal Free Ortho C-H lodination: Synthesis of 2'-lodobiaryl-2-Carbonitriles" poster presentation in "5<sup>th</sup> International Symposium on Drug Development for Orphan/Neglected Diseases (CTDDR-2013) " Organized by CSIR-CDRI, Lucknow, India, Feb 26-28, 2013.

3. <u>S. Sarkar</u> and T. Narender<sup>\*</sup>, "Synthesis of Biaryls *via* AlCl<sub>3</sub> Catalyzed Domino Reaction Involving Carbonyl-ene Reaction, Dehydration and Oxidation" poster presentation in "6<sup>th</sup> CRSI-RSC Symposium and 14<sup>th</sup> CRSI National Symposium Jointly in Chemistry" Organized by CSIR-NIIST, Trivandrum, India, February 2-5, 2012.

# Achievments:

1. DST-SERB National Post-Doctoral fellowship File Number: PDF/2015/000144, Dated 29<sup>th</sup> January, 2016 for a period of two years.

2. UGC-Dr. D.S. Kothari Postdoctoral Fellowship, UGC award No.F.4 2/2006(BSR)/13-994/2013(BSR), Dated 1<sup>th</sup> August, 2013 & F.13-1/2014(BSR), Dated 15<sup>th</sup> May, 2014 for a period of three years.

3. **CDRI incentive award** for high impact paper in 2012.

4. CSIR JUNIOR Research Fellowship granted by Council of Scientific and Industrial Research (CSIR) New Delhi for a period of two years and CSIR SENIOR Research Fellowship granted by Council of Scientific and Industrial Research (CSIR) New Delhi for a period of three years.

5. Successfully qualified CSIR-NET-2007 conducted by Council of Scientific and Industrial Research (CSIR) New Delhi.