

Curriculum Vitae of Mr. Amrit Gond

Mr. Amrit Gond

Assistant Professor
Department of Chemistry
B.S.N.V. P.G. College (KKV),
University of Lucknow,
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Academic Profile

B.Sc. (Hons.)-Chemistry: Banaras Hindu University, India (2012-2015).

M.Sc. (Chemistry): IIT Madras, Chennai (2015-2017); **Qualified Examination:** IIT JAM-2015 for M.Sc. Course.

Ph.D.(Org. Chemistry-Ongoing, Since March 2019): Banaras Hindu University, India.

Qualified Examination: CSIR-UGC NET Examination of December, 2016; Secured UGC-JRF, UGC-SRF and UGC-NET

Title: *Synthesis of Novel Metal Complexes and their application in C-H Bond Functionalization.*

Mentor: Dr. Virendra Prasad, **Professor of Organic Chemistry**, BHU, India.

Professional Experience

Assistant Professor (10, June, 2022-Continue)

Department of Chemistry
B.S.N.V. P.G. College (KKV),
University of Lucknow,
Station Road, Charbagh,
Lucknow, Uttar Pradesh-226001

Mr. Amrit Gond. M.Sc (IIT Madras), Ph.D. (BHU-Ongoing)

Senior Research Fellow (October, 2020 – June, 2022)

Institute of Science, Department of Chemistry, Banaras Hindu University Varanasi, India

Title: Synthesis of novel Metal Complexes and their application in C–H Bond Functionalization.

Advisor: Dr. Virendra Prasad, Professor in Organic Chemistry, BHU

Junior Research Fellow (March, 2019 – September, 2020)

Institute of Science, Department of Chemistry, Banaras Hindu University Varanasi, India

Title: Synthesis of novel Metal Complexes and their application in C–H Bond Functionalization.

Advisor: Dr. Virendra Prasad, Professor in Organic Chemistry, BHU, India

Junior Research Fellow (January, 2018 – February, 2019)

CSIR- Central Drug Research Institute (CDRI), Lucknow, India

Title: Synthesis of carbocycles/Aza-heterocycles under Visible Light photoredox catalyzed Conditions.

Dr. Namrata Rastogi, Senior Principal Scientist, CSIR-CDRI, Lucknow, India

M.Sc. Project (July 2016 - May 2017)

Indian Institute of Technology Madras, Chennai, India

Title: Transition metal complexes of N-Heterocyclic carbene ligands with pendent triazole Group

Advisor: Dr. Arnab Rit, Associate Professor, IIT Madras, Chennai, India

Winter Internship (November 2015 - January 2016)

Institute of Science, Department of Chemistry, Banaras Hindu University Varanasi, India

Title: To define the characteristics properties of Organic and Inorganic molecules via Gaussian Programming Software. (Through, DFT: Density Functional Theory and TD-DFT: Time Dependent-Density Functional Theory Method)

Advisor: Dr. Satyen Saha, Professor in Physical Chemistry, BHU, India

Summer Internship (May 2016 - July 2016)

Institute of Science, Department of Chemistry, Banaras Hindu University Varanasi, India

Title: *Synthesis of novel co-ordination compounds for the biologically applications for the anticancer activity.*

Advisor: Dr. Manoj. K. Bharty, Associate Professor, BHU, India.

List of Publications

1. A. Gond et al. Synthesis of Novel NHC-Based Transition Metal Complexes of Pd(II), Au(I), Cu(I) and Ir(III) with Pendant 1,2,3- Triazole Group. *Inorganica Chimica Acta* **2023**, 556, 121617.
2. Rajesh Ram, Amrit Gond, Mamta Verma. Reversal of Hair Loss: A Novel Discovery of Poly Herbal Oil Formulation. *Anusandhan Sodh Patrika* (DOI: 10.22445/avsp.v10i1.19).
3. A. K. Bharimalla, S. Mukherjee, A. Gond, A. Yadav, S. Saxena, Virendra Prasad*. Application of Nanocellulose in Food: A Review. [manuscript under submission]
4. Ashvani Yadav, Amrit Gond, Virendra Prasad*. NIS-mediated Regioselective Sulfenylation of Indole: A Facile Protocol to Construct 3-Arylthioindoles. *Tetrahedron*, **Manuscript Number:** TET-D-23-00470.
5. Ashvani Yadav, Amrit Gond, Virendra Prasad*. Synthesis of Symmetrical Disulfides via NIS-PPh₃-Mediated Reductive Self coupling of Sulfonyl Hydrazide. *Synthesis*, **Manuscript Number:** SS-2023-060270-OP.

Book Chapters:

1. Amrit et al. New Developments in Electrocatalysts for Oxygen Reduction Reaction: A Case of Pt-Ni Octahedron. (Published in, 2023).
2. Rajesh Ram, Amrit Gond; Subhash Chandra, Mamta Verma. Climate Change Scenario and Human Health Implications. (Published in, 2023).
3. Vikas Yadav, Amrit Gond, Virendra Prasad. New Trends in Asymmetric

Mr. Amrit Gond. M.Sc (IIT Madras), Ph.D. (BHU-Ongoing)

Catalysis: Chiral Hypervalent Iodine Compounds as Green and Sustainable Catalysts. (Willey Publications, submitted, 2023).

Awards

1. **1st Prize in Oral Presentation (Best Oral Presentation Award)** awarded from **KTHM College, University of Pune**, Govt. of India, (on 27 Oct 2021).
2. **Doctoral Research Fellowship** awarded from **College of Science, Department of Chemistry, Korea University, Seoul, South Korea**. (on November 2018).
3. **UGC- Senior Research Fellowship (SRF)** awarded from **University Grants Commission**, Govt. of India. (October, 2020 to June, 2022).
4. **UGC- Junior Research Fellowship (JRF)** awarded from **University Grants Commission**, Govt. of India, (January, 2018 to October, 2020).
5. **UGC- National Eligibility Test** certificate awarded from **University Grants Commission**, Govt. of India (on 23rd March 2017) for the **Assistant Professor Position** in India.

Qualified Examination and Achievements

1. **Qualified All India Engineering Entrance Examination (AIEEE) in 2012.**
2. **Qualified Institute of Engineering and Rural Technology (IERT), Allahabad.** (Secured **All India Rank- 25th**)
3. **BHU Undergraduate Entrance Examination 2012.** (Secured **All India Rank-121**)
4. **IIT JAM-2015.** (Joint Admission Test for MSc Course)
5. **Qualified BHU Postgraduate Entrance Examination 2015.** (Secured **All India Rank- 2nd**)
6. **Qualified CSIR-UGC National Eligibility Test of December 2016.** (Secured **All India Rank-158**)
7. **Qualified BHU Research Entrance Test of March 2019.** (Secured **All India Rank- 1st**)

Mr. Amrit Gond, M.Sc (**IIT Madras**), Ph.D. (**BHU-Ongoing**)

8. UPHESC (Uttar Pradesh Higher Education Service Commission Examination, 2022 for Assistant Professor). (Secured **Rank- 1st**)

Administrative Services/Position

Member of Admission Committee
Member of IT Cell
Member of Website Committee
Member of Digishakti
Member of IPR Cell
Member of Skill and Developments Cell
Member of Research and Developments Cell
Assistant Nodal Officer (G-20 Painting Competition)
Life time membership of Anusandhan Sodh Patrika

Expertise in the Research Field

N-Heterocyclic Carbene Chemistry, Organometallic Chemistry, Diazo Chemistry, Photoredox Catalysis Chemistry, Medicinal Chemistry, Asymmetric Synthesis, C–H Bond Activation & C–H Bond Functionalization, Synthetic Organic Chemistry, Coordination Chemistry, Inorganic Chemistry, Gaussian Programming Software (DFT and TD-DFT), MATLAB Software, Molecular Simulation

Experimental and Analytical Skills

1. Interpretation of **¹D** (¹H-NMR, ¹³C-NMR) and **²D**-NMR
2. IR and Raman Spectroscopy
3. UV – Visible Spectroscopy
4. Mass Spectrometry

Mr. Amrit Gond. M.Sc (**IIT Madras**), Ph.D. (**BHU-Ongoing**)

5. MS Office (MS word, Powerpoint, MS Excel, etc.)
6. Column Chromatography and Preparative TLC for the isolation of mixtures and recrystallization, Paper and Ion-exchange chromatography.
7. Experience of Computer Software's /Interfaces such as Chem. Bio Office, Mercury 3.7, 3.8 version & Diamond 4.0, Origin 8.5 version, EC lab Software, Topspin, MestReNova Software
8. Gaussian Programming Software
9. MATLAB Software
10. Expertise of DFT, TD-DFT, Semi-empirical Method, NBO, NPA, Optimization, Frequency Prediction, Thermodynamic Variable Calculation (ΔQ , ΔU , ΔH , ΔS , ΔG) from Gaussian Programming Software
11. Cyclic Voltammetry (CV) Analysis
12. Flash Column Chromatography
13. Molecular Simulation

Conferences/ Seminar/Workshops

1. One-day lecture workshop on **Writing of a Good Research Paper: Technical & Ethical Aspects** organized by Varanasi Local Chapter of NASI.
2. Three days **27TH International Conference of International Academy of Physical Science (CONIAPS XXVII)** of *Sustainable Chemistry for Future Technologies* organized by Department of Chemistry, Institute of Chemical Technology, Mumbai, India.
3. Three days **27TH International Conference of International Academy of Physical Science (CONIAPS XXVII)** of *Recent Advances in Chemical Sciences* organized by Department of Chemistry, Institute of Science, BHU, Varanasi, India.
4. Three days **International Conference** of *Recent Trends in Drug Discovery and Development* organized by Department of Chemistry, Maitreyi College, University of Delhi, India.

5. Three days **International Conference** of *Recent Trends in Green and Sustainable Development in Chemical Sciences* organized by Department of Chemistry, KTHM College, University of Pune, India.
6. One-day lecture workshop through online on **Research Methodology and Effective Paper Writing** organized by Department of Chemistry, IIT Madras, India.
7. Three days **National Symposium on Contemporary Trends and Future Prospects of Functional Materials (CTFM-2019)** organized by Department of Chemistry, Institute of Science, BHU, Varanasi, India.
8. Two days **Chemistry in House Symposium Conference (CIHS-2015 & 2016)** organized by Department of Chemistry, IIT Madras, India.
9. Two days **Medicinal Chemistry Conference (MEDCHEM-2016)** organized by Department of Chemistry, IIT Madras, India.
10. Three days **Indo-USA Conferences**, organized by Institute of Science, Department of Chemistry, BHU, India and **Rice University, USA**.

Poster Presentation/Invited/Delivered Lectures in Conference or Seminar

1. Delivered a poster presentation on *Palladium catalyzed selective ortho C-H bond activation of N-benzylbenzamide for arylation using directing scaffolds*, in the **27TH International Conference of International Academy of Physical Sciences (CONIAPS XXVII)** of *Recent Advances in Chemical Sciences*, jointly organized by Department of Chemistry, BHU and JNU, India, **Date:** 28/10/2021.
2. Delivered an oral/paper presentation on *Arylation of N-benzylbenzamide through intramolecular directing group assisted selective ortho C-H bond activation strategy under the catalysis of palladium*, in the **International Conference** of *Recent Trends in Green and*

Sustainable Development in Chemical Sciences, organized by Department of Chemistry, KTHM College, University of Pune, Pune, India, **Date:** 25/10/2021.

3. Delivered an oral/paper presentation on *Directing group guided selective ortho C-H bond activation of N-benzylbenzamide for arylation under the catalysis of palladium*, in the **International Conference** of *Recent Trends in Drug Discovery and Development*, organized by Department of Chemistry, Maitreyi College, University of Delhi, New Delhi, India, **Date:** 08/10/2021.
4. Delivered an oral/paper presentation on *Intramolecular directing group assisted ortho C-H bond activation of N-benzylbenzamide for arylation under the catalysis of palladium*, in the **27TH International Conference of International Academy of Physical Science (CONIAPS XXVII)** of *Sustainable Chemistry for Future Technologies*, organized by Department of Chemistry, Institute of Chemical Technology, Mumbai, India, **Date:** 28/10/2021.
5. *Transition metal complexes of N-heterocyclic carbene ligands with pendent triazole group and its catalytic application*, delivered talk in seminar in Department of Chemistry, IIT Madras, Chennai, India, **Date:** 08/04/2017.
6. *Quantum dots: It's properties and applications*, delivered talk in seminar in Medicinal and Process Chemistry Unit, CSIR-Central Drug Research Institute, Lucknow, India, **Date:** 15/12/2018.
7. *Asymmetric visible light photoredox catalysis*, delivered talk in Medicinal and Process Chemistry Unit, CSIR-Central Drug Research Institute, Lucknow, India, **Date:** 07/06/2018.
8. *Synthesis of biologically important organic compounds through C-H bond functionalization*, delivered talk in seminar in Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi, India, **Date:** 16/03/2021.

Project Details

1. *Amination of N-Heterocyclic and Non-Heterocyclic Compounds via C–H Functionalization under Metal/Metal Free Catalysis*, written with supervisor and submitted by the supervisor in **DST-Science and Engineering Research Board**, Govt. of India.
2. *Design and Development of Novel C–H Amination/Arylation Strategies as Environmentally Sustainable Alternative to Transition Metal Catalysts*, written with supervisor and submitted by the supervisor in **CSIR-HRDG New Delhi**, Govt. of India.
3. *Design and Development of novel synthetic route to access biologically important heterocyclic scaffolds via C–H bond functionalization strategies*, written with supervisor and submitted by the supervisor in BHU under **Institute of Eminence** (special funds) in **Banaras Hindu University**, Varanasi, UP, India, Govt. of India.
4. *Antihypertensive activity of N-Heterocyclic Compounds developed from the C-H Bond Activation Strategies and Extraction from The Medicinal Plants (Arjuna, Cinnamon) for The Cardiovascular Diseases Control* written and submitted by me under **Council of Science & Technology, Uttar Pradesh** (CST-UP) India, Govt. of Uttar Pradesh.

References

Dr. Arnab Rit, Ph.D.

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Department of Chemistry,
Indian Institute of Technology, Madras,
Chennai, Tamilnadu, India-600036.

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Dr. Vinod Kumar Tiwari, Ph.D.

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Mr. Amrit Gond, M.Sc (IIT Madras), Ph.D. (BHU-Ongoing)

Dr. Mrigendra Dubey, Ph.D.

Associate Professor

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I hereby declare that the information given above is true to the best of my knowledge and belief.

Yours Sincerely

A handwritten signature in blue ink, appearing to read "Biswajit Ray", enclosed within a circular scribble.