

Dr. Sujit Sarkar

S/O-Shri.GobindaSarkar

House No: A-25, Kamalapur, Dhanyakuria, Kolkata, P.O.+P.S-

Matia, Dist.-North 24 Parganas, Pin-743437

sujitchem90@gmail.com, s.sujit07@gmail.com, +91-8882310553

Summary

Chemistry professional carrying potential on the development of new synthetic methodology, multi- step synthesis, characterization of organic molecules, manuscript writing, and documentation and teaching. Capable of working independently with minimum supervision. My professional objective is to create and work in an environment which encourages mutual sharing of ideas and information to implement plans in the best interest of the organization. As well as, I want to fully utilize my knowledge to teach the students and want to gain new knowledge every day.

Objectives

Searching for an opportunity as a chemistry faculty; can join immediately.

Academic Summary

Ph.D.	Organic Synthetic Chemistry; 2013-2019 Indian Institute of Technology Guwahati, Assam, India New approaches towards the synthesis of oxygen Heterocyclic compounds (Thesis Title) Prof. Anil Kumar Saikia (Thesis Supervisor)
M.Sc.	Chemistry; 2011–2013 Organic Chemistry (Specialization), 73% (1 st Class) Indian Institute of Technology Guwahati, Assam, India Nickel(II) chloride hexahydrate catalyzed unusual product formation on reaction of aromatic aldehydes with 2-mercaptoethanol: Formation of supramolecular helical assemblage of the product Prof. Abu Taleb Khan (Thesis Supervisor)
B.Sc.	Chemistry; 2008-2011; 61.5% (1 st Class) West Bengal State University, Barasat, West Bengal, India
Higher Secondary	2005-2007, 66.5% (1 st Class) Dhanyakuria Higher Secondary School, Dhanyakuria, West Bengal, India
Secondary	2005; 71.75% (1 st Class) Dhanyakuria Higher Secondary School, Dhanyakuria, West Bengal, India

Work Experience

Research Scientist: Jubilant Symbiosys (Pharmaceutical Company), ii 201310, 15A, IILM Rd, Knowledge Park II, Greater Noida, Uttar Pradesh- 201310 (November, 2021- Till now). 2.3 Years

- **successfully optimize a scalable approach an important intermediate for synthetic tetrahydrocannabinol.**
- **Designed and executed a multistep synthesis (17 steps) for a cytochrome inhibitor.**
- **synthesized several 3-deoxyguanosine analogues to test their biological activity.**
- **Optimize the multistep synthetic route for a biological active azepinoindole derivatives.**
- **Developed process optimization for biologically active 2,3-deoxycytidine derivatives.**
- **Synthesized chemical libraries for oxazolopyridine & amp: oxazolopyridyl pyridine.**
- **Development synthetic route for spiro benzoxazine derivatives that has potential bio active applications as a modulator for ion channels.**
- **Participated in a number of synthesis projects, involved in process development in the lab laboratory, technology transfer to the pilot plant.**
- **Helped devise, amend and adapt analytical methods for HPLC, GC, NMR and some spectroscopy and traditional wet-chemistry methods to evaluate.**
- **My primary role at this facility was in support of the scale-up reactors from which pharmaceutical compounds are developed.**
- **Design and synthesized complex bio-active molecules in multiple therapeutics areas, conducted SAR (structure activity relationship) analyses to.**
- **Design and synthesized complex bio-active molecules to improve their insecticidal activity. Tracked the newest patents and scientific literature in.**
- **Designed multistep synthesis; purification and characterization of organic compounds.**
- **Design and synthesis of molecules with herbicidal activity; supervision of one assistant.**

Assistant Professor-I: Shri Jagdish Prasad Jhabarmal Tibrewala University (S.J.J.T.U.), Chudela, Jhunjhunu, Rajasthan-33300 (April, 2019-October, 2021), 2.5 Years

Guest Faculty: University of Delhi, New Delhi, Delhi-110007 (2nd Jan–30th April, 2020), 0.5 Years

Professional Skills

- Design and development of newer synthetic protocols.
- Strong analytical and problem-solving skills.
- Ability to work independently and professionally with minimal supervision.
- Ability to complete tasks in a timely manner along with proper documentation.
- Understanding of manuscript submission and peer review process.
- Enthusiasm in assisting team members and contributing to a collaborative working environment.
- Good at quotation preparations and negotiating the price of equipment and chemicals.
- Have patience to work for long hours.
- Outstanding communication skills (written and oral)

Technical Skills

- **Analytical Techniques:** Mass Spectrometry (worked as an operator in HRMS), NMR Spectroscopy (Bruker, 500MHz), UV visible, FT-IR.
- **Operating System:** Windows.
- **Softwares:** MS-office, Chem Draw, Sci-finder, Reaxy, Mestrenova, Adobe illustrator.

Highlights

- Good Laboratory Practices (GLP), including lab safety practices.
- Scientific knowledge soft skills like MS word, Excel, Power-point, Chemdraw, Adobe illustrator and Scifinder, Etc.
- Exclusive experience on multi-step synthesis of organic molecules
- Good at SciFinder usage for routine search of chemical literature
- Good in using Reaxy and Mestrenova for NMR data interpretation.

Achievements

- Qualified **Graduate Aptitude Test in Engineering (GATE)**, India, 2013, 2014 and 2020 in Chemistry.
- Qualified **Council for Scientific and Industrial Research (CSIR)-Lectureship (LS)**, India, National Eligibility Test (NET) in Chemical Sciences of December 2012 with All India Rank-64.
- Qualified **Council for Scientific and Industrial Research (CSIR)-Lectureship (LS)**, India, National Eligibility Test (NET) in Chemical Sciences of December 2017 with All India Rank-79.

Publications

1. "Regioselective One-Pot, Three-Component Synthesis of Substituted 2*H*-Indazoles from Nitroaryl aldehyde, Alkyne and Amine Catalyzed by CuBr/Zn(OTf)₂ System"
Unnava, R.; Indukuri, K.; **Sarkar, S.**; Saikia A. K. *RSC Adv.*, **2014**, *4*, 55296.
<https://pubs.rsc.org/en/content/articlelanding/2014/ra/c4ra10093j>
2. "Synthesis of Substituted Isochromans *via* Oxa-Pictet Spengler Reaction of Vinylogous Enol Esters"
Sarkar, S.; Sultana, S.; Indukuri, K.; Unnava, R.; Saikia, A. K. *Synthesis*, **2016**, *48*, 1727

3. “Stereoselective Synthesis of 4-*O*-Tosyl tetrahydropyrans via Prins Cyclization Reaction of Enol ethers”
Sarkar, S.; Devi, Namita; Porashar, Bikoshita.; Saikia, A. K. *SynOpen*, **2019**, 3, 36.
<https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0037-1611679>
4. Cu(II) Composite of 2-Aminonicotinaldehyde Vibration, Anti-Inflammatory, Docking, and molecular characteristics spectral (FT-IR, FT-RAMAN) Investigations Utilizing Theoretical and Experimental Techniques
[http://s3-ap-southeast-1.amazonaws.com/ijmer/pdf/volume10/volume10-issue12\(2\)/8.pdf](http://s3-ap-southeast-1.amazonaws.com/ijmer/pdf/volume10/volume10-issue12(2)/8.pdf)
5. “Regioselective synthesis of substituted 3,6-dihydropyran from 3-butene-1-ol and aldehydes using TFA”
Sarkar, S.; Saikia, A.K. (Communicated).
6. “A review on Multicomponent reaction (MCR) based on single starting material”
Sarkar, S.; Khan, A. T. (Manuscript under preparation).
7. “A review on Prins cyclisation reaction” **Sarkar, S.** (Manuscript under communication).

Participation in Conferences and Symposia

- Participated International Symposium on “*Hypoxic biology 2021*” held during 25th–May 2021 at Umeå Universitet, Umeå, Sweden
- Participated International Conference on “*OrganiX2018*” held during 20st-21st December 2018 at Tezpur University, Assam, India
- Presented Poster in the International Conference on “Frontiers in Chemical Sciences-2016” held during 8th-10th December
At IIT Guwahati, Assam, India.
- Presented Poster in the poster in the International Conference on “Frontiers in Chemical Sciences-2018” held during 6th-8th December at IIT Guwahati, Assam, India.
- Actively participated in the National Conference on “*Recent Advances in Cancer Biology and Therapeutics-2014 (RACBT)*” held during 5th December at IIT Guwahati, Assam, India.
- Actively participated “*8th J-NOST Conference*” held during 15th-17th December 2013.

International Books and Chapters

- “Exemplary reactions in Organic chemistry” by **Sujit Sarkar** and Ashutosh Gupta, LAP LAMBERT Academic Publishing (Germany), 2016, Pages-188, ISBN: 978-3-659-86899-3
<https://www.abebooks.com/servlet/BookDetailsPL?bi=22514659783>.
- “An overview on analytical chemistry” by **Sujit Sarkar**, Ashish Kumar Gupta and Ramesh Kumar, LAP LAMBERT Academic Publishing (Germany), 2017, Pages-168, ISBN: 978-620-2-07686-9
https://www.abebooks.com/servlet/BookDetailsPL?bi=22690093038&searchurl=sortby%3D17%26an%3DSARKAR%252C%2BSUJIT%2B&cm_sp=snippet--srp1--title6.

- “A look into organic molecules: Basic bonding in 3D-arrangement” by **Dr. Sujit Sarkar**, Dr. Avishek Banik and Dr. Madhurjya Borah, LAP LAMBERT Academic Publishing (Germany), 2019, Pages-120, **ISBN: 978-620-2-05800-1**.
- “Chemistry of s block and p block elements: Reaction and Application” by **Dr. Sujit Sarkar**, Dr. Avishek Banik and Dr. Priya Gosh, LAP LAMBERT Academic Publishing (Germany), 2019, Pages-181, **ISBN: 978-613-9-47167-6**.
- “Amino acids and their role in chemistry” by **Dr. Sujit Sarkar** (Under communication).
- “Some important basic rearrangement reaction and its application in chemistry” by **Dr. Sujit Sarkar** (Under communication).
- “A text book on basic bonding in inorganic chemistry” by **Dr. Sujit Sarkar** (Under communication).
- “An introduction to general and typical coordination chemistry” by **Dr. Sujit Sarkar** (Under communication).
- “A general chemistry for graduate and undergraduate chemistry” by **Dr. Sujit Sarkar** (Under communication).
- More will be coming soon as a first author...

References

1. Prof.(Dr.) Anil Kumar Saikia (Thesis Supervisor)

Indian Institute of Technology Guwahati,
Guwahati-781039, Assam, India

Tel: +91-361-258-2316

Mobile: +91-9957561317

Email: aksaikia@iitg.ac.in

2. Prof. (Dr.) Abu Taleb Khan (M.Sc. Supervisor)

Indian Institute of Technology Guwahati,
Guwahati-781039, Assam, India

Tel: +91-361-258-2305

Mobile: +91-9435118593

Email: atk@iitg.ac.in

3. Dr. Bhubaneswar Mandal

Indian Institute of Technology Guwahati
Guwahati-781039,

Assam, India Tel:

+91-361-258-2319

Email: bmandal@iitg.ac.in

4. Prof. (Dr.) Subash Chandra Pan

Indian Institute of Technology

Guwahati,

Guwahati-781039, Assam, India

Tel: + 91-361-258-2304

Mobile: + 91-8011002521

Email: span@iitg.ac.in

5. Dr. Vijay Kumar Das

Banaras Hindu University of Technology

Varanasi, Uttar Pradesh, India - 221005

Tel: 1234567890

Mobile: +91-9678992670

Email: das.vk03@bhu.ac.in