

## Dr. Dhananjay Kumar (M.Sc., Ph.D.)

(Assistant Professor)

Department of Chemistry

Anugrah Memorial College, Gaya

Magadh University, Bodh Gaya

E-mail: [dhananjay.bhu7@gmail.com](mailto:dhananjay.bhu7@gmail.com)

Contact No. - +91-9891067785



## Education

Degree/Certificate Awarded	University/Institute
Ph.D in Chemistry (2010-2014)	Banaras Hindu University, Institute of Science, Varanasi <b>Research Topic:</b> Benzotriazole ring Cleavage: An approach towards the Synthesis of Carbohydrate and 2-N/S/C/O-Substituted Benzothiazoles. <b>Supervisor:</b> Dr. Vinod K. Tiwari (Associate Professor, Department of Chemistry).
M.sc (Organic Chemistry) (2008-2010)	Banaras Hindu University, Institute of Science, Varanasi
B.sc (Chemistry Hons.) (2005-2008)	Banaras Hindu University, Institute of Science, Varanasi

## Project Executed

- (2016) DST-SERB Fast-Track Young Scientist Project  
**Project Title:** "Design and development of novel aza-sugars and glycohydrides as potential biodynamic agents"  
**Funding Agency:** DST-SERB New Delhi  
**Fund Allocated:** ₹ 2080833/-  
**Duration of Project:** Three years (2016-2019)

## Awards and Achievements

- (2016) Fast-Track Young Scientist Project award by DST-SERB.

- (2014) Research Associate Fellowship (CSIR-RA) on CSIR sponsored project.
- (2013) Awarded CSIR-SRF on January 1, 2013
- (2012) Best paper Award on Symposium held at U. P. College, Varanasi, 8/09/2012.
- (2010) GATE, percentile approx 97.
- (2010) UGC-CSIR NET: CSIR-JRF and Lectureship, AIR-242
- (2009) UGC-CSIR NET: Lectureship, AIR – 66

## Research Experience

- Worked as DST-SERB Fast-Track **Young Scientist Fellow** on DST-SERB sponsored project.
- Worked as “**Research Associate**” from October 1, 2014 to March 2015 at Indian Institute of Technology, Delhi.
- Worked in industry named “TCG Life Science Ltd. (Chembiteck), Kolkata” for a duration of four months, on the post of “Project Fellow” and working on Pfizer Project.

## Teaching Experience

- (2017-Cont.) Working as Assistant Professor, A. M. College, (Magadh University), Gaya
- (2015-17) Worked as **Assistant Professor** (Ad-hoc) at **Kirori Mal College**, Delhi University.

## Member of National and International Bodies

- Life Member Association of Carbohydrate Chemists and Technologists, India (ACCTI). Membership No. [LM/200/11](#)

## Research Area of Interest

- Design and development of novel synthetic methodologies.
- Carbohydrate chemistry.
- Development of Benzotriazole methodology.
- Metal catalyzed C-H activation.
- Total synthesis of natural product inspired molecules.

## Invited Lectures

1. **Name of Conference:** International Seminar on Green Chemistry: Synthesis, Processing & Devices.  
**Date and place of Conference:** April 6<sup>th</sup> & 7<sup>th</sup>, 2018; Dept. of Chemistry, VKS University, Ara. **Title of**

**Presentation: Benzotriazole Ring Cleavage Strategy ( BtRC) for the Synthesis of diverse Benzo-fused Aza-Heterocycles.**

### Conference/ Seminar Organized

1. **Name of Seminar:** Carrier Perspective in Current Trends.

**Date and place of Seminar:** Sep. 29, 2015, Department of Chemistry, Kirori Mal College, University of Delhi.

**Award Type:** Certificate of Appreciation for Assistance in Organizing a one day seminar.

### Training Program Attained

1. 7 – Day Faculty Development Programme on *Recent Trends in Applied Science Teaching*( FDP – RTAST’ 2017, 21<sup>st</sup> to 27<sup>th</sup> July, 2017; Organized by Shaheed Rajguru College of Applied Sciences, University of Delhi.

### List of Publications

1. **Dhananjay Kumar**, AS Singh, VK Tiwari, An Improved Synthetic protocol for Benzothiazoles via Ring Opening of Benzotriazole. *ChemistrySelect* 2018, 3, 7809–7812. [IF: 1.505]
2. AS Singh, N Mishra, **Dhananjay Kumar**, VK Tiwari, Lewis-Acid-Mediated Benzotriazole Ring Cleavage (BtRC) Strategy for the Synthesis of 2-Aryl Benzoxazoles from N-Acylbenzotriazoles. *ACS Omega* 2017, 2, 5044–5051.
3. AS Singh **Dhananjay Kumar**, N Mishra, VK Tiwari, An unexpected synthesis of N-phenyl amides via Cleavage of Benzotriazole Ring under free radical condition. *ChemistrySelect*. 2017, 2, 224–229. [IF: 1.505]
4. AS Singh **Dhananjay Kumar**, N Mishra, VK Tiwari, An efficient one-pot synthesis of N,N'-disubstituted ureas and carbamates from N-Acylbenzotriazoles. *RSC Advances*, 2016, 6, 84512. [IF: 3.289]
5. **Dhananjay Kumar**, AS Singh, VK Tiwari, An unprecedented deoxygenation protocol of benzylic alcohols using bis(benzotriazole)methane thione. *RSC Advances*, 2015, 5, 31584–93. [IF: 3.289]
6. **Dhananjay Kumar**, BB Mishra, VK Tiwari, Synthesis of various 2-N,C,S substituted Benzothiazoles via Intramolecular Cyclative Cleavage of Benzotriazole Ring. *J. Org. Chem.* 2014, 79, 251–266. [IF: 4.785]
7. **Dhananjay Kumar**, KB Mishra, BB Mishra, S Mondal, VK Tiwari, Click chemistry inspired highly facile synthesis of triazolyl ethisterone glycoconjugates. *Steroid*, 2014, 80, 71–79. [IF: 2.513]

8. **Dhananjay Kumar**, Anoop S. Singh, V K Tiwari, An Unexpected p-Toluenesulfonic acid Catalyzed 1,3-Migration of Thiocarbonyl: Selective Formation of 1,3-Dioxolane-2-thione Ring and Optimization Study. *Trends Carbohydr. Res.* 2014, 6(3), 20-26. [IF: 0.562]
9. **Dhananjay Kumar**, A Mishra, BB Mishra, S Bhattacharya, and VK. Tiwari, Synthesis of Glyco-conjugate Benzothiazoles via Cleavage of Benzotriazole Ring. *J. Org. Chem.*, 2013, 78, 899-909. [IF: 4.785]
10. **Dhananjay Kumar**, VK Tiwari, Synthesis of 2'-N-benzotriazole-2,3:5,6-di-O-isopropylidene- $\beta$ -D-mannofuranoside using benzotriazole methodology. *Trends Carbohydr. Res.* 2013, 5(3), 45-48. [IF: 0.562]
11. **Dhananjay Kumar**, BB Mishra, RR Kale, KB Mishra, VK Tiwari, Recent Development on Heterocyclic synthesis through the cleavage of benzotriazole ring. Signpost Open Access Journals *J. Org. Biomol. Chem.*, 2013 (*Signpost Open Access Journals*), 1, 169-186.
12. V Prasad, **Dhananjay Kumar** VK Tiwari, A highly expeditious synthesis of bicyclic iminosugar using novel key step of [NMM]<sup>+</sup>[HSO<sub>4</sub>]<sup>-</sup> promoted conjugate addition and Mitsunobu reaction. *RSC Advances*, 2013, 3, 5794-7. [IF: 3.289]
13. V Prasad, RR Kale, BB Mishra, **Dhananjay Kumar**, VK Tiwari, Diacetoxyiodobenzene Mediated One-Pot Synthesis of Diverse Carboxamides from Aldehydes. *Org. Lett.*, 2012, 14, 2936-2939. [IF: 6.732]
14. BB Mishra, **Dhananjay Kumar**, A Mishra, PP Mohapatra, VK Tiwari, Cyclo-Release Strategy in Solid-Phase Combinatorial Synthesis of Heterocyclic Skeletons. *Adv. Heterocyclic Chem.*, 2012, 107, 41-99. [IF: 1.783]

### Book Chapters

15. **Dhananjay Kumar**, BB Mishra, D Kushwaha, VK Tiwari, Impact of Solid Supported Cyclization-Elimination Strategies towards the Development of Natural Product Inspired Molecules in Drug Discovery Research (Chapter 2). **Book:** *Chemistry and Pharmacology of Naturally Occurring Bioactive Compounds: Advances in Chemical & Pharmaceutical Aspects*, 2013, p9-30; ed. G Brahmachari, CRC Press, **Taylor & Francis Group**, USA. [ISBN-13: 978-1-4398-9167-4]
16. BB Mishra, **Dhananjay Kumar**, AS Singh, RP Tripathi, VK Tiwari, Ionic Liquids Prompted Synthesis of Biologically Relevant Five & six-membered Heterocyclic Skeletons: An Update (Chapter 17). **Book:** *Green Synthetic Approaches for Biologically Relevant Heterocycles*. **Elsevier**, 2014, p437-484; ed. G Brahmachari. [ISBN: 978-0-12-800070-0]

### List of conferences/ symposia where paper presented (Oral/Poster)

1. **Name of conference:** 2nd UK-India MedChem Congress.

- Date and place of Conference:** 22<sup>nd</sup> to 23<sup>rd</sup> March 2013; Organised by CSIR-Indian Institute of Chemical Technology, Hyderabad, India. **(Poster)**
2. **Name of conference:** National Symposium on Chemistry and Environment (NSCE-2013)  
**Date and place of Conference:** 15<sup>th</sup> to 16<sup>th</sup> March 2013; Organised by Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi-221005. **(Oral)**
  3. **Name of conference:** International Conference on Chemistry: Frontier & Challenges.  
**Date and place of Conference:** 2<sup>nd</sup> to 3<sup>rd</sup> March 2013; Organised by Department of Chemistry, Aligarh Muslim University, Aligarh (U.P.). **(Poster)**
  4. **Name of conference:** 15<sup>th</sup> CRSI National Symposium in Chemistry  
**Date and place of Conference:** 1<sup>st</sup> to 3<sup>rd</sup> February 2013; Organised by Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi-221005. **(Poster)**
  5. **Name of conference:** 7<sup>th</sup> RSC-CRSI Symposium in Chemistry.  
**Date and place of Conference:** 31<sup>st</sup> January 2013; Organised by Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi-221005.
  6. **Name of conference:** National Carbohydrate Conference CARBO-XXVII  
**Date and place of Conference:** 13<sup>th</sup> to 15<sup>th</sup> December 2012; Organised by Central Food Technological Research Institute (CFTRI), Mysore, Karnataka. **(Poster)**
  7. **Name of conference:** National Seminar on Advances in chemical Science (NSACS-2012)  
**Date and place of Conference:** 8<sup>th</sup> September 2012; Organised by Department of Chemistry, Uday Pratap Autonomous College, Varanasi (U.P.). **[Oral (Best presentation Award)]**
  8. **Name of conference:** 4<sup>th</sup> CDRI-NIPER (RBL) Symposium on Medicinal Chemistry and Pharmaceutical Sciences.  
**Date and place of Conference:** Organised jointly by CDRI AND NIPER (RBL), Held at Central Drug Research Institute, Lucknow from 23<sup>rd</sup> to 25<sup>th</sup> February 2012. **(Poster)**
  9. **Name of conference:** National Symposium on Advanced Functional Material (NSAFM-2012).  
**Date and place of Conference:** 11<sup>th</sup> to 12<sup>th</sup> February 2012, Department of Chemistry, Banaras Hindu University, Varanasi-221005. **(Oral)**
  10. **Name of conference:** National Conference on Emerging Trends in Chemistry-Biology Interface ETCBI – 2011.  
**Date and place of Conference:** Organised by Department of Chemistry, D.S.B. Campus, Kumaun University, Nanital from 3<sup>rd</sup> to 5<sup>th</sup> November 2011. **(Poster)**
  11. **Name of conference:** Emerging Trends in Chemical Sciences (ETCS 2011). **Date and place of Conference:** 20 February 2011; Organised by Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi-221005.
  12. **Name of conference:** National symposium on Organic Synthesis and Advanced Materials.  
**Date and place of Conference:** 1 to 2<sup>nd</sup> March 2014, Department of Chemistry, Banaras Hindu University, Varanasi-221005. **(Poster)**
  13. **Name of Conference:** Xth JNOT

**Date and place of Conference:** 4-6<sup>th</sup> December 2014, Department of Chemistry, IIT Chennai  
(Poster)

14. **Name of Conference:** Bringing the Nanoworld Together  
**Date and place of Conference:** 27.11.2014 – 28.11.2014, Department of Chemistry, Indian Institute of Technology, Delhi
15. **Name of Conference:** 1<sup>st</sup> National Conference on Emerging Trends & Future Challenges in Chemical Sciences (ETFC-2016)  
**Date and place of Conference:** 03-04 Feb. 2016, Department of Chemistry, Kirori Mal College, University of Delhi.
16. **Name of Conference:** Recent trends in Carbohydrate Chemistry (RTCC-2016)  
**Date and place of Conference:** November 12, 2016; Department of Chemistry, Banaras Hindu University, Varanasi-221005. (Poster)
17. **Name of Conference:** CARBO-XXXI, International Conference.  
**Date and place of Conference:** 14<sup>th</sup> -16<sup>th</sup> Nov. 2016, Department of Chemistry, University of Delhi, India.  
**Title of Presentation:** Diacetoxyiodobenzene mediated one-pot synthesis of diverse Carboxamide from Uloses.
18. **Name of Conference:** 23<sup>rd</sup> ISCB International Conference (ISCBC 2017),  
**Date and place of Conference:** 8 – 10 February, 2017; SRM University, Tamil Nadu, Chennai.  
(Poster).