

Dr. Amit Kumar Dutta's Research and Extension activities

Research Area

NANO-MATERIAL CHEMISTRY, INORGANIC CHEMISTRY

Dr. Amit Kumar Dutta is engaged in research activities related to synthesis of metal oxide nano-materials and their Photocatalytic application

Research Grant:

Dr. Dutta had received Funding of Rs. 04.85 Lakhs from UGC (2016-2018)

Selected Publications (2018-2023):

Journals

Sl. No	Title with page no.	Journal	ISSN/ ISBN No	Whether peer reviewed. Impact factor, if any
1	Structure, luminescence and antimicrobial properties of mononuclear silver(I) complexes of pyridine 2-carboxamide, Vol. 127, No. 10, October 2018, pp. 1819–1826	Journal of Chemical Sciences - Springer;	ISSN: 0974-3626	Refereed; peer reviewed, Impact Factor 1.496
2	Observation of enhanced photocurrent response in M–CuInS ₂ (M = Au, Ag) hetero-nanostructures: phase selective synthesis and application, 2019,41, 692	New Journal of Chemistry, RSC	—	Refereed; peer reviewed, Impact factor: 3.069
3	Single source precursor driven phase selective synthesis of Au–CuGaS ₂ heteronanostructures: an observation of plasmon enhanced photocurrent efficiency 2018,47, 1071-1081	Dalton Transactions, RSC	—	Refereed; peer reviewed, Impact factor: 4.052

Book Chapters:

NAME OF THE FACULTY	TITLE OF THE PAPER	NAME OF THE PUBLISHER	ISSN / ISBN
Dr. Amit Kumar Dutta	Scope and Challenges for Green Synthesis of Functional Nanoparticles 274-318, 2022	CRC Press, Taylor & Francis Group, LLC (International)	ISBN: 978-1-032-02480-6 (hbk) (DOI: 10.1201/9781003183549)
Dr. Amit Kumar Dutta	Colorimetric Measurements of Human Blood Glucose Level in Presence of Nano-Scaled Inorganic Materials 40-48, 2023	Lincoln University College, Malaysia (International)	ISBN: 978-967-2819-20-2 (https://doi.org/10.31674/book.2023tibr005)
Dr. Amit Kumar Dutta	Waste-Water Treatment: Based on Solar-Light-Driven Photo-Catalysis using Semiconducting Nano-Materials 34-44, 2023	Lincoln University College, Malaysia (International)	ISBN: 978-967-2819-22-6 (https://doi.org/10.31674/book.2023pcbs005)
Dr. Amit Kumar Dutta	Metal Chalcogenides-Based Multifunctional Nanomaterials for Solar-Light-Driven Photo-Catalysis and Electro-Chemical Sensing 01-16, 2023	IGI Global Engineering Science Reference (an imprint of IGI Global)701 E. Chocolate Avenue Hershey PA, USA (International)	ISBN: 9781668487433 (h/c) (DOI: 10.4018/978-1-6684-8743-3.ch001)

Faculty as members in

Dr. Amit Kumar Dutta is Life member of IACS, Kolkata and Indian Chemical Society

Collaborations

[1] With Prof. Bibhutosh Adhikary, Professor, Department of Chemistry, Indian Institute of Engineering Science and Technology (IEST, Shibpur), Shibpur, Howrah, India

[2] With Prof. Kamalaksha Nag, Emeritus Professor & INSA Honorary Scientist, Department of Inorganic Chemistry, Indian Association for the Cultivation of Science, Kolkata 700032, West Bengal, India

[2] with Dr. Madhumita Mukhopadhyay, Assistant Professor, Department of Chemistry, Amity Institute of Applied Sciences (AIAS), Amity University - Kolkata Campus.

[3] Debosreeta Bose, Assistant Professor, Department of Chemistry, Amity Institute of Applied Sciences (AIAS) Amity University - Kolkata Campus,

[4] Dr. Madhumita Mukhopadhyay, Assistant Professor, Department of Materials Science & Technology Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal, India

Extension activities

(i) Dr. Dutta had acted as External supervisor of Summer Internship Programme_2019 for M.Sc (Applied Chemistry) [SEM III] of Amity University, Kolkata for **a) Rakhtima Chatterjee and b) Sinjini Sarkar** and had published one book chapter entitled ‘Scope and Challenges for Green Synthesis of Functional Nanoparticles’ CRC Press, Taylor & Francis Group, LLC (**International**) ISBN: 978-1-032-02480-6 (hbk) (DOI: 10.1201/9781003183549)

(ii) Dr. Dutta had conducted one Certificate Course on Detection of Contaminants in food and beverages in the academic year 2018-19.

(iii) Dr. Dutta had acted as External supervisor of M.Sc NTCC–Major Project entitled ‘*Exploring the excited state intramolecular proton transfer (ESIPT) property of 2-hydroxy-3-naphthaldehyde thiosemicarbazone*’ for *Mr. Akash Sil (Amity University, Kolkata) (2020)*

(iv) Dr. Dutta had acted as External supervisor of M.Sc NTCC–Summer Internship Project entitled ‘**Study on the viability of Azide functionalized ligand as an active pharmaceutical ingredient through spectroscopic studies and molecular docking**’ for *Ms. Tiasha Das (Amity University, Kolkata) (2022)*

(v) Dr. Dutta had conducted teaching post-graduate courses in Chemistry in the Directorate of Distance Education of Vidyasagar University, Midnapore (Bangabasi Morning College campus) as a guest faculty.

(vi) Dr. Dutta had visited Surendranath Evening college on the 14th February,2023 and delivered a special lecture on "Semiconducting metal oxide Nano-particles"

(vii) Dr. Dutta had organized One-day Chemistry workshop on ‘Zinc Oxide Nano-material synthesis and their characterization’ was jointly organized by Department of Chemistry, Bangabasi Morning College in collaboration with Department of Chemistry, Muralidhar Girls’ College on 23rd December, 2023 at Chemistry laboratory of Bangabasi Morning College campus.