

Brief Profile

Dr. Kunj Bihari Mishra

Assistant Professor (Organic Chemistry)

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RESEARCH INTEREST

Medicinal Chemistry/Carbohydrate Chemistry/Organic Chemistry

CURRENT POSITION

Jan, 2024 - Present : **Assistant Professor** (Organic Chemistry) at Department of Chemistry, Indira Gandhi National Tribal University, Amarkantak-484887, MP, India

RESEARCH EXPERIENCES

INDUSTRIAL

- 2022-2023** : Worked as Senior Research Scientist (L2) & Team Leader at NSJ Prayog Life Sciences, Hyderabad, Telangana, India (**Solid Phase Peptide Synthesis and Synthetic Organic Chemistry**)
- 2021 - 2022** : Worked as Senior Research Scientist at Department of synthesis, Jubilnat Biosys, Greater Noida, UP, India (**Synthetic Medicinal Chemistry**)

POST-DOCTORAL

- 2019 - 2021** : Worked as Institute Post-Doctoral Fellow at Department of Chemistry, Indian Institute of Technology, Kanpur India (**Natural Product Chemistry**)
- 2017 - 2019** : Worked as National Post-Doctoral Fellow at Department of Chemistry, Indian Institute of Technology, BHU, Varanasi, India (**Synthetic Medicinal/Carbohydrate Chemistry, Glycoside Synthesis**)
- 2016 - 2016**
(Feb) (July) : Worked as Research Associate at Department of Chemistry, Indian Institute of Technology, Patna, Bihta, India, (**Synthetic Carbohydrate Chemistry, Glycoside Synthesis**)

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DOCTORAL

2012 – 2016 : Ph. D. (Medicinal Chemistry/Carbohydrate Chemistry), Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi, UP, India.

Title: Design and Development of carbohydrate containing molecules as potential chemotherapeutic agent.

PhD Supervisor: Prof. V. K. Tiwari

CITATIONS & RESEARCH WEB LINKS

Citation: 1430; h-index: 15; i-index: 17

Research id: Q-6971-2018

Orchid id: <https://orcid.org/0000-0002-7913-8971>;

Google Scholar: https://scholar.google.co.in/citations?user=NN_HpBAAAAAJ&hl=en

RESEARCH PUBLICATIONS

PUBLICATIONS FROM IGNTU (MEDICINAL CHEMISTRY/ORGANIC CHEMISTRY)

- 1,5-Disubstituted 1,2,3-Triazoles: Molecular Scaffolds for Medicinal Chemistry and Biomolecular Mimetics, **Kunj B. Mishra***, *Eur. J. Med. Chem.*, 2025, 117614. (IF-6.072)
2. Ene-Azide Chemistry in the Synthesis of 1,2,3-Triazoline/Triazole and Mechanistic Aspects, **Kunj B. Mishra***, *Org. & Biomol. Chem.*, 2025, 23, 548. (IF-3.8)
3. Unlocking 1,5-Regioselectivity by Metal-Catalyzed Azide-Alkyne Cycloaddition for 1,2,3-Triazole Synthesis, Priyanka Chaudhary, Adesh Kumar Singh, Yogendra Kumar, **Kunj B. Mishra***, *Bulletin of Korean Chemical Soc.*, 2025, (Under Revision, manuscript no: 8817270) (IF-2.0)
4. Nickel ferrite-based graphite-paste electrochemical sensor for detection of paracetamol and dopamine molecules, Yogendra Kumar, Shubham Sharma, **Kunj Bihari Mishra**, Man Vir Singh, VSR Rajasekhar Pullabhotla, Panchanan Pramanik, *J. Ind. Chem. Soc.*, 2025, 102, 101633. (IF-3.3)

PUBLICATIONS FROM IIT KANPUR (NATURAL PRODUCT SYNTHESIS/ORGANIC CHEMISTRY)

5. Synthesis of Polyene Bioactive Natural Products: FR252921 and Vitamin A" D. H. Dethe, Vimallesh Katiyar, C. Nagabhushan, **Kunj Bihari Mishra**, Appasaheb Nirpal, *Organic letter*, 2022, 24, 11, 2203-2207. (IF-4.9)

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6. Ruthenium-catalyzed stereo- and chemoselective oxidative coupling of vinyl ketones: Efficient access to (*E,E*)-1,6-dioxo-2,4-dienes, D. H. Dethe, Appasaheb Nirpal, C. Nagabhushan, Vimallesh Katiyar, Aparna Srivastava, **Kunj Bihari Mishra**, Arsheet Ahamad Bhatt, *Chem. Com.*, **2022**, *58*, 3063-3066. (IF-4.3)

PUBLICATIONS FROM IIT BHU (CARBOHYDRATE CHEMISTRY/GLYCOSIDE SYNTHESIS)

7. Tris(pentafluorophenyl)borane-Promoted Stereoselective Glycosylation with Glycosyl Trichloroacetimidates under Mild Conditions, **Kunj B Mishra**, A. K. Singh, J. Kandasamy, *J. Org. Chem.*, **2018**, *83*, 4204-4212 (BHU). (I.F.-3.4)

8. Tris-(pentafluorophenyl)boron Driven Stereo-selective *O*-Glycosylation with Glycal Donors under Mild Condition, **Kunj B Mishra** and J. Kandasamy *A. J. Org. Chem.* **2019**, *8*, 549-554. (IF-2.8)

9. One-pot synthesis of oxazolidine-2-thione and thiozolidine-2-thione from sugar azido-alcohols, **Kunj B Mishra**, A. Agrahari and V K Tiwari, *Carbohydrate Res.*, **2017**, *450*, 1-9. (IF-2.5)

10. Highly efficient and recyclable pre-catalysts based on mono- and dinuclear heteroleptic Cu (I) dithio PPh₃ complexes for the synthesis of glycoconjugate triazoles under Click conditions, Avadhesh K. Singh, Chote Lal Yadav, **Kunj B Mishra** (equal contribution with A. K. Singh), Santosh K. Singh, Ajit N. Gupta, Vinod Kumar Tiwari, Michael G. B. Drewd and Nanhai Singh, *Molecular Catalysis*, **2019**, *470*, 152-163. (IF-3.9)

11. Urea-hydrogen peroxide prompted selective and controlled oxidation of thioglycosides into sulfoxides and sulfones, A.K. Singh, V. Tiwari, **Kunj B Mishra**, S. Gupta, J. Kandasamy, *Beilstein J. Org. Chem.*, **2017**, *13*, 1139-1144. (IF-2.2)

PUBLICATIONS FROM BHU (MEDICINAL CHEMISTRY/CARBOHYDRATE CHEMISTRY)

Review Article

12. Cu-catalyzed click reaction in carbohydrate chemistry, V. K. Tiwari, B. B. Mishra, **Kunj B Mishra**, N. Mishra, A. S. Singh, X Chen, *Chem. Rev.*, **2016**, *116*, 3086-3240. (IF-51.4)

Glycoconjugation of Natural Products and mimics for Developing Drug Candidates

13. Design, Synthesis and Pharmacological Evaluation of Noscapine Glycoconjugates, **Kunj B Mishra**, N. Tiwari, P. Bose, R. Singh, A. K. Rawat, S. K. Singh, Ram C. Mishra, Rakesh K Singh, Vinod K Tiwari, *Chemistry Select*, **2019**, *4*, 2644-2648. (IF-1.9)

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14. Click inspired synthesis of antileishmanial triazolyl *O*-benzylquercetin glycoconjugates, P Dwivedi, **Kunj B Mishra**, B B Mishra, R K Singh, V K Tiwari, *Glycoconjugate J.*, 2015, 32, 127-140. (IF-2.7)

15. Click chemistry inspired highly facile synthesis of triazolyl ethisterone glycoconjugates, D Kumar, **Kunj B Mishra** (equal Contribution), S Mondal, B B Mishra, V K Tiwari, *Steroids*, 2013, 80, 71-79. (IF-2.1)

16. First nospapine glycoconjugates inspired by click chemistry, **Kunj B Mishra**, R C Mishra, Vinod K Tiwari, *Rsc. Adv.*, 2015, 5, 51779-89. (I.F.-3.9)

17. Efficient synthesis of ethisterone glycoconjugates via bis-triazole linkage, **Kunj B Mishra**, B B Mishra and V K Tiwari, *Carbohydrate Res.*, 2014, 399, 2-7. (IF-2.5)

18. Click inspired synthesis of triazole-linked vanillin glycoconjugates, Pratibha Dwivedi, **Kunj B Mishra**, Pritika, Bhuwan B Mishra, Vinod K. Tiwari, *Glycoconjugate J.*, 2017, 34, 61-70. (IF-2.7).

Carbohydrate Based Heterocyclic Scaffolds for Developing Drug Candidates

19. Click chemistry inspired synthesis of morpholine-fused triazoles, **Kunj B. Mishra** and V K Tiwari, *J. Org. Chem.*, 2014, 79, 5752-5762. (I. F.-3.4)

20. Metal free synthesis of morpholine fused [5, 1-c] triazolyl glycoconjugates via glycosyl azido alcohols, **Kunj B Mishra**, Somesh Shashi and Vinod K Tiwari, *Rsc. Adv.*, 2015, 5, 86840-48 (IF-3.9).

9. One-pot synthesis of oxazolidine-2-thione and thiozolidine-2-thione from sugar azido-alcohols, **Kunj B Mishra**, A. Agrahari and V K Tiwari, *Carbohydrate Res.*, 2017, 450, 1-9. (IF-2.5)

21. Facile Synthesis of Glycosyl β -Lactam from Glycosyl β -Amino Esters, Virendra Prasad, Nidhi Mishra, **Kunj B Mishra**, Somesh Shashi and Vinod K. Tiwari, *J. Ind. Chem. Soc.*, 2015, 92, 1557-1568. (IF-0.45)

22. One-Pot Facile Synthesis of 1, 5-Disubstituted Triazolyl Glycoconjugates from Nitrostyrenes, **Kunj B Mishra** and Vinod K Tiwari, *Chemistry Select*, 2016, 1, 3693-3698. (IF-1.9)

23. Click-inspired facile synthesis of novel bis-triazolyl glycoconjugates, **Kunj B Mishra**, Somesh Shashi and Vinod K Tiwari, *Trends in Carbo. Res.*, 2016, 8, 53-58. (IF-0.5)

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24. An Expeditious One-Pot Synthesis of Thiourea Derivatives of Carbohydrate from Sugar Azides, **Kunj B Mishra**, Sanchayita Rajkhowa, Vinod K Tiwari, *Carbohydrate Chemistry*, 2020, 39, 334-353. (IF-1.2)

25. Synthesis, structure, and catalytic activities of new Cu (I) thiocarboxylate complexes, D Joshi, **Kunj B Mishra**, V K Tiwari, S Bhattacharya, *RSC Adv.*, 2014, 4, 39790-39797. (IF-3.9)

26. Recent development on heterocyclic synthesis through the cleavage of benzotriazole ring, Dhananjay Kumar, Bhuwan B. Mishra, **Kunj B Mishra**, Raju R Kale, and Vinod K. Tiwari, *J. Org. Biomol. Chem.*, 2013, 1, 169-186. (Article ID 010307, ISSN: 2321-4163).

CHAPTERS IN BOOKS

1. *Synthesis of Diverse Carbohydrate-Based Molecules using Click Chemistry*, Anoop S. Singh, **Kunj B Mishra**, Amrita Mishra, and Vinod K Tiwari*, 2016, Page no.-161-201 (Title of Book Click reaction in organic synthesis, ed. S. Chandrashekhara, <https://doi.org/10.1002/9783527694174.ch6>).
2. *Carbohydrate-Based Therapeutics: A Frontier in Drug Discovery and Development*, S. Mishra, K. Upadhyay, **Kunj B Mishra**, A. Sukla, R. P. Tripathi, V. K. Tiwari, *Studies in Natural Product Chemistry*, 50 (2016), Chapter 10, pp. 307-355 (Book: *Studies in Natural Products Chemistry* <https://doi.org/10.1016/B978-0-444-63601-0.00010-7>).
3. *Emerging role of room temperature ionic liquids in carbohydrate modification*, V Prasad, D Kushwaha, **Kunj B Mishra**, L Mishra, V K Tiwari*, *Adv. Org. Syn.*, 2013, 4, 345-408 (Title of Book : *Advances in organic synthesis*, ed. Ata-ur-Rahman, Invited article, DOI: <https://doi.org/10.2174/9781608054756113040009>).

EDUCATION

2006 – 2008 : M.Sc. (Chemistry), Dr. Bhimrao Ambedkar University Agra UP

2003 – 2006 : B.Sc. (Chemistry, Physics, Math), Dr. Bhimrao Ambedkar University Agra UP

EXAMES QUALIFIED

- **Qualified NET-JRF-2011** examination conducted jointly by Council of Scientific and Industrial Research & University Grants Commission, Govt. of India.
- **Qualified GATE-2010** conducted by IIT Gauhawati in 2010.

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AWARDS & HONOURS

- **Best Thesis Award (2016)** by Association of Carbohydrate Chemist and Technologist of India at IIT Kharagapur
- **Young Scientist Award (2014)** by Indian Science Congress Association of Allahabad at United Group of Pharmacy, Naini Allahabad.
- **Best Poster Award (2014)** in NIPER-RBL Symposium at CDRI, Lucknow.
- **Poster Award (2014)** in Carbo-XXIX Symposium at CIAB, Mohali.

FELLOWSHIPS

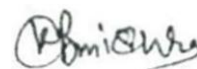
- **Raja Jawala Prasad Post-Doctoral Fellow-2023**, Department of Medicinal Chemistry, Institute of Medical Science, Banaras Hindu University, Varanasi, UP, India.
- **UFS-Post-Doctoral Fellowship -2019**, University of Free State, Bolefontein, South Africa
- **Institute Post-Doctoral Fellow-2019**, Department of Chemistry, Indian Institute of Technology Kanpur, Kanpur, UP, India.
- **SERB Sponsored National Post-Doctoral Fellow-2017**, Department of Chemistry, Indian Institute of Technology, BHU, Varanasi, UP, India.
- **Post-Doctoral Fellow-2017 (DST-Max Planck Partner group project)**, Department of Chemistry, Indian Institute of Technology, BHU, Varanasi, UP, India.
- **Research Associate Fellowship-2016**, Department of Chemistry, Indian Institute of Technology Patna, Bihta, Bihar.
- **Senior Research Fellow (UGC-SRF)-2014**, Department of Chemistry, Banaras Hindu University, Varanasi, UP, India.
- **Junior Research Fellowship (UGC-JRF)-2012**, Department of Chemistry, Banaras Hindu University, Varanasi, UP, India.
- Member of Departmental Research Committee

INVITED LECTURER/ORAL PRESENTATIONS

- Delivered an Invited Lecturer at International Conference on “Green Chemistry: Synthesis Processing and devices” from 06-07 February, 2018 At **VKSU Ara, Bihar**, India.
- Delivered an Award Lecturer at National Conference Carbo-XXXII on “Emerging Chemistry and Biology of Carbohydrates” from 18-20 December, 2017 at **IIT Kharagpur**, West Bengal, India.

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- Oral Presentation for Poster Award at National Conference Carbo-XXIX on “Chem.-Bio Innovations for Bioproducts” from 29-31 December, 2014 at **CIAB Mohali**, India.
- Oral Presentation at International Conference CONIAPS from 20-22 March, 2014 at **IIIT Jabalpur**, India.
- Oral Presentation at National Conference on “National Symposium on Chemistry and Environment” from 15-16 March, 2013 at Department of Chemistry, **BHU, Varanasi**, India).



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