Dr. Saranya Salim

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Personal Details:

Designation : Assistant Professor (On contract)

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Educational Qualifications:

- **Ph. D** (*Doctor of Philosophy in Chemistry*), Mahatma Gandhi University Kottayam Kerala India
  - *Thesis title "Novel Protocols for the Copper-Catalyzed Carbon-Carbon and Carbon-Nitrogen Bond Formations"*
  - *Thesis supervisor: Dr. G. Anilkumar, School of Chemical Sciences, Mahatma Gandhi University, Kottayam*
- **M.Sc.** (*Analytical Chemistry*) 2014, I class with distinction, Christian College, Chengannur, University of Kerala
- **B.Sc.** (*Chemistry*) 2012, I class with distinction, Christian College, Chengannur, University of Kerala

Highlights

No of Publications : 37 (All international)

Book chapters : 2

Books : 3

H index : 19

i10-index	: 27
Total Citations	: 895
Publications in	: Advanced Synthesis & Catalysis
	Catalysis Science & Technology
	Organic & Biomolecular Chemistry
	RSC Advances
	Applied Organometallic Chemistry
	Asian Journal of Organic Chemistry
Reviewer for	: Current Organic Chemistry
Associate Editor	: News Letter, Magnetic Resonance Society (MRSK) Kerala

Honors and Awards:

- The paper "Manganese-catalyzed amination reactions: An overview" was one of the most downloaded papers during January 2021 to December 2021 published by *Appl. Organomet. Chem.* (Wiley).
- The editorial board of *Org. Biomol. Chem.* has selected the paper "A detailed theoretical investigation to unravel the molecular mechanism of the ligand-free copper-catalyzed Suzuki cross-coupling reaction" as the cover page of the journal in 2022.
- A layman's summary of her research article, "Palladium-catalyzed multicomponent reactions: An Overview," was published in an online platform, Atlas of Science, another view of science in 2021.
- The editorial board of *RSC Adv*. has selected the paper "Microwave-assisted synthesis of five membered nitrogen heterocycles" for the RSC Advances 10th Anniversary collection focusing on Sustainable synthesis in 2021.
- The article "Recent advances and prospects in nickel-catalyzed C-H activation" was amongst the top 5% (capped at top 100 papers) across Royal Society of Chemistry journals in terms of citations in 2020.
- The editorial board of *Adv. Synth. Catal*. has selected the paper "Recent Advances and Perspectives in the Synthesis of Heterocycles via Zinc Catalysis" as the cover page of the journal in 2019.
- The article "Copper-Catalysed Multicomponent Syntheses of Heterocycles" was one of the most downloaded papers during 2018-2019 published by *Asian J. Org. Chem.* (Wiley).
- The article "Recent Developments and Perspectives in the Asymmetric Mannich Reaction" was one of the most downloaded papers during 2018-2019 published by *Asian J. Org. Chem.* (Wiley).
- Recipient of the Council of Scientific & Industrial Research (CSIR, New Delhi) junior research fellowship 2017-2019.
- Awarded CSIR Junior research fellowship in 2015.

- Secured 6th rank in M. Sc. Analytical Chemistry examination conducted by University of Kerala in 2014.

List of publications:

37. Recent advances in Chan-Lam Coupling Reaction, P. S. Devi, **S. Saranya**, G. Anilkumar, *Catal. Sci. Technol.* **2024**, *14*, 2320.

36. Recent developments in zinc-mediated coupling reactions, P. X. T. Rinu, **S. Saranya**, G. Anilkumar, *Arkivoc*, **2023**, *i*, 202312122.

35. Copper-Catalyzed Base-free Protocol for the Sonogashira-type Coupling of Phenylacetylenes with Boronic Acid Derivatives under Air, **S. Saranya**, P. V. Saranya, G. Anilkumar, *ChemistrySelect*, **2022**, *7*, e202202191.

34. Green Synthesis of 2-Aminobenzothiazoles via Copper Catalysis under Microwave Irradiation, P. V. Saranya, **S. Saranya,** R. Dhanya, G. Anilkumar, *ChemistrySelect* **2022**, *7*, e202202718.

33. A detailed theoretical investigation to unravel the molecular mechanism of the ligand-free copper-catalyzed Suzuki cross-coupling reaction, C. Rajalakshmi, A. Krishnan, **S. Saranya**, G. Anilkumar, V. I. Thomas, *Org. Biomol. Chem.* **2022**, *20*, 4539.

32. Manganese-catalyzed amination reactions: An overview, R. Farzana, S. Radhika, **S. Saranya**, G. Anilkumar, *Appl. Organomet. Chem*. **2021**, *35*, e6421.

31. Recent advances in the rhodium-catalyzed cyanation reactions, P. K. Soumya, T. B. Vaishak, **S. Saranya**, G. Anilkumar, *Appl. Organomet. Chem.* **2021**, *35*, *e*6340.

30. Ultrasound irradiation in heterocycle synthesis: An Overview, **S. Saranya**, S. Radhika, C. M. A. Abdulla, G. Anilkumar, *J. Heterocyclic Chem.* **2021**, *58*, 1570.

29. Ligand- and Base-Free Cu-Catalyzed C-N Coupling of Aminoquinolines with Boronic Acids, **S. Saranya**, S. Radhika, G. Anilkumar, *ChemistrySelect*, **2021**, *6*, 6847.

28. Applications of aryl-sulfinamides in the synthesis of N-heterocycles, R. M. Philip, G. S. S. Treesa, **S. Saranya**, G. Anilkumar, *RSC Adv.* **2021**, *11*, 20591.

27. Recent advances in the iron-catalysed multicomponent reactions, **S. Saranya**, T. Aneeja, M. Neetha, G. Anilkumar, *Appl. Organomet. Chem.* **2020**, *34*, e5991.

26. Recent Trends in the Iron-Catalyzed Cyanation Reactions, **S. Saranya**, M. Neetha, T. Aneeja, G. Anilkumar, *Adv. Synth. Catal.* **2020**, *362*, 4543.

25. Microwave assisted synthesis of five membered nitrogen heterocycles, G. Meera, K. R. Rohit, **S. Saranya**, G. Anilkumar, *RSC Adv.* **2020**, *10*, 36031.

24. Cobalt-Catalyzed Multi-Component Reactions: Recent Advances and Perspectives in Organic Synthesis, G. S. S. Treesa, M. Neetha, **S. Saranya**, G. Anilkumar, *ChemistrySelect*, **2020**, *5*, 7400.

23. Recent Advances and Perspectives in the Silver-catalyzed Multi-component Reactions, G. S. S. Treesa, **S. Saranya**, G. Meera, G. Anilkumar, *Curr. Org. Chem.* **2020**, *24*, 291.

22. Recent Advances in Microwave Assisted Multicomponent Reactions**,** J. Fairoosa, **S. Saranya**, S. Radhika, G. Anilkumar, *ChemistrySelect*, **2020**, *5*, 1054.

21. Manganese-Catalysed Dehydrogenative Coupling – An Overview, K. R. Rohit, S. Radhika, **S. Saranya**, G. Anilkumar, *Adv. Synth. Catal.*, **2020**, *362*, 1602.

20. Zinc-Catalysed Multi-Component Reactions: An Overview, M. Neetha, K. R. Rohit, **S. Saranya**, G. Anilkumar, *ChemistrySelect*, **2020**, *5*, 1054.

19. An Overview of Rhodium-Catalysed Multi-Component Reactions, T. Shilpa, R. Dhanya, **S. Saranya**, G. Anilkumar, *ChemistrySelect*, **2020**, *5*, 898.

18. Recent Advances and Prospects in the Tishchenko Reaction, R. Dhanya, T. Shilpa, **S. Saranya**, G. Anilkumar, *ChemistrySelect*, **2020**, *5*, 754.

17. Recent Advances and Perspectives in the Copper-Catalysed Amination of Aryl and Heteroaryl Halides, M. Neetha, **S. Saranya**, N. A. Harry, G. Anilkumar *ChemistrySelect*, **2019**, *4*, 5150.

16. Recent Trends in the Silver-Catalyzed Synthesis of Nitrogen Heterocycles, R. Sreedevi, **S. Saranya**, G. Anilkumar, *Adv. Synth. Catal.*, **2019**, *361*, 4625.

15. Palladium-catalyzed multicomponent reactions: an overview, **S. Saranya**, K. R. Rohit, S. Radhika, G. Anilkumar, *Org. Biomol. Chem.*, **2019**, *17*, 8048.

14. A Novel Ligand-free Manganese-catalyzed C-O Coupling Protocol for the Synthesis of Biaryl Ethers, K. R. Rohit, **S. Saranya**, N. A. Harry, G. Anilkumar, *ChemistrySelect*, **2019**, *4*, 5150.

13. An overview of the chemistry of *o*-benzoquinones and their derivatives, S. Radhika, **S. Saranya**, N. A. Harry, G. Anilkumar, *ChemistrySelect*, **2019**, *4*, 9124.

12. Recent advances and prospects in the nickel-catalyzed C-H activation, N. A. Harry, **S. Saranya**, S. M. Ujwaldev, G. Anilkumar, *Catal. Sci. Technol.*, **2019**, *9*, 1726.

11. A novel zinc-catalyzed Suzuki-type cross-coupling reaction of aryl boronic acids with alkynyl bromides, K. K. Krishnan, **S. Saranya**, K. R. Rohit, G. Anilkumar, *J. Catal.*, **2019**, *372*, 266.

10. Recent Trends in Iron-Catalyzed Reactions towards the Synthesis of Nitrogen-Containing Heterocycles, R. Sreedevi, **S. Saranya**, K. R. Rohit, G. Anilkumar, *Adv. Synth. Catal.*, **2019**, *361*, 2236.

9. Recent Advances and Perspectives in the Synthesis of Heterocycles *via* Zinc Catalysis, K. K. Krishnan, S. M. Ujwaldev, **S. Saranya**, G. Anilkumar, M. Beller, *Adv. Synth. Catal.*, **2019**, *361*, 382.

8. Novel cobalt-valine catalyzed O-arylation of phenols with electron deficient aryl iodides, S. M. Ujwaldev, **S. Saranya**, N. A. Harry, G. Anilkumar, *Monatsh. Chem.*, **2019**, 150, 339.

7. Ligand-Free Cu-Catalyzed Suzuki Coupling of Alkynyl Bromides with Boronic Acids in Ethanol Under Microwave Irradiation, S. A. Babu, **S. Saranya**, K. R. Rohit, G. Anilkumar, *ChemistrySelect*, **2019**, *4*, 1019.

6. Copper-Catalysed Multicomponent Syntheses of Heterocycles, R. M. Cherian, N. A Harry, **S. Saranya**, K. R. Rohit, G. Anilkumar, *Asian J. Org. Chem*., **2019**, *8*, 197.

5. Recent Advances and Perspectives in the Asymmetric Reformatsky Reaction, J. Sarah, **S. Saranya**, S. M. Ujwaldev, G. Anilkumar, *The Chemist*, **2018**, *91*, 50.

4. Recent Advances in the Creation of Asymmetric Carbon Centre(s) by Generation of Carbon-Heteroatom Bond(s) Using Metal-Pybox Complexes, K. R. Rohit, S. M. Ujwaldev, **S. Saranya**, G. Anilkumar, *Asian J. Org. Chem*, **2018**, *7***,** 2338

3. Recent developments and perspectives in the asymmetric Mannich reaction, **S. Saranya**, N. A. Harry, K. K. Krishnan, G. Anilkumar, *Asian J. Org. Chem*, **2018,** *7*, 613.

2. Recent advances and perspectives in the Zn-catalyzed nitroaldol (Henry) reaction, **S. Saranya**, N. A. Harry, S. M. Ujwaldev, G. Anilkumar, *Asian J. Org. Chem*, **2017**, *6*, 1349.

1. Recent Advances in the Chemistry of Masked Ortho-Benzoquinones and Their Applications in Organic Synthesis, N. A. Harry, **S. Saranya**, K. K. Krishnan, G. Anilkumar, *Asian J. Org. Chem*, **2017**, *6*, 945.

Books (Edited)

- Green Organic Reactions, G. Anilkumar, **S. Saranya** (Eds.), Springer, Singapore, **2021**. (ISBN: 978-981-33-6897-2)
- Copper Catalysis in Organic Synthesis, G. Anilkumar, **S. Saranya** (Eds.), Wiley-VCH Verlag GmbH & Co.KGaA, **2020**. (ISBN: 978-3-527-82642-1)

Book (Authored)

- **S. Saranya**, Computational Studies on the Structural Characterization of Werner Complex, Lambert Academic Publishing, Beau Bassin, Mauritius, **2019**. (ISBN: 978-620-0-48220-4)

Book Chapter

- Microwave Assisted Amination Reaction: A Green Approach, **S. Saranya**, G. Anilkumar in Green Organic Reactions, G. Anilkumar, **S. Saranya** (Eds.), Springer, Singapore, **2021**. (ISBN: 978-981-33-6897-2)

- ❖ Copper Catalysis: An Introduction, **S. Saranya**, G. Anilkumar in Copper Catalysis in Organic Synthesis, G. Anilkumar, S. Saranya (Eds.), Wiley-VCH, Verlag GmbH & Co.KGaA, **2020**, pp 1-5. (ISBN: 978-3-527-82642-1)

Conferences:

11. Poster presentation in national seminar on Recent Advances in Chemical Sciences (RACS-2020) on 7th and 8th February, 2020 at School of Chemical Sciences, Mahatma Gandhi University Kottayam, Kerala, India

10. Poster presentation in Current Trends in Chemistry- CTriC 2020 on 6th and 7th February, 2020, at CUSAT, Kochi, Kerala, India

9. Poster presentation in International Workshop on Catalysis and Applications (IWCA-2020) on 28th-30th January, 2020, School of Pure and Applied Physics, Mahatma Gandhi University Kottayam, Kerala India

8. Participated in 107th Indian Science Congress on 3rd to 7th January, 2020, Agricultural University, Bangalore, India.

7. Oral presentation in National Seminar on Current Trends in Organic and Computational Chemistry on 14th and 15th February, 2019, Department of Chemistry, Morning Star Home Science College, Angamaly, Kerala, India.

6. Poster presentation in 31st Kerala Science Congress on 2nd and 3rd February, 2019, Fatima Mata College, Kollam, Kerala, India.

5. Poster presentation in International Symposium on New Trends in Applied Chemistry on 14th and 15th January, 2019, Post Graduate and Research Department of Chemistry, Sacred Heart College, Thevara, Kerala, India.

4. Oral presentation in International Conference on Multidisciplinary Research on 5th January, 2019, Post Graduate and Research Department of Chemistry, St. Albert's College, Ernakulam, Kerala, India.

3. Oral presentation in International Conference on Sustainable Innovations in Green Chemistry & New Technological Developments on 11th and 12th December, 2018, Post Graduate and Research Department of Chemistry, Maharaja's College, Ernakulam, Kerala, India.

2. Oral presentation in National Seminar on Neoteric Advances in Chemical Sciences on 11th and 12th October, 2018, Department of Chemistry, University of Kerala, Thiruvananthapuram, Kerala, India.

1. Oral presentation in National Seminar on Frontline Approaches in Material Science and Computational Chemistry on 14th-16th March, 2018, Post Graduate and Research Department of Chemistry, Sree Narayana College for Women, Kollam, Kerala, India.

Seminar Organized:

1. Organizing committee member of National Workshop on Advanced Materials Characterization, organized by Interdisciplinary Research Centre, Department of Chemistry, Government College, Kottayam

Academic Positions:

- Guest Lecturer at Department of Chemistry, Christian College, Chengannur from July 2015 to January 2017

Research project assisted:

- M. Phil. Project: 3
- B. Sc. Project: 3