

DR. ARUN KUMAR MUKHOPADHYAY

Current Designation: Associate Professor

Department: Physics

Date of Joining: 06.01.1992

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1. Academic Qualifications

Degree	Institution	Year	Subject/Discipline	Remarks
1.M.Sc (Tech) in Applied Physics	Department of Applied Physics, University of Calcutta, University College of Science & Technology, 92 APC Road . Kolkata - 700009	1987	Optics and OptoElectronics	
2.Ph.D	Department of Physics, Indian Institute of Engineering Science and Technology, Shibpur, Howrah – 711103, West Bengal, India .	2021	PHYSICS	Under the guidance of Dr Abhijit Majumdar vide Regd No PhD/R/2016/0005

2. Thesis Title

Ph.D. Thesis Title: NITRIDE BASED TERNARY SEMICONDUCTORS

3. Specialization and Area of Interests

Specialization: Opto- Electronics

Area of Interests: 1. Design & Development of Microprocessor/ Microcontroller based Industry oriented optical devices – Luxmeter , Autofocusing of cameras and Bio - Medical Instruments.

2. Study and development CuCu_3N and $\text{Ti} - \text{CuN}$ thin film in clustered application in opto electronic industry due to promising optical band gap, electrical band gap and refractive index.

4. Teaching Responsibilities

a. Mathematical Physics (UG)

b. Electromagnetism (UG)

c. Electronics (Analog & Digital) (UG)

d. Electronics Communication (LASER and fiber optics) (UG)

e. Instrumentation and measurement (PG)

5. Publications

Sl. No.	Title with page nos.	Journal	ISSN/ISBN No.
1.	Strain Effects by Surface Oxidation of Cu_3N Thin Films Deposited by DC Magnetron Sputtering. 7(5),64(2017)	Coatings, MPDI	doi.org/10.3390/coatings 7050064
2.	Self-buckled effect of cubic Cu_3N film: Surface Stoichiometry 1953, 100078(2018)	American Institute of Physics	doi.org/10.1063/1.5033014
3.	Surface Stoichiometry and Optical Properties of $\text{Cu}_x\text{-Ti}_y\text{-Cz}$ Thin films Deposited by Magnetron Sputtering. 9(9),551,2019	Coatings, MPDI	doi.org/10.3390/coatings 9090551

4.	Conductive glass coating Effect of atmospheric plasma treatment 2115,030248(2019)	American Institute of Physics	doi.org/10.1063/1.5113087
5.	Synthesis of Tix-CuyNz thin film: Electronic bond structure. 2142,080002(2019)	American Institute of Physics	doi.org/10.1063/1.5122430
6.	Optical and Electronic Structural Properties of Cu ₃ N Thin Films: A First Principal Study (LDA+U). 39(2020)	ACS Omega	doi.org/10.1021acsomega.Oc 04821
7.	Negative Capacitance Effect of Cu-TiC Thin Film Deposited by DC Magnetron Plasma Bull. 43,260(2020)	Material Science	
8.	Transport properties of n-type Cux-TiyCz thin film semiconductor at different Cu/TiC ratios. 42,2726-732(2021)	Materials Today : Proceedings (ELSEVIER)	doi.org/10.1016/j.matpr.2020.11.155
9.	Surface Stoichiometry and Depth Profile of Tix-CuyNz Thin Films Deposited by Magnetron sputtering 14,3191(2021)	Materials MPDI	doi.org/10.3390/ma14123191

6. Conferences/Seminars/Symposia/Workshops Attended

Sl. No.	Title of the Paper presented	Title of Conference / Seminar	Organized by	Whether international / national / state / regional / college or university level
1.	Self-buckled effect of cubic CU ₃ N film: Surface Stoichiometry 1953, 100078(2018)	AIP Conference aip.scitation.org/toc/apc/1953/1	American Institute of Physics	International
2.	Synthesis of Tix-CuyNz thin film: Electronic bond structure. 2142,080002(2019)	AIP Conference aip.scitation.org/toc/apc/1953/1	International Conference on Advances in Basic Sciences (ICABS19) GDC Memorial College, Bahal, Harayana	International
3.	Conductive glass coating Effect of atmospheric plasma treatment 2115,030248(2019)	AIP Conference aip.scitation.org/toc/apc/1953/1	International Conference on Advances in Basic Sciences (ICABS19) GDC Memorial College, Bahal, Harayana	International
4.	Transport properties of n-type Cux-TiyCz thin film semiconductor at different Cu/Tic ratios	Recent Advances in Materials and Manufacturing (ICRAMM 2020)	Dept. of Mechanical Engineering, Velalar College of Engineering and Technology, Tamil Nadu	International

7. Awards/Honours

Award	Organization	Year	Description
National Scholarship	GOI	1977	

8. Details of Symposia/Workshops Attended

Details of Symposia/Workshops Attended			
Sl. No.	Title of Conference / Workshops/Symposia	Organized by	Whether international / national / state / regional / college or university level
1.	Workshop on Laser Applications (Optical Electronics) -1989	ERC, Dept of Applied Physics, University of Calcutta	National
2.	Colloquium on Optoelectronic Technology - 1993	Optical Society of India and Dept.of Applied Physics , University of Calcutta	National
3.	Workshop on Renewable Energy -2000	School of Energy Studies, Jadavpur University	University
3.	Global Scenario of Cyber World & Communication - 2002	New Alipore College, Kolkata	College
4.	Prospects of Basic Sciences vis-avis Technical Education in India - 2003	Rastraguru Surendranath College, Barrackpore	College
5.	New Frontiers of Basic and Applied Sciences - 2004	Bethune College, Kolkata	College
6.	Entrepreneurship Development -2005	Jadavpur University	University

7.	Undergraduate Physics Education & Advancement in physics Research -2006	Sammilani Mahavidyalaya, Kolkata	College
8.	Recent Trends in Applied Optics and Photonics - 2006	Dept. of Applied Optics and Photonics, University of Calcutta	University
9.	Role of Experiments in the Development of Physics -2007	Dinabandhu Andrews College , Kolkata	College
10.	Faculty Development Program-2022	Webel Fujisoft Vara Centre of Excellence in Industry 4.0	State

9. Administrative Responsibility

Convenor of Online Admission and registration Sub-Committee

Member of Students' Welfare Sub-Committee.

Former GB Member of Dinabandhu Andrews College and Baruipur College

Present GB Member of Shibnath Shastri College, Kolkata