Dr. YOGESH JAISWAL - CURRICULUM

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PERSONAL PROFILE

- **Date of Birth:** December 4th, 1994
- **Gender:** Male
- **Citizenship:** Indian
- **Languages Known:** Hindi, English

EDUCATION

- **Postdoctoral fellow at Hebrew University of Jerusalem, Israel** **Aug 2022-Present**
  Advisor: Dr. Zackaria Nairoukh
- **Ph. D. Indian Institute of Technology Patna, Patna, India** **2015-2020**
  - Thesis titled " *Metal-Catalyzed Weakly Coordinating Directing Group Assisted C-H Bond Functionalization: En route Synthesis of Functionalized Organic Molecules* "; Course work (SPI 8.4/10).
  - Adviser: Dr. Amit Kumar
- **M. Sc. Chemistry- Kanpur University, Kanpur, India** **2013-2015**
  - Specialization - Organic Chemistry (Percentage - 60%).
- **B. Sc. Chemistry- Kanpur University, Kanpur, India** **2010-2013**
  - Chemistry (Percentage– 58%).

PROJECTS/RESEARCH EXPERIENCE

Indian Institute of Technology Patna, India

- ***Primary amide directed regioselective ortho-C-H functionalization***
  - Developed an effective methodology for regioselective synthesis of biaryl acetamides.
  - Utilized primary amide as directing group for *ortho*-C-H alkenylation of aryl acetamides.
  - Demonstrated a novel strategy for the synthesis of halo-arene compounds.
- ***Design of novel synthetic pathway for the one pot synthesis of complex heterocyclic compounds utilizing cheap and abundant precursors***
  - Developed an efficient and step-economical methodology for the rapid access to phenanthridines from nitriles and aryliodide.
  - One pot synthesis of Dimeric 2H-Pyrrolo[2,3-c]isoquinoline-2,5(3H)-diones from Benzamides and Maleimide

PUBLICATIONS

- ***Primary Amide Directed Regioselective ortho-C-H-Arylation of (Aryl)Acetamides,*** Jaiswal, Y.; Kumar, Y.; Thakur, R.; Pal, J.; Subramanian, R.; Kumar, A. *J. Org. Chem.* **2016**, *81*, 12499-12505.
- ***Palladium-Catalyzed Regioselective C-H Alkenylation of Arylacetamides via Distal Weakly Coordinating Primary Amides as Directing Groups***, Jaiswal, Y.; Kumar, Y.; Kumar, A. *J. Org. Chem.* **2018**, *83*, 1223-1231.
- ***Rapid Synthesis of Polysubstituted Phenanthridines from Simple Aliphatic/Aromatic Nitriles and Iodo Arenes via Pd(II) Catalyzed Domino C-C/C-C/C-N Bonds Formation***, Jaiswal, Y.; Kumar, Y.; Pal, J.; Subramanian, R.; Kumar, A. *Chem. Commun.* **2018**, *54*, 7207-7210.
- ***The palladium(II)-catalyzed regioselective ortho-C–H bromination/iodination of arylacetamides with in situ generated imidic acid as the directing group: mechanistic exploration***, Jaiswal, Y.; Kumar, Y.; Kumar, A. *Org. Biomol. Chem.*, **2019**, *17*, 6809.
- ***Acid-promoted palladium(II)-catalyzed ortho-halogenation of primary benzamides: En route to halo-arenes,*** Jaiswal, Y.; Kumar, A. *Catal. Commun.* **2019**, *131*, 105784.

- ***One-Pot Synthesis of Orange-Red Fluorescent Dimeric 2H-Pyrrolo[2,3-c]isoquinoline-2,5(3H)-diones from Benzamides and Maleimides via Ru(II)-Catalyzed Sequential C−C/C−N/C−C Bond Formation,*** Jaiswal, Y.; Mandal, S.; Das, P. Kumar, A. *Org. Lett.* **2020,** *22*, 1605-1610.
- ***Copper(II)-Catalyzed Benzylic C(sp^3)−H Aerobic Oxidation of (Hetero)Aryl Acetimidates: Synthesis of Aryl-α-ketoesters,*** Kumar, Y.; Jaiswal, Y.; Kumar, A. *J. Org. Chem.* **2016**, *81*, 12247-12257.
- ***Metal-Free Catalyst-Controlled Chemoselective Synthesis of Aryl α-Ketoesters and Primary α-Ketoamides from Aryl Acetimidates,*** Kumar, Y.; Jaiswal, Y.; Shaw, M.; Kumar, A. *ChemistrySelect* **2017**, *2*, 6143-6148.
- ***Two-Step One-Pot Synthesis of Unsymmetrical (Hetero)Aryl 1,2-Diketones by Addition-Oxygenation of Potassium Aryltrifluoroborates to (Hetero)Arylacetonitriles,*** Kumar, Y.; Jaiswal, Y.; Kumar, A. *Eur. J. Org. Chem.* **2018**, 494–505.
- ***A Straightforward Synthesis of α-Amino Diaryl Ketones from (Hetero)Arylacetonitriles Promoted by N-Bromosuccinimide,*** Kumar, Y.; Jaiswal, Y.; Thakur, R.; Kumar, A. *ChemistrySelect* **2018**, *3*, 5614-5619.
- ***Visible-Light -Mediated Remote-γ-C(sp^3)-H Functionalization of Aryl/Alkylimidates: Synthesis of 4-Iodo-3,4-Dihydropyrroles Derivatives,*** Kumar, Y.; Jaiswal, Y.; Kumar, A. *Org. Lett.* **2018**, *20*, 4964-4969.
- ***Imidates: an emerging synthon for N-heterocycles,*** Thakur, R.; Jaiswal Y.; Kumar, A. *Org. Biomol. Chem.* **2019**, *17*, 9829-9843.
- ***Pd(II)-Catalyzed One-Pot Multiple C–C Bond Formation: En Route Synthesis of Succinimide-Fused Unsymmetrical 9,10-Dihydrophenanthrenes from Aryl Iodides and Maleimides.*** Baghel, A. S.; Jaiswal, Y.; Kumar, A. *Org. Lett.* **2020,** *22*, 1908-1913.
- ***Primary amides: Sustainable weakly coordinating groups in transition metal-catalyzed C–H bond functionalization reactions.*** Thakur, R.; Jaiswal, Y.; Kumar, A.; *Tetrahedron*, **2021**, 93,132313.

PRESENTATIONS

Oral presentations

- ***RSD-2020, IIT Patna***
  Jaiswal, Y.; Kumar.; Research Scholar Day-IIT Patna, India, 7th March, **2020**.

Poster presentations

- ***20th CRSI-Symposium***
  Jaiswal, Y.; Kumar.; A. 20th CRSI-Symposium, *Guwahati University, Guwahati, Aasam, India, 2-5th February,* **2017**.

- ***15th EURASIA-Symposium***
  Jaiswal, Y.; Kumar.; A. *Sapienza University of Rome, Rome, Italy, 5-8th September* **2018**.

AWARDS AND FELLOWSHIPS

- Qualified Graduate Aptitude Test in Engineering -**2015**
- Awarded Lectureship, University Grant Commission, New Delhi, India - **2018**

TECHNICAL WORK EXPERIENCE

- ***Sophisticated Analytical Instrument Facility, IIT Patna, Patna, India*** ***2017-2020***
  Handling of HRMS Spectrometer.
- ***Department of Chemistry, IIT Patna, Patna, India*** ***2017-2020***
  Handling of NMR Spectrometer (400 MHz Varian).
- ***Sophisticated Analytical Instrument Facility, IIT Patna, Patna, India*** ***2017-2020***
  Handling and data solving of Single Crystal XRD Spectrometer.

PROFESSIONAL EXPERIENCE

- ***Company:*** *Syngenta Biosciences, Goa, India-403110*
- ***Designation:*** *Junior Research Scientist in Discovery department*
- ***Job duration:*** *March 2021 to July 2022*

REFERENCES

- ***Dr. Amit Kumar***
  Department of Chemistry, Indian Institute of Technology Patna, Bihta, Patna, India-801103.
  Ph. 0612-3028124; Email: amitkt@iitp.ac.in
- ***Dr. Neeladri Das***
  Department of Chemistry, Indian Institute of Technology Patna, Bihta, Patna, India-801103.
  Ph. 0612- 3028023; E-mail: neeladri@iitp.ac.in
- ***Dr. Sahid Hussain***
  Department of Chemistry, Indian Institute of Technology Patna, Bihta, Patna, India-801103.
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