

Personal Profile



Dr. Bharat Kumar Allam
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Educational Profile

Ph.D. (Chemistry)	Banaras Hindu University, Varanasi, UP; 2016 Supervisor: Professor Krishna Nand Singh
M.Sc. (Organic Chemistry)	Andhra University, Visakhapatnam, AP; 2009
B.Sc. (C.B.Z)	Andhra University, Visakhapatnam, AP; 2007

Professional Experience

Assistant Professor, Department of Chemistry, Rajiv Gandhi University, Arunachal Pradesh, India	April 2021–till date
Post-doctoral Fellow, Department of Material Science and Environmental Engineering, Tampere University, Finland Supervisor: Prof. Alexander Efimov	March 2021–April 2021
Post-doctoral Fellow, University of Angers, France Supervisor: Dr. Jean-Jacques Helesbeux	January 2021–March 2021
Post-doctoral Fellow, Department of Chemistry and Skaggs Institute of Chemical Biology, The Scripps Research Institute, USA Supervisor: Prof. Karl Barry Sharpless (Nobel Laureate)	September 2019–June 2020
Post-doctoral Fellow, University of Warwick, UK Supervisor: Prof. Martin Wills	December 2017– November 2018
Post-doctoral Fellow, Indian Institute of Technology (BHU), Varanasi, India Supervisor: Dr. Jeyakumar Kandasamy	August 2016– November 2017

Awards & Honours

1. RSC Commonwealth Chemistry Poster Prize (2021)
2. Fulbright Association Conference Fellowship (2021)
3. Royal Society of Chemistry “Ambassador Volunteer” (2020)
4. Fulbright Postdoctoral Fellowship (2019)
5. Top Innovator and Honorary Mention ChemDraw Innovation Challenge (2017)

Membership of Professional Bodies

1. Member–Royal Society of Chemistry, UK (2017–Present)
2. Member–American Chemical Society, USA (2015–Present)
3. Member–American Association for the Advancement of Science, USA (2017–Present)
4. Member–International Society of Heterocyclic Chemistry, USA (2015–Present)
5. Affiliate–Member International Union of Pure and Applied Chemists, USA (2021)
6. Member–Fulbright Alumni Association, USA (2021)
7. Member–International Water Association, UK (2021)
8. Member–American Association for Cancer Research (AACR) (2021)
9. Life Member–Indian Chemical Society (2016–Present)
10. Life Member–Laser & Spectroscopy Society of India (2016–Present)

Research Interests

- Organic Synthesis
- Transition Metal Catalysis
- Material Chemistry
- Chemical Biology/Cancer Biology
- Wastewater Treatment

Research Publications

1. Adsorptive and photocatalytic performance of perovskite material for the removal of food dye in an aqueous solution: Banerjee S, Debnath A, Bharat Kumar Allam, Musa N., Environmental Challenges. **2021**, 5, 100240.
2. Nickel Catalyzed Decarboxylative C-Si Bond Formation: A Regioselective Cross-Coupling Between Trialkyl Silanes and α , β -Unsaturated Carboxylic Acids: Bharat Kumar Allam, Sadaf Azeez, Jeyakumar Kandasamy, Appl Organometal Chem; **2019**, e5192.
3. A New Avenue to the Synthesis of Symmetrically Substituted Pyridines Catalyzed by Magnetic Nano-Fe₃O₄: Methyl Arenes as Sustainable Surrogates of Aryl Aldehydes; S. Gajaganti, D. Kumar, S. Singh, V. Srivastava, Bharat Kumar Allam, Chemistry Select, **2019**, 4, 9241-9246.
4. A Sustainable and Solvent-free Multi-component Synthesis of Benzimidazolo/Benzothiazolo Quinazolinones using Sc(OTf)₃ under Controlled Microwave Irradiation, Somaiah Gajaganti, Savita Kumari, Dharendra Kumar,

- Bharat Kumar Allam, Vandana Srivastava and Sundaram Singh, *Journal of Heterocyclic Chemistry*, **2018**, 55, 2578-2584.
5. A binuclear Cu(I) complex as a novel catalyst towards the direct synthesis of N-2-aryl-substituted-1, 2, 3-triazoles from chalcones; DP Singh, Bharat Kumar Allam, R Singh, K N Singh, V P Singh; *RSC Advances*, **2016**, 6, 15518-15524.
 6. A Direct Metal-Free Decarboxylative Sulfonyl Functionalization (DSF) of Cinnamic Acids to α,β -Unsaturated Phenyl Sulfones, R. Singh, Bharat Kumar Allam, N. Singh, K. Kumari, S. K. Singh, Krishna Nand Singh, *Org. Lett.*, **2015**, 17, 2656–2659.
 7. Nickel-Catalyzed C–S Bond Formation: Synthesis of Aryl Sulfides from Arylsulfonyl Hydrazides and Boronic Acids, R. Singh, Bharat Kumar Allam, N. Singh, K. Kumari, S. K. Singh, K. N. Singh, *Adv. Synth. Cat.*, **2015**, 357, 1181-1186.
 8. Binuclear Cu(I) complex of (N'1E,N'2E)-N'1,N'2-bis(phenyl(pyridin-2-yl)methylene)oxalohydrazide: synthesis, crystal structure and catalytic activity for the synthesis of 1,2,3-triazoles; D. P. Singh, Bharat Kumar Allam, K. N. Singh, V. P. Singh, *J. Mol. Cat. A: Chem.*, **2015**, 398, 158–163.
 9. 5-Lipoxygenase and Cyclooxygenase inhibitory Dammarane triterpenoid 1 from *Borassus flabellifer* seed coat, inhibits Tumor Necrosis Factor- α secretion in LPS induced THP-1 human monocytes and induces apoptosis in MIA PaCa-2 Pancreatic cancer cells; N. S. Yarla, Bharat Kumar Allam, K. N. Singh; *Anti-Cancer Agents in Medicinal Chemistry (Formerly Current Medicinal Chemistry–Anti-Cancer Agents)* **2015**, 15, 1066-1077.
 10. A simple and sustainable tetrabutylammonium fluoride–catalyzed synthesis of azaarene–substituted 3-hydroxy–2-oxindoles through sp^3 C–H functionalization; Bharat Kumar Allam, K. N. Singh; *RSC Adv.*, **2014**, 4, 19789-19793.
 11. A convenient and green approach for the synthesis of 2H-indazolo[2,1-b]phthalazinetriones; D S Raghuvanshi, K Kumari, Bharat Kumar Allam, K. N. Singh, *I. J. Chem.*, **2014**, 53B, 1462-1467.
 12. A binuclear Mn (ii) complex as an efficient catalyst for transamidation of carboxamides with amines; D. P. Singh, Bharat Kumar Allam, K. N. Singh, V. P. Singh, *RSC Adv.*, **2014**, 4 (3), 1155–1158.
 13. N,N,N',N'-Tetramethylethane-1,2-diamine (TMEDA); Bharat Kumar Allam, *Synlett* **2013**, 24, 2327–2328.
 14. An efficient TBAF-catalyzed three component synthesis of 3-Indole derivatives under solvent-free conditions; N. Singh, Bharat Kumar Allam, D. S. Raghuvanshi, K. N. Singh, *Adv. Synth. Cat.* **2013**, 355, 1840–1848.
 15. Utilization of carbon disulfide as a powerful building block for the synthesis of 2-aminobenzoxazoles; T. Guntreddi, Bharat Kumar Allam, K. N. Singh, *RSC Adv.*, **2013**, 3, 9875-9880.
 16. A novel and simple transamidation of carboxamides in 1,4-Dioxane without a catalyst; R. Vanjari, Bharat Kumar Allam, K. N. Singh, *Tetrahedron Letters*, **2013**, 54, 2553–2555.
 17. Hypervalent Iodine catalyzed transamidation of carboxamides with amines; R. Vanjari, Bharat Kumar Allam, K. N. Singh, *RSC Adv.*, **2013**, 3, 1691–1694.

18. Cooperatively assisted N-arylation using organic ionic base-Brønsted acid combination under controlled microwave heating; R. Singh, Bharat Kumar Allam, D. S. Raghuvanshi, K. N. Singh, *Tetrahedron*, **2013**, 69, 1038–1042.
19. Simple and efficient one-pot synthesis of Imidazo[1,2-a]pyridines catalyzed by magnetic nano-Fe₃O₄-KHSO₄·SiO₂; T. Guntreddi, Bharat Kumar Allam, K. N. Singh, *Synlett*, **2012**, 23, 2635–2638.
20. Highly efficient one-pot synthesis of primary amides catalyzed by Sc(OTf)₃ under controlled MW; Bharat Kumar Allam, K. N. Singh, *Tetrahedron Lett.*, **2011**, 52, 5851–5854.
21. An efficient phosphine-free heck reaction in water using Pd[L-proline]₂ as the catalyst under microwave irradiation; Bharat Kumar Allam, K. N. Singh, *Synthesis*, **2011**, 1125–1137.

Book/Book Chapter published

1. Bharat Kumar Allam, Rahul Singh, Krishna Nand Singh, Phenol, 2,4-bis(1,1-dimethylethyl)-6-[(E)-[[[(1S)-1-(hydroxymethyl)-2,2-dimethylpropyl]imino]methyl]], e-EROS Encyclopedia of Reagents for Organic Synthesis (Eds. David Crich, Philip L. Fuchs, Andre B. Charette, Tomislav Rovis), John Wiley & Sons, Ltd., **2016**.
2. N. S. Yarla, G. R. Doddukuri, Bharat Kumar Allam, Medicinal properties of *Borassus flabellifer* seed coat; Lambert Academic Publishers, Germany, **2014**.

Course/Conference/Workshop etc. attended

1. Presented a poster in 'RSC Commonwealth Chemistry Conference', UK during 30 September-01 October **2021**.
Title of the presentation: Nickel-Catalyzed Decarboxylative C–Si Bond Formation: A Regioselective Cross-Coupling Between Trialkyl Silanes and α,β -Unsaturated Carboxylic Acids.
 2. Delivered an oral presentation in NIH workshop on research ethics, Scripps Research Institute, USA during 02 March-13 March **2020**.
Title of the presentation: Plagiarism: A Sin in Academics.
 3. Presented a poster in ICOS–21, held at IIT–Bombay, India during 11 December-16 December **2016**.
Title of the presentation: Sulfonyl Hydrazide: The Chemical Chameleon in Organic Synthesis
 4. Delivered a talk in NCVSAWS–2016, K. N. Govt. P. G. College, Gyanpur, Bhadohi–221304, UP, India. 30 March-31 March **2016**.
Title of the talk: Science: The Philosophers Stone to Create a Better Society
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