

Name: **Dr. Kartick Lal Bhowmik**

Designation: Associate Professor, BBM College

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Area of Specialisation: Physical Chemistry

Research Area: Conducting polymer, Nanomaterials, Metal oxide based nanocomposite,

Courses Taught: Chemistry (Hons. and general) & IMD Chemistry Course

Publication Details: **A. Conference Proceedings Publication:**

Sl. No.	Name of the Paper	Name of the Conference/Conference Proceedings	Year	ISBN/ISSN
1.	Studies on transport properties of CdO-CuO thin film hetero junction	Advanced Nanomaterials and Emerging Engineering Technologies (ICANMEET), 2013 International Conference on. IEEE, 2013	24 July, 2013	978-1-4799-1377-0 IEEE Explore Digital Library-2013 pp. 499-501
2.	Optical and Electrical Property of Polyaniline Thinfilm Synthesized by Aniline Vapour Polymerisation	International Conference On Nanomaterials And Nanotechnology (Nano-15) Nanoelectronics and sensors	December 2015	Optical and Electrical Property of Polyaniline Thinfilm Synthesized by Aniline Vapour Polymerisation

3.	Temperature dependent electrical properties of polyaniline film grown on paper through aniline vapor polymerization	DAE Solid State Physics Symposium 2015 AIP Conference Proceedings	25 May, 2016	978-0-7354-1378-8 AIP Conference Proceedings - 1731 pp 1100301-1100303
4.	Ohmic Contact of n-Type CdO film with FTO Coated Glass for Photonic Device Applications	International Conference on Fibre Optics and Photonics, 2016	2016/12/4	© 2016 Optical Society of America

B. Published Papers in Journals:

Sl. No.	Title	Journal, year, volume, page No.	Impact factor
1	Charge Transport through Polyaniline Incorporated Electrically Conducting Functional Paper	Journal of Physical Chemistry C (ACS Publication) 120 (11), 03, March 2016, pp 5855–5860	4.773

2	Synthesis and characterization of mixed phase manganese ferrite and hausmannite magnetic nanoparticle as potential adsorbent for methyl orange from aqueous media: Artificial neural network modeling	Journal of Molecular Liquids (ScienceDirect Elsevier Publication) 05, April 2016 Vol. 219 , pp 1010–1022	4.65
3	Synthesis of MnFe₂O₄ and Mn₃O₄ magnetic nanocomposites with enhanced properties for adsorption of Cr(VI): artificial neural network modeling	Water Science and Technology (IWA Publishing 2017) Online September 2017, Wst2017501 DOI:10.2166/ wst.2017.501	1.197
4.	Interaction of anionic dyes with polyaniline implanted cellulose: Organic π-conjugated macromolecules in environmental applications.	Journal of Molecular Liquids 261 (2018) 189–198 (Science Direct Elsevier Publication)	4.65
5	Mesoporous Iron-Manganese Magnetic Bimetal Oxide for Efficient Removal of Cr(VI) from Synthetic Aqueous Solution.	Applied Mechanics and Materials (Appl Mech Mater) (Scitec Publications Ltd. Switzerland) June 2017	0.16

6	Ultrasonic assisted enhanced adsorption of methyl orange dye onto polyaniline impregnated zinc oxide nanoparticles: Kinetic, isotherm and optimization of process parameters.	<i>Ultrasonics sonochemistry, Volume54, June 2019, Pages 290-301.</i>	6.513
7	Conductive polyaniline on paper as a flexible electronic material with controlled physical properties through vapor phase polymerization.	<i>Polymer Engineering & Science, 58(12), 2018, 2249-2255.</i>	1.917
8	The effective adsorption of tetracycline onto zirconia nanoparticles synthesized by novel microbial green technology.	Journal of environmental managemen Academic Press Vol-261, pages110235, 2020	8.626
9	Reduced Hopping Barrier Potential in NiO Nanoparticle-Incorporated, Polypyrrole-Coated Graphene with Enhanced Thermoelectric Properties	ACS Applied Energy Materials, 2020	4.473
10	Preparation and characterization of magnetic CaFe₂O₄ nanoparticles for efficient adsorption of toxic Congo Red dye from aqueous solution: predictive modeling by artificial neural Network.	Desalination and Water Treatment 89, 197-209,2017	1.504

11	Application of polyaniline impregnated mixed phase Fe₂O₃, MnFe₂O₄ and ZrO₂ nanocomposite for rapid abatement of binary dyes from aqua matrix: response surface optimisation	International Journal of Environmental Analytical Chemistry Pages1-19, Publisher:Taylor & Francis,2021	2.731
12	Camphor sulfonic acid incorporation in SnO₂/polyaniline nanocomposites for improved thermoelectric energy conversion.	Sustainable Energy & Fuels Royal Society of Chemistry Vol-6,issue-5, pages 1332-1344,2022	6.813
13	Mixed Ligand Complexes of Cobalt (II) – Synthesis, Reactivity, Physico-chemical and Spectroscopic studies,	Asian Journal of Chemistry, 2023, 35(4), pp 910-916,	1.68
14	Cd(II) and Zn(II) complexes with 2-mercaptopyridine: Synthesis, crystal structure, Hirshfeld surface analysis, luminescent properties, aggregation behaviours, current-voltage characteristic and antibacterial assay, ,	Polyhedron (Elsevier), 247, 11674, 2024	2.6

Project Details:

Sl.No.	Title	Agency	Period	Grant/Amount mobilized (Rs. In Lakhs)
1	Synthesis and Improvement of Physical properties of Polyaniline based conducting polymer thin film.	UGC	2 years	Rs. 3,65000

Seminar/Conference/Workshops Participated:

Attendance of State/National/International Seminars with Paper

1. **ICIRSTM 2017, 16-17 September 2017, National University of Singapore (NUS), SINGAPORE**, International Conference on Innovative Research in Science, Technology and Management.
2. **4th 3R International Scientific Conference on Material Cycles and Waste Management** (8-10 March 2017 at India Habitat Centre, New Delhi, India.
3. **Second International Conference on Material Science (ICMS2017)** (16 – 18 February, 2017) Department of Physics, Tripura University (A Central University), Suryamaninagar -799022, Tripura, India.
4. **“National Conference on recent Trends of Research in physics” (NCRTRP-2015)** ,23rdand 24th July 2015. Department of Physics. Womens College, Agartala.
5. **“National Seminar on recent trends on Material science”**, Department of Chemistry, D.D.M memorial College, Khowai, West Tripura.

Seminar/Conference/Workshops Conducted: nil

Membership in Academic Bodies: Tripura Chemical society.

Involvement Beyond Academic Activities: Administrative post held: Drawing & Disbursing Officer(DDO), Bir Bikram Memorial College. Composing poetry, Photography & Recitation.