



DEBAYAN SARKAR, Ph.D

Work Address (Preferred):

Department of Chemistry, National Institute of Technology,

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https://www.researchgate.net/profile/Debayan_Sarkar3

Personal Information:

Date of Birth : 7th April, 1982

Sex : Male

Nationality : Indian

Age : 39 yrs

Present status:

Associate Professor of Organic Chemistry, Department of Chemistry, National Institute of Technology, Rourkela, Odisha, India, Pin- 769 008, from 02nd Feb 2018 - Continuing.

ICMR International Fellow, Prof. Burkhard Koenig Group, University of Regensburg, Germany, Jan 2020- July 2020

Head , Foundation For Technology and Business Incubation (FTBI), NIT Rourkela founded by DST in 2016; 1st July 2020- continue

Board of Director - Foundation For Technology and Business Incubation (FTBI), NIT Rourkela founded by DST in 2016

Mentor- Startup Contract Research Organisation “ CHEMGREEN” under the Foundation of Technology and Business Incubation (FTBI), NIT Rourkela- NOV 2018 onwards

Assistant Professor of Organic Chemistry, Department of Chemistry, National Institute of Technology, Rourkela, Odisha, India, Pin- 769 008, *from 17th October 2011 to 01st Feb 2018.*

Group Leader – Organic Synthesis & Molecular Engineering Research Group- National Institute of Technology, Rourkela.

Past Employment:

DAAD Associate Professor (Academics)- Dec 2018-Jan 2019 With Prof. Christoph Schneider, University of Leipzig, Germany

Visiting Senior Assistant Professor: Dec. 2015 – March 2016, With Prof. Masahiko Yamaguchi, Graduate School Of Pharmaceutical Sciences, Tohoku University, Japan

(INDO-US Postdoctoral Research Fellow) with Prof. B M Trost, Department of chemistry, Stanford University, California, USA-94305 (2012- 2013)

Academic Background :

- **Ph. D** (Organic Chemistry): 2011, Jadavpur University, Jadavpur, Kolkata, India.

- **Thesis Title:** “*Synthesis of Biologically Active Natural Products*”

Institute: Department of Organic Chemistry, **Indian Association For The Cultivation of Science**, Jadavpur, Kolkata - 700032, India.

Supervisor: Professor R.V.Venkateswaran

- **M. Sc.** (Chemical sciences) (specialization in **Organic Chemistry**): **2003 - 2005**, Department of Chemistry, University Of North Bengal, West Bengal, India (**First Class**)
- **B. Sc.** (Chemistry (**Honours**), Physics & Mathematics): **2000 - 2003**, University of North Bengal, West Bengal, India.

No. Of Ph.D & Master’s Students Guidance: Organic Synthesis and Molecular Engineering Group

Ph.D students – 4 (Completed)

14 (Fourteen)....Ongoing

Ph.D Thesis Supervised: 4 (Four) Completed

1. Manoj Kumar Ghosh- Title: New Intrigues with Oxidative Dearomatisation and Related Strategies (2018), Presently -National Post doc fellowship- University of Warsaw Poland
2. Nilendri Rout – Title: Solving Molecular Complexities with Oxidative Dearomatisation and Transition metal catalysis (2019)
3. Sagarika Behera (2020)- Title: Synthetic Approaches Towards Biologically Active Heterocycles Employing Catalytic Strategies’
4. Sushree Ranjan Sahoo (2020) – Title: Synthetic Efforts toward Carbon-Heteroatom Bond Generations Employing Dearomatisation, Alkene and Alkyne Intrigues

Two Year Masters Project Student – 2 (Two)....Ongoing

One Year Masters Project Student – 3 (Three).....Ongoing

Master Thesis Supervised: 15 (Fifteen)

1. Visible Light Assisted Oxidation at Benzylic Position of Homologated Ynones with Aerobic Oxygen, Leading to Diketone Synthesis- Ankush Kumar (2020-21)
2. Synthetic Attempts with Tribromides towards Dearomatisation – Sayan Halder (2018-2020)
3. Towards the synthesis of Tocopherol – Kunika Gupta(2018-2020)
4. Gold(I)-Catalyzed Atom-Economic Synthesis of 2-Substituted indole via 5-endo-dig Cyclization- Ms. Moni Singh
5. Synthesis of 1-ethylpyridine tribromide; Utilization in Spirofurano Naphthalone Synthesis : Footsteps towards Asymmetric Synthesis- Mr. Devasish Sood
6. Halo-azido Ketones : Synthesis, Applications and Activity – Ms. Prithwa Das
7. Asymmetric Synthesis of Tocopherol and Tocotrienol family employing C-2 methylation of 2-carboxy-4-Chromanones- 2017-18- Mr. Sudeep Sarkar, Presently Ph.D fellowship University of Warsaw Poland
8. Asymmetric Synthesis of Tocopherol (Vitamin-E) Employing C-2 Methylation of 2-Carboxy-4-Chromanones 2017-18-Mr. Subhradip Kundu, Presently Ph.D fellowship University of Strosbourg, France
9. Approach towards the Synthesis of Biologically Active Chromone Systems-2016-17- Mr. Chandak Adhikari
10. Synthetic Efforts towards Medicinally Important Aryl Naphthofurans and Benzofurans Mediated by Quaternary Ammonium Salt- 2016-17- Mr. Suchit Gupta
11. Trials towards functionalising α -ketols – 2014-16- Miss. Samapika Mishra
12. Concise synthesis of Naphthoquinones- 2014-16- Miss. V. Chandurani
13. Facile Hypervalent Iodine mediated Oxidative dearomatization of Naphthols- 2012-2014- Mr. Sushree Ranjan Sahoo.
14. Attempts towards total synthesis of spirofuranones (2013-2015)- Mr. Punabasu Bhattacharya.
15. Efforts towards alkyne insertion reactions via Oxidative Dearomatisation (2013-2015) – Mr. Rahul Kumar

Awards & Fellowships

1. **Prof. R C Tripathy Memorial Award for Excellence in Research, Orissa Chemical Society 2021**
2. **SERB TETRA AWARD 2021 by Department of Science and Technology (DST), Govt. Of India**

3. **ICMR- DHR Long Term Fellowship to University of Regensburg, Germany, 12 months, Govt. Of India 2019**
4. **DAAD-Research Stay Award 2018, University of Leipzig, Germany**
5. **Bentham Ambassador on Bentham Science Publishers 2020-21**
6. **VIFA International Young Scientist Award 2017**
7. **Tohoku University Visiting Professor – Awarded (Dec 2017 – June 2018)**
8. **“ Certificate of Appreciation” by Education Expo-FBA- 2017 (Young Scientist Category)**
9. **Tohoku University, Japan Visiting Professor Award (December 2015 to March 2016)**
10. **DST-INSA- INSPIRE Faculty Award-2013 in Chemical Sciences**
11. **Board of Research in Nuclear Sciences, Govt. of India - Young Scientist Award- 2014 in Chemical Sciences.**
12. **Department of Science and Technology, Govt. of India -Fast Track Project award for Young Investigators- 2012**
13. **INDO-US RESEARCH FELLOWSHIP Award 2012 in Chemical Sciences, Stanford University, California, US.**
14. **Doctoral Research Fellowship:** Qualified with Rank among Top 100 students. National Eligibility Test (NET-December'2004); Council of Scientific and Industrial Research (CSIR), New Delhi, India.
15. **Junior Research Fellowship (CSIR): September, 2005 - September, 2007**
16. **Senior Research Fellowship (CSIR): October, 2007 - May 2010**

Ongoing Research Projects:

1. Title : Chemical Innovations For Sustainable Future 2020- 2024 (Principal Investigator), **1.92 Crores**
Funding Agency : UGC-DAAD, Under Indo-German Higher Education Partnerships, PI (Just sanctioned)
2. Title: Developing Enantioselective Carbon-heteroatom Bond Formations Employing Visible Light, 44 Lakhs, 2021-2024
Funding Agency: SERB, Department of Science and Technology, PI
3. Title: Developing of Efficient Tribromides as Versatile Fine Oxidative Dearomatisation Reagents, 30 Lakhs, 2021-2023
Funding Agency: SERB, Department of Science and Technology, **SERB TETRA AWARD**, PI
4. Title: Developing Sustainable Enantioselective Carbonheteroatom Bond Formations Employing Dearomatisation reactions (EDRs), 30 Lakhs, 2021-2024
Funding Agency: CSIR, PI (Just Sanctioned)
5. Title: WASTE-TO-WEALTH” - SUSTAINABLE AND INNOVATIVE ORGANIC FARMING TECHNIQUE, 45 Lakhs, 2021-2025
Funding Agency: CSR, Rourkela Steel Plant, PI (Ongoing)

Entrepreneurship Projects Brought and Headed the Incubation Centre at NIT Rourkela:

1. ASPIRE Livelihood Business Incubator- funded by MSME of Value of 1 Crore
2. MCL CSR Support Programme for “ Supporting Foundation For Technology & Business Incubator (FTBI) and establishment of MCL IoT Lab, 2.61 Crores
3. DST NIDHI Technology Business Incubator- 4.5 Crores
4. DST NIDHI Entrepreneurship-in-Residence Programme- 39.6 Lakhs
5. MeitY Startup Hub TIDE 2.0 programme- 1.72 Crores

Completed Research Projects:

1. Title : Exploring Molecular Intricacy – Developing Facile Catalytic Asymmetric Oxidative Dearomatisation Reactions (CAODRs) 2017- 2020 (Principal Investigator), 42 Lakhs Funding Agency : SERB, Department of Science and Technology, PI
2. Title : Injectable Nanocrystalline Hydroxyapatite- Polyanhydride Based Paste for Bone Substitution, 48 Lakhs
Funding Agency : Department of Biotechnology. (Co- Investigator)
Status : 2017-2020
3. Title : Intramural Project on Organic Farming, 5 Lakhs
Funding Agency : National Institute of Technology Rourkela (Principal Investigator)
Status : 2018-2019
4. Title : Ruthenium catalysed Non-Metathesis Couplings, 35 Lakhs

Funding Agency : Department of Science and Technology – Indian National Science Academy- INSPIRE FACULTY AWARD. (Principal Investigator)

Status : 2014-2019

5. *Title*: Synthesis of Medicinally Important Natural Products employing Cyclopropyl Ring- Cleavage and Oxidative de-aromatization reactions, 25 Lakhs

Funding Agency: SERB, Department of Science and Technology, Govt. of India (Fast Track Scheme for Young Scientists)
Status: 2013 – 2016

6. *Title* : Design of Multipurpose Photo reactor and Photoreactions, 5 Lakhs

Funding Agency : Technical Education Quality Improvement Programme-II, National Institute of Technology, Rourkela, India
Status : 2014-15

7. *Title* : Ruthenium Catalysed Atom-economic Transformations, 17 Lakhs

Funding Agency : Board of Research in Nuclear Sciences, Govt. of India (Young Scientist Research Award Scheme)
Status : 2014-2017

Courses Taught: 10 Years of Teaching Experience

Course on “Structural Determination of Organic Compounds” taught for one semester at Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

CY 313	Chemistry of Natural products ...Credits- 4 (Four Semesters)
CY 317	Spectroscopic Methods of Analysis..Credits – 3 (One Semester)
CY 374	Inorganic Chemistry Lab.....Credits – 3 (One Semester)
CY-542	Methods in Organic Synthesis.....Credits- 3 (Three Semester)
CY- 571	Stereochemistry and Reaction Mechanism...Credits- 6 (Six Semesters)
CY-1101	Chemistry.....Credits 3 --- 1 (One Semester)
CY- 2701	Structural Determination of Organic Compounds I (One Semester)

Courses and Conferences Organised:

- 1. Virtual Symposium on Chemical Innovations For Sustainable Future Under INDO-German Higer Education Partnerships , NOV 16, 2021**
- 2. Workshop on Newer Directions Towards Agri- Tech Entrepreneurship 11th Nov. 2021**
- 3. Convener of FTBI Innovation Carnival – 22nd – 26th March 2021**
- 4. Webinar “ “Engagement Programme for Budding Entrepreneurs” Saturday, 17th October 2020 convener**
- 5. Coordinator of MHRD GIAN Course on “Photochromic Molecules and Materials for a Sustainable Future” by Prof. Burkhard Koenig Universität Regensburg, Germany on 14th-18th February 2019**
- 6. Five Days Training Programme On Organic Farming for Sustainable Agriculture (2nd July to 6th July, 2019)**
- 7. National Conference “ Advances in Chemistry with relevance to Industry and Biology”- 10th-11th January 2014**
- 8. Workshop On Recent Trends in Chemical Science and its Industrial and Biological Relevance (RTCSIBR-2018) February 14-18, 2018**
- 9. Workshop Analytical Techniques in Chemistry Tequip II 06 Apr 2016- 07 Apr 2016**

Membership of Societies and Organising :

- 1. Nominated as a Core member of International steering Committee of Royal Society of Chemistry, 2016*
- 2. Nominated as Core member of Royal Society of Chemistry(Eastern India) 2015-2019*
- 3. Member of Royal Society of Chemistry, UK (MRSC)*
- 4. Life Member of Chemical Research Society of India*
- 5. Organising Secretary of National Conference “ Advances in Chemistry with relevance to Industry and Biology” – January 10-11, 2014- Royal Society Best Poster Prize*
- 6. Patron Member Orissa Chemical Society 2019.*

7. Convenor of Recent Trends in Chemical Science and its Industrial and Biological Relevance (RTCSIBR-2018)" during February 14-18, 2018 at NIT, Rourkela.
8. Life Member of Indian Chemical Society

EDITORIAL SERVICE

1. Reviewer for Journals – ACS, Wiley, Elsevier, Taylor and Francis, RSC
2. Bentham Science Ambassador

Editor of a book entitled “ Sulphonamides- An Overview ” by NOVA Science Publishers , USA ISBN: 978-1-53618-157-9, 2020

INSTITUTIONAL PROGRAMME SUPPORT / CENTRE OF EXCELLENCE

1. **Principal Investigator of National Centre of Excellence (COE) in Organic farming – Rs. 45 Lakhs, with Rourkela Steel Plant**
2. **Head of Center of the Foundation For Technology and Business Incubation (FTBI), founded by DST in 2016; 1st July 2020- continue**
3. **PIC Oxygen Concentrator Project 2021**
4. **Professor-in-charge, Organic Farming Project, NIT Rourkela, Oct 2018-continuing**
5. **Professor-in-Charge, Institute Guest Houses, NIT Rourkela, July 2016- June 2019**
6. **Vice President, Games, Student Activity Centre, NIT Rourkela, July 2014-June 2016**

LIST OF LABORATORIES DEVELOPED

Organic Synthesis and Molecular engineering laboratory, Lab No. 405, BM-BT, NIT Rourkela

Chemical Innovation Laboratory, Under the INDO-German Higher Education Partnership (IGP), lab No. 420, BM-BT, NIT Rourkela

Patents

Development of Efficient Tribromides as Versatile Fine Dearomatisation Reagents- Filed on June 2019 : Patent Application No. 201931024717

Publications:

<https://scholar.google.co.in/citations?user=tobGYYsAAAAJ&hl=en>

Total Citations= 917, h-index = 13, i-10 index= 18

Publications:

47. Ruthenium Catalyzed Step- economic Synthesis of Oxacycles Nabakumar Bera, and Debayan Sarkar* **2021** *J. Org. Chem* (Accepted Article)

46. Gold(III) Catalyzed Synthesis of 2,5-disubstituted Furans from substituted 5-methoxyhex-3-yn-2-ols - Mechanistic Outlook– Sagarika Behera, Nabakumar Bera, Debayan Sarkar* *Synthetic Communications* 2021 (Accepted Article)
45. Synthetic Attempts Towards Eminent Anti-Viral Candidates of SARS-CoV. Subhradip Kundu and Debayan Sarkar*. *Mini-Reviews in Medicinal Chemistry* <http://dx.doi.org/10.2174/1389557521666210712205655> (Accepted Article)
44. Organo-Acid Catalysed Synthesis of 2,2-Disubstituted Chromans and 1,1-Disubstituted Indanols/ Indenols. Sagarika Behera, Nabakumar Bera, Debayan Sarkar* *Chemistry Select* 2021 (Accepted Article)
43. Gold(III) Catalyzed Synthesis of 2,5-disubstituted Furans from substituted 5-methoxyhex-3-yn-2-ols – Sagarika Behera, Nabakumar Bera, Debayan Sarkar* *Synthetic Communications* 2021 (Accepted Article)
42. A combined experimental and theoretical analysis on the solid-state supramolecular assemblies of pent-2-ynol derivatives- Nabakumar Bera, Debayan Sarkar*, Saikat Kumar Seth* *Journal of Molecular Structure* (Accepted Article) 2021
41. Ruthenium (VIII) Catalysed Dearomative Pyridyl C-X activation- Direct Synthesis of N- Alkyl-2-pyridones – Biswajit Das, Nilendri Rout, Debayan Sarkar* (Accepted Article – *Asian Journal of Organic Chemistry*) 2021
40. “A Year Away to 100th Year of Vitamin E Synthesis”- Subhradip Kundu, Debayan Sarkar* *Journal of Heterocyclic Chemistry* 2021 (Accepted Article) <https://onlinelibrary.wiley.com/doi/10.1002/jhet.4309>
39. Regioselective C(sp²) – C(sp³) Oxidative Bond Cleavage of 1-(1-hydroxyalkyl) naphthalen-2-ols: First Synthesis of 1-azido-halo-naphthalene-2(1H)-ones Barnali Roy, Manoj Kumar Ghosh and Debayan Sarkar* *Israel Journal Of Chemistry* 2020 (10.1002/ijch.202000082) (Accepted Article)
38. Synthesis and Structural Anomaly of Xyloketal-Unique Benzoxacycles: A Review Barnali Roy,, Nilendri Rout, Puspendu Kuila,, Debayan Sarkar* *Journal of Heterocyclic Chemistry* 2020 (Accepted Article) doi/10.1002/jhet.4152
37. Trapping a Boron-enolate, C1-C10 bond Migration: Concept to Re-ality and Anti-cancer Properties Sushree Ranjan Sahoo^a, Debayan Sarkar* *Organic Letters* (Accepted Article) 2020
36. Gram Scale Synthesis of alpha-cyanoalkylboronic esters via Direct B-B and C-N Bond Cleavage. Sushree Ranjan Sahoo^a, Debayan Sarkar* *Synthetic Communications* (Accepted Article) 2020 doi/full/10.1080/00397911.2020.1800743
35. Copper(I) Catalyzed Synthesis of Selanyl methylene 4-chromanol and aurone Derivatives Sushree Ranjan Sahoo and Debayan Sarkar* *Organic and Biomolecular Chemistry* 2020, 18, 4619-4627
34. Direct Synthesis of Regioselective α -allyl α -selanyl Ketones and selanyl tetra-hydrofurans Sushree Ranjan Sahoo, Rajat Kumar Singh and Debayan Sarkar* *Tetrahedron Letters* 2020, 61, 151290

33. Revisiting the addition of *In situ* Nucleophiles to Allenic Ketones: An Entry Towards Synthesis of Benzodioxins. Sushree Ranjan Sahoo and Debayan Sarkar* *European Journal of Organic Chemistry* 2020, 11, 1727-1731
32. Stereoselective synthesis of para-quinone monoketals through tri-bromide (TBr) mediated oxidative dearomatization of phenols. Sushree Ranjan Sahoo and Debayan Sarkar* *Tetrahedron Letters* ,2020 (cover page Article), **61, 151646**
31. Stereoselective Synthesis of Spiro-Azacycles Through Tri-bromide Mediated Oxidative Dearomatization. Sushree Ranjan Sahoo and Debayan Sarkar* *European Journal of Organic Chemistry* 2020, 397-401
30. Copper(I) Catalyzed Synthesis of Functionalized N-Fused Indolizinone from Substituted Pyridine Homologated-ynones
Sushree Ranjan Sahoo Debayan Sarkar*, *Journal of Organic Chemistry* 2020, 85, 2, 902-911
29. Visible Light Catalysed Selenylative Intramolecular Dearomative Carbo-spirocyclisation (IDCS) of Homologated-ynones. Sushree Ranjan Sahoo and Debayan Sarkar* *European Journal of Organic Chemistry* 2020, 7, 891-896
28. [2+2] Photochemical Cycloaddition in the Synthesis of Natural Products and Related Molecules
Debayan Sarkar, Nabakumar Bera and Subrata Ghosh *European Journal of Organic Chemistry* 2020,10, Special Issue: Photochemical Synthesis 1310-1326
27. Copper(I) Catalysed Direct Synthesis of 2-Methylene-4-Chromanols Debayan Sarkar* Sagarika Behera *Tetrahedron Letters* Volume 61, Issue 1, 2020, 151341
26. Redox Economic Synthesis of Trisubstituted Piperidones via Ruthenium Catalyzed Atom-economic Couplings of N-protected 1,5-Aminoalcohols and Michael Acceptors Barry M Trost*, Debayan Sarkar*, Nabakumar Bera *Advanced Synthesis and Catalysis* 2019, 361, 24, 5648-5653. (Most Downloaded Paper 2020)
25. Ruthenium (VIII) catalysed ipso-Dearomative Spiro-etherification and Spiro-amidation of Phenols Debayan Sarkar* and Nilendri Rout *Organic Letters* 2019 21, 11, 4132-4136
24. Hydchloride Promoted Synthesis of Functionalised Isoxazoles and Pyrazoles from Allenic Ketones – First Synthesis of (Z)-2-methyl -7H benzo[b]pyrazolo[5,1-d][1,5]oxazocines
Debayan Sarkar* and Sushree Ranjan Sahoo *European Journal of Organic Chemistry* 2019 , 2035-2049
23. Controlling Stereoselectivity in Tribromide Mediated Oxidative Dearomatisations – Tuning The Synthesis of Selective Spirofurano-naphthalones Debayan Sarkar *, Puspendu Kuila, Devasish Sood 2019 *European Journal of Organic Chemistry* 2019,34, 5894-5904
22. Book Chapter on “ Xyloketal- Unique Benzoxacycles” – in Studies in Natural Product Chemistry (Elsevier Publishers) 2018- Debayan Sarkar and Nilendri Rout
21. PTAB Mediated Open Air Synthesis of Sulfonamides, Thiosulfonates and Symmetrical Disulfanes
Debayan Sarkar* ,Manoj Kumar Ghosh and Nilendri Rout *Tetrahedron Letters* 2018, 59, 2360-2364

20. Rhodium-catalyzed Insertion Reaction of PhP Group of Pentaphenylcyclopentaphosphine with Acyclic and Cyclic Disulfides. M. Arisawa, K.Sawahata, T. Yamada, Debayan Sarkar, M.Yamaguchi *Organic Letters* 2018 , 20(4), 938-941
19. Stereoselective Synthesis of Heliannuol G. Debayan Sarkar* andManoj Kumar Ghosh. *Tetrahedron Letters* 2017, 58, 4336-4339
18. “Atom – Economic Palladium Carbon Catalysed de novo synthesis of Tri- substituted Nicotinonitriles” - Debayan Sarkar*, Nilendri Rout, Manoj Kumar Ghosh, SantanabGiri, K. Neue and H. Reuter. *Journal of Organic Chemistry*, 2017, 82, 9012-9022(I.Factor – 4.849)
17. “A Jack of Trio”- Robust One-pot Metal free Oxidative Amination, Azidation and Peroxidation of Phenols. Debayan Sarkar*, M.K.Ghosh, Nilendri Rout, PuspenduKuila *New Journal Of Chemistry*, 2017, 41, 3715—3718
16. Facile TMSOI CatalysedStereoselective Synthesis of 2-Methylene Selanyl-4-Chromanols and Anti-Cancer Activity
Debayan Sarkar*SagarikaBehera, Sarbani Ashe, BismitaNayak, Saikat Kumar Seth 2017, *Tetrahedron* 51, 7200-7209
15. Radical-induced expeditious stereoselectivesynthesis of 2-alkyl 3-allyl trans-2,3-dihydrobenzofurans (TADHBs)Debayan Sarkar*andSusheeranjanSahoo2018 *Synthetic Communications* 48, 5 , 574-581
14. Story of Heliannuols – A Unique Class of Structurally Diverse Benzoxacycles, Synthesis and Structural Revision. Debayan Sarkar*,Manoj Kumar Ghosh 2018 *Current Organic Chemistry* 22, 18-56
13. Phenyl TrimethylAmmonium Tribromide Mediated Robust One-pot Synthesis of Spiroxacycles– an Economic Route- Stereoselective Synthesis of Spiroxadieneones. Debayan Sarkar*, M.K.Ghosh, Nilendri Rout *Organic and Biomolecular Chemistry*, 2016, 14, 7883-7886
12. PhSeBr Mediated Hydroxylative Oxidative Dearomatization of Naphthols– An Open Air Facile One-Pot Synthesis of Ketols. Debayan Sarkar*, M.K.Ghosh, Nilendri Rout, *RSC Advances* , 2016, 6, 26886.
11. Synergistic interactions of surfactant blends in aqueous medium are reciprocated in non-polar medium with improved efficacy as a nano-reactor. SoumikBardhan, Kaushik Kundu, BarnaliKar, Gulmi Chakraborty, Dibbendu Ghosh, Debayan SarkarSajal Das, SanjibSenapati, Swapan Kumar Saha and Bidyut K Paul 2016, *RSC Advances*, 6, 55104-55116
10. Unprecedented C-Methylation at 2- Position of 2-carboxy-4-chromanones – A Case Study with Corey-Chaykovsky Reagent. S. Ghosh, D.Sarkar, M.K.Ghosh, I.Chakraborty *Synlett* 2014, 25, 2649-2653
9. Biomimetic type approach to the tricyclic core of xyloketal. Application to a short, stereocontrolled synthesis of alboatrin and first synthesis of xyloketal G. Debayan Sarkar andRamanathapuram V. Venkateswaran* *Tetrahedron* 2011, 67, 4559-4568
8. Synthesis of bruguierolA employing ring closing metathesis. Debayan Sarkar and Ramanathapuram V. Venkateswaran* *Tetrahedron Letters*, 2011, 52, 3232 - 3233
7. Insight into supramolecular self assembly directed by weak interactions in acetophenone derivatives : crystal structures and Hirshfield surface analyses. Saikat Kumar Seth, Debayan Sarkar, Amallesh Roy and TanushreeKar* *CrystEngComm*, 2011, 13, 6728-6741

6. Use of π - π forces to steer the assembly of chromone derivatives into hydrogen bonded supramolecular layers: crystal structures and Hirshfield surface analyses. Saikat Kumar Seth, Debayan Sarkar and Tanushree Kar* *CrystEngComm*, 2011, 13, 4528 - 4535
5. On the Possibility of Tuning Molecular Edges to direct supramolecular self- assembly in coumarin derivatives through cooperative weak forces: crystallographic and Hirshfield surface analyses. Saikat Kumar Seth, Debayan Sarkar, Atis Dipankar Jana and Tanushree Kar* *Crystal Growth & Design*, 2011, 11, 4837-4849
4. Expeditious synthesis of helianene and C-10 halogenated helianenes employing ring-closing metathesis. Subir Sabui, Subroto Ghosh, Debayan Sarkar, Ramanathapuram V. Venkateswaran* *Tetrahedron Letters*, 2009, 50, 4683-4684
3. A biomimetic type expedient approach to the tricyclic core of xyloketal. Application to a short, stereocontrolled synthesis of alboatrin and a remarkable epi to natural isomerisation. Debayan Sarkar, Subroto Ghosh, Ramanathapuram V. Venkateswaran* *Tetrahedron Letters*, 2009, 50, 1431- 1434
2. Facile Aromatic Claisen Rearrangement Catalysed by Tin(IV) Chloride. Debayan Sarkar, Ramanathapuram V. Venkateswaran* *Synlett*, 2008, 05, 653- 654
1. Total synthesis of alboatrin, a phytotoxic metabolite from verticillium albo-atrum. Bidyut Biswas, Debayan Sarkar, Ramanathapuram V. Venkateswaran* *Tetrahedron*, 2008, 64, 3212-3216.

Administrative Positions:

1. Professor-in- charge of the Foundation For Technology and Business Incubation (FTBI), founded by DST in 2016; 1st July 2020- continue
2. Professor-in-charge, Organic Farming Project, NIT Rourkela, Oct 2018-continuing
3. Professor-in-Charge, Institute Guest Houses, NIT Rourkela, July 2016- June 2018
4. Vice President, Games, Student Activity Centre, NIT Rourkela, July 2014-June 2016

Selected List of papers presented in conferences & Symposia

25. Invited Lecture at “Workshop on Sustainable Chemical Technology” 23rd March 2021, by FTBI, NIT Rourkela
24. Invited lecture in Webinar organized by Indian Chemical society, calcuta university, 15th August 2020 entitled “Recent Advances in Chemistry and Material Sciences 2020”
24. Invited lecture in Webinar organized by Indian Chemical society, University of North Bengal, 1st July 2020 entitled “Recent Advances in Chemistry and Material Sciences 2020”
23. Invited Lecture at International Conference on “Recent Developments in Organic and Applied Chemistry-2020 (RDOAC-2020) 6th - 7 July, 2020 organised by KIIT Bhubhaneswar
22. Lecture in Prof. Burkhard Koenig’s Lab, University of Regensburg, Germany, April 2020
21. Invited to **NOST-OCC** Goa 6th-9th August 2018 GOA

20. Paper Presentation on “**Asymmetric Dearomatisation**” at International Conference on Organometallic Chemistry, Florence, Italy, 15th-20th July 2018.
19. Invited Speaker at **Institute of Chemistry , University of Rennes**, 10th-14th July 2018.
18. Invited Talk at **Rajabazar Science College, Kolkata, August 2017**
17. Oral Presentation at National Conference at **IEST 2017- August**
16. Invited Lecture in " *International Conference in Chemistry For Human Health (ICCHD) 2017*, 8-10 January 2018 at HIT Kolkata on 100th Birth Centenary of Prof. Asima Chatterjee
15. Solving Molecular Complexity Using Oxidative Dearomatization & Metal Catalysed Atom economic Transformations- **Invited Lecture** 23rd September 2016 at Dr. Reddy’s Institute of Life Sciences, Hyderabad
14. **Invited Lecture**: Indian Institute of Engineers – on World’s standard day- 14th October 2015
13. Solving Molecular Complexity Using Oxidative Dearomatization & Metal Catalysed Atom economic Transformations- **Invited Lecture** 23rd September 2016 at Dr. Reddy’s Institute of Life Sciences, Hyderabad
12. **Invited Lecture**: Indian Institute of Engineers – on World’s standard day- 14th October 2015.
11. **Invited Lecture** in " *Science Academics Lecture workshop on Organic and Inorganic Self Assembly*" *Department of Chemistry, KIIT University, Bhubhaneswar*, 22nd February 2015.
10. **Invited Lecture** in " National Symposium on Chemistry and its interface with other Scientific Disciplines " , organized by Chemistry Dept. - Sitananda College and *Royal Society of Chemistry (Eastern India section)- 12th December 2014*
9. **Exploring Molecular Intricacy- Ruthenium Catalysis and Oxidative Dearomatisation - Challenges in Organic Chemistry- ISACS 2014- 7th- 10th August, Shanghai, China**
8. *Towards Natural Product Synthesis-Ruthenium Catalysed Non-Metathesis Couplings and Oxidative Dearomatisation-Oral Presentation- NIT Hamirpur- 29-30 May 2014*
7. *Exploring Molecular Complexity- Application to Natural Product Synthesis ; Invited Lecture- NIT- Raipur, Recent Trends in Heterocyclic Compounds and Material Science*, 26-30 May 2014
6. *Efficient Transformations towards biologically Important Natural Products; Indo-US Research Conclave, March 15-17, 2013, Pune, India.*
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