

FACULTY MEMBERS' ACADEMIC PROFILE

- 1. Name of the Faculty member:** Dr. DEBAJYOTI SAHA
- 2. Designation:** Assistant Professor in Chemistry (W.B.E.S.)
- 3. Qualification:** M.Sc. (IIT Kanpur);
Ph.D. (Indian Association for the Cultivation of Science; CU)
- 4. Specialization:** Organic and Organometallic Chemistry
- 5. E-mail address:** d jyoti07@gmail.com
- 6. Date of Joining in W.B.E.S.:** 27.05.2015
- 7. Date of Joining in this College:** 27.05.2015
- 8. Total Teaching experience in College level:** 7+ years
- 9. Research interests:** Transition metal catalysis, Visible light mediated organic reaction.
- 10. Title of thesis (Ph.D.) with year:** "Variation of Structural Motifs in Phosphine Ligands for Efficiency in Palladium Catalyzed Coupling Reaction" (2015)
- 11. Research guidance:** Nil
- 12. Research Projects (completed):**
Project Title: A major research project on "Pd-catalyzed enantioselective desymmetrization transient directing group" funded by SERB, DST, INDIA (File No. TAR/2018/000075).
Tenure: November, 2019 to February, 2023 (39 months)
Total Project Cost: Rs. 18,30,000/-
Collaborator: Dr. Joyram Guin, IACS, Kolkata
- 13. List of publications:**

Published papers in Journals

- "Identification of natural flavonoids as novel EGFR inhibitors using DFT, molecular docking and molecular dynamics", N Sepay*, R Mondal, A Muhanna, **D Saha**, *New Journal of Chemistry*, **2022**, 46, 9735-9744 [ISSN 0040-4020; **IF: 3.59**]
- " β -Pinene and camphor based, pyrazole-tethered triarylphosphines as chiral P,N ligands for palladium" **D Saha***, T Das, A Pal, *Arkivoc*, **2021**, 217 - 233, [ISSN: 1551-7012 (online ed.); **IF: 1.14**].
- "Nickel Catalyzed Ligand- And Base-Free One-Pot Diazotization/Cross-Coupling of Aryl Amine With Aryl Boronic Acid", A Bej, **D Saha*** *Asian J of Org. Chem.* (IF: 3.32), **2021**, 10, 2347 - 2350, [ISSN: 2193-5815; **IF: 3.32**].
- "Fluxional chloro-pyrrole-Pd(II) complex to cationic η^2 -pyrrole-Pd(II) complex: subtlety in structure-directed bonding mode", **D Saha***, N Sepay* *New Journal of Chemistry*, **2021**, 45, 10594-10598, [ISSN 0040-4020; **IF: 3.59**].

5. "Catalytic Enantioselective Radical Transformations Enabled by Visible-Light", **D Saha***, *Chemistry-An Asian Journal*, **2020**, *15*, 2129-2152, [ISSN 1861-471X; IF: 4.57].
6. "Synthesis of Phenolic Compounds via Palladium Catalyzed C-H Functionalization of Arenes", **D.Saha***, P.Das, P. Biswas, J.Guin*, *Chem. Asian. J.*, November **2019**, *14*, 4534-4548 [ISSN 1861-471X; IF: 4.57].
7. "Aerobic Direct C(sp²)-H Hydroxylation of 2-Arylpyridines by Palladium Catalysis Induced with Aldehyde Auto-Oxidation", P.Das, **D.Saha**, D.Saha and J.Guin*, *ACS Catal.*, June **2016**, *6*, 6050-6054 [ISSN 2155-5435; IF: 12.22].
8. "Palladium-mediated Coupling Reaction with Aryl Chlorides: Stericvis-à-visElectronic Influence of Phosphineson Biaryl Motif", **D.Saha**, R.Ghosh, A. K. Mandal, A.Sarkar*, *J.Organomet. Chem.*, January, **2015**, *776*, 89-97 [ISSN 0022-328X; IF: 2.17].
9. "A 'Hemilabile' Palladium-Carbon Bond: Characterization and Its Implicationin Catalysis", **D.Saha**, R.Verma, D.Kumar, S.Pathak, S.Bhunya and A.Sarkar*,*Organometallics*,**2014**, *33*, 3243-3246 [ISSN 0276-7333; IF: 4.12].
10. "3-Indolylphosphines as Ligand for Palladium in Suzuki-Miyaura Coupling Reaction of Chloroarenes: Substituent Effects", **D. Saha**, R.Ghosh and A.Sarkar*, *Tetrahedron*, **2013**, *69*, 3951-3960 [ISSN 0040-4020; IF: 2.64].

14. Membership of Learned Societies/ Editorial Boards, etc.:

- (a) Life Member of Indian Association for the Cultivation of Science
- (b) Editorial Board of Referees (ERB) at 'Arkivoc' Journal

15. Patents: Nil

16. Awards:

1. Secured **008 (Eight) rank (General)** in Joint Admission Test for **M.Sc (JAM-2007)**, an All India based admission test conducted by all the IIT's in India.
2. Received **Summer Fellowship in summer' 2008** from Indian Academy of Science (**IAS**), Bangalore for carrying out a project under the supervision of Prof. S Ghosh, IACS, Kolkata.
3. Received "**Young Scientist Award**" for **presenting a paper (oral presentation)** entitled "*Ligand 'Hemilability'-How important it is?*" in the **National Symposium** on '*Recent Advances in Chemistry & Industry (2015)*' organized by the **Indian Chemical Society**, Kolkata on **31st July - 1st August, 2015**.
4. Received "**Best Poster Award**" for **presenting a Poster** entitled "*The role of hemilabile Pd-C bond in C-C cross-coupling reaction*" in the **National Seminar** on '*Enthralling Facets of Molecular Manifestation in Chemical Sciences*' organized by Bidhannagar College, Salt lake on **15th -16th September, 2016**.

17. Other notable activities:

1. Acted as a **Resource person** to "create an interest in Science among the students" in the **District level Science Fair**, organized by Vidyannagar G.D. Vidyamandir, Vidyannagar, Bardhaman, in collaboration with the Department of Science and Technology, Govt. of West Bengal from **20th - 22nd January, 2016**.

2. Acted as **Joint Convener** of “*Initiation*”, **Inter-college Chemistry Quiz competition** (Nadia and Murshidabad districts), organized by the Department of Chemistry, Krishnagar Government College on **25th January, 2018**.
3. Acted as **Evaluator** of the projects presented by child scientists at **the state level congress, 2022** held on **6th – 7th November, 2022** at Bidhan Sishu Udyan, Ultadanga, Kolkata

18. A) Participation in Seminars/Symposia/Conferences/Workshops:

1. **Presented a Poster** entitled “*Characterization of Pd-C bond*” in the One-day **National Seminar** on ‘*Recent Advances in Chemistry*’ organised by Sripat Singh College, Murshidabad on **21st December, 2015**.
2. Participated in the **Science Academies’ Lecture Workshop** on ‘*Basic Chemistry for Advanced Future*’ organized by Dept. of Chemistry, Chakdaha College on **19th - 20th January, 2018**.
3. **Presented a Poster** entitled “*Characterization of an unusual Pd-C bond and its importance in catalysis*” in the Two days **International Seminar** on ‘*Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences (ICBS-2020)*’ organized by Surendranath College, Kolkata on **8th – 9th January, 2020**.

B) Participation in OP/RC:

1. Participated in the UGC sponsored **Orientation Programme (OP-64)** organized by UGC-HRDC, Jadavpur University from **6th February to 4th March, 2017**.
2. Participated in the UGC sponsored **Refresher Course** organized by UGC-HRDC, Burdwan University from **25th June to 8th July, 2019**.
3. Participated in the UGC sponsored **Refresher Course** organized by UGC-HRDC, Burdwan University from **20th August to 2nd September, 2022**.