

Dr. Tariq A. Shah

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ACADEMIC QUALIFICATION

- **Post-Doc.** (Sep. 2022-2023) Organic Synthesis from Khalifa University, Abu Dhabi, UAE.
- **Post-Doc.** (Oct. 2017-2020) Organic Synthesis from Indian Institute of Technology Guwahati, India
- **Ph.D.** (2017) Organic Chemistry from Aligarh Muslim University, India
- **M.Sc.** (2010) Organic Chemistry from University of Kashmir, India
- **B.Sc.** (2007) Chemistry from University of Kashmir, India

POST-DOC

[Research Grant 67 Lakhs]

PROJECT TITLE: “*Transition-Metal-Catalyzed C-H Functionalization/C-N Bond Formation for the Synthesis of Nitrogen Heterocycles*”

SUPERVISOR: Prof. Tharmalingam Punniyamurthy, Indian Institute of Technology Guwahati, Guwahati, India.

PROJECT TITLE: *Palladium catalysis in intracellular Environments for drug Delivery*

SUPERVISOR: Dr. Ibrahim Yildiz, Department of Chemistry, Khalifa University, Abu Dhabi.

Ph.D. THESIS

THESIS TITLE: “*Reaction of Few Heterocyclic Compounds with Activated Acetylenes*”

SUPERVISOR: Prof. M. Muneer, Aligarh Muslim University, U.P, India.

ACHIEVEMENTS [CSIR-NET, GATE, BSR (JRF/SRF), CSIR-SRF, DST-SERB NPDF, POSTDOC KHALIFA UNIVERSITY]

- Qualified Joint CSIR-UGC National Eligibility Test for Junior Research Fellowship (**NET-JRF-2011**) (Rank-33) conducted by Council of Scientific and Industrial Research (**CSIR**), New-Delhi, India.
- Qualified Graduate Aptitude Test in Engineering (**GATE-2012**) (Score- **368**) organized by Indian Institute of Technology Mumbai, India.
- Recipient of Basic Scientific Research Fellowship (**BSR-Fellow**) (**2014**) given to meritorious students by University Grants Commission (**UGC**), India.
- Selected as Senior Research Fellow (**CSIR-SRF-2015**) by Council of Scientific and Industrial Research (**CSIR**), New-Delhi, India.
- Selected as National Postdoctoral-Fellow (**NPDF-2017**) by Science and Engineering Research Board (**SERB**), Department of Science and Technology (**DST**), Government of India.

ACADEMIC AND RESEARCH EXPERIENCE

- **(2024-25): Assistant Professor (Permanent)** at, University of Kashmir, Kupwara Campus.
- **(2021-25): Assistant Professor (Contractual)** at Department of Chemistry, University of Kashmir, Srinagar-India.
- **(2018-19): Teaching Assistant** at the Department of Chemistry, Indian Institute of Technology Guwahati, India.
- **(2017): Assistant professor (Contractual))** at the Department of Chemistry, Aligarh Muslim University.
- **2015-17: Senior Research Fellow** at the Department of Chemistry, Aligarh Muslim University, India
- **2012-14: Junior Research Fellow** at the Department of Chemistry, Aligarh Muslim University, India
- **2011-2012: Contractual Lecturer** at the Department of Chemistry, Degree College Sopore, University of Kashmir, India
- **2009-10: Bachelor of Education**, University of Kashmir, India.

PUBLICATIONS

[Citations = 838] [H-Index = 16]

- **Tariq A. Shah**, Pinaki Bhusan De, Sourav Pradhan, Sonbidya Banerjee and Tharmalingam Punniyamurthy*, "Cp*Co(III)-Catalyzed Regioselective C2 Amidation of Indoles using Acyl Azides" *J. Org. Chem.*, **2019**, *84*, 16278. (I.F =4.3)
- **Tariq A. Shah**, Pinaki Bhusan De, Sourav Pradhan and Tharmalingam Punniyamurthy*, "Transition-Metal-Catalyzed Site-Selective C7-Functionalization of Indoles: Advancement and Future Prospects" *Chem. Commun.* **2019**, *55*, 572. (I.F =6.2)
- K. Talukdar, **Tariq A. Shah**[†], T.Sarkar, S.Roy, P. K Maharana, T.Punniyamurthy*, "Pd-catalyzed bidentate auxiliary assisted remote C (sp³)-H functionalization" *Chem. Commun.* **2021**, *57 (98)*, 13221-13233. [†]Equal Contribution for first authorship (I.F =6.2)
- T.Sarkar, **Tariq A. Shah**[†], P. K Maharana, K.Talukdar, B. K Das, T.Punniyamurthy*, "Transition-Metal catalysed Directing group assisted (hetero) aryl C-H functionalization: Construction of C-C/C-H heteroatom Bonds" *The Chemical Record*, **2021**, *21*, 3758-3778. [†]Equal Contribution for first authorship (I.F =6.9)
- **Tariq A. Shah**, Pinaki Bhusan De, Sourav Pradhan, Sonbidya Banerjee and Tharmalingam Punniyamurthy*, "Exploiting Strained Rings in Chelation Guided C-H Functionalization: Integration of C-H Activation with Ring Cleavage" *Chem. Asian. J.* **2019**, *14*, 4520. (Selected as Hot Topic in C-H activation by Wiley). (I.F =4.8)
- **Tariq A. Shah**, Zubair Ahmad, Niyaz A. Mir, M. Muneer*, Nigam P. Rath and M. Musheer, "One Step Synthesis of Highly Functionalized Thiazolo[3,2-*b*][1,2,4]triazole, Triazolo[1,5-*a*]pyrimidine and Triazolo[3,4-*b*][1,3,4]thiadiazine" *RSC Advances*, **2015**, *6*, 9431. (I.F =4.0)

- **Tariq A. Shah**, Zubair Ahmad, Nigam P. Rath and M. Muneer*, “An Environmentally Benign Approach for the Synthesis of 3,4,5-trisubstituted 2-aminofurans Under Solvent-free Conditions via Isocyanide-based Multicomponent Approach” *Tetrahedron. Lett.*, **2016**, *57*, 2638. (I.F =2.0)
- **Tariq A. Shah**, Tanumay Sarkar, Prabhat Kumar Maharana, Kangkan Talukdar, Subhradeep Kar and Tharmalingam Punniyamurthy*, “Transition-metal-catalyzed directed C-H functionalization in/on *Chem. Asian. J.*, **2023**. (I.F =4.8)
- **Tariq A. Shah**, Umair Alam, Mahboob Alam, Soonheum Park, M. Muneer*, “Single Crystal X-ray Structure, Spectroscopic and DFT Studies of Imidazo[2,1-b]thiazole: 2-(3-hydroxy-3-phenylimidazo[2,1-b]thiazol-2(3H)-ylidene)-1-phenylethanone” *Journal of Molecular Structure*, **2018**, *1157*, 638. (I.F =3.8)
- Tanumay Sarkar, **Dr. Tariq A. Shah[†]**, Prabhat Kumar Maharana, Bijoy Debnath, Prof. Tharmalingam Punniyamurthy, “Dual Metallaphotoredox-Catalyzed Directed C(sp²)-H Functionalization: Access to C-C/C-Heteroatom Bonds” *European Journal of Organic Chemistry*, October 20, 2022, e20220054
[†] *Equal Contribution for first authorship* (I.F =3.8)
- **Tariq A. Shah**, Waseem Raza, Niyaz A. Mir, Musheer Ahmad, Mohd Muneer*, “Triphenylphosphine/Isocyanide Mediated Synthesis of Benzo[4,5]imidazo[1,2-a]pyrimidine Enamine Ketones and Secondary Ketimines” *Chemistry Select*, **2018**, *3*, 946. (I.F =2.3)
- Umair Alam, **Tariq A. Shah**, Azam Khan and M. Muneer*, “One-pot ultrasonic assisted sol-gel synthesis of spindle-like Nd and V codoped ZnO for efficient photocatalytic degradation of organic pollutants” *Separation and Purification Technology*, **2019**, *212*, 427. (I.F =9.1)
- , Niyaz A. Mir, **Tariq A. Shah** Sarfaraz Ahmad, M. Muneer, Nigam P. Rath and Musheer Ahmad*, “One Pot Synthesis of Imidazo[2,1-b]thiazoles and Benzo[d]thiazolo[3,2-a]imidazoles” *Tetrahedron Lett.*, **55**, *2014*, 1706. (I.F =2.0)
- Sandeep Kumar, **Tariq A. Shah** and T. Punniyamurthy* “Tetrahalomethanes: Multitasking agents as mediator, catalyst and reagent in organic synthesis”. *Organic Chemistry Frontier, Org. Chem. Front.*, **2021**, *8*, 4288-4314. (I.F =5.4)
- T. Sarkar, B. K Das, K. Talukdar, **Tariq A. Shah** and T. Punniyamurthy*. “Transition Metal-Catalysed Ring-Expansion of Vinylaziridines and Oxiranes: Access to the Stereoselective Synthesis of Sp³-Rich heterocycles.” *Org. Biomol. Chem.* **2021**. *19* (17), 3776-3790. (I.F =3.20)
- T Sarkar, B. K Das, K. Talukdar, **Tariq A. Shah** and T. Punniyamurthy*. “Recent Advances in Stereoselective Ring Expansion of Spirocyclopropanes: Access to the Spirocyclic Compounds.” *ACS Omega*, **2021**, *5*, 26316. (I.F =4.1)
- Sourav Pradhan, Pinaki Bhusan De, **Tariq A. Shah** and T. Punniyamurthy.* Recent Advances in Metal-Catalysed Alkylation, Alkenylation and Alkynylation of Indole/Indoline Benzenoid Nuclues. *Chem. Asian. J.*, **2020**. (I.F =4.8)
- Pinaki Bhusan De, Sayan Atta, Sourav Pradhan, Sonbidya Banerjee, **Tariq A. Shah** and Tharmalingam Punniyamurthy*, “Cp*Co(III)-Catalyzed C-7 C-C Coupling of Indolines with Aziridines: at C-7 Position with Aziridines via Regio and Site-Selective C-H Activation.” *J. Org. Chem.* **2020**, *85*, 4785-4794 (I.F =4.3)

- Sonbidya Banerjee, Pinaki Bhusan De, **Tariq A. Shah** Sourav Pradhan, and Tharmalingam*, “Ru(II)-catalyzed regioselective C-N Bond Formation of indolines and carbazole with acyl azides” *European Journal of Organic Chemistry*, 2019, 1677. (I.F =3.8)
- Pinaki Bhusan De, Sourav Pradhan, **Tariq A. Shah** and Tharmalingam Punniyamurthy*, “Iodine-Mediated Intramolecular C–H Amination of Benzimidazoles: A Metal-Free Route to Dihydroimidazobenzimidazoles. *Synthesis*, 2018, 50. (I.F =3.1)
- P. Karjee, K. Talukdar, T. Sarkar, **Tariq A. Shah** and T. Punniyamurthy. 2021, **Book Chapter**. Copper-Catalysed Sp^3 C-H bond functionalization. <https://doi.org/10.1002/9783527834242.chf0057>, Publisher: Wiley. **Book Title: A handbook of CH-functionalisation**, Online ISBN: 9783527834242, DOI: 10.1002/9783527834242.
- T.Sarkar, S.Kar, P. K Maharana, **Tariq A. Shah**, T.Punniyamurthy. 2022, **Book Chapter**. Transition-metal catalysed C-H Functionalisation of Benzofused Azoles with two or more Heteroatoms. <https://doi.org/10.1002/9781119774167.ch7>
Publisher: Wiley, ISBN: 978-1-119-77415-0. Book Title: Transition-Metal-Catalyzed C-H Functionalization of Heterocycles, 2 Volumes.
- Sarfaraz Ahmad, Niyaz A. Mir, **Tariq A. Shah**, Waseem Raza, M. Muneer* and Nigam P. Rath, “(E) and (Z)-1,4-Diphenyl-2-(2-phenyl-1-benzo[d]imidazol-1-yl)but-2-ene-1,4-dione” *Journal of Crystallography*, 2014, Article ID 207646. (I.F =2.7)

Training Courses /Workshop /Conferences /Seminars /Symposia

1. Attended a Workshop on "INFLIBNET: Resources, Services and Facilities For Universities", organized by Allama Iqbal Library University Of Kashmir, from 08-12-2025 to 09-12-2025.
2. Attended a Orientation Course on "92nd Guru Dakshta Faculty Induction Programme(FIP)", organized by Malaviya Mission Teacher Training Centre University of Kashmir, from 17-06-2025 to 17-07-2025.
3. Attended Orientation Course on "One Day Orientation/Demonstration Workshop on Integrating New Faculty into the University Quality Culture", organized by Directorate of Internal Quality Assurance (DIQA) University of Kashmir, dated 04-11-2025

Lead Lecture /Invited Talk/Conferences/Workshops

1. An Environmentally Benign Approach for the Synthesis of 3,4,5-trisubstituted 2-aminofurans Under Solventfree Conditions via Isocyanide-based Multicomponent Approach” at International conference in Green Chemistry, Sept., 2017, **Department of Chemistry, University of Delhi**.
2. Dibenzoylacetylene: A versatile tool for the synthesis of Multichromophoric Heterocyclic systems, at International conference on Frontier and Challenges in Chemistry, March, 2016, Department of Chemistry, **Aligarh Muslim University**.
3. Nucleophilic addition reactions of N, S and O containing heterocyclic compounds to dibenzoylacetylene: transition-metal catalyst-free synthesis of multichromophoric heterocyclic systems, at international Conference on Recent Advances in Chemical Sciences, March, 2017, **Department of Chemistry, Aligarh Muslim University**.

4. Tariq A. Shah and M. Muneer* Nucleophilic reactions of few selected heterocyclic compounds with dibenzoyl acetylene, 17th CRSI Symposium in Chemistry, **National Chemical Laboratory (NCL), Pune, India**”-2015.
5. Tariq. A. Shah, Niyaz A. Sarfaraz Ahmad, M. Muneer*, Nigam P. Rath and Musheer Ahmad One pot synthesis of imidazo[2,1-b]thiazoles and benzo[d]thiazolo[3,2-a]imidazoles. “**16th CRSI Symposium in Chemistry, IIT Bombay**”-2014.
6. Tariq Ahmad and M. Muneer* Synthesis, Characterisation, X-ray crystallography and antiproliferative properties of imidazo[2,1-b]thiazoles and benzo[d]thiazolo[3,2-a]imidazoles analogues. “**National Symposium on Chemistry, Department of chemistry, Aligarh Muslim University, Aligarh-2014**”.
7. Tariq A. Shah, Zubair Ahmad, Niyaz A. Mir, Waseem Raza, M. Muneer*, Synthesis of multichromophoric Organic scaffolds by addition of heterocyclic nucleophiles to dibenzoyl acetylene. **International conference on Frontier and Challenges in Chemistry, March, 2013, Department of Chemistry, A.M.U., Aligarh.**
8. National workshop on New Vista’s in Chemistry, March, 2012, **Department of Chemistry, A.M.U., Aligarh.**
9. Sustainable Organic Synthesis (SOS 2024), **Department of Chemistry, Berhampur University, Orissa, 2025.**

REFERENCES

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