

## CURRICULUM VITAE

### Dr. TRAPTI AGGARWAL

Assistant Professor  
Faculty of Chemical Sciences  
South Asian University  
(Established by SAARC Nations)  
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### Summary

A versatile and enthusiastic Chemist with 9+ years of research and teaching experience with undergraduate and graduate students from diverse backgrounds. Expert in writing projects, research, and review article with a good track record of publishing high impact journals in organic chemistry. Experienced in working with different format style manuscript and reviewing various research article and thesis with proper time-management.

### Education Qualification

2009-2014	Ph.D. from Department of Chemistry, University of Delhi, Delhi <b>Title: Regioselective Synthesis of Polyheterocycles by Electrophilic Iodocyclization of Alkynes and Metal-Catalyzed Diversification.</b> <b>Supervisor: Prof. Akhilesh K. Verma</b>	
2009-2010	P. G. Diploma in Patents Law from NALSAR University, Hyderabad	B+
2005-2007	M.Sc. (Organic) Chemistry from Hansraj College, University of Delhi, Delhi.	62.1%
2002-2005	B.Sc. (Honours) Chem. From Hans Raj College, University of Delhi, Delhi.	65.5%
2000-2002	12 <sup>th</sup> CBSE from Little Flowers Public School, Delhi	76.2%

### Teaching Experience

**July 2025-  
till now** Working as Assistant Professor, Faculty of Chemical Sciences, South Asian University,  
Maidan Garhi, New Delhi

<b>June 2023- March 2025</b>	<p>Guest Lecturer for teaching postgraduate students in Department of Chemistry, University of Delhi.</p> <ul style="list-style-type: none"> <li>• Subject taught during this tenure includes, “Spectroscopy of Organic compounds, Photochemistry and pericyclic reaction, New synthetic methods and reactions” and in the practical’s identification of functional groups in the organic compound alongwith synthesis of new heterocyclic compounds by multi-component reaction.</li> </ul>
<b>Nov. 2021- March 2022</b>	<p>Guest Lecturer for teaching graduate students in Department of Chemistry, Hindu College, University of Delhi.</p> <p>Subjects taught during this tenure includes “Fundamentals of Organic Chemistry and hydrocarbons”.</p>
<b>Oct. 2018 – Nov. 2020</b>	<p>Guest Lecturer for teaching postgraduate students in Department of Chemistry, University of Delhi.</p> <ul style="list-style-type: none"> <li>• Subjects taught during this tenure includes “Reagents and coupling reaction” in organic chemistry, “Introduction of Medicinal Chemistry” and taking organic chemistry practical’s including identification of functional groups.</li> </ul>
<b>Aug.2014 – April 2015</b>	<p>Guest Lecturer for teaching undergraduate Chemistry (H) students in Hansraj College, University of Delhi</p>
<b>Jan 2014 – April 2014</b>	<p>Ad-hoc Assistant Professor to undergraduate students in Janki Devi Memorial College, University of Delhi</p>

## Research Experience

<b>Sept 2018- June 2022</b>	<p><b>UGC women postdoctoral fellow, Department of Chemistry, University of Delhi</b></p> <p>“Application of Fluorinating Reagents for the Synthesis of Fluorine embedded heterocyclic molecules” under Prof. Akhilesh K. Verma</p>
<b>Oct 2017- Aug 2018</b>	<p><b>Postdoctoral fellow, Nagoya Institute of Technology, Nagoya, Japan</b></p> <p>“Synthesis of biologically important fluorinated molecules” under Prof. Norio Shibata</p>
<b>Feb 2016 -May 2017</b>	<p><b>Research Associate, Department of Chemistry, University of Delhi</b> on DST sponsored project entitled “Design of novel approaches for the synthesis of symmetrically/unsymmetrically substituted Arenes/hetero Arenes and synthesis of heterocyclic/carbocyclic compounds by sequential coupling reaction</p>

## Skills

- Proficient with MS Office, Windows, Adobe Acrobat PDF, Internet Explorer and operating Knowledge in Scientific Software’s like Chem draw and Chem 3D.
- Expertise in writing the research article and projects.

- Trained M.Sc. and Ph.D. students and helping them in writing review articles.
- Expertise in handling of Metal-catalyzed coupling reaction and also worked on electrophilic cyclization reaction using Lewis-acid and metal-catalyst.
- Worked as a Research Associate in **Jubilant Chemsys Ltd.**, Noida, U.P., India from July 2007 to Dec 2008 and engaged in synthesis of new drug intermediates and on Palladium catalyzed reactions like Suzuki coupling, Sonogashira, and Heck Reaction.

## Awards

- Awarded first prize for Ph.D. thesis by “**National Organic Symposium Trust (NOST) for Outstanding Thesis Award in 2013**” (Prize Money:1500 \$)
- Selected by Department of Science and Technology (Government of India) for attending **63<sup>rd</sup> Lindau Nobel Laureate Meeting in Germany from 30<sup>th</sup> June- 5July 2013.**
- Presented research work in **University of Regensburg, Germany** during the Post-Lindau visit organized by DFG, German Research Foundation on 8<sup>th</sup> July 2013.
- **CSIR Senior Research Fellowship** for the research project entitled “**Iodine mediated regioselective cyclization – reaction leading to polyheterocyclic Molecules**” from April 2011- March 2013.
- **Junior Research Fellowship** in Department of Science and Technology (Government of India) funded research project entitled “**Design and synthesis of novel Tetrahydropyrazinoindoles and their studies on anti-bacterial starin**” from October 2009- March 2011.
- Qualified **CSIR-NET (Lecturership)** in 2008

## Book chapter

1. **Book Name:** Protecting-Group-Free Organic Synthesis: Improving Economy and Efficiency  
**Chapter 5:** Protecting-Group-Free Synthesis of Heterocycles  
**Authors:** Trapti Aggarwal and Akhilesh K. Verma  
**ISBN-**978-1-119-29520-4  
**Publishers:** Wiley Publication, 2018
2. **Book Name:** Solid Base Catalysis: A New Frontier in Industrial Sustainability  
**Chapter 9:** Solid Supported base catalysis for carbon -carbon bond formation  
**Authors:** Trapti Aggarwal, Tarnija Midha and Simer Kaur  
**ISBN-**979-8-89881-147-1  
**Publishers:** Bentham Sciences, 2026
3. **Book Name:** Modern Strategies in Organofluorine Chemistry  
**Chapter 2:** Electrophilic Fluorinating Agents  
**Authors:** Debasish Saha, **Trapti Aggarwal**, Yuji Sumi, Arvind Yadav and Norio Shibata  
**DOI:** 10.1055/sos-SD-244-00360

Publishers: Thieme, 2026

## Publication Summary

Total Publications	Angew Chem. Int. Ed.	ACS Publications	Citations	h-index	i10-index
22	2	8	1026	15	20

## Publications

S.No.	Complete List of Publication	Impact factor
1.	<b>Transition-Metal-Free Approach for Z-Vinyl Fluorides by Hydrofluorination of Alkynes bearing SF<sub>4</sub> and SF<sub>5</sub> Groups</b> Yusuke Murata , Kenshiro Hada, <b>Trapti Aggarwal</b> , Jorge Escorihuela, and Norio Shibata, <i>Angew. Chem. Int. Ed.</i> <b>2024</b> , <i>63</i> , e202318086.	16.6
2.	<b>Regio- and Z-Selective Alkyne Hydroamination and Hydrophenoxylation using Tetrafluoro-<math>\lambda</math>6 -Sulfanyl Alkynes under Superbasic, Naked Anion Conditions</b> <b>Trapti Aggarwal</b> , Kenshiro Hada, Yusuke Murata, Yuji Sumii, Kazuhiro Tanagawa, Kiyoteru Niina, Soichiro Mori, Jorge Escorihuela, and Norio Shibata, <i>Angew. Chem. Int. Ed.</i> <b>2023</b> , e202307090.	16.6
3.	<b>Unveiling the Three-Component Phosphonylation on Alkynylaldehydes: Toolbox toward Fluorescent Molecules.</b> Deepika Thakur, <b>Trapti Aggarwal</b> , Sushmita, Muskan and Akhilesh K. Verma, <i>J. Org. Chem.</i> <b>2023</b> , <i>88</i> , 2474-2486.	3.6
4.	<b>Achivements in Deoxyfluorination using Variable Reagents for Organic Transformations.</b> <b>Trapti Aggarwal</b> , Sushmita and Akhilesh K. Verma, <i>Org. Chem. Front.</i> <b>2021</b> , <i>8</i> , 6452-6468.	5.2
5.	<b>Radical Promoted Synthesis of Furoquinolines via Anomalous Dakin-type Reaction.</b> Sushmita, <b>Trapti Aggarwal</b> , Kapil Mohan Saini and Akhilesh K. Verma, <i>Adv. Synth. Cat.</i> <b>2021</b> <i>363</i> , 4555-4560	5.4
6.	<b>Olefin-Oriented Selective Synthesis of Linear and Branched N-Alkylated Heterocycles by Hydroamination</b> Sushmita, <b>Trapti Aggarwal</b> , Kapil Mohan Saini and Akhilesh K. Verma, <i>Eur. J. Org. Chem.</i> <b>2020</b> , 3312-3316.	2.9

7.	<b>Exploring the behavior of the NFSI reagent as a nitrogen source</b> Sushmita, <b>Trapti Aggarwal</b> , Sonu Kumar and Akhilesh K. Verma, <i>Org. Biomol. Chem.</i> , <b>2020</b> , 18, 7056-7073.	3.2
8.	<b>Triple-Bond Directed Csp<sup>2</sup>-N Bond Formation with N-Fluorobenzene sulfonimide as Aminating Source: One-Step Transformation of Aldehydes into Amines</b> Sushmita,* <b>Trapti Aggarwal</b> , * Norio Shibata, and Akhilesh K. Verma, <i>Chem. Eur. J.</i> <b>2019</b> , 25, 16063 – 16067. (* equal contribution)	5.0
9.	<b>Recent Advances in the Synthesis of Carbazoles from Indoles</b> <b>Trapti Aggarwal</b> , Sushmita and Akhilesh K. Verma, <i>Org. Biomol. Chem.</i> , <b>2019</b> , 17, 8330-8342.	3.2
10.	<b>Chemoselective Azidation of o-Alkynylaldehydes over [3+2] Cycloaddition and Subsequent Staudinger Reaction: An Access to Benzonaphthyridines/Naphthyridines</b> Pradeep Kumar, <b>Trapti Aggarwal</b> , and Akhilesh K. Verma, <i>J. Org. Chem.</i> , <b>2017</b> , 82, 6388–6397.	3.6
11.	<b>Iodine-Mediated Synthesis of Heterocycles via Electrophilic Cyclization of Alkynes.</b> <b>Trapti Aggarwal</b> , Sonu Kumar, Akhilesh K. Verma, <i>Org. Biomol. Chem.</i> , <b>2016</b> , 14, 7639.	3.2
12.	<b>Palladium meets copper: one-pot tandem synthesis of pyrido fused heterocycles via Sonogashira conjoined electrophilic cyclization.</b> Sonu Kumar, Rakesh K. Saunthwal, <b>Trapti Aggarwal</b> , Siva K. Reddy Kotla and Akhilesh K. Verma, <i>Org. Biomol. Chem.</i> , <b>2016</b> , 14, 9063.	3.2
13.	<b>Palladium-Catalyzed Intramolecular Fujiwara-Hydroarylation: Synthesis of Benzo[a]phenazines Derivatives</b> Sonu Kumar, Rakesh K. Saunthwal, Mohammad Mujahid, <b>Trapti Aggarwal</b> and Akhilesh K. Verma <i>J. Org. Chem.</i> , <b>2016</b> , 81, 9912.	3.6
14.	<b>Stereoselective tandem synthesis of oxazolo-fused pyrroloquinolines from o-alkynylaldehydes via Ag(I)-catalyzed regioselective 5-exo-dig ring closure.</b> Rajeev Ranjan Jha, <b>Trapti Aggarwal</b> and Akhilesh Kumar Verma, <i>Tetrahedron Lett.</i> <b>2014</b> , 55, 2603.	2.3
15.	<b>Tandem Synthesis of Pyrroloacridones via [3 + 2] Alkyne Annulation/Ring Opening with Concomitant Intramolecular Aldol Condensation.</b> Akhilesh K. Verma, Kotla Siva K. Reddy, <b>Trapti Aggarwal</b> , Sonu Kumar, Rakesh K. Tiwari, <i>J. Org. Chem.</i> <b>2013</b> , 78, 5372.	3.6
16.	<b>Palladium-Catalyzed Regioselective [3 + 2] Annulation of Internal Alkynes and Iodo-pyranoquinolines with Concomitant Ring Opening.</b> <b>Trapti Aggarwal</b> , Rajeev Ranjan Jha, Rakesh K. Tiwari, Sonu Kumar, Kotla Siva K.	4.9

	Reddy, Sushil Kumar, Akhilesh K. Verma, <i>Org. Lett.</i> <b>2012</b> , 14, 5184.	
17.	<b>Site-Selective Electrophilic Cyclization and Subsequent Ring Opening: An Efficient Route to Pyrrolo[1,2-<i>a</i>]quinolines and Indolizines.</b> Trapti Aggarwal, Sonu Kumar, Devendra K. Dhaked, Rakesh K. Tiwari, Prasad V. Bharatam, Akhilesh K. Verma, <i>J. Org. Chem.</i> <b>2012</b> , 77, 8562.	3.6
18.	<b>Lewis Acid-Catalyzed Selective Synthesis of Diversely Substituted Indolo- and Pyrrolo[1,2-<i>a</i>]quinoxalines and Quinoxalinones by Modified Pictet–Spengler Reaction.</b> Akhilesh K. Verma, Rajeev R. Jha, V. Kasi Sankar, Trapti Aggarwal, Rajendra P. Singh, <i>Eur. J. Org. Chem.</i> <b>2011</b> , 6998.	2.9
19.	<b>Highly efficient Ag(I)-catalyzed regioselective tandem synthesis of diversely substituted quinoxalines and benzimidazoles in water.</b> Vineeta Rustagi, Trapti Aggarwal, Akhilesh K. Verma, <i>Green Chem.</i> <b>2011</b> , 13, 1640. (Impact factor: 10.2)	9.3
20.	<b>Pyrano[4,3-<i>b</i>]quinolines Library Generation via Iodocyclization and Palladium-Catalyzed Coupling Reactions.</b> Trapti Aggarwal, Maryam Imam, Naveen K. Kaushik, Virendra S. Chauhan, Akhilesh K. Verma, <i>ACS Comb. Sci.</i> <b>2011</b> , 13, 530.	3.0
21.	<b>Iodine-catalyzed and solvent-controlled selective electrophilic cyclization and oxidative esterification of ortho-alkynyl aldehydes.</b> Akhilesh K. Verma, Trapti Aggarwal, Vineeta Rustagi, Richard C. Larock, <i>Chem. Comm.</i> <b>2010</b> , 46, 4064.	4.2
22.	<b>Iodine-Mediated Solvent-Controlled Selective Electrophilic Cyclization and Oxidative Esterification of o-Alkynyl Aldehydes: An Easy Access to Pyranoquinolines, Pyranoquinolinones, and Isocumarins.</b> Akhilesh K. Verma, Vineeta Rustagi, Trapti Aggarwal, Amit P. Singh, <i>J. Org. Chem.</i> <b>2010</b> , 75, 7691.	3.6

## Conferences Attended

- Participated as **Invited speaker** in Virtual seminar on “**Chemistry for combating against Covid -19**” organized by GMVM college, Bhopal, M.P in **2020**.
- Participated in **53<sup>rd</sup> Annual Convention of Chemists 2016** organized by Indian Chemical Society at Visakhapatnam for **oral presentation**
- Attended workshop on **Computational Methods in Drug Discovery 2016**, Organized by Special Centre for Molecular Medicine (SCMM)

- Participated in **19<sup>th</sup> ISCBC International Conference** organized by Mohanlal Sukhadia University, Udaipur, India for **Oral presentation** in **2013**.
- Participated in **6<sup>th</sup> JNOST Conference** for research Scholars Organized at University of Hyderabad, India for **Oral presentation** in **2011**.
- Participated in **15<sup>th</sup> ISCBC International Conference** organized by Sahurashtra University, Rajkot, India for **Poster presentation** in **2011**.
- Participated in **4<sup>th</sup> Indo-Italian Seminar on Green Chemistry and natural products** organized by University of Delhi, India.

## Personal Profile

Name	: Trapti Aggarwal
Husband's Name	: Mr. Abhimanyu Singh
Date of Birth	: 6 <sup>th</sup> June 1985
Permanent Address	: 1827-D, 12 <sup>th</sup> Avenue, Gaur City-2, Greater Noida, UP
Nationality	: Indian
Languages Known	: English & Hindi
Marital status	: Married