

BIO-DATA



1.	Name	Dr. Amrita Mandal Bera		
2.	Designation	Assistant Professor		
3.	Residential Address	603, Akashdeep, Anushaktinagar, Mumbai- 400094		
4.	Date of birth	10/02/1985		
5.	Total Experience			
i.	Teaching	6 years		
ii.	Industrial	nil		
6.	Qualifications			
	Exam Passed	Year	Institution/ University	Branch/Specialization
	B.Sc.	2005	University of Calcutta	Physics
	M. Sc.	2007	University of Calcutta	Physics
	Ph. D.	2013	University of Calcutta	Physics (Nanomaterials)
	Additional Qualification: Qualified National Eligibility Test (NET) for Lectureship in Physics			
7.	Employment Record			
	Institution	Year (From To)	Designation	
	Sorojini Naidu College for Women, Kolkata, India	(March 2008 – September 2008)	Lecturer	
	Helmholtz Zentrum Berlin für Materialien und Energie Berlin, GERMANY	(May 2014 - May 2015)	Research Scientist	
	MGM's College of Engineering & Technology, Navi Mumbai, India	(February 2017 - June 2017)	Assistant Professor	
	Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai, India	(July 2017 – till date)	Assistant Professor	
8.	Undergraduate / Postgraduate Teaching Experience and Subjects Taught			
	Subjects Taught at UG level			
	Sr.No.	Name of Subject	Semester	
	1	B.Sc (Physics) honors and pass courses		
	2	Engineering Physics I	Sem I	
	3	Engineering Physics II	Sem II	
	Subjects Taught at PG level			
	Sr.No.	Name of Subject	Semester	

9.	Research Experience: Post-Doctoral Research Work (1 year) on Perovskite solar cell at Helmholtz Zentrum Berlin für Materialien und Energie (HZB) in Berlin, GERMANY.						
10.	Research Funding / Consultancy Services:						
	Sr.No	Name of the Company	Address	Product	Consulting Service	Consulting Fees	Period
	Research Grants:						
	Sr.No	Name of Funding Organization	Type of Grant	Amount (Rs.)	Year	Name of Research Project	
	1.	Mumbai University	Minor research grant	25000/-	2018-2019	Synthesis and Characterization of All Inorganic Lead Free Perovskite Materials for Eco-friendly Solar cell	
	Technical Collaboration / Lab Funding with Industries						
	Sr.No.	Name of the Funding Organization	Type of Support	Amount (Rs.)	Year		
11.	Professional Societies Fellowship / Membership Life-member of Indian Physical Society (IPS), Indian Women Scientists' Association(IWSA)						
12.	Achievements / Awards / Position						
	<ul style="list-style-type: none"> Achieved Silver medal and Elite certificate for NPTEL Course on “Stress Management”. Achieved Silver medal and Elite certificate for NPTEL Course on “Designing learner-centric e-learning in STEM disciplines”. Award of Research Fellowship in Science for Meritorious Students (UGC) Awarded Ph. D. in Physics from Dept. of Physics, University of Calcutta, Kolkata, India Title: “<i>Synthesis and characterization of nanocomposites consisting of two dimensional semiconducting nanocrystals grown within a suitable template.</i>” 						
13.	Projects guided in UG/PG level						

14.	<p>Short Term Training Programmes attended</p> <ol style="list-style-type: none"> 1. FDP on “Significance of Composite Materials & AI in Industry 4.0”, A. C. Patil College of Engineering, Kharghar, Navi Mumbai, 3-7 July 2023. 2. FDP on “THEORETICAL AND PRACTICAL ASPECTS IN APPLIED PHYSICS”, AICTE ATAL Academy, 24-28 Sept 2021. 3. Online workshop on “Examination Reforms”, AICTE, 23-25 August, 2021 4. FDP on “Stress Management”, Swyam-NPTEL, September-October 2020. 5. Online workshop on “Universal Human Value”, AICTE, 10-14 August, 2020 6. FDP on “Designing learner centric E-learning in STEM disciplines”, Swyam-NPTEL, July-August 2019. 7. STTP on “Teaching Pedagogies for Engineering Education’, Dept. of electrical engg., FCRIT, Vashi, 24th June-28th June 2019. 8. 79th Annual Meeting of the DPG and DPG Spring Meeting Technical University, Berlin, Germany; 15-20 March 2015. 9. Poster presented: <i>Investigation on morphology and optical properties of hybrid perovskites prepared on different substrates.</i> 10. National Conference on Sustainable Development through Innovative Research in Science and Technology 11. Jadavpur University, Kolkata, India; September 28-29, 2012. 12. Poster presented: <i>Multifunctional properties of nickel and nickel sulfide nanosheets grown within Na-4 mica.</i> 13. Workshop on Advanced Functional Materials (WAFM-2012) Banaras Hindu University, Banaras, India; March 19-24, 2012. 14. Poster presented: <i>Cadmium sulfide nanosheets within Na-4 mica template.</i> 15. India-Australia International Workshop on Nanotechnology in Materials and Energy Application (IAWNT 2011) 16. Jadavpur University, Kolkata, India; December 29-31, 2011. 17. Poster presented: <i>NiS nanoplates within Na-4 mica: Multifunctional properties.</i>
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List of Journal Papers Published (list in IEEE format)

1. D. Chakravorty B. N. Pal, S. Banerjee, A. Mandal, S. Mitra, D. R. Saha, “Sensing Behaviour of Some Nanocomposite Systems” *Soft Nanoscience Letters*, vol. 3, no. 4, pp. 12-15, Nov. 2013.
2. A. Bose, A. Mandal, S. Mitra, S. K. De, S. Banerjee, and D. Chakravorty, “Dielectric relaxation studies on two-dimensional nanocomposites of NiS and Na-4 mica” *Indian J Phys*, vol. 87, no. 10, pp. 977-981, Oct. 2013.
3. S. Roy Choudhury, A. Mandal, M. Ghosh, S. Basu, D. Chakravorty, and A. Goswami, “Investigation of antimicrobial physiology of orthorhombic and monoclinic nanoallotropes of sulfur at the interface of transcriptome and metabolome” *Appl. Microbiol. Biotechnol.*, vol. 97, no. 13, pp. 5965–5979, Apr. 2013.
4. S. Roy Choudhury, A. Mandal, D. Chakravorty, M. Gopal and A. Goswami “Evaluation of physicochemical properties, and antimicrobial efficacy of monoclinic sulphur- nanocolloid” *J. Nanopart. Res.*, vol. 15, no. 4, pp. 1-11, Mar. 2013.
5. **A. Mandal**, S. Mitra, A. Datta, S. Banerjee, and D. Chakravorty “Multiphonon scattering and photoluminescence of two dimensional ZnS nanosheets grown within Na-4mica” *J. Appl. Phys.*, vol. 112, pp. 074321:p1-p7, Oct. 2012
6. A. Mandal, S. Banerjee, S. Banerjee, and D. Chakravorty “Magnetodielectric effect of CuO grown within highly ordered two dimensional mesoporous silica template SBA 15” *J. Appl. Phys.*, vol. 112, pp. 074310:p1-p4, Oct. 2012.
7. A. Mandal, A. Bose, S. Mitra, A. Datta, S. Banerjee, and D. Chakravorty “Multiferroic properties of NiS nanoplates grown within Na-4 mica” *J. Magn. Magn. Mater.*, vol. 324, pp. 2861-2865, May 2012.
8. A. Mandal, S. Mitra, A. Datta, S. Banerjee, and D. Chakravorty “Magnetodielectric effect in CdS nanosheets grown within Na-4 mica” *J. Appl. Phys.*, vol. 111, pp. 074303:1- 4, Apr. 2012.
9. S. Mitra, A. Mandal, A. Datta, S. Banerjee, and D. Chakravorty “Enhanced magnetic anisotropy of nickel nanosheet prepared in Na-4 mica” *J. Magn. Magn. Mater.*, vol. 324, pp. 2452-2458, Mar. 2012.
10. S. Mitra, A. Mandal, A. Datta, S. Banerjee, and D. Chakravorty “Ferromagnetic Behavior of Ultrathin Manganese Nanosheets” *J. Phys. Chem. C*, vol. 115, pp. 14673-77, July 2011.
11. S. Mitra, A. Mandal, A. Datta, S. Banerjee, S. Bhattacharya, A. Bose and D. Chakravorty “Template based growth of nanoscaled films : a brief review” *Indian J. Phys.*, vol. 85, no 5, pp. 649-666, May 2011.
12. S. Roy Choudhury, M. Ghosh, A. Mandal, D. Chakravorty, M. Pal, S. Pradhan and A. Goswami “Surface-modified sulfur nanoparticles: an effective antifungal agent against *Aspergillus niger* and *Fusarium oxysporum*” *Appl. Microbiol. Biotechnol.*, vol. 90, pp. 733-743, Feb. 2011.
13. S. Mitra, A. Mandal, A. Datta, S. Banerjee, and D. Chakravorty “Magnetodielectric effect in nickel nanosheet-Na-4 mica composites” *Euro. Phys. Lett.*, vol. 92, pp. 26003:p1-p5, Nov. 2010.

16.	<p>List of Papers Published in National and International Conferences (list in IEEE format)</p> <p>[1] Suma Jebin, Swapna Gijare, and Amrita Mandal Bera</p> <p>Title: All Inorganic Lead-free Perovskites for Photocatalysis: Preparation and Absorption Study presente at 2023 5th Biennial International Conference on Nascent Technologies in Engineering (ICNTE), IEEE Xplore Conference Proceedings, pages 1-4 (2023).</p> <p>[2] Amrita Mandal Bera, D. R. Wargulski, and T. Unold.</p> <p>Title: High efficient perovskite solar cell material CH₃NH₃PbI₃: Synthesis of films and their Characterization. Presented at DAE Solid State Physics Symposium 2017. Available: AIP Conference Proceedings, 1942, 140038: p1-p4 (2018).</p> <p>[3] D. R. Saha, A. Mandal, S. Mitra, M. R. Mada, P. Boughton, S. Bandyopadhyay, and D. Chakravorty.</p> <p>Title: Nanoindentation Studies on Silver Nanoparticles Available: AIP Conference Proceedings, 1536, 257 (2013).</p> <p>[3] A. Mandal, S. Banerjee, S. Dhara and D. Chakravorty</p> <p>Title: Synthesis and Raman Studies of Wurtzite CdS Nanosheets. Presented at DAE Solid State Physics Symposium 2011. Available: AIP Conference Proceedings, 1447, 231 (2012).</p>
17.	Books/Reports/General articles etc.
18.	Invited Lectures in FDP/ STTP
19.	<p>International Conference Technical Program Committee Member / Reviewer</p> <ul style="list-style-type: none"> • Technical Program Committee Member and Reviewer, ICNTE 2021 • Technical Program Committee Member, ICNTE 2023
20.	Patents