Murshidabad Maharaja Krishnanath University, Berhampore

FACULTY ACADEMIC PROFILE



Full Name of the Faculty Member: DR. ASIT KUMAR DAS

Designation: Assistant Professor, Department of Chemistry.

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Academic Qualifications: M.Sc., Ph.D.

Sl No.	College/University from which the degree was obtained	Abbreviation of the degree
1.	University of Calcutta	B.Sc.
2.	Indian Institute of Technology Guwahati	M.Sc.
3.	Jadavpur University	Ph.D.

Positions Held / Holding: Assistant Professor, Department of Chemistry.

Former Head, Department of Chemistry, Krishnath College.

Research Interests: Green Chemistry, Sustainable Catalysis, Organic Synthesis, Synthetic Methodology, CO_2 Fixation and Utilization, Metal Nanoparticles, Metal-Organic Frameworks (MOFs), Covalent Organic Frameworks (COFs), and Biofunctional Materials for Biological, Biomedical and Environmental Applications.

List of publications (Peer-Reviewed Journals):

a) Journals (Peer-reviewed): 26
b) Books / Edited Book Chapters: 03
c) Conference Papers: 01

Research Project

Sl	Title of the Research Project	Funding Agency	Period	Research Grant Amount	Status of the Project
1.	Heterogeneous Catalysis using Supported Metallic Nanoparticles for Sustainable Organic Synthesis	Department of Science and Technology & Biotechnology (DSTBT), Govt. of West Bengal	10-02-2024 to 09-02-2027	9.60 Lakh	Ongoing

Awards / Achievements

Sl	Awards / Achievements
1.	Excellent Award for being 1st class 1st position from Surendranath College
2.	Best Student Award in the Department of Chemistry of Surendranath College
3.	Outstanding Paper Award in the 6th Regional Science & Technology Congress (WBDST)
4.	Diamond Jubilee Young Scientist Award by the Indian Photobiology Society

List of Publications (Peer-Reviewed Journals)

Sl No	Title	Author's Name	Journal Name	Level	ISSN	Year	Impact Factor
26.	Frontiers in Manganese Catalysis: A Sustainable Platform for Bond Construction and Heterocycle Synthesis	**A. K. Das,*** K. Sarkar, S. Bhattacharjee, S. Gajurel, S. Dhibar, S. K. Panja, S. A. Deshmukh, S. Sarkar	RSC Advances	International	2046-2069	2026	6.1

25.	Heterogeneous Nickel Nanoparticles Catalysed Ligand-Free Hydroxylation of Aryl halides in Aqueous Medium and DFT Investigation	**A. K. Das**,* S. Saikh, A. Misra, S. Ali, P. Pradhan, N. Sepay, S. Dhibar, M. Afzal, S. J. Abbas, N. Sepay*	Journal of Molecular Structure	International	1872-8014	2026	4.9
24.	Cooperativity and Anticooperativity Effects in a Cadmium-Based Metal−Organic Framework: Structural Characterization, Non-Covalent Interaction Analysis, and Catalytic Activity	A. Sadhukhan, D. Mal,* B. Maity, D. Mahapatra, T. Maity, P. Brandao, **A. K. Das,*** C. Roy Choudhury,* P. K. Bhaumik,* A. Frontera*	Langmuir	International	1520-5827	2026	4.4
23.	Development of a supramolecular cobalt(ii) metallohydrogel from l-serine-based low molecular weight gelator for dual antimicrobial and semiconducting applications	S. Some, A. Mohan, R. Laha, S. Dhibar,* P. Kaith, A. Trivedi, S. Bhattacharjee, T. O. Ajiboye, L. N. Nthunya, A. Bera, **A. K. Das,** S. K. Panja, S. Dam,* P. Predeep,* B. Saha*	Materials Advances	International	2633-5409	2026	5.8

22.	Eco-friendly Cyanation Strategies of Aryl Halides using Recyclable Nickel Nanocatalysts with Promising Antibacterial and Antioxidant Activities	**A. K. Das,*** S. Ali, A. Misra, S. Saikh, S. Dhibar, S. K. Panja, A. Das, G. Ghatak, L. K. Rathore, A. Bera, S. Bhar, S. Biswas*	Materials Advances	International	2633-5409	2026	5.8
21.	Emerging Trends in Asymmetric Triazole Synthesis: from Click Chemistry to Biocatalysis,	S. Bhattacharjee,* A. S. Chauhan, S. Sarkar, **A. K. Das**, S. A. Deshmukh	The Chemical Record	International	1528-0691	2026	8.9
20.	Synthetic Strategy, Structural Optimization, Antimicrobial Activity and Electrical Properties of cis-trans Ni(II)-Dicyanamide Zig-Zag Polymers	P. Sasmal, S. Biswas, P. Brandao, R. Debnath, M. Dolai, J. L. Pratihar, **A. K. Das**, P. K. Bhaumik, S. Bagh, T. Maity, A. Banerjee,* K. Pramanik,* D. Mal*	Inorganica Chimica Acta	International	1873-3255	2026	3.3
19.	Investigating the Potent Antibacterial, Antibiofilm, Antidiabetic, and Antioxidant Activities of Biosynthesized Iron oxide Nanoparticles: Recyclable Catalyst	**A. K. Das,*** A. Misra, S. Ali, S. Saikh, S. Dhibar, K. K. Banerjee, G. Ghatak, D. Mal, M. Shit, S. Biswas*	RSC Advances	International	2046-2069	2025	6.1

	for Ammoxidation of Aromatic Aldehydes						
18.	A Comprehensive Report on Environmentally Benign Synthesis of 1, 8-Dioxo-Octahydroxanthene Derivatives	A. Ghatak, **A. K. Das**, S. Bhar, A. Pramanik*	Journal of Heterocyclic Chemistry	International	1943-5193	2025	2.4
17.	A Supramolecular Semiconducting Nickel(ii)-Metallohydrogel with Dual Antimicrobial and Micro-electronic Device Applications	S. Dhibar,* A. Mohan, R. Laha, S. Some, P. Kaith, A. Trivedi, S. Bhattacharjee, L. N. Nthunya, T. O. Ajiboye, A. Bera, S. K. Panja, **A. K. Das**, S. Dam,* P. Predeep,* B. Saha*	RSC Advances	International	2046-2069	2025	6.1
16.	Emerging Trends in Two- and Three-Component Efficient Synthetic Strategies for Functionalised and Fused Quinoxalines	**A. K. Das,*** K. Sarkar*	New Journal of Chemistry	International	1369-9261	2025	2.6
15.	Identification of C-C σ-hole π interactions in the designed organometallic chloro-pyrazole-Pd(II) complex	D. Saha, **A. K. Das**, M. Raish, N. Sepay*	Journal of Molecular Structure	International	1872-8014	2025	4.9

14.	Investigating the potent antimicrobial properties of a supramolecular Zn(II)-metallogel formed from an isophthalic acid-based low molecular weight gelator	S. Dhibar,* S. Some, S. Pal, R. Laha, P. Kaith, A. Trivedi, S. Bhattacharjee, L. N. Nthunya, T. O. Ajiboye, S. K. Panja, **A. K. Das**, A. Bera, S. Dam,* B. Saha*	RSC Advances	International	2046-2069	2025	6.1
13.	Recent Advancements in Metal-Free Catalysis for Cyclopropane Ring Cleavage	A. Pramanik,* **A. K. Das**, S. Bhar, A. Ghatak	Chemistry Select	International	2365-6549	2025	2.0
12.	Green Synthesized Biogenic Ag Nanoparticles with Enhanced Antibacterial, Antifungal, Antibiofilm, and Antioxidant Activities: Catalytic Applications in the ipso-Hydroxylation of Aryl Boronic Acids	**A. K. Das*,** S. Ali, A. Misra, S. Islam, B. Kar, S. Biswas,* G. Ghatak, D. Mal, M. Shit, M. Dolai, A. Das	Applied Organometallic Chemistry	International	1099-0739	2025	4.1
11.	Experimental and Computational Investigations of Supramolecular Interactions in Cd(II)–Organic Hydrate: Catalytic Applications in the Knoevenagel	A. Sadhukhan, B. N. Patra, T. Maity, **A. K. Das***, C. K. Ghosh, P. Brandao, D. M. Gil, D. Bera, C. R.	European Journal of Inorganic Chemistry	International	1099-0682	2024	2.0

	Condensation Reaction under Solvent-Free Conditions	Choudhury, P. K. Bhaumik,* D. Mal,* A. Frontera*					
10.	Insight into the Structural Optimization and Electrical Conductivity of Ni/Mn Bipyridine–Dicyanamide Complexes	P. Sasmal, R. Debnath, S. Koner, P. Brandao, M. Dolai, P. K. Bhaumik,* A. Banerjee,* P. Ghosh, D. Sinha, A. Chowdhury, **A. K. Das**, D. Mal*	Chemistry Select	International	2365-6549	2024	2.0
9.	Dual-active Hf(iv)–organic framework for the detection of FOX-7 and as a heterogeneous catalyst for Knoevenagel condensation	A. Das,* D. Chavda, M. Manna, **A. K. Das***	New Journal of Chemistry	International	1369-9261	2024	2.5
8.	Hydrothermal syntheses of d^{10}-based Zn(II) and Cd(II) metal–organic frameworks for the catalysis of the Knoevenagel condensation	B. N. Patra, **A. K. Das,*** S. Misra, P. P. Jana, P. Brandao, M. Afzal, A. Alarifi, T. Saha, D. Bera, S. Halder, D. Mal,* N. Sepay*	Journal of Molecular Structure	International	1872-8014	2024	4.7

7.	A functionalized Hf(IV)–organic framework introducing an efficient, recyclable, and size-selective heterogeneous catalyst for MPV reduction	A. Das,* **A. K. Das***	New Journal of Chemistry	International	1369-9261	2023	2.5
6.	$Cu(OAc)_2$ Catalysed Aerobic Oxidation of Aldehydes to Nitriles under Ligand-Free Condition	**A. K. Das**, S. Nandy, S. Bhar*	RSC Advances	International	2046-2069	2022	4.6
5.	Solvent free one pot syntheses of highly substituted propargyl ethers and propargyl amines from propargyl alcohols catalyzed by recyclable alumina-sulfuric acid	A. Ghatak, A. Pramanik, **A. K. Das**, S. Bhar*	Tetrahedron	International	0040-4020	2022	2.2
4.	Chemoselective and ligand-free aerobic oxidation of benzylic alcohols to carbonyl compounds using alumina supported mesoporous nickel nanoparticle as an efficient recyclable heterogeneous catalyst	**A. K. Das**, S. Nandy, S. Bhar*	Applied Organometallic Chemistry	International	1099-0739	2021	4.1

3.	Catalytic efficiency of β-cyclodextrin hydrate-chemoselective reaction of indoles with aldehydes in aqueous medium	**A. K. Das**, S. Nandy, S. Bhar*	Tetrahedron Letters	International	1873-3581	2020	2.4
2.	Chemoselective formation of C-N bond in wet acetonitrile using Amberlyst®- 15(H) as a recyclable catalyst	S. Nandy, **A. K. Das**, S. Bhar*	Synthetic Commun.	International	1532-2432	2020	1.8
1.	Chemoselective and Metal-Free Synthesis of Aryl Esters from the Corresponding Benzylic Alcohols in Aqueous Medium Using TBHP/TBAI as an Efficient Catalytic System	S. Nandy, A. Ghatak, **A. K. Das**, S. Bhar*	Syn Lett	International	1437-2096	2018	2.4

Publications in Books & Edited Book Chapters

Sl	Title	Author's Name	Publishers	Level	ISBN	Year
1.	Comparative Analysis: Bio-based Nanocomposites Versus Traditional Materials	**A. K. Das**, A. Pramanik, S. Roy, A. Ghatak,	Springer	International	978-981-95-1369-7	2025
2.	Heavy Metal Sensing and Absorption by Polymer–Carbonaceous Composites	**A. K. Das**, A. Pramanik, A. Ghatak	CRC Press (Taylor & Francis)	International	9781003328094	2023
3.	Snatak Rasayan through Solved Problem, CBCS Pattern	S. K. Ghosh, U. Roy and **A. K. Das**	J. Publication	State	978-81-940305-4-6(2019)	2019

Research Papers Presented in Conferences / Seminars

Sl	Title of the Paper Presented	Title of the Seminar / Conference	Level	Name of the Organizer	Date
1.	Heterogeneous Co@COF nanoparticles: excellent CO_2 fixation capability in the synthesis of oxazolidinones under solvent-free conditions	Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences	International	Surendranath College	03-01-2025
2.	Green synthesis of structurally interesting C5-C6-unsubstituted 1,4-	Accelerating Photobiology Research	National	Indian Photobiology Society	01-03-2024 & 02-03-2024

	DHPs using biosynthesized magnetite nanoparticles	towards Achieving the Sustainable Development Goals			
3.	Biogenic synthesis of Fe_3O_4 nanoparticles: a sustainable catalyst for the three-component cyclization of cinnamaldehydes and primary amines with dialkyl-but-2-ynedioates	31st West Bengal State Science & Technology Congress	State	WBDSTBT	28-02-2024 & 29-02-2024
4.	Heterogeneous cobalt nanoparticles: efficient protocol for the acceptorless dehydrogenative coupling of alcohols with amines	Chemistry at the Frontier	International	Bankura Sammilani College	10-02-2024
5.	Biogenic synthesis of Fe_3O_4 nanoparticles: a sustainable catalyst for the three-component cyclization of cinnamaldehydes and primary amines with dialkyl-but-2-ynedioates	6th Regional Science &Technology Congress	State	Government College of Engineering & Textile Technology, Berhampore and WBDSTBT	18-01-2024 & 19-01-2024
6.	Economically efficient and eco-friendly protocol for ipso-hydroxylation of arylboronic acids using recyclable PVA-stabilized palladium nanoparticles	Recent Trends in Biotechnology & Chemistry	International	Sripat Singh College	20-12-2023

7.	Green synthesis of Fe_3O_4 nanoparticles: efficient construction of benzimidazole moieties	Modern Trends in Chemistry for Sustainable Development	International	Vijaygarh Jyotish Ray College	03-03-2020
8.	An efficient protocol for one-pot conversion of nitriles from aldehydes using recyclable alumina-supported nickel nanoparticles	Recent Trends in Science towards Sustainable Development	International	Acharya Prafulla Chandra College	06-10-2018 & 07-10-2018
9.	Synthesis of bis-(indolyl)methanes in aqueous medium using β-cyclodextrin hydrate as an efficient and recyclable catalyst	Emerging Trends in Chemistry (ETC- 2017)	National	Jadavpur University	15-02-2017
10.	Ni-alumina- an efficient and reusable catalyst for organic reactions in aqueous medium	Enthralling facets of molecular manifestation in chemical sciences	National	Bidhannagar College	15-09-2016 & 16-09-2016

Invited Talks in Seminars / Conferences

Sl	Title of the Paper Presented	Title of the Seminar / Conference	Level	Name of the Organizer	Date
1.	Recyclable Metal Nanoparticles: Heterogeneous Catalysis for Sustainable Organic Synthesis	Green Technologies, Environment and Drug Discovery	International	Green Chemistry Network Centre Chapter, Akal University, Punjab	03-09-2025 to 05-09-2025

2.	Designing Economically Efficient Protocol for Sustainable Organic Synthesis using Recyclable Supported Metal and Metal Oxide Nanoparticles	Recent Advances on Green Catalysis and Drug Discovery	International	Green Chemistry Network Centre Chapter, Akal University, Punjab	04-09-2024 to 06-09-2024
3.	Natural Study and Sustainable Future	Environment Education Programme: Nature Study Camp	State	West Bengal Pollution Control Board & Krishnath College	23-11-2023

M.Sc. Project Work Supervision

Sl	Name of the Student	Title of the Project	Name of the Institution	Status
1.	Amaresh Bhattacharya	Eco-Friendly Synthesis of Pyrazole Derivatives	Murshidabad University	Completed
2.	Bidisha Mandal	Green Synthesis of Coumarin Derivatives	Murshidabad University	Completed
3.	Avik Aich	Eco-Friendly Methods for the Synthesis of Benzimidazoles	Murshidabad University	Ongoing
4.	Swarnendu Singh	Green Catalytic Strategies for the Synthesis of Benzoxazoles	Murshidabad University	Ongoing

Administrative / Professional Experience

Sl	University / Institute / Organization	Post Held	Duration
1.	Krishnath College	Head, Department of Chemistry	01-04-2021 to 31-03-2023
2.	Murshidabad University	Joint Officer-In-Charge, Press Unit	10-01-2025 to 09-01-2026
3.	Murshidabad University	Member, Board of Studies (UG and PG)	2022 to Present
4.	Indian Photobiology Society (IPS)	Life Member	Since 2024
5.	Association of Chemistry Teachers (ACT)	Life Member	Since 2024

Programmes Organized as Convenor / Coordinator

Sl	Name of the Programme	Role	Level	Sponsored By	Date
1.	Emerging Trends in Chemical and Biological Sciences	Convenor	International Seminar	Krishnath College & Indian Photobiology Society	10-12-2024
2.	Awareness about Green Chemistry and Nanotechnology	Convenor	National Seminar	Krishnath College	17-09-2020

Reviewer for Peer-Reviewed Journals

Sl	Journal Name	Publisher
1.	Chemical Communications	Royal Society of Chemistry
2.	RSC Advances	Royal Society of Chemistry
3.	Green Chemistry	Royal Society of Chemistry
4.	ChemistrySelect	Wiley-VCH
5.	Energy & Fuels	American Chemical Society
6.	Materials Advances	Royal Society of Chemistry
7.	New Journal of Chemistry	Royal Society of Chemistry
8.	Current Organic Chemistry	Bentham Science
9.	Chemistry-An Asian Journal	Wiley-VCH
10.	Transition Metal Chemistry	Springer
11.	Journal of Applied Pharmaceutical Science	Open Science
12.	American Journal of Heterocyclic Chemistry	Science Publishing

Orientation / Refresher Course Attended

Sl	Name of the Course	Institution	Duration	Sponsoring Agency
1.	Faculty Induction Programme	University of Calcutta	03-03-2021 to 30-03-2021	UGC
2.	Refresher Course in “Earth System Science” (Interdisciplinary)	Jadavpur University	11-11-2021 to 25-11-2021	UGC
3.	Refresher Course in “Contemporary Issues of Nano-science and Nano-technology” (Interdisciplinary)	Jadavpur University	09-01-2023 to 24-01-2023	UGC