

Dr. Sushmita

Assistant Professor

Qualification: M.Sc. Chemistry (Delhi University) Ph.D. (Delhi University)

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Bio-sketch

Dr. Sushmita was born in 1992 in Haryana, India. She completed her B.Sc. and M.Sc. in chemistry from University of Delhi, India, in 2013 and 2015, respectively. She received her Ph.D from the Department of Chemistry, University of Delhi, India in Nov, 2021. After gaining Ph.D., she worked as an assistant professor at Rajdhani College, DU. Presently she is serving as Assistant Professor at the Department of Chemistry, Netaji Subash University of Technology. Her research work mainly focuses on the designing and development of new strategies for the synthesis of small heterocyclic compounds via transition-metal free reaction and as well as using nanoparticle.

Area of Interest: Organic Synthetic Chemistry, Organic synthesis using nanoparticles

International Journal

1. “Recyclable Copper-Iodide Nanoparticle (CuI NPs): An Efficient Catalyst for the Synthesis of Alkynyl Ester, **Sushmita**,[#] Monika Patel,[#] Deepika Thakur,[#] and Akhilesh K. Verma, *Org. Biomol. Chem.* **2023**.
2. “Unveiling the Three-Component Phosphonylation on Alkynylaldehydes: Toolbox toward Fluorescent Molecules” Deepika Thakur, Trapti Aggarwal, Muskan, **Sushmita**, Akhilesh K. Verma, *The Journal of Organic Chemistry*, **2023** (10.1021/acs.joc.2c02915)
3. “Radical Promoted Synthesis of Furoquinolines via Anomalous Dakin-type Reaction”**Sushmita**, Trapti Aggarwal, Kapil Mohan Saini and Akhilesh K. Verma, *Adv. Synth. Catal.***2021**,*363*, 4555-4560
4. “Achievements in Fluorination Using Variable Reagents through Deoxyfluorination Reaction”Trapti Aggarwal,^{II} **Sushmita**,^{II} and Akhilesh K. Verma, *Org. Chem. Front.* **2021**, *8*, 6452-6468.
5. “Synthesis of Cyclopentaquinolinone and Cyclopentapyridinone from ortho-alkynyl-N-arylaldehyde via Superbase-promoted C-N, C-O, and C-C Bonds Formation”, Kapil Mohan Saini, Rakesh K. Saunthwal, **Sushmita** and Akhilesh K. Verma, *Org. Biomol. Chem.* **2020**,*18*, 5594-5601.

6. "Olefin-Oriented Selective Synthesis of Linear and Branched NAlkylated Heterocycles via Hydroamination" **Sushmita**, Trapti Aggarwal, Kapil Mohan Saini and Akhilesh K. Verma, *Eur. J. Org. Chem.* **2020**, 3312-3316.
7. "Exploring the Behavior of NFSI Reagent as Nitrogen Source" **Sushmita**, Trapti Aggarwal, Sonu Kumar and Akhilesh K. Verma, *Org. Biomol. Chem.*, **2020**, 18, 7056-7073
8. "Transition-Metal-Free Reverse Reactivity of (2-alkynyl)- Arylaldimines: Assembly of Functionalized Amino-Indinones" KapilMohan Saini, Rakesh K. Saunthwal, **Sushmita** and Akhilesh K. Verma. *Chem, Eur. J.* **2019**.26,1017-1021.
9. "Triple bond Directed Csp²-N Bond Formation through N-Fluorobenzenesulfonimide as Aminating Source: One-Step Transformation of Aldehyde into Amine" **Sushmita**,[†]Trapti Aggarwal,[†] Norio Shibata and Akhilesh K. Verma, *Chem. Eur. J.* **2019**, 25, 16063-16067.
10. "Recent Advances in the Synthesis of Carbazoles from Indoles" Trapti Aggarwal, **Sushmita** and Akhilesh K. Verma, *Org. Biomol. Chem*, **2019**, 17, 8330.

National Journal

1. "Copper-Catalyzed Stereo- and Chemoselective Synthesis of Enaminones via Michael Type Addition" Monika Patel, **Sushmita**, Akhilesh K. Verma, *J. Chem. Sciences*, **2018**, 70, 130.
2. "Base-Promoted Stereoselective Hydroalkoxylation of Alkynes" Monika Patel, **Sushmita**, Akhilesh K. Verma, *Indian Journal of Heterocyclic Chem.*, **2018**, 28, 154-160.

Paper Presentation:

- **Poster presentation in National Conference XVI-JNOST** Conference at IISc Bangalore, Delhi (29th–31st October, 2020).
- **Poster presentation** in International Conference "Science and Technology for the Future of Mankind" and 6th World Congress on Nanomedical Sciences (ISNSCON -2019):- Department of Chemistry (15-17th November, 2018).
- **Poster presentation** in International Conference "New development in drug discovery from natural products and traditional medicines (DDNPTM -2018):- Department of Chemistry (15-17th November, 2018).
- **Participant** in International Conference "Emerging Trends in Drugs Development and Natural -Products (ETDDNP-2018):- Department of Chemistry (12-14th January, 2018).
- **Participant** in 53rd Annual Convention of the chemist 2016, being organized by Indian

Chemical Society at GITAM University, Visakhapatnam (27th–29thDecember, 2016).

Oral Presentation:

- Member of organizing committee in one week online induction program on Instrumental Methods of Analysis at RAJDHANI COLLEGE (University of Delhi) from February 12-18, 2022
- Oral presentation in *National Conference* XVII-JNOST Conference at Le-meredian hotel, Hyderabad from 6-9th January, 2022.
- **Oral presentation** in National Conference 107th Indian Science Congress , University of Agricultural Sciences, GKVK Campus, Bangalore, Karnataka from 3-7th January, 2020.
- **Best Oral Award** in National Conference in “Recent trends and advancement in chemical science 2019):- Department of Chemistry (28-30th March, 2019).