

Dr. Amar Kumar

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Ram Krishna Dwarika Mahavidyalaya, Patna-800020

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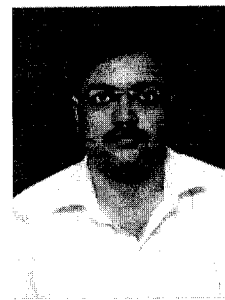
Mobile no.: +91-9891111589

Date of Birth: 10th July 1980

Sex: Male

Nationality: Indian

Area of specialization: Supramolecular Chemistry/
Organic Chemistry/Nanochemistry



Education Qualification::

- Ph. D. (Organic Chemistry) Banaras Hindu University (BHU), Varansi, India
Work Place: Central Drug Research Institute (www.cdriindia.org)
Year: 2012
Title: “*Design and synthesis of diaryl (Nitrogenous heterocycles) alkanes for their structural and biological studies*”
- M. Sc. (Organic Chemistry) University of Delhi, New Delhi, India
Year: 2004
Division obtained: First
- B. Sc. (Chemistry) University of Delhi, New Delhi, India
Year: 2002
Division obtained: First

Teaching Experience

- Senior Assistant Professor Professor at Department of Chemistry, Ram Krishna Dwarika Mahavidyalaya, Patna, Patliputra University, Patna (15th November 2021- till date).
- Assistant Professor at Department of Chemistry, Ram Krishna Dwarika Mahavidyalaya, Patna, Patliputra University, Patna (02nd Sept, 2020- 15th November 2021).
- Assistant Professor at Department of Chemistry, A.N.S. college Barh, Patna, Patliputra University, Patna (16th November 2017 – 02nd Sept. 2020).
- Assistant Professor (ad-hoc) at Department of Chemistry, Daulat Ram College, University of Delhi, India (04th Jan 2016 – 15th Nov. 2017).
- Assistant Professor (ad hoc) at Department of Chemistry, Hans Raj College, University of Delhi, India.(July 2013 –August 2014).
- Assistant Professor (ad hoc) at Department of Chemistry, Daulat Ram College, University of Delhi, India (23rd July 2012 – 23rd July 2013).

Counselor Experience

1. Academic counselor FOR IGNOU as per following details

Academic Counselor Code	AXVPK6605P/001
Regional Center	PATNA
Study Center Code	0568
Study Center Name	T.P.S. COLLEGE
Programme	BSCG
Approval for Course(s)	BCHEL150,BCHEL146,BCHEL142,BCHCL136

2. Academic counselor FOR IGNOU as per following details

Academic Counselor Code	AXVPK6605P/002
Regional Center	PATNA
Study Center Code	05240524
Study Center Name	COLLEGE OF COMMERCE, ARTS & SCIENCE
Programme	MSCCHEM
Approval for Course(s)	MCHL-015,MCHL-012,MCH-019,MCH-017,MCH-015,MCH-012

Research Publications:

1. Darshan Singh, Anuradha, Divya Mathur, Surendra Kumar, Balaram Pani, **Amar Kumar**, Rajni Kanojia, Ravi Gupta and Laxman Singh. "Bio-genic synthesis of calcium coated zinc oxide nanoparticles from beetroot extract and their photo-degradation study on methylene blue and rhodamine B." *Plant Nano Biology*, 4, 2023, 100031. <https://doi.org/10.1016/j.plana.2023.100031>
2. Darshan Singh, Deepti Rawat, **Amar Kumar**, Preeti Rawat, Rahul Singhal, and Laxman Singh. "Agro-Waste Mediated Biosynthesis of Zinc Oxide Nanoparticles and Their Antibacterial Properties: Waste to Treat." *Current Nanomaterials* Volume 8, Issue 3, 2023. 291-299. [doi:10.2174/2405461508666221118155210](https://doi.org/10.2174/2405461508666221118155210)
3. Darshan Singh, Anuradha Anuradha, Surendra Kumar, **Amar Kumar**, Neelu Dheer, M. Ramananda Singh, Rajni Kanojia, Sangeeta Kaul, Ishwar Prasad Sahu. "Photodegradation of Methylene blue and Rhodamine B using potato starch mediated zinc oxide nanoparticles and its calcium nanocomposites: Greener approach." *Appl. Chem. Eng.* 6(1), 2023 , 94-103. [doi: 10.24294/ace.v6i1.1998](https://doi.org/10.24294/ace.v6i1.1998)
4. **Amar Kumar**, Meenakshi, Nisha Saxena, Kumari Seema, Anshuman Srivastava, Jitendra Rajak, Darshan Singh, Vir Satya Singh, and Laxman Singh. "Physico-Chemical Characterization of Green Synthesized Nanomaterials by UV-Visible Spectroscopy." *Current Nanomaterials* 8, no. 2 (2023):102–9. <https://doi.org/10.2174/2405461507666220721115604> .
Bentham Science showcase article:
<https://www.growkudos.com/publications/10.2174%25252F2405461507666220721115604/reader>
5. Nisha Saxena, Noopur Srivastav, **Amar Kumar**, and Anupama Anjali. "Adoption of Green Methodology in Industry for the Synthesis of Sildenafil Citrate & Celecoxib: A Case Study." *Materials Today: Proceedings*, 4th Online International Conference on Science & Engineering of Material, 60 (January 1, 2022): 1021–25. <https://doi.org/10.1016/j.matpr.2021.12.484>.
6. Darshan Singh, Anuradha, **Amar Kumar**, Surendra Kumar, Balaram Pani, Rajni Kanojia, and Jyotsna Ratan. "Photocatalytic Properties of Biologically Synthesized Uncoated and Calcium Coated ZnO Nanoparticles Using Cucumber Juice." *Rasayan Journal of Chemistry*, no. special issue (2022). https://www.rasayanjournal.co.in/admin/php/upload/3870_pdf.pdf
7. Meenakshi, Amar Kumar Therapeutic potential of GLP-1 for treatment of diabetes, *International Journal of Applied Research* 2015; 1(5): 05-11. <https://www.allresearchjournal.com/archives/2015/vol1issue5/PartA/75.1.pdf>
8. Kamlakar Avasthi, Amar Kumar, Sangeeta Aswal, Ruchir Kant, Resmi Raghunandan, Prakas R. Maulik, Ranjana S. Khannac and Krishnan Ravikumar. Role of arene interactions and substituent effects in conformational (syn/anti) control of 1,2-diarylethanes, *CrystEngComm* 2012, 14, 383-388. <https://doi.org/10.1039/C1CE06001E>
Hot Article: https://blogs.rsc.org/ce/2011/12/09/hot-article-arene-interactions-for-conformational-control/?doing_wp_cron=1715103805.8416581153869628906250

Full text available:

<https://www.researchgate.net/publication/221962349> Role of arene interactions and substituent effects in conformational synanti control of 12-diarylethanes

9. Kamalakar Avasthi, Amar Kumar. An overview of arene–arene interactions and application of uni- molecular models for their understanding, Chemistry & Biology Interface 2012, 2, 5, 258-295.

<https://www.researchgate.net/publication/330984851> An overview of arene-arene interactions and application of uni-molecular models for their understanding

Cover page article: <https://cbijournal.com/september-octoberr-2012.php>

Books/ Book Chapters

1. Shivam Maurya, Maneesh Kumar Gupta, Amar Kumar; An update on the diagnostic drugs of Tuberculosis In book: Multifaceted Applications of Chemical Sciences, (pp. 138-157), ISBN: 978-93-94638-88-4; Thanuj International Publishers.
2. Darshan Singh, Anuradha Bhardwaj, Divya Mathur, Amar Kumar; Lipid Biomass to Biofuel, October 2023, DOI:[10.1007/978-3-031-40198-5_16](https://doi.org/10.1007/978-3-031-40198-5_16), In book: Wastewater Resource Recovery and Biological Methods (pp.343-372), ISBN: 978-3-031-40198-5, Springer
3. Amar Kumar, Meenakshi, Nisha Saxena, Kumari Seema, Maneesh Kumar Gupta, Biological importance of pyrrolo [2,3-d]pyrimidine, 2022, In book: Current Trends in Medicinal Chemistry, (pp. 99-112), <https://www.researchgate.net/publication/363916739> BOOK CONTENT FILE - FINAL - 2022_1, ISBN:978-81-955196-4-4 ; Thanuj International Publishers.
4. Manoj Kumar, Amit Kumar Rawat, Anand Sonkar, Amar Kumar, Anusha Azhar, Mallika Kumar, Mohammad Mujahid Ali Khan, Pellet Biochar: An Environmental Remedy, Green Chemistry in Environmental Sustainability and Chemical Education: Proceedings of ICGC 2016, New Delhi, 2018 (pp. 73-79), https://link.springer.com/chapter/10.1007/978-981-10-8390-7_7, Online ISBN978-981-10-8390, Springer Singapore

Resource Person

1. Invited Lecture in Departmental Symposium “Resonance -2023-Q3” on the topic “Emerging Digital Initiatives in Chemical Education” at Department of Chemistry, M.R.M. College, Darbhanga on 14.10.23.
2. Ph.D. Course work Lecture on the topic “Arene-arene or π - π interactions and its role in conformation control” delivered online on 27/04/22.

Orientation and Refresher Course/ Faculty Development Programme

ORIENTATION COURSE:

1. Online 4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" from June 04 - July 01, 2020 organised by Teaching Learning Centre, Ramanujan College, University of Delhi, under the aegis of Ministry of Human Resource Development Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained grade A+.
Link to the document:
<https://drive.google.com/file/d/1sJOUNvmLqherKZysBZac6ukaLjNavtNr/view?usp=sharing>
2. NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MMTTP) of University Grants Commission (UGC) Organized by UGC- Malaviya Mission Teacher Training Centre, Patna University, Patna from 19.04.2024 to 30.04.2024.
Link to the document: https://drive.google.com/file/d/152ky3zUZ3CyyXfzDG0YR8-1WIIUCrmgG/view?usp=drive_link

REFERESHER COURSE / FACULTY DEVELOPMENT PROGRAMME

1. Online one week faculty Development Program on “Developing Multimedia enriched Powerful Presentations” from 11-16 August 2020, organized by organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit

Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of MHRD.

Link to the document:

<https://drive.google.com/file/d/1TU-dNxbpEi-aluJAbPIYe7zgnCY0yn9t/view?usp=sharing>

2. Online One week Faculty Development Programme on “LibreOffice Suite Calc” from 17- 24 August 2020, organized by Anugrah Narayan Singh College, Barh with course material provided by Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.

Link to the document:

<https://drive.google.com/file/d/1z2O84BwHHV9Xmd9kfo2hMf0mCMSkR38R/view?usp=sharing>

3. Online One week Faculty Development Programme on “LibreOffice Suite Impress” from 17- 24 August 2020, organized by Anugrah Narayan Singh College, Barh with course material provided by Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.

Link to the document:

https://drive.google.com/file/d/18U_9pGvx8f0NJBFC2w1Ev6hP6yibd3J/view?usp=sharing

4. Online One week Faculty Development Programme on “LibreOffice Suite Writer” from 17- 24 August 2020, organized by Anugrah Narayan Singh College, Barh with course material provided by Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.

Link to the document:

https://drive.google.com/file/d/1xuiUBnBZ_U3IKH5cdAJWZSqOVL3okOrd/view?usp=sharing

5. Online One Week Faculty Development Program on “Open Source Tools For Research” from 03 - 09 April, 2021, organised by Teaching Learning Centre, Ramanujan College, University of Delhi, under the aegis of Ministry of Human Resource Development Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained grade A+.

Link to the document:

https://drive.google.com/file/d/1tyufyP2d_u35siaT8KW2YFc3mTF8Z5Xd/view?usp=sharing

6. Online Two Week Inter-Disciplinary Refresher Course / Faculty Development Program on “Advanced Research Methodology Tools and Techniques” from 15 - 30 April, 2021, organised by Teaching Learning Centre, Ramanujan College, University of Delhi, under the aegis of Ministry of Human Resource Development Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained grade A+.

Link to the document:

https://drive.google.com/file/d/1Mgt_2I4DXTZo3Vo9-vmMiPZHAIHW-8eL/view?usp=sharing

7. Online Two Week Faculty Development Program (equivalent to Refresher Course) on “Chemistry - The Catalyst for Change” from 14 July – 28 July, 2021, organised by Teaching Learning Centre, Ramanujan College, University of Delhi, under the aegis of Ministry of Human Resource Development Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained grade A+.

Link to the document:

https://drive.google.com/file/d/14p_ZTrtg5YQvPS7ISeU1Ded9UwrvkMVX/view?usp=sharing

Conference Presentations:

- Online Oral Presentation of the paper entitled “Plant mediated synthesis of Zinc Oxide nanoparticles and their use in environmental remediation” International Conference on Integrative Chemical Science for Health & Environment, ICHE-2023, held from 6th – 8th October 2023, New Delhi, India

- International Conference on Green Chemistry in Environmental Sustainability & Chemical Education organized by Department of Chemistry, Daulat Ram College, University of Delhi on 17-18th November 2016. (Poster Presentation)
- Indo-Portuguese workshop on Emerging Trends of Nanotechnology in Chemistry and Biology Department of Chemistry, Hansraj College & Deshbandhu college, University of Delhi on 12-13 February, 2016.(Poster Presentation)
- 12th ISCB conference, International conference on the Interface of Chemistry-Biology in Biomedical Research 2008, BITS, Pilani, India. (Poster Presentation)
- 13th ISCB conference, International conference on the Interplay of Chemical and Biological Sciences: Impact on Health and Environment, 2009, University of Delhi, Delhi, India. (Poster Presentation)
- 3rd CDRI-NIPER (RBL) Symposium on Medicinal Chemistry and Pharmaceutical Sciences CDRI, Lucknow. (Poster Presentation)

Research Projects:

Title of the Project	Name of the funding Agency and year	Role	Duration	Remarks
1. HR-210: Development of a zero discharge, eco friendly, affordable and carbon neutral biofuel using in-house horticulture waste.	University of Delhi 2013-14	Co-Investigator	One year	1. Best Innovative idea Award-2015 by University of Delhi 2. Teaching Excellence Award for Innovation-2015, University of Delhi
2. HR-306: Utilization of Delhi Garden Waste for Renewable and Sustainable Energy Production	University of Delhi	Co-Investigator	One year	Best poster Award at International Conference on Green Chemistry in Environmental Sustainability & Chemical Education organized by Department of Chemistry, Daulat Ram College, University of Delhi.
3. DR 302: Zinc oxide nanoparticles from agricultural waste and its Antimicrobial and Food Packaging Application: A Green Chemistry Approach	University of Delhi	Co-Investigator	One year	Certificate of appreciation awarded for being selected for the research display By University of Delhi

Awards and Achievements

- Letter of Appreciation from IIT Bombay for holding one week Faculty Development Program Organised by "Skill Development and Entrepreneurship Cell" & "Internal Quality Assurance Cell" Anugrah Narayan Singh College, Barh (A Constituent Unit of Patliputra

University Patna) on LibreOffice Suite.

Link to the document:

https://drive.google.com/file/d/1Uz4_STh2L56x0evelfJk2uKiEYm7NSbp/view?usp=sharing

- Teaching Excellence Award for Innovation-2015, University of Delhi
- Best Innovative idea Award-2015 by University of Delhi.
- **Best poster Award** for the poster titled “Utilization of Delhi’s Garden and Horticultural waste for Environmental Remediation and Energy Production” in the International Conference on Green Chemistry in Environmental Sustainability & Chemical Education organized by Department of Chemistry, Daulat Ram College, University of Delhi, India on 17th-18th November 2016.
- **Certificate of appreciation awarded** for being selected for the research display for the project DR-302 titled “: Zinc oxide nanoparticles from agricultural waste and its Antimicrobial and Food Packaging Application: A Green Chemistry Approach” by University of Delhi.
- **Research Work** “Role of arene interactions and substituents effects in conformational (syn/anti) control of 1,2-diarylethanes in solid state” adjudged as **HOT ARTICLE** by **Royal Soceity of Chemistry London**.
<http://blogs.rsc.org/ce/2011/12/09/hot-article-arene-interactions-for-conformational-control/>
- CSIR- JRF (**June-2006 & June-2005**) and CSIR-SRF held by Council of Scientific & Industrial Research (CSIR, New Delhi, India).
- Qualified Graduate Aptitude Test in Engineering (**GATE-2005**).

Examination related duties:

- External and Internal Examiner for Practical Examination conducted by Patliputra University for B.Sc. (H) Chemistry First Year, B.Sc. (H) Chemistry Second Year, B.Sc. (H) Chemistry Third Year, M.Sc. Chemistry First Year, M.Sc. Chemistry Second Year, B.Sc. (S) Chemistry First Year, B.Sc. (S) Chemistry Second Year, B.Sc. (Major) Chemistry First Semester, B.Sc. (Major) Chemistry Second Semester, B.Sc. (Minor) Chemistry First Semester, B.Sc. (Minor) Chemistry Second Semester
- Examiner for evaluating answer sheets B.Sc. (H) Chemistry First Year, B.Sc. (H) Chemistry Second Year, B.Sc. (H) Chemistry Third Year, B.Sc. (S) Chemistry First Year, B.Sc. (S) Chemistry Second Year, B.Sc. (Major) Chemistry First Semester, B.Sc. (Major) Chemistry Second Semester, B.Sc. (Minor) Chemistry First Semester, B.Sc. (Minor) Chemistry Second Semester,
- Invigilator Duties in Examination Conducted by Patliputra University, BPSC etc at R. K.D. College. Patna and A.N.S. College, Barh, Patna
- Observer in UG Part-II & III Exam 2024 Examination Conducted by Patliputra University at J.D. Women’s College
- Observer in UG-Degree- Sem-I (Regular) Exam 2023 Examination Conducted by Patliputra University at R.L.S.Y. College, Anisabad, Patna.
- Observer of CET-B.Ed -2024 on 25/06/2024 at College Of Commerce, Arts And Science, Patna
- Observer of CET-B.Ed -2023 on 08/04/2023 at B.M.P.- 5 Senior Secondary School, Camp Jail, Near ICAR, Patna

Administrative duties in the College/University

Patliputra University

1. Deputation work for First Convocation of Patliputra University from 13/12/22 to 15/12/22 vide PPU letter R/PPU/2807/22 dated 10/12/22

2. Member certification distribution committee in third convocation of Patliputra University vide PPU letter R/PPU/2513/22 dated 05/12/23
3. Deputation work for Fourth Convocation of Patliputra University from 12/12/24 to 17/12/24 vide PPU letter R/PPU/2004/22 dated 11/12/24

Ram Krishna Dwarika Mahavidyalaya, Patna

1. HOD, Department of chemistry
2. IQAC Coordinator
3. Library-in -charge
4. NAAC Coordinator
5. Member Development committee
6. Member in various other cells and committees

A.N.S. College Barh, Patna

1. NAAC Coordinator
2. Coordinator Research and Innovation Cell
3. Coordinator Swayam Cell
4. Routine-in-Charge
5. Member in various other cells and committees

I CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF

Amar Kumar