Dr. Tanu Gupta

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PERSONAL DETAIL:

Name: Designation: Mode of Recruitment: Recruitment Authority: Department: Date of Joining: Date of Birth: Sex:	Dr. Tanu Gupta Assistant Professor Permanent State Government Chemistry 31-10-2017 22-11-1988 Female
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Sex:	Female
Permanent Address:	22 Shankarpur
	Kachhawa Bazar
	Kachhawa
	Mirzapur, 231501

EDUCATION:

<u>2017- Current</u>	Working as Assistant Professor through Bihar Public Service Commission.
<u>2013-2018</u>	Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi, U. P. India Ph.D. in Chemistry. <u>Title of Thesis:</u> Synthesis of Acridines & Phenanthridines <i>via</i> carboannulation of Morita Baylis-Hillman Acetates.
<u>2010-2012</u>	Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi, U. P. India M.Sc. in Chemistry (Specialization Organic Chemistry) 79.50% (CGPA- 8.39/10)

2006-2009	Department of Chemistry, Institute of Science,
	Banaras Hindu University, Varanasi, U. P. India
	B.Sc. (Chemistry Hons.), 72.50%
<u>2005</u>	Janta Inter College, Khochhawa, Varanasi, U. P. India 12 th , 71.20%
<u>2003</u>	Janta Inter College, Khochhawa, Varanasi, U. P. India 10 th , 70.80%

AWARDS AND FELLOWSHIPS

2014 Awarded Junior Research Fellowship (JRF) by CSIR, Govt. of India in 2014.

<u>2013</u> Qualified GATE in 2013.

RESEARCH INTERESTS

- Organic Synthesis: haloalkane functionalized ligand/Suzuki / sonogashira /heck coupling/ bromination/experience of working with Schlenk line.
- Operational knowledge of analytical instrumentation like FTIR, NMR and UV-Vis equipments
- Extensive knowledge of and experience in analytical techniques like, thin layer chromatography, column chromatography, recrystallization and other purification techniques.
- Software: MS Office, ChemDraw and Origin
- Languages: Proficient in English.
- ➢ Work independently and collaboratively as good
- High self creativity
- Great communication and organization skills learned from group discussion in our lab and while research paper writing.

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ACADEMIC WORK & CO-CURRICULAR ACTIVITY:

- Appointed as Head of Department (HOD) at Department of Chemistry, Rajendra College, Chapra (Feb 2018-Feb 2021)
- > Appointed as Academic Counselor in IGNOU (Feb 2019-current).
- > Appointed as Examiner for evaluating the answer book of UG.
- Appointed as Internal & External examiner for practical examination of UG (TDC-I, II & III).
- Completed Orientation Programme from Jawahar Nehru University, New Delhi.
- Completed Refresher Course in Chemistry with grade A sponsored by Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarpur.

RESEARCH PUBLICATIONS

1. Cascade $S_N 2' - S_N Ar$, Elimination, and 1,5-Hydride Shift Reaction Acetylacetone/ Acetoacetic Esters: Synthesis of 9,10-Dihydroacridines.

Tanu Gupta, Kishor Chandra Bharadwaj and Radhey M. Singh, *Eur. J. Org. Chem.* 2016, 4981-4984.

- Active methylene compounds (AMCs) controlled facile synthesis of acridine and phenanthridine from morita Baylis–Hillman acetate.
 <u>Tanu Gupta</u>, Jay Bahadur Singh, Kalpana Mishra and Radhey M. Singh, *RSC Adv.* 2017, 7, 54581-54585.
- Metal Free Facile Synthesis of Phenanthridine via S_N2' Reaction/C-H Functionalization/Aromatization from Reaction of MBH Acetate with Nitroalkane.
 Tanu Gupta, Jay Bahadur Singh, Kalpana Mishra, Biswajit Maiti and

Tanu Gupta, Jay Bahadur Singh, Kalpana Mishra, Biswajit Maiti and Radhey M. Singh, *Eur. J. Org. Chem.* 2018, 1130–1135.

- Temperature Controlled Palladium-Catalyzed Reaction of MBH Acetate with Terminal Alkyne: Cascade Synthesis of Phenanthridine and 6-Arylethynyl Phenanthridine.
 <u>Tanu Gupta</u>, Jay Bahadur Singh, Rashmi Singh and Radhey M. Singh, *Eur. J. Org. Chem.* 2018, 4284-4295.
- Copper-catalyzed cascade reaction: synthesis of pyrimido[4,5-b]quinolinones from 2-chloroquinoline-3-carbonitriles with (aryl)methanamines. Jay Bahadur Singh, Kalpana Mishra, <u>Tanu Gupta</u> and Radhey M. Singh, *New J. Chem. 2018, 42,* 3310-3314.
- TBHP-promoted oxidative cyclization of o-alkynylquinoline aldehydes: Metal/additive-free domino synthesis of pyrano[4,3-b]quinolin-1-ones. Jay Bahadur Singh, Kalpana Mishra, <u>Tanu Gupta</u> and Radhey M. Singh, *Tetrahedron Lett.* 2018, *59*, 1019–1022.
- Na₂S-mediated synthesis of terminal alkynes from gemdibromoalkenes.
 Radhey M. Singh, Durgesh Nandini, Kishor Chandra Bharadwaj, <u>Tanu</u> <u>Gupta</u> and Raj Pal Singh, *Org. Biomol. Chem.* 2017, *15*, 9979-9982.
- Ag(I)-Catalyzed one-pot synthesis of 4-fluorobenzo[b][1,6] naphthyridines and 4-fluoroisoquinolin-es via iminofluorination ofalkynes with Selectfluor. Kalpana Mishra, Jay Bahadur Singh, <u>Tanu Gupta</u> and Radhey M. Singh, *Org. Chem. Front.* 2017, *4*, 1926-1930.
- TBAB-catalyzed cascade reactions: facile synthesis of 1trifluoromethyl-3-alkylidene-1,3-dihydrofuro [3,4-b]quinolines via 5exo-digcyclization of *o*-arylalkynylquinoline aldehydes. Kalpana Mishra, A Jay Bahadur Singh, <u>Tanu Gupta</u> and Radhey M. Singh, *Org. Chem. Front.* 2017, *4*, 1794-1798.

- 10.TBHP Promoted Cross-Dehydrogenative coupling (CDC) Reaction: Metal/Additive-Free Synthesis of Chromone-Fused Quinolines. Jay B. Singh, Kalpana Mishra, <u>Tanu Gupta</u> and Radhey M. Singh, *Chemistry Select*, 2017, 2, 1207-1210.
- 11.Pd catalyzed facile synthesis of cyclopenta[b]- quinolin-1-one via sequential Sonogashira coupling and annulation. An unusual mode of ring closure, using sulphur as a soft nucleophile.
 Radhey M. Singh, Ritush Kumar, Kishor Chandra Bharadwaj and <u>Tanu</u> Gupta, Org. Chem. Front. 2016, 3, 1100-1104.
- 12.Ligand-free palladium-catalyzed facile construction of tetra cyclic dibenzo[b,h][1,6] naphthyridine derivatives: domino sequence of intramolecular C–H bond arylation and oxidation reactions. Jay Bahadur Singh, Kishor Chandra Bharadwaj, <u>Tanu Gupta</u> and Radhey M. Singh, *RSC Adv.* 2016, *6*, 26993-26999.
- 13.Base promoted facile route to functionalized benzo[b][1,8]naphthyridin-2-(1H)-ones from N-benzyl-N-(3-cyanoquinolin-2-yl)acetamides.
 Durgesh Nandini, Mrityunjaya Asthana, <u>Tanu Gupta</u>, R.P. Singh and Radhey M. Singh, *Tetrahedron*, 2014, 70, 8592-8599.
- 14.Facile synthesis of functionalized 1H-pyrrolo[2,3-b]quinolines via Ugi four-component reaction followed by Cu-catalyzed aryl-amide, C–N bond coupling.
 Mrityunjaya Asthana, Ritush Kumar, <u>Tanu Gupta</u>, Radhey M. Singh, *Tetrahedron Letters*, 2015, *56*, 907-912.
- 15.Book Title: Synthesis of Medicinal Agents from Plants, Chapter Title: Alkaloid group of *Cinchona officinalis*: Structural, synthetic and medicinal aspects. Kishor Chandra Bharadwaj, <u>Tanu Gupta</u> and Radhey M. Singh, *Elsevier*, 2018, ISBN:9780081020715
- 16. Na₂S·9H₂O mediated facile synthesis of 1,3-dihydrofuro[3,4b]quinoline derivatives via domino reduction approach. Rashmi Singh, <u>Tanu Gupta</u>, Vishal Prasad Sharma, Radhey M. Singh and Ashish Kumar Tewari, *Tetrahedron*, 2021, 90, 132447-132452.

PAPERS PRESENTED IN CONFERENCES

 Poster Presentaion: Palladium-Catalyzed Reaction of MBH Acetate with Terminal Alkyne: Cascade Synthesis of Phenanthridine and 6-Arylethynyl Phenanthridine @ National Symposium on Emerging trends in Chemical Science (NSETCS – 2018) in November 2018 at BHU, Varanasi.

- 2. **Poster Presentaion:** Facile Synthesis of dihydroacridines/acridines from Morita Bayliss-Hillman acetates and methylene compounds @ international Conference on Advances in Biological System and Materials Science in Nanoworld in February 2017 at IIT BHU, Varanasi.
- Poster Presentaion: Cascade S_N2'-S_NAr, Elimination and an unusual 1,5-Hydride shift reactions by Acetylacetone/acetoacetic esters : Synthesis of 9, 10-dihydroacridines @ 20th CRSI National Symposium in Chemistry in February 2017 at Gauhati University.
- Poster Presentaion: Cascade S_N2'-S_NAr, Elimination and an unusual 1,5-Hydride shift reactions by Acetylacetone/acetoacetic esters : Synthesis of 9, 10-dihydroacridines_@ACCT (I) satellite conference on Recent Trend in Carbohydrate Chemistry (RTCC-2016) in November 2016 at BHU, Varanasi.
- Poster Presentaion: Palladium-catalyzed one-pot synthesis of benzo[b][1,6] naphthyridines via Sonogashira coupling and annulation reactions from 2-chloroquinoline-3-carbonitriles @ National Symposium on Organic Synthesis and Advanced Materials (NSOSAM -2014) in March 2014 at BHU, Varanasi.

Participation in Webinar/Workshop/Faculty Development Program:

- Faculty Development Pogramme on Multididisciplinary Approaches in Research and Basic Teaching Methodologies in 21st century organised by R.R.S. College, Mokama, Bihar from 14-21 december 2020
- E-Faculty Development Program cum Workshop on Waste to Bioenergy organized by Sharda University from 28th june to 4th july 2020.
- **3.** E-Faculty Development Program cum Training Workshop on Environment, Water and disaster Risk Reduction organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India & Sharda University from 13th to 17th July 2020.

- **4.** Online Faculty Development Programme on Research Opportunities in Environmental Engineering organized by Bharti Vidyapeeth,Pune on 20th-25th July 2020.
- **5.** International Webinar on Challenges to the Right of Street Workers in Contemporary World organized by Jai Prakash Mahila College, Chapra, Bihar on 27th June 2020.
- 6. International e-Conference on Advanced & Innovative Materials for Sustainable Future on 22nd & 23rd June 2020.
- International Virtual Conference on Globalization of Justice through ADR organized by Aligarh Muslim University on 13th July 2020.
- 8. International e-seminar on Impact of Covid-19 Pandemic in India organised by Ranvir Rananjay PG College, Amethi on 28-29th June 2020.
- **9.** International e-Conference on Chemistry and its application in Modern Life organized by R.R.S. College, Mokama, Bihar.
- **10.** National Webinar on Energy and Environment organized by Maharaja sayajirao University from 9th-10th July 2020.
- **11.** National Online Conference on Covid-19 optimistic Perspective: Pandemic transforming challenges into opportunity organized by Janta Mahavidyalaya, Chandrapur on 18th July 2020.
- 12. National Webinar on Pandemic and reverse Migration in Bihar organized by Kunwar Singh College, Laheriasarai, Darbhanga on 4th August 2020
- **13.** National Webinar on Drug Discovery & Development in India organized byAnugrah Narayan Singh College Barh on 2nd July 2020.
- **14.** National Conference on Effective Teaching and Learning with Modern Technology organized by Yeshwantro Chavan College on 23rd December.
- **15.** Sensitization Programme for the academic counselors about **National Innovation and startup policy-2019** organized by IGNOU on 20th December.