

CURRICULUM VITAE

Dr. Abhimanyu Yadav

(Assistant Professor)

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Objective:

A research and development position in an organization that calls for knowledge, skills and experience in synthetic organic chemistry, catalysis and bioinorganic chemistry.

Academic Qualifications:

August 2014-Sep 2015	Senior Research Scholar (Supervisor: Prof. Sangit Kumar) at Department of Chemistry, Indian Institute of Science Education and Research (IISER), Bhopal, India
August 2012-July 2014	Junior Research Scholar (Supervisor: Prof. Sangit Kumar) at Department of Chemistry, Indian Institute of Science Education and Research (IISER), Bhopal, India
July 2009-June 2011	Master of Science (M.Sc.) in Chemistry (58.9%) V.B.S. Purvanchal University Jaunpur, Uttar Pradesh, India
Aug 2007-June 2008	Bachelor of Education (B.Ed) in Education (72.0%) C.C.S. University Meerut Uttar Pradesh, India
July 2005-June 2007	Bachelor of Science (B.Sc.) in Chemistry, Botany, Zoology (61.7%) V.B.S. Purvanchal University Jaunpur, Uttar Pradesh, India

Awards and Fellowships:

- ❖ Qualified the joint **CSIR-UGC** National Eligibility Test (NET) for the award of **Junior Research Fellowship (JRF)** and Lectureship Eligibility in Dec 2011.
- ❖ Qualified **Graduate Aptitude Test in Engineering (GATE-2012)** with **96.00** percentile score (AIR 314) conducted by IIT Delhi

Research Interests:

- ❖ Developing new transition metal free methods for C-C and C-N coupling
- ❖ Synthetic Organic and Organometallic Chemistry, Bioinorganic Chemistry of Chalcogens

- ❖ Developing new synthetic methodologies for organic molecules

Academic Experience (Teaching and Research):

- ❖ 08 Oct 2024- Continue - **Assistant Professor(AL-12)** at **Kashi Naresh Government P.G. College Gyanpur, Bhadohi-221304**
- ❖ 08 Oct 2019- 07Oct 2024 - **Assistant Professor(AL-11)** at **Kashi Naresh Government P.G. College Gyanpur, Bhadohi-221304**
- ❖ 07 Oct 2015- 7 Oct 2019 - **Assistant Professor(AL-10)** at **Kashi Naresh Government P.G. College Gyanpur Bhadohi-221304**

Other Teaching Experience:

- ❖ **July 2022 – Present** Teaching Chemistry for NEET and IIT JEE at Mukhyamantri Abhyudaya Yojana
- ❖ July 2014-Dec 2014 Teaching Assistant for undergraduate general chemistry laboratory course (CHM 201)
(Main Instructor: Dr. Manmohan Kapur)
- ❖ Jan 2014 – June 2014 Tutor for undergraduate general chemistry theory course (CHM 101)
(Main Instructor: Dr. Saptarshi Mukherjee)

Research Experience:

❖ Synthetic Experience:

- Characterization of compounds by mass spectrometry, ^1H , ^{13}C , ^{77}Se NMR, IR spectroscopic techniques and X-ray crystallographic studies
- Experienced in handling reactions from small scale to gram scale
- Experienced in handling air and moisture sensitive reactions, low temperature reactions and use of water as a medium for organic transformation e.g. hydroxylation
- Familiar with the chromatographic and crystallization techniques used for the separation and purification of products

❖ Instrumental Experience:

- ❖ **Techniques Known:** Multinuclear (^1H , ^{13}C) NMR spectroscopy, FT-IR, UV- Vis spectrophotometers, Mass Spectrometers and X-ray diffractometers
- ❖ **Computer Skills:**

Operating Systems	Windows
Word Processor	Microsoft Word
Applications	MestReNova (For NMR Interpretation), Origin, Adobe Photoshop, MS Power Point, MS Excel

❖ Others:

- ❖ Proper literature survey from chemical abstracts, patents, research papers and databases e.g. Scifinder, Scopus etc.

- ❖ Familiar with writing scientific manuscripts

Research Publications:

- ❖ “AMVN-Initiated Expedient Synthesis of Biaryls by the Coupling Reaction of Unactivated Arenes and Heteroarenes with Aryl Iodides” *New journal of chemistry*, **2014**, 38, 827
- ❖ “KO^tBu-Mediated Synthesis of Dimethylisindolin-1-ones and Dimethyl-5-phenylisindolin-1-ones: Selective C-C Coupling of Unreactive tert-sp³C-H Bond” *The Journal of Organic Chemistry*, **2014**, 79, 2944. **This work highlighted in SYNFACTS**
- ❖ Chemoselective Arylation of Phenols with Bromo-nitroarenes: Synthesis of Nitro-biaryl-ols and Their Conversion into Benzofurans and Carbazoles., *Chemical Communications.*, **2014**, 50,9481
- ❖ Transition Metal Free Intramolecular Selective Oxidative C(sp³)-N Coupling: Synthesis of N-Aryl-isindolinones from 2-Alkylbenzamides, *Chemical Communications.*, **2015**, 51,1371
- ❖ KO^tBu-Mediated Aerobic Transition-Metal-Free Regioselective β -Arylation of Indoles: Synthesis of β -(2-/4-Nitroaryl)-indoles, *Organic Letters.*, **2015**, 17, 82
- ❖ KO^tBu-Mediated annulation of acetonitrile with aldehyde: synthesis of substituted dihydropyridinon-2(1H)-ones, pyridine-2(1H)-ones, and thiopyridin-2(1H)-ones, *Chemical Communications.*, **2015**, 51,11658
- ❖ Organoselenium and DMAP Co-catalyzed regioselective synthesis of medium-sized halolactones and bromo oxepanes from unactivated alkenes, *Chemical Communications.*, **2016**, 52,4179
- ❖ Synthesis and structural characterization of monomeric mercury (II) selenolate complexes derived from 2-phenylbenzamide ligands, *Dalton Transactions.*, **2016**, 45, 4030,
- ❖ Vibrational and Antifungal Studies of Some Mixed Ligand Complexes of Ti(IV)ion, *Asian Resonance*, **2018**, 7(1), 1-3.
- ❖ KO^tBu-Mediated Highly Efficient Synthesis of Substituted Pyrimidines *Asian Resonance*, **2019**, 8(2), 287-292.
- ❖ Resonant absorption of surface plasma wave over different metal and dielectric surface embedded with vertically aligned arrays of cylindrical shaped nanoparticles, Eur. Phys. J. Plus (2025) 140 : 1249, <https://doi.org/10.1140/epjp/s13360-025-07209-9>
- ❖ Influence of external magnetic field on the excitation of lower hybrid wave by beating of two different profile laser beams in spherical nanoparticles J. Korean Phys. Soc. 89, 62–77 (2026). <https://doi.org/10.1007/s40042-026-01620-w>

Other than Research Publications (Book and Book Chapters)

- ❖ Environmental Aspects of Alternative Energy Sources , Bharti Publications New Delhi 2020 ISBN No. **978-93-89657-43-2 (Edited Book)**
- ❖ Renewable Energy Sources: An Assessment in Environmental Scenario, Bharti Publications New Delhi 2020 ISBN No. 978-81-949793-0-2(**Edited Book**)
- ❖ Study of Anion Exchange Membrane Fuel Cell as Renewable Energy Resources, Bharti Publications New Delhi **2023** 978-81-19079-67-4 9 (**Chapter in Edited Book**)
- ❖ Recycling of Polymer composites and its Environmental Aspects, BlueRose ONE publication New delhi and London **2025** ISBN No.978-93-6452-632-6 (**Chapter in Edited Book**)
- ❖ 21st Century skills and Education, BlueRose ONE publication New delhi and London **2025** ISBN No. 978-93-7018-992-8 (**Chapter in Edited Book**)

Conferences and Seminars:

- ❖ **Synthesis of Mercury Selenolates (“InTeRaCTiONS”**,)an “In House Symposium” of Department of Chemistry, IISER Bhopal, India during August 30, 2014
- ❖ **KOtBu-mediated synthesis of Dihydropyridinones** {National Organic Symposium Trust (**J-NOST**)} Conference at IISER Bhopal, India during December 4-6, 2013
- ❖ Indo-German Conference on “**Complex Chemical Systems**” at IISER Bhopal, India in December 2012
- ❖ “**Transition Metal-Free Synthesis of Biaryls via C-H Activation**” at Indian Institute of Science Education and Research (IISER) Bhopal, India in March, 2013 (Oral)
- ❖ **KOtBu-Mediated Synthesis of Substituted Dihydropyridinones, Pyridinones, and Synthesis and Structural Characterization of Metal Selenolates (Open Seminar)**IISER Bhopal, 19/11/2015
- ❖ **Renewable Energy** (Vistas of Scientific Approach for Welfare of Society),at K.N.Govt.P.G College Gyanpur Bhadohi, India in Mar-30 to 31, 2016 National
- ❖ **Trends of C-H Bond Functionalization and its Application** (Emerging Trends in Chemistry-Fundamentals and Applications) at Deptt. Of Chemistry, Patna University, Patna In April, 21 to 22, 2016 National
- ❖ **Solar Energy: The Ultimate Renewable Resources** (**Energy**, Environment and its Impact on Society) at Faculty of Science K. N. Govt. P. G College Gyanpur Bhadohi, in Jan 19 to 20, 2017, National
- ❖ **Smart Learning Classes: A modern Approach** (Current Initiatives in Higher Education) at Govt. PG College Fatehabad, Agra in Jan-22, 2017, National
- ❖ **Environmental Pollution and Its Impact on Climate** (Climate Change and Its Vast Impact on Human Life and Society) at Dr.S.P.M. Govt. Degree college Bhadohi, in Feb-17-18, 2017, National

- ❖ **Transition Metal Free-Synthesis of Substituted Dihydropyridinon-2(1H)-ones** (Ecological Imbalance: A Threat to Flora, Fauna, Economy and Human Survival) at Deptt. Of Zoology DDU Govt. College Saidabad, Allahabad, in Sep, 22 to 23, 2017, National
- ❖ **Water preservation techniques** (Water Scarcity: Problems and Solution: Special Context of Bundelkhand), Government P.G. College, Hamirpur, U.P, in Feb, 25-26, 2018, National
- ❖ **Research trends and problems in Colleges** (Quality Improvement in Higher Education: Challenges and Remedies) at Govt. Degree College Pihani, Hardoi, U.P., in Jan., 27, 2018, National
- ❖ **Intermolecular Direct C-H bond Arylation from Aryl bromide: A K_{OT}Bu Mediated Arylation of Phenols** (Emerging Trends in Chemical Sciences) at Department of Chemistry, D.D.U. Gorakhpur, U.P. Feb.,24-25, 2018, International
- ❖ **Solar Energy and Sustainable Development** (Challenges to Ecosystem & Environment Towards Sustainable Development) at Government P.G. College Bilaspur, Rampur & Parayavaran Mitra Samiti, 22-Sep, 2019
- ❖ **Use of Green Solvent in Synthesis** (Green Technology: A Roadmap for Sustainable Development) Hemwanti Nandan Bahuguna Government P.G. College Naini, Prayagraj, U.P., Feb-23,24-2020
- ❖ **Water Splitting and Renewable Energy** (Innovative Approaches Towards Sustainable Development) Department of Physics, Kashi Naresh Govt. P. G. College Gyanpur, Bhadohi, U.P., Jan-9, 10-2020
- ❖ **Role of Green Solvents in Environmental Conservation (Biological Diversity & Environmental Sustainability)** Department of Botany, Kashi Naresh Govt. P. G. College Gyanpur, Bhadohi, U.P., March-25, 26, 2022
- ❖ **Role of Dr. Ambedkar in Developing Scientific Attitude** (Rastra ke Nirman mein Dr. Ambedkar ka Vaicharik Avadan) Girls Government College Shahganj, Jaunpur, March-19,20- 2021
- ❖ **Education For 21st Century Challenges** (Shifting Paradigm in Education: Challenges and Apportunities) Government Degree College Manikpur, Chitrakoot, U.P., March-02,03-2021
- ❖ **Fluoride Contamination in Water: Causes and Affects** (Environmental Challenges : Impact and Assessment) K. P. M. Government Degree College Aurai, Bhadohi, U.P.
- ❖ **National Education Policy 2020: Reviving Professional Education (National Education Policy 2020: Issues and Challenges)** Department of B.Ed, Kashi Naresh Govt. P. G. College Gyanpur, Bhadohi, U.P., Feb-25, 26, 2021
- ❖ **Biological Diversity & Environmental Sustainability**,Department of Botany, Kashi Naresh Govt. P. G. College

❖ Gyanpur, Bhadohi, U.P

❖ **Women empowerment and The Policy of Positive discrimination in India(Gender Equality & Human Rights)** Department of Medieval And Modern History, Kashi Naresh Govt. P. G. College Gyanpur, Bhadohi, U.P., Feb-19, 20, 2021

Abstract: Looking at wide applicability and synthesis of biaryls, heterobiaryls molecules by transition metal free condition, with different functionalities, which can be further transform in to different natural products and pharmaceutically important compounds.

Personal Details

Gender: Male

DOB: 7th Dec, 1986

Nationality: Indian

Languages Known: English, Hindi and

Hobbies: Cricket, Badminton, Swimming

Marital Status: Married

Blood Group: B⁺

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References

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