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PROFESSIONAL EXPERIENCE

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WB

Assistant Professor – Grade-I, Department of Chemistry *(08/2018 - Present)*

EDUCATION

INDIAN INSTITUTE OF SCIENCE (IISc), BANGALORE

Integrated Ph. D. Chemical Sciences, (*08/2004 – 06/2013*)
Studies on the Ring-opening of Vinylcyclopropanes, Vinylcyclobutanes, & other Small-ring Systems
(Supervisor: Prof. S. Chandrasekaran)

BISHOP HEBER COLLEGE

B.Sc. Chemistry, (*08/2001 – 07/2004*).
Bharathidasan University, Tiruchirappalli.

RESEARCH EXPERIENCE

UNIVERSITY OF BRISTOL, UK

Postdoctoral Research Associate *(01/2018 – 07/2018)*
Newton International Fellow *(01/2016 – 01/2018)*
(Supervisor: Prof. Varinder K. Aggarwal)

INSTITUTE OF MICROBIAL CHEMISTRY (BIKAKEN), TOKYO, JAPAN

JSPS Postdoctoral Researcher *(09/2013 – 08/2015)*
Postdoctoral Research Associate *(01/2013 – 08/2013)*
Direct Catalytic Addition of Alkyl nitriles to Aldehydes by Transition Metal/NHC Complexes
(Supervisor: Prof. M. Shibasaki)

UNIVERSITY OF PARIS–11

ARCUS Short-term Exchange Researcher *(10/2009 – 12/2009)*
Functionalized mesoporous silica as a drug delivery system (Supervisor: Prof. D. B. Delpon)

AWARDS & HONORS

- Vishnu Ji Ram Award for Best Shotgun Presentation – 27th ISCB Conference Nov. 2022
- Top Teaching Feedback – Spring 2019 (IIT Kharagpur)
- Early Career Research Award – SERB, DST 2019
- Ramanujan Fellowship – SERB, DST – Nov. 2018
- Newton International Fellowship – Royal Society of Chemistry 2016
- JSPS Postdoctoral Research Fellowship – Japanese Science and Technology 2013
- Shyama Prasad Mukherjee Fellowship – CSIR-SPM 2008
- Junior Research Fellowship – CSIR 2007
- Bharathidasan University –Rank Holder

MEMBERSHIP OF SOCIETIES

Chemical Research Society of India (CRSI) Life Member.
Chirantan Rasayan Sanstha (CRS) Life Member

RESEARCH GRANTS

ONGOING PROJECTS

- "Transition-Metal mediated Enantioselective Reductive Coupling of Alkynes with Electrophiles" Ramanujan Fellowship; Nov. 2018. Rs. 35,00,000/-

COMPLETED PROJECTS

- "Metal-Catalyzed Enantioselective Difunctionalization of Fleeting Arynes and Cyclic Alkyne Intermediates" Science and Engineering Research Board (SERB); Mar. 2019. Rs. 37,00,000/-
- "Asymmetric Metal-Mediated Difunctionalization of Unsaturated Systems" Institute Scheme for Innovative Research and Development (ISIRD); Feb. 2019. Rs. 28,00,000/-

MENTORING EXPERIENCE

ONGOING Ph. D. STUDENTS	MASTER'S STUDENTS	GROUP ALUMNI
Sourav Mondal (Jan. 2019 -)	Arnab Rooj (2022 -)	Sk. Md. Tofayel (2019 - 2020)
Krishna Biswas (Jul. 2019 -)	Subrata Malik (2022 -)	Rishab (2019- 2020)
Suman Ghosh (Jul. 2019 -)		Ajay Vasuniya (2020 - 2021)
Sudipta Ghosh (Jul. 2019 -)		Moumita Bag (2021 - 2022)
Rajesh Chakraborty (Jan. 2020 -)		
Tamal Ballav (Jan. 2020 -)		
Aankhi Khamrai (Sep. 2020 -)		
Aniruddha Das (Aug 2021 -)		
Shailendra Kumar (2022 -)		

COURSES TAUGHT @ IIT Kharagpur

Average Teaching Feedback Score (4.1/5.0) – over 12 courses
Top Teaching Feedback – Spring 2019 (IIT Kharagpur)
CY19001: Basic Organic Chemistry Laboratory Course for B. Tech. Students. [0-0-3] (2018-Present)
CY00001: Basic Organic Chemistry Course for B. Tech. Students. (Prep. Theory). [3-1-0] (2018)
CY31010: Strategies and Methods in Organic synthesis [3-1-0 (Shared)] (2018)
CY39003: Organic Chemistry Laboratory II [0-0-6 (Shared)] (2019-Present)
CY11001: Chemistry [3-1-0] (2019-Present)
CY51003: Spectroscopic Methods of Structure Determination [3-1-0 (Shared)] (2019-Present)

PUBLICATIONS

1. **Copper-Catalyzed Protoboration of 1,3-Diynes as a Platform for Iterative Functionalization.** Ghosh, S.; Chakrabortty, R.; Kumar, S.; Das, A.; Ganesh, V.* *ACS Catal.* **2022**, 12, 11660.

2. **Palladium-Catalyzed Dual Catalytic Synthesis of Heterocycles.** Ballav, T.; Chakrabortty, R.; Das, A.; Ghosh, S.; Ganesh, V.* *Eur. J. Org. Chem.* **2022**, (Accepted)

3. **The Role of Homoaromaticity in the Tropylium-Catalyzed Carboxylic Acid O-H Insertion with Diazoesters.** Anoop, A.;* Ganesh, V.* *ChemRxiv (Preprint)* **2022**; DOI: 10.26434/chemrxiv-2022-lmskx.

4. **Recent Advances in Organophosphorus-Catalyzed Borylation and Silylation Reactions.** Biswas, K.; Das, A.; Ganesh, V.* *Adv. Synth. Catal.* **2021**, *363*, 4475.

5. **Dual Functionalization of Alkynes Utilizing the Redox Characteristics of Transition Metal Catalysts.** Ghosh, S.; Chakrabortty, R.; Ganesh, V.* *ChemCatChem* **2021**, *13*, 4262

6. **Exploiting the Versatility of Palladium Catalysis: A Modern Toolbox for Cascade Reactions.** Mondal, S.+; Ballav, T.+; Biswas, K.+; Ghosh, S.+; Ganesh, V.* *Eur. J. Org. Chem.* **2021**, 4566.

7. **How to Train a Free-Radical for Organic Synthesis? A Modern Approach.** Khamrai, A; Ganesh, V.* *J. Chem. Sci.* **2021**, *133*, 5.

8. **Enantiospecific 1,2-Metallate Rearrangement through Strain Release of Cyclopropyl Boronate Complexes.** Gregson, C. H. U.; Ganesh, V.; Aggarwal, V. K.* *Org. Lett.* **2019**, 21, 3412.

9. **Chiral Aniline Synthesis via Stereospecific C(sp^3)–C(sp^2) Coupling of Boronic Esters with Aryl Hydrazines.** Ganesh, V.; Noble, A.; Aggarwal V. K.* *Org. Lett.* **2018**, *20*, 6144.

10. **Enantiospecific sp^2-sp^3 Coupling of Chiral Boronic Esters with o- and p-Phenols.** Wilson, C. M.;† Ganesh, V.;† Noble, A.; Aggarwal, V. K.* *Angew. Chem. Int. Ed.* **2017**, *56*, 16318. [†-Authors Contributed Equally].

11. **Alkynyl Moiety for Triggering 1,2-Metallate Shifts: Enantiospecific sp^2–sp^3 Coupling of Boronic Esters with p-Arylacetylenes**. Ganesh, V.; Odachowski, M.; Aggarwal, V. K.* *Angew. Chem. Int. Ed.* **2017**, *56*, 9752.

12. **Recent Advances in the Synthesis and Reactivity of Vinylcyclopropanes.** Ganesh, V.; Chandrasekaran, S.* *Synthesis* **2016**, *48*, 4347.

13. **Synthetic Applications of Carbohydrate-derived Donor-Acceptor Cyclopropanes.** Ganesh, V.; Ramusridhar, P.; Chandrasekaran, S.* *Isr. J. Chem.* **2016**, *56*, 417.

14. **Direct Catalytic Addition of Alkyl nitriles to Aldehydes by Transition-Metal/NHC Complexes.** Sureshkumar, D.; Ganesh, V.; Kumagai, N.; Shibasaki, M.* *Chem. Eur. J.* **2014**, *20*, 15723.

15. **Sigma–Ferrier Rearrangement of Carbohydrate Derived Vinylcyclopropanes: A Facile Approach to Oxepane Analogs**. Ganesh, V.; Kundu, T.; Chandrasekaran, S.* *Tetrahedron* **2014**, *70*, 7268.

16. **Electrophile Induced Indirect Activation of C–C Bond of Vinylcyclopropanes: A Masked Donor–Acceptor Strategy for the Synthesis of Z–Alkylidene Furans** Ganesh, V.; Kundu, T.; Chandrasekaran, S.* *J. Org. Chem.* **2013**, *78*, 380.

17. **Bromenium Catalyzed Tandem Ring-Opening/Cyclization of Vinylcyclopropanes and Vinylcyclobutanes: Metal–free [3+2+1]/ [4+2+1] Cascade for the Synthesis of Chiral Amidines and Computational Investigation.** Ganesh, V.; Sureshkumar, D.; Chanda, D.; Chandrasekaran, S.* *Chem. Eur. J.* **2012**, *18*, 12498.

18. **Tandem Ring-Opening/Cyclization of Vinylcyclopropanes: A Facile Synthesis of Chiral Bicyclic Amidines**. Ganesh, V.;† Sureshkumar, D.;† Chandrasekaran, S.* *Angew. Chem. Int. Ed.* **2011**, *50*, 5878. [†-Authors Contributed Equally]

19. **10 Years of Click Chemistry: Synthesis and Applications of Ferrocene-Derived Triazoles**. Ganesh, V.; Sai Sudhir V.; Kundu, T.; Chandrasekaran, S.* *Chem. Asian J.* **2011**, *6*, 2670.

20. **Tetrathiomolybdate Mediated Rearrangement of Aziridinemethanol Tosylates: A Thia-Aza-Payne Rearrangement**. Sureshkumar, D.; Koutha S.; Ganesh, V.; Chandrasekaran, S.* *J. Org. Chem.* **2010**, *75*, 5533.

21. **One-Pot Synthesis of β-Amino/β-Hydroxy Selenides and Sulfides from Aziridines and Epoxides.** Ganesh, V.; Chandrasekaran, S.* *Synthesis* **2009**, 3267.

22. **Direct Synthesis of Functionalized Unsymmetrical β-Sulfonamido Disulfides by Tetrathiomolybdate Mediated Aziridine Ring-Opening Reactions**. Sureshkumar, D.; Ganesh, V.; Vidyarini, R. S.; Chandrasekaran, S.* *J. Org. Chem.* **2009**, *74*, 7958.

23. **Conformationally Locked Bridged Bicyclic Diselenides: Synthesis, Structure, Se…O Interaction, and Theoretical Studies.** Sureshkumar, D.; Ganesh, V.; Chandrasekaran, S.* *J. Org. Chem.* **2007**, *72*, 5313.

24. **Regio- and Stereospecific Synthesis of β-Sulfonamidodisulfides and β-Sulfonamidosulfides from Aziridines using Tetrathiomolybdate as a Sulfur Transfer Reagent**. Sureshkumar, D.; Gunasundari T.; Ganesh, V.; Chandrasekaran, S.* *J. Org. Chem.* **2007**, *72*, 2106.

MANUSCRIPT UNDER PREPARATION (Titles are Tentative)

25. **Domino Difunctionalization for the Synthesis of Benzofulvenes.** Mondal, S.; Tofayel, S. M.; Ganesh V. (*Manuscript Under Preparation*)

26. **Transition Metal-Free Stereoselective Approach to Lactones.** Biswas, K.; Ganesh, V. (*Manuscript Under Preparation*)

BOOK CHAPTER

- Chandrasekaran, S.; Ganesh V. "Oxidation Adjacent to Oxygen of Alcohols by Chromium Reagents" *Comprehensive Organic Synthesis II*; Vol. 7, pp 277-294.

INVITED LECTURES & CONFERENCE PRESENTATIONS

- 27th ISCB Conference, BIT Mesra, Ranchi, Jharkand (Nov. 2022)
- "Boron Compounds: A spirited Horse in Organic Synthesis and Beyond" Refresher Course on Chemistry, University of Hyderabad (Feb. 2021)
- Indian Institute of Technology Indore (Jan. 2018)
- Indian Institute of Technology Roorkee (January 2018)
- Indian Institute of Technology Delhi (Jan. 2018)
- Indian Institute of Technology Kharagpur (Jan. 2018)
- National Chemical Laboratory, Pune (Jan. 2018)
- Indian Institute of Technology Bhubaneswar (Jan. 2018)
- Indian Institute of Technology Palakkad (Jan. 2018)
- The University of Hyderabad, Telangana (May 2017)
- Indian Institute of Technology Bombay (May 2017)
- Indian Association for the Cultivation of Science, Kolkata (Apr. 2017)
- The 135th Annual Meeting of the Pharmaceutical Society of Japan, Kobe (2015)
- 7th Junior National Organic Symposium Trust conference (J-NOST), IISER Mohali (2011)

OTHER ACADEMIC ACTIVITIES

- Program Officer, NSO (Health & Fitness) IIT KGP Apr 2022 – Present
- UGPEC Member (Dept.) Mar 2022 – Present

- UG Lab Coordinator Aug 2021 - Present
- Department Teaching Timetable In-Charge – Jan 2021 - Present
- Faculty In-Charge - GCMS Instrument Jan 2019 - Present
- MOODLE Coordinator – Department of Chemistry – 2020 - Present
- Department Purchase Committee Member – 400 MHz NMR (~ Rs. 3 crores) 2022-23
- First-year Subject Coordinator (Theory + Lab) Aug 2021 - 2022
- Organizer – Guest Lecture of Prof. Carmen Galan, University of Bristol 2018.
- Organizer – Sir J. C. Ghosh Lecture 2019 – Guest: Prof. Ben L. Feringa (Nobel Prize – 2016 Chemistry)
- Convener – "Smart Functional Molecules" Workshop, Department of Chemistry, IIT Kharagpur 2019.
- Organizer – Guest Professor - Prof. Christopher Schofield, University of Oxford July 2019
- Organizer – "Advances in Functional Materials" Symposium, Dept. of Chemistry, IIT KGP 2019.
- Participants & Audience Management Committee, 65th Annual Convocation, IIT Kharagpur 2019.