

**Dr. SUVANKAR DEBBARMA**

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**Working Address:**

Department of Chemistry  
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**PERSONAL INFORMATION:** Sex: Male

**Marital Status:** Single

**Date of Birth:** 22-05-1990

**Nationality:** Indian

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**OBJECTIVE:** *“Committed to do good & quality research in Synthetic Organic Chemistry”*

**EDUCATIONS:**

**Ph. D.**, (2014 – 2019): Department of Chemistry, Indian Institute of Technology Kharagpur (**IIT-Kharagpur**), India. (Suorevisor *Prof. Dr. Modhu Sudan Maji.*)

**Thesis title:** ‘*Transition-Metal-Catalyzed External Oxidant Free C–C and C–N Bond Formation*’

**M. Sc.**, (2011 – 2013): Department of Chemistry, (Organic Special): First Class, Indian Institute of Technology Madras (**IIT-Madras**), India. (supervisor *Prof. Dr. S. Baskaran.*)

**Thesis Title:** ‘*Synthesis of New Organocatalyst for Asymmetric Transformation*’

**B.Sc.**, (2008 – 2011): Chemistry Honors (First class), **Vidyasagar University**, West Bengal, India.

**RESEARCH EXPERIENCE:**

**Apr, 2022 –Nov 2022** Assistant professor, Department of Chemistry, Department of Chemistry, Tohoku University Sendai, Japan. (PI: *Prof. Dr. Yujiro Hayashi.*)

- Asymmetric total synthesis of **Amphidinolide N**

**Jun, 2020 – Mar 2022:** Institute Research Associate (RA), Department of Chemistry, Indian Institute of Technology Kharagpur (**IIT-Kharagpur**), India. (Suorevisor *Prof. Dr. Modhu Sudan Maji.*)

- Development of a novel strategy for asymmetric C–H functionalization using peptide ligand assisted Cp\*Co(III)-catalysis.

**Sep, 2019 – Jan 2020: Post-Doctoral Fellow (Fixed-Term Researcher)**

**Principal Investigator:** *Prof. Dr. Shengming Ma.* Department of Chemistry, Fudan University/Shanghai Institute of Organic Chemistry (SIOC), CAS, China.

- Developed a novel strategy for *Asymmetric Synthesis of Allene Carboxylate through Dynamic Kinetic Resolutions*. (**manuscript communicated**)

**July 2014 – Aug 2019**

**Ph. D.**, Synthetic Organic Chemistry, Indian Institute of Technology Kharagpur, India.

- Developed a low temperature strategy for C–C bond formation through transition metal catalyzed C–H allylation strategy.
- Significant contribution has been made to the C–N bond formation, by developing a modern catalytic approach for amide synthesis through an aldehyde C–H bond activation. This leads to synthesize wide range of biologically important molecules.
- A benign catalytic method has been developed to synthesize biologically important **Z-Enamide**, through a stereo controlled manner.
- Considering the environmental issues of every chemical synthesis, we have first developed a water medium iridium catalysis for the synthesis of wide range of biologically important **Chromon** derivatives, utilizing various **diazo-ketones**.
- A complete training has been gained for various metal catalyst synthesis and its utilizations through range of catalysis.

**May 2012 – April 2013:**

**M. Sc.**, Project, Synthetic Organic Chemistry, Indian Institute of Technology Madras, India.

- Paved a new strategy for the synthesis of Thiourea based Organo-Catalyst.
- Explored the basic concept of asymmetric catalysis through the newly designed catalyst in a pragmatic way.

#### **TEACHING EXPERIENCE:**

**July 2014 – May 2018:** **Teaching Assistantship**, Department of Chemistry, Indian Institute of Technology Kharagpur, India.

- Assisted practical classes for under graduate student, B. Tech. (1<sup>st</sup>, 2<sup>nd</sup> semesters), as a part of teaching assistance ship (TA).
- Two-year theory teaching for under graduate student, B. Tech. (7<sup>th</sup>, 8<sup>th</sup> semesters), as a part of teaching assistance ship (TA).

**Sub:** Basic stereo chemistry, metal catalysis, basic **NMR** course (<sup>1</sup>H, <sup>13</sup>C, DEPT), (Class strength ~50 students).

#### **AWARDS & HONORS:**

- Fudan University post-doctoral fellowship (2019-2021), CAS.
- Full time research fellowship (July 2014 to March 2019) by IIT Kharagpur, India.
- Full time junior research fellowship (May 2013 to April 2015) UGC, India.
- Graduate Aptitude Test in Engineering (GATE, 2013).
- Awarded IIT Madras Merit Scholarship during M.Sc. (August 2011 to May 2013), India.
- CSIR-UGC National Eligibility Test (NET) (December, 2012).
- CSIR-UGC National Eligibility Test (NET) (June, 2012).
- Joint Admission Test for MSc (JAM) 2011.

## RESEARCH PUBLICATIONS:

1. Wei-Feng Zheng, **Suvankar Debbarma**, Yuling Li, Jie Wang, Wanli Zhang, Hui Qian, Yin-Long Guo and Shengming Ma. Metal-Catalyzed Enantioselective Carboxylation Boosted by Aryl Bromides. (Communicated).
2. **Suvankar Debbarma**, Md Raja SK, Biswabrata Modak and Modhu Sudan Maji. On-Water Cp\*Ir(III)-Catalyzed C–H Functionalization for the Synthesis of Chromones through Annulation of Salicylaldehydes with Diazo-Ketones. *J. Org. Chem.* **2019**, *84*, 6207–6216. <https://doi.org/10.1021/acs.joc.9b00418>  
(Invited for cover picture)
3. **Suvankar Debbarma**, Sourav Sekhar Bera and Modhu Sudan Maji. Harnessing Stereospecific Z-Enamides through Silver-Free Cp\*Rh(III) Catalysis by Using Isoxazoles as Masked Electrophiles. *Org. Lett.* **2019**, *21*, 835–839. <https://doi.org/10.1021/acs.orglett.8b04130>
4. Sourav Sekhar Bera, **Suvankar Debbarma** and Modhu Sudan Maji. Cobalt(III)-Catalyzed Construction of Benzofurans, Benzofuranones and One-Pot Orthogonal C–H Functionalizations to Access Polysubstituted Benzofurans. *Adv. Synth. Catal.* **2018**, *360*, 2204–2210. <https://doi.org/10.1002/adsc.201800298>  
(Invited for cover picture)
5. Sourav Sekhar Bera, **Suvankar Debbarma**, Avick Kumar Ghosh, Santanu Chand and Modhu Sudan Maji. Cp\*CoIII-Catalyzed syn-Selective C–H Hydroarylation of Alkynes Using Benzamides: An Approach Toward Highly Conjugated Organic Frameworks. *J. Org. Chem.* **2017**, *82*, 420–430. <https://doi.org/10.1021/acs.joc.6b02516>
6. **Suvankar Debbarma** and Modhu Sudan Maji. Cp\*Rh<sup>III</sup>-Catalyzed Directed Amidation of Aldehydes with Anthranils. *Eur. J. Org. Chem.* **2017**, *2017*, 3699–3706. <https://doi.org/10.1002/ejoc.201700457>
7. **Suvankar Debbarma**, Sourav Sekhar Bera, and Modhu Sudan Maji. Cp\*Rh(III)-Catalyzed Low Temperature C–H Allylation of N-Aryl-trichloro Acetimidamide. *J. Org. Chem.* **2016**, *81*, 11716–11725. <https://doi.org/10.1021/acs.joc.6b02150>