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|  **Dr. Debabrata Maiti** Born: December 10th, 1980 in India Married, Two childrenAssociate Professor  Department of Chemistry Orchid ID: 0000-0001- 8353-1306 IIT Bombay, Powai Researcher ID: K-5112-2012 dmaiti@chem.iitb.ac.in Website: <https://www.dmaiti.com>dmaiti@iitb.ac.in  Phone: +91-(0)22-2576-7155  Google Scholar: https://scholar.google.co.in/citations?user=FKwzr1wAAAAJ&hl=en  |  |

# Professional Career

 2015-Present Associate Professor, IIT Bombay, Department of Chemistry, India

 2010-2015 Assistant Professor, IIT Bombay, Department of Chemistry, India

 2008-2010 Postdoctoral Fellow, Massachusetts Institute of Technology, USA

 (Supervisor: Prof. Stephen L. Buchwald)

# Academic Training

# 2003-2008 Ph.D., Department of Chemistry, Johns Hopkins University, USA

# 2001-2003 M.Sc., Silver Medalist, IIT Bombay, India

# 1998-2001 B.Sc. in Chemistry (Hons), University of Calcutta, India

# Awards

#  2020 Humboldt Research Fellowship for Experienced Researchers

2019 FRSC, Fellow of the Royal Society of Chemistry

2019 NASI Scopus Young Scientist Award- Innovation in Engineering and Physical Sciences

#  2020 Visiting Faculty, WRHI, Tokyo Institute of Technology, Japan

#  2020 Visiting Faculty, CAPES, Federal University of Minas Gerais, Brazil

2017 Visiting Faculty, University of Pavia, Italy

2017 OPPI - Young Scientist Award

2015 Alkyl Amines - Young Scientist Award

2014 INSA - Young Scientist Award

2014 ISCB - Young Scientist Award

2014 AVRA - Young Scientist Award

2014 CRSI Young Scientist Award

2013 Thieme Chemistry Journal Award

2013 IIT Bombay-IRCC Young Scientist Award

2013 IAS-Young Associate

 2013 NASI- Young Scientist Platinum Jubilee Award

# Editorial Appointments

2017-Present Associate Editor, *The Journal of Organic Chemistry*

 2019-Present Editorial Board Member- Chemistry – *A European Journal*

 2018-Present Editorial Advisory Board, *Organometallics*

 2018-Present International Advisory Board, *Chemistry-An Asian Journal*

 2021-Present International Advisory Board*, Asian Journal of Organic Chemistry*

 2018-Present Early Career Board Member, *Inorganica Chimica Acta*

 2021-Present [Editorial Board Member of](https://benthamscience.com/journals/current-organocatalysis/%22%20%5Ct%20%22_blank)*[J. Het. Chem.](https://benthamscience.com/journals/current-organocatalysis/%22%20%5Ct%20%22_blank)*

2019*-*PresentEditorial Board Member- *Frontier in Chemistry*

 2018-Present Editorial Board Member, *Current Organocatalysis*

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| **Citations** | 8343 |
| **h-index** | 52 |
| **i10 index** | 131 |

 Total publication 173 |

**Patent Details**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  2011 | Decarbonylation of aldehydes |  Patent no. 287461 |  | 3280/MUM/2011 |
|  2012 | Stereospecific synthesis of nitroolefins |  Patent no 289568 |  | 3052/Mum/2012 |
|  2013 | A process for the synthesis of Trifluoromethyl Ketones by trifluoromethylation of olefins |  Patent no 301846 |  | 1193/Mum/2013 |
|  2013 | Palladium Catalyzed Synthesis of Benzofurans and Coumarins from Phenols and Olefins |  Patent no 299110 |  | 2012/Mum/2013 |
|  2014 | Synthesis of heterocyclic compounds by cooper catalyzed Carbon-heteroatom bond formation. |  Patent no 333989 |  | 1468/Mum/2014 |
|  2015 | Template assembly. |  Patent no 351380 |  | 2421/MUM/2015 |
|  2015 | Template-Assited method of selective functionalization of remotely located *para*-CH bond comprised on arene |  Patent No. 348282 |  | 2422/MUM/2015 |
|  2016 | Template for Remote *meta*-CH Functionalization |  |  | Application no 201621029854 |
|  2017 | Electron rich 2-cyanophenole derivatives as effective directing template for diverse remote meta-selective CH bond functionalization: a) palladium catalyzed *meta*-selective silylation and germanylation b) rhodium catalyzed meta-selective olefination |  Patent no 351159 |  | Application no 201721010400 |
|  2017 | Pyrimidine-Based Template for *meta*-CH Cyanation of Arenes |  Patent No 351843 |  | Application no 201721027324 |
|  2017 | Development of Superior 2nd Generation Template for Directed *para*-Selective Functionalizations |   |  | Application no 201821005972 |
|  2018 | Development of Bifunctional Templates for Distal CH Functionalization of Heterocycles |   |  | Application no 201821019668 |
|  2019 | A Process for Distal C-H Functionalization |   |  | Application no 201921053680 |

**Publications:**

## 164) Imine as a linchpin approach for *meta*-C–H functionalization.

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**163)** C–CN Bond Formation: An Overview of Diverse Strategies.

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**161)** A Catalysis Guide Focusing on C–H Activation Processes.

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**160)** Recent development in transition metal-catalyzed C-H olefination.

Ali, W.; Prakash, G.; **Maiti, D.** *Chem. Sci*., **2021 (*ASAP*)**

**159)** Removal and modification of directing groups used in metal-catalyzed C–H functionalization: The magical step of conversion into ‘conventional’ functional groups.

Carvalho. R. L.; Almeida, R. NG.; Karunanidhi. M.; Machado, L. A.; Pedrosa. L. F.; Dolui. P.; **Maiti. D.;** Da Silva Jr. E. N. *Org. Biomol. Chem.***2020 (*ASAP*)**

**158**) Organopalladium Intermediates in Coordination Directed C(sp3) -H Functionalizations

S. S. Anjana.; Dutta, A.; Lahiri. G. K.; **Maiti, D.** *Trends Chem.***2020** (*ASAP*)

**157)**Transition Metal Catalyzed Enantioselective C(*sp2*)–H Bond Functionalization

Achar, T; Maiti, S.; Jana, S.; **Maiti, D.** *ACS Catalysis***2020 *(ASAP)***

**156)**Evolution of Strept(avidin) based artificial metalloenzymes in organometallic catalysis

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**155)** Transition Metal Catalyzed C-H Allylation Reactions

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**154)** Organic synthesis with the most abundant transition metal- Iron: From rust to multitasking catalysts

Rana, S.; Biswas, J. P.; Paul, S.; Paik, A.; **Maiti, D**. *Chem. Soc*. Rev., **2020** ***(ASAP)***

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**151)** A Direct Route to Six and Seven Membered Lactones via γ-C(*sp3*)-H Activation: A Simple Protocol to Build Molecular Complexity.

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Coin, G; Patra, R.; Rana, S; Biswas, J. P.; Dubourdeaux, P; Clémancey, M.; de Visser, S. P.; **Maiti, D.;**Maldivi; Latour, J-M. *ACS Catal.* **2020**, *10*, 10010–10020.

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Pal, T.; Lahiri, G. K.; **Maiti. D.** *[Eur. J. Org. Chem](https://chemistry-europe.onlinelibrary.wiley.com/doi/epdf/10.1002/ejoc.202000688%22%20%5Ct%20%22_blank)***2020** DOI: 10.1002/ejoc.202000688

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**147)** Para-Selective Arylation of Arenes: A Direct Route to Biaryls by Norbornene Relay Palladation.

Dutta, U.; Porey, S.; Pimparkar, S.; Mandal, A; Grover, J; Koodan, A; **Maiti, D**. *Angew. Chem. Int. Ed.***2020,** DOI:10.1002/anie.202005664 and 10.1002/ange.202005664.

**146)** Palladium-catalyzed *meta*-C–H allylation of arenes: A unique combination of pyrimidine-based template and hexafluoroisopropanol.

Bag, S.; K, S.; Mondal, A.; Jayarajan, R.; Dutta, U.; Porey, S.; Sunoj, R. B.; **Maiti. D.** *J. Am. Chem. Soc.* **2020**, *142*, 12453.

**145)** Overriding Ortho Selectivity by Template Assisted Meta-C–H Activation of Benzophenone

Casali, E.; Kalra, P.; Brochetta, M.; Borsari, T.; Gandini, A.; Patra, T.; Zanoni, G.; **Maiti, D.** *[Chem. Commun.](https://pubs.rsc.org/en/content/articlelanding/2020/cc/d0cc03172k%22%20%5Cl%20%22%21divAbstract%22%20%5Ct%20%22_blank)***[2020,](https://pubs.rsc.org/en/content/articlelanding/2020/cc/d0cc03172k%22%20%5Cl%20%22%21divAbstract%22%20%5Ct%20%22_blank)***[56](https://pubs.rsc.org/en/content/articlelanding/2020/cc/d0cc03172k%22%20%5Cl%20%22%21divAbstract%22%20%5Ct%20%22_blank)*[, 7281](https://pubs.rsc.org/en/content/articlelanding/2020/cc/d0cc03172k%22%20%5Cl%20%22%21divAbstract%22%20%5Ct%20%22_blank).

**144)** A directing group assisted ruthenium catalyzed approach to access meta-nitrated phenol

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**141)** An update on distal C(*sp3*)−H functionalization involving 1,5-HAT emerging from nitrogen radicals

Goswami, N.; **Maiti. D.** *Israel. J. Chem,* **2020** DOI: 10.1002/ijch.201900172

**140)** Para-Selective Cyanation of Arenes by H-Bonded Template.

Pimparkar, S.; Bhattacharya, T.; Maji, A.; Saha, A.; Jayarajan, R.; Dutta, U.; Lu, G.; Lupton, D. W.; **Maiti, D.** *Chem. Eur. J.* **2020**, *26,* 11558-11564.

**139)** Highvalent 3d metal-oxo mediated C–H halogenation: Biomimetic approaches

Biswas, J. P.; Guin, S.; **Maiti, D.** *Coord. Chem. Rev.* **2020,** *408*, 213174.

**138)** An Alkyne Linchpin Strategy for Drug: Pharmacophore Conjugation: Experimental and Computational Realization of a meta-selective Inverse Sonogashira Coupling.

Porey, S.; Zhang, X.; Bhowmick, S.; Singh, V. K.; Guin, S.; Paton, R. S.; **Maiti. D.** *J. Am. Chem. Soc,* **2020***, 142,* 3672-3774.

**137)** Recent Advances in Cobalt-Catalysed C–H Functionalizations

Baccalini, A.; Vergura, S.; Dolui, P.; Zanoni, G.; **Maiti. D.**; *Org. Biomol. Chem.* **2019,** *17,* 10119-10141

**136)**  Cobalt-Catalyzed C(*sp*2)–H Allylation of Biphenyl Amines with Unbiased Terminal Olefins

Baccalini, A.; Vergura, S.; Dolui, P.; Maiti, S.; Dutta, S.; Maity, S.; Khan, F. F.; Lahiri, G. K.; Zanoni, G.; **Maiti. D.** *Org. Lett.,* **2019**, *21*, 8842-8846.

**135)** Orthogonal Selectivity in C-H Olefination: Synthesis of Branched Vinyl arene with Unactivated Aliphatic Substitution

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**134)** Access to Multi-Functionalized Benzofurans through Aryl-Nickelation of Alkynes: Efficient Synthesis of Anti-Arrhythmic Drug Amiodarone

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2. Dey, A.; Kapdi, A. R.; **Maiti, D**.; Introductory Chapter on CH Bond Functionalization in Strategies for Palladium-Catalyzed Non-Directed and Directed C-H Bond Functionalization, Kapdi, A.; **Maiti, D**.; Eds.: Latest trend in palladium chemistry; Elsevier: **2017** Elsevier ISBN: 9780128052549.
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4. Inorganica Chimica Acta- Guest Editor, Special Issue **2019**
5. Coordination Chemistry Reviews- Guest Editor, Special Issue **2019**
6. Wiley-VCH- “Remote CH functionalization”- Book editor **2019**
7. Transition Metal Catalyzed Distal *para*-Selective C-H Functionalization in “Remote C-H Bond Functionalizations: Methods and Strategies in Organic Synthesis”

Edited by **Prof. D. Maiti** and Dr. S. Guin.

Dutta, U.; **Maiti. D.** *Wiley-VCH***, 2020**

1. Introduction in "Remote C-H Bond Functionalizations: Methods and Strategies in Organic Synthesis"

Edited by **Prof. D. Maiti** and Dr. S. Guin,

Dutta, U.; Guin, S.; **Maiti. D.** *Wiley-VCH*, 2020

**Invited Lectures (2013 - 2019)**

**2013**

March 22 University of Pondicherry, India

June 29 Ion chromatography seminar, IITB, India

July 25 NASI, Allahabad, India

August 28 DRDO, Pune, India

November 8 IASc, Punjab University, Chandigarh, India

**2014**

March 25 University of Pondicherry, India

March 28 AVR Lecture, IICT Hyderabad, India

April 2 University of Hyderabad, India

April 22 INSA, New Delhi, India

June 19 ISRO, Thiruvananthapuram, India

July 4 Kaleidoscope, Goa, India

August 6 BASF, Mumbai

December 5 IIT Guwahati, India

**2015**

January 17 Shivaji University, Maharashtra, India.

February 5 CRSI NSC, NCL Pune, India.

February 13 Stockholm University, Sweden

April 18 CSIR-CLRI, Chennai, India

June 25 BASF, Mumbai, India

October 10 CSIR-IHBT Palampur, Himachal Pradesh, India

October 17 NDCS, BITS Pilani, India

**2016**

March 17 IIIT Hyderabad, India

April 15 IIT Indore, India

June 28 CSIR- CSMCRI, Gujarat, India

July 16 Kaleidoscope, Goa, India

July 22 GRC, Stonehill College, MA, USA

October 7 IICT Hyderabad, India

November 22 Syngenta, Goa, India

December 15 ICOS, IIT Bombay, India

**2017**

January 10 SABIC, Kolkata, India

February 18 IIT Kharagpur, India

February 27 IIT Madras, India

March 27 NIT Rourkela, India

May 12 Stockholm University, Sweden

May 19 University of Zurich, Switzerland

May 29 Justus Liebig University Giessen, Germany

May 30 Ruhr-University Bochum, Germany

May 31 Technical University of Braunschweig, Germany

June 1 University of Münster

June 14 EPFL, Switzerland

June 20 University of Rennes

October 13 OPPI, Mumbai, India

November 29 TIFR, Mumbai, India

December 12 MTIC, NCL Pune

December 23 IIT Roorkee, India

**2018**

January 9 ICCHD Kolkata, India

January 15 Max Planck Institute for Chemical Energy Conversion

February 3 Marwadi Education Foundation, Rajkot, India

February 6 IIT Madras, India

February 27 Syngene, Bangalore, India

March 27 Org. Chemistry Division, French Chemical Society (Plenary lecture)

May 21 University of Pisa, Italy

May 23 University of Siena, Italy

May 25 University of Perugia, Italy

May 29 University of Pavia, Italy

June 4 University of Bern, Switzerland

June 5 University of Fribourg, Switzerland

June 6 University of Basel, Switzerland

June 25 Technical University of Berlin, Germany

June 26 University of Stuttgart, Germany

August 18 JOC ACS Meeting, Boston, USA

August 29 Tokyo Institute of Technology, Japan

August 30 ISCHA-4, Keio University, Japan

September 3 Kyoto University, Japan

November 17 NSETC-2018, IIT-BHU, India

December 5 I-DEC, IISER Bhopal, India

December 19 RDC, NIT Durgapur, India

December 22 NBCC, NISER Bhubaneswar, India

**2019**

February 4 ACS on campus, IIT Bombay

February 5 IICT Hyderabad, India

February 23 St. Xavier’s College, Kolkata, India

February 27 Golden Jubilee Celebrations, IIT Bombay, India

March 7-9 VIT, Vellore

March 22 ISER Mohali, India

April 16 IIT Kanpur, India

May 29 Wroclaw University, Poland

May 30 Univ. Łódź, Poland

May 31 Institute of Organic Chemistry, Warsaw-Poland

June 14 ICIQ, Spain

June 21-28 Markovnikov Congress, Moscow

July 9      Technische Universität Braunschweig, Germany

July 15 University of Padova, Italy

July 24  OMCOS 20, 2019 at Heidelberg, Germany (July 21-25, 2019)

August 25 ACS Meeting, San Diego, USA (August 25-28, 2019)

September 3 7th international Society of Heterocyclic Chemistry Congress (ISHC-27), Kyoto

October 16 IGCW, IIT Bombay

October 24 Federal University of Minas Gerais, Brazil (CAPES, Talk 1)

October 28 Federal University of Minas Gerais, Brazil (CAPES, Talk 2)

November 15 Yeungnam University, South Korea

November 28 University of Tokyo, Japan

November 1-6 Tokyo Institute of Technology, Japan

 December 8 Keio University

December 20 TIT-Suzukakedia campus, Japan

December 24 Kyushu University

**2020**

July 7 RDOAC, KIIT, Bhubaneswar, India

July 29 ISCHA, Germany,

November 4 CRSI Pune, National Week Celebration

December 9 IISER Kolkata-RSC symposium

December 9 CEFIPRA/IFCPAR Symposium on Organometallic Chemistry and Catalysis

**2021**

January 18 Jadavpur University, RCCHEM2021

January 29 BBRC, BMS

February 17 NIT Karnataka, AMWMC-2021

March 1 IIT Delhi, In conversation with a Distinguished Scientist, National Science Day

March 2 #RSCLive, #RSCPoster Twitter Conferenc]

March 3 NIT Durgapur, RDC- 2021

April 14 Texas Tech University

August 13-20 Canada-IUPAC CCCE 2021 Conference