

Dr. Jyoti Prasad Biswas

Assistant Professor (Chemistry)
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**Qualifications:**

CSIR- NET JRF in Chemistry (Years- 2015 & 2016)
GATE in Chemistry, All India Rank 114, Year-2016
Master of Science in Chemistry (Tezpur University)
Ph.D. in Inorganic Chemistry (IIT Bombay)

Awards:

Gold Medal in Master of Science (Chemistry), Tezpur University
Chemistry Olimpiad (State)-2008

Projects and Seminars:

1. INSA Summer internship at Bhabha Atomic Research Center, 2013
2. 5th Symposium on Advanced Biological Inorganic Chemistry-2017
3. Indo-US Bilateral Workshop on Organometallic Chemistry: From Fundamentals to Applications-2017
4. International Conference on Organometallic and Catalysis-2018
5. International Conference on Organometallic and Catalysis-2020

Additional Experiences:

1. Teaching Assistant in National Programme on Technology Enhanced Learning (NPTEL)
Courses: (I) Organometallic Chemistry
(II) Metal Mediated synthesis I
2. Social Service Secretary, Student Body at Jagiroad College.

Publications and Book Chapters:

1. Regiocontrolled Remote C-H Olefination of Small Heterocycles, T. K. Achar, K. Ramakrishna, T. Pal, S. Porey, P. Dolui, J. P. Biswas, D. Maiti; *Chem. Eur. J.* **2018**, *24*, 17906–17910

<https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/chem.201804351>

2. Selective C-H Halogenation over Hydroxylation by Non-heme Iron(IV)-oxo, S. Rana, J. P. Biswas, A. Sen, M. Clemency, G. Blondin, J-M. Latour, G. Rajaraman, D. Maiti, *Chem. Sci.* **2018**, *9*, 7843-7858

<https://pubs.rsc.org/en/content/articlelanding/2018/sc/c8sc02053a>

3. Palladium catalyzed template directed C-5 selective olefination of thiazoles, T. K. Achar, J. P. Biswas, S. Porey, T. Pal, K. Ramakrishna, S. Maiti, D. Maiti; *J. Org. Chem.* **2019**, *84*, 8315-8321
<https://pubs.acs.org/doi/10.1021/acs.joc.9b01074>
4. Rapid Suzuki-Miyaura cross-coupling reaction catalyzed by zirconium carboxyphosphonate supported mixed valent Pd(0)/Pd(II) catalyst, B. Bhattacharyya, J. P. Biswas, S. Mishra, N. Gogoi; *Appl. Organometal. Chem.* **2019**, DOI: 10.1002/aoc.5017
<https://onlinelibrary.wiley.com/doi/abs/10.1002/aoc.5017>
5. Co-ordination assisted distal C-H alkylation of fused heterocycles, J. P. Biswas, K. Ramakrishna, S. Jana, T. K. Achar, S. Porey, D. Maiti, *Angew. Chem. Int. Ed.* **2019**, *58*, 13808-13812
<https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201907544>
6. Highvalent 3d metal-oxo mediated C-H halogenation: Biomimetic approaches, J. P. Biswas, S. Guin, D. Maiti, *Coord. Chem. Rev.* **2020**, *408*, 213174
<https://www.sciencedirect.com/science/article/abs/pii/S001085451930459X>
7. Fe-catalyzed aziridination is governed by the electron affinity of the active imido-iron species, G. Coin, R. Patra, S. Rana, J. P. Biswas, P. Dubourdeaux, M. Clémancey, S. P. de Visser, D. Maiti, P. Maldivi, J.-M. Latour, *ACS Catal.* **2020**, *10*, 10010
<https://pubs.acs.org/doi/10.1021/acscatal.0c01427>
8. A direct route to six and seven membered lactones via γ -C(sp³)-H activation: a simple protocol to build molecular complexity, J. Das, P. Dolui, W. Ali, J. P. Biswas, H. B. Chandrashekar, G. Prakash, D. Maiti, *Chem. Sci.*, **2020**, *11*, 9697
<https://pubs.rsc.org/en/content/articlelanding/2020/sc/d0sc03144e>
9. Organic synthesis with the most abundant transition metal-iron: from rust to multitasking catalysts, S. Rana, J. P. Biswas, S. Paul, A. Paik, D. Maiti, *Chem. Soc. Rev.*, **2021**, *50*, 243
<https://pubs.rsc.org/en/content/articlelanding/2021/cs/d0cs00688b>
10. Effect of ligand backbone on the reactivity and mechanistic paradigm of non-heme iron(IV)-oxo during olefin epoxidation, J. P. Biswas, M. Ansari, A. Paik, S. Sasmal, S. Paul, S. Rana, G. Rajaraman, D. Maiti, *Angew. Chem. Int. Ed.*, **2021**, *60*, 14030-14039
<https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.202102484>
11. Transition-Metal-Catalyzed C-H Arylation Using Organoboron Reagents, S. Basak, J. P. Biswas, D. Maiti, *Synthesis*, **2021**, *58*, 3151-3179
<https://www.thieme-connect.com/products/ejournals/abstract/10.1055/a-1485-4666>
12. Supramolecular interactions in distal C-H activation of (hetero)arenes, J. P. Biswas, D. Maiti, *Wiley-VCH*, **2021**
<https://onlinelibrary.wiley.com/doi/abs/10.1002/9783527832033.ch10>
13. Catalytic C-H activation via four-membered metallacycle intermediate, K. K. Bhagat, J. P. Biswas, S. Dutta, D. Maiti, *Helv. Chim. Acta.*, **2022**, *105*, e202100192
<https://onlinelibrary.wiley.com/doi/10.1002/hlca.202100192>
14. Toolbox for Distal C-H Bond Functionalizations in Organic Molecules, S. K. Sinha, S. Guin, S. Maiti, J. P. Biswas, S. Porey, D. Maiti, *Chem. Rev.*, **2022**, *122*, 5682.
<https://pubs.acs.org/doi/abs/10.1021/acs.chemrev.1c00220>
15. Transition-Metal-Catalyzed C-H Bond Alkylation Using Olefins: Recent Advances and Mechanistic Aspects, D. Mandal, S. Roychowdhury, J. P. Biswas, S. Maiti, D. Maiti, *Chem. Soc. Rev.*, **2022**, *51*, 7358

<https://pubs.rsc.org/en/content/articlelanding/2022/CS/D1CS00923K>

16. Investigation on High-Valent Iron Complex Mediated Organic Transformations: Reactivity and Mechanistic Impact, T. K. Roy, A. Suresh, A. Sinha, J. P. Biswas, D. Maiti, *Advances in Inorganic Chemistry (AINC) Vol. 81: Inorganic Chemistry in India*, Elsevier, **2022**.

17. Transition Metal Pincer Complexes: A Series of Potential Catalysts in C–H Activation Reactions, A. Kasera, J. P. Biswas, A. A. Alshehri, S. A. Al-Thabaiti, M. Mokhtar, D. Maiti, *Coord. Chem. Rev.*, **2023**, 475, 214915

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Patent:

1. Pincer ligand based palladium catalyst for c-h activation. Intellectual Property India patent no. 366142