BRIEF

CONTACT

DEPARTMENT: PHYSICS

SCHOOL OF STUDIES: School of Sciences

DATE OF JOINING: 11-11-2022

ADDRESS:
School of Sciences, Netaji Subhas Open University, Regional Centre - Durgapur
Jawahar Lal Nehru Road, Durgapur, Paschim Bardhhaman, W.B. - 713 214

EMAIL: pabitram.sosci@wbnsou.ac.in

DR. PABITRA MANDAL

Designation: Assistant Professor

ACADEMIC QUALIFICATION:

M. Sc., Ph.D.

TEACHING EXPERIENCE

Netaji Subhas Open University, Assistant Professor of Physics
Assistant Professor, 11-11-2022–Till date

Narasinha Dutt College, Howrah, Assistant Professor of Physics
Assistant Professor, 27-04-2017–10-11-2022

Haldia Institute of Technology, Haldia, W.B.
Assistant Professor, 08-08-2016 – 26-04-2017

AWARD AND FELLOWSHIP

MHRD fellowship, CSIR-JRF fellowship

RESEARCH INTERESTS & EXPERIENCE

Interest: Experimental low temperature Physics, High-Tc Superconductivity, Nanoscience, Spectroscopic Properties of Rare Earth doped glass.
Experience: Research associate and Post doc research associate at S. N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata, Unit of Nano Science, Department of Cond. Matt. Phys. & Material Sciences. 17-01-2014 to 31-07-2016

ADMINISTRATIVE EXPERIENCE

Head of the Department Physics at Narasinha Dutt College, Howrah, from 02-01-2021 to 10-11-2022.

UG & PG TEACHING ASSIGNMENTS

UG (syllabus of University of Calcutta):
Mathematical Physics I (Vector algebra) (TH), Mechanics (PR), Electricity and Magnetism (TH), Waves and Optics (PR), Thermal Physics (TH), Modern Physics (PR), Mathematical Physics III (Relativity) (TH), Solid State Physics (TH), Solid State Physics (PR), Laser Physics (TH), Nanomaterial

theory and application (TH). Mechanics (general elective) (TH), Mechanics (general elective) (PR).

ELIGIBILITY TEST CLEARED (NET/SET/GATE etc.):

Sl. No.	Details
1	GATE-Physics 2006 (All India Rank-53)
2	NET-CSIR-JRF-2008

DETAILS OF PUBLICATIONS (BOOKS/ EDITED VOLUME / RESEARCH PAPERS/REVIEW): [Last 10 Year]

Sl. No.	Title of the paper vol. No., Issue No., Page No, Year	Publisher	Year of publication	ISSN/ ISBN
1	*"Optimization of Rare Earth (Er^{3+}) Doping Level In Lead Zinc Phosphate Glass Through Judd-Ofelt Analysis."* Materials Chemistry and Physics, **246,** 122802, 2020	Elsevier	2020	0254-0584
2	*"structural properties of Er3+ doped lead zinc phosphate glass*" Materials Science and Engineering: B, **240,** 116, 2019	Elsevier	2019	0921-5107
3	*"Spectroscopic characterization of Er3+ doped Lead Zinc Phosphate Glass via Judd-Ofelt analysis.*" Bulletin of Materials Science, **42**, 99, 2019	Indian Academy of Science with Springer	2019	0973-7669
4	*"Vortex depinning as a non-equilibrium phase transition phenomena via the scaling of IV curves, near the low and high critical current states in 2H-NbS2 single crystals"* Physical Review B, **97**, 134510, 2018	American Physical Society (APS)	2018	2469-9969
5	*"Stability of current carrying W- nanowire deposited by Focused Ion Beam"* Journal of Applied Physics, **119**, 084301, 2016	American Institute of Physics (AIP)	2016	1089-7550
6	*"Visualizing a dilute vortex liquid to solid phase transition in a Bi2Sr2CaCu2O8 single crystal"* New Journal of Physics, **14**, 083042, 2012	IOP science	2012	1367-2630
7	*"Critical behavior at the de-pinning of a driven disordered vortex matter in 2H-NbS2"* Physical Review B, **85**, 174517, 2012	American Physical Society APS	2012	2469-9969
8	*"High sensitivity differential magneto-optical imaging with a compact Faraday-modulator*" Review of Scientific Instruments, 83, 123906, 2012	American Institute of Physics (APS)	2012	1089-7623
9	*"A fluctuating state and the critical behavior of the depinning transition in driven vortex matter in superconductors*" AIP Conf. Proc, **1447**, 13, 2012	American Institute of Physics (AIP)	2012	1551-7616
10	*"Anomalous local magnetic field distribution and strong pinning in CaFe1.94Co0.06As2 single crystals*" Europhysics Letters, **100**, 47002, 2012	IOP science	2012	1286-4854
11	*"Properties of nanopatterned pins generated in a superconductor with FIB"* Applied Surface Science, **258**, 4199, 2012	Elsevier	2012	0169-4332

12	*"Metastable magnetization response of the vortex state due to patterned blind hole pins*" Physica C, **470**, S817, 2010	Elsevier	2010	0921-4534

PAPERS PRESENTED AT SEMINARS, CONFERENCES, WORKSHOPS, ETC.: [Last 10 Year]

Sl. No.	Title of Paper/ Lecture	Organizing Institute	Conference, Seminar, workshop etc.	Role (Paper presenter/ invited talk/ chairperson)	International (Within Country)/ International (Abroad)/National
1	Competition between superconductivity and magnetism in CaFe1.94Co0.06As2 single crystals.	Jadavpur University, Kolkata (MRSI-Kolkata chapter)	Young Scientists' Colloquium-2013	Talk delivered	National
4	Competition between magnetism and superconductivity in an underdoped Iron Pnictide superconductor.	Nanjing University, Nanjing, china	14th International workshop on Vortex matter in superconductors-2013	Abstract submitted	International
5	Electromigration study in focused ion beam deposited tungsten single nanowires.	Visva Bharati University	Condensed Matter days, 2015	Talk delivered	National
6	Direct force driven electromigration in focused ion beam deposited tungsten nanowires used in nanoelectronics.	IISER Pune.	International Conference on Nanoscience and Technology (ICONSAT 2016)	Poster presented	International
7	Electromigration in single nanowires of tungsten deposited by focused ion beam	Haldia Institute of Technology, Haldia.	National Seminar on Nanoscience and Nanotechnology (NSNN-2017)	Poster presented	National
8	Electromigration in metallic nano-wires.	Haldia Institute of Technology, Haldia.	National Seminar on Nanoscience and Nanotechnology (NSNN-2017)	Poster presented	National
9	Judd-Ofelt analysis in Er^{3+} doped PbO-ZnO-P_2O_5 glass.	University of Burdwan.	Condensed Matter Days – 2018	Poster Presented	National
10	Investigation on IR-emission in Er^{3+} doped PbO-ZnO-P_2O_5 glass via Judd-Ofelt analysis.	CGCRI-Kolkata.	International Conference on Advances on Glass & Glass Ceramics – 2022	Talk delivered (Online)	International

Declaration: The above mentioned information are true to the best of my knowledge.

Date: 24-11-2022