Department of Physics

Teacher's Profile

At present total number of teachers in the Department of Physics is 04 (Four). Details profile of the teachers are follows

Faculty Name with Prefix (BLOCK LETTER)	**DR. SOUBHIK CHATTOPADHYAY**
Designation	ASSISTANT PROFESSOR AND HEAD OF THE DEPARTMENT
Educational Qualification	Ph.D.
Contact official email (Mobile no. optional)	scphy@smc.edu.in/9330957454
Department Name	Physics
Field of Specialization/ Area of Interest	Condensed Matter Physics (Experimental)
Teaching experience (in years)	11 years

Details of Publications

Research Papers in International Journals

Sl. No	Article details	Impact factor of the journal	Number of citation
1	"*Interplay of defects in 1.2 MeV Ar irradiated ZnO*" **S. Chattopadhyay**,S. Dutta, D. Jana, S. Chattopadhyay, A. Sarkar, P. Kumar, D. Kanjilal, D. K. Mishra, S. K. Ray, J. Appl. Phys., 107 (2010) 113516.	2.328	48
2	"*Synthesis and characterization of single-phase Mn-doped ZnO"* **S. Chattopadhyay**, S. Dutta, A. Banerjee, D. Jana, S. Bandyopadhyay, S. Chattopadhyay, A. Sarkar, Physica B:Cond. Matt., 404 (2009) 1509.	1.902	60
3	"*Disorder driven optical processes in nanocrystalline ZnO"* **S. Chattopadhyay**, S. K. Neogi, , P. Pandit, S. Dutta, T. Rakshit, D. Jana, S. Chattopadhyay, A. Sarkar, S. K. Ray, J. Lumin. 132 (2012) 6.	3.280	29
4	"*Defects induced ferromagnetism in Mn doped ZnO"* **S. Chattopadhyay**, S. K. Neogi, A. Sarkar, M. D. Mukadam, S. M. Yusuf A. Banerjee, S. Bandyopadhyay, J. Magn. Magn. Mater., 323 (2010) 363.	2.683	80
5	"*Defect dynamics in annealed Si_3N_4 by positron annihilation spectroscopy"* **S. Chattopadhyay**, S. Dutta, D. Jana, S. Chattopadhyay, D. Das, M. Chakrabarti, D. Sanyal, A. Sarkar, Physica Status Solidi (c), 6 (2009) 2533.	0.81	Nil
6	"*Optical property modification of ZnO: Effect of 1.2 MeV Ar irradiation*" **S. Chattopadhyay,** S. Dutta, P. Pandit, D. Jana, S. Chattopadhyay, A. Sarkar, P. Kumar, D. Kanjilal, D. K. Mishra, S. K. Ray Physica Status Solidi (c), 8 (2011) 512.	0.81	13
7	"*Effect of 50 MeV Li^{3+} irradiation on structural and electrical properties of Mn-doped ZnO"* S. K. Neogi, **S. Chattopadhyay**, A. Banerjee, S. Bandyopadhyay, A. Sarkar, R. Kumar, J. Phys.: Cond. Matt. 23 (2011) 205801.	2.707	56

8	"*Surface defect induced ferromagnetism in mechanically milled nanocrystalline ZnO"* S. Ghose, **S. Chattopadhyay**, A. Sarkar, M. Chakrabarti, D. Das, T. Rakshit, S. K. Roy, D. Jana, J. Appl. Phys**.** 114 (2013) 073516.	2.328	32
9	"*Defects in 700 keV oxygen ion irradiated ZnO"* S. Pal, A. Sarkar, **S. Chattopadhyay**, M. Chakrabarti, D. Sanyal, P. Kumar, D. Kanjilal, T. Rakshit, S. K. Ray, D. Jana, NIM B 311 (2013) 20.	1.207	20
10	"*Structural modification by Li^{3+} ion irradiation and intrinsic magnetic properties of un-irradiated and Li^{3+} irradiated $Zn_{0.96}$ $Mn_{0.04}O$ samples"* S. K. Neogi, **S. Chattopadhyay**, R. Karmakar,Aritra Banerjee, S. Bandyopadhyay, A. Banerjee, J. Alloys and Comp. 573 (2013) 76.	4.650	15
11	"*Role of Milling Time for Ferromagnetic Mn Doped ZnO Samples"* **S. Chattopadhyay**, R. Karmakar, S. K. Neogi, A. Banerjee, S. Bandyopadhyay, M. D. Mukadam, S. M. Yusuf, AIP Conf. Proc. 1447 (2012) 1195.	0.40	Nil
12	"*Role of nano size perticle assembly in ferromagnetism of Mn doped ZnO pellets"* S. K. Neogi, **S. Chattopadhyay,** R. Karmakar, A. Banerjee, S. Bandyopadhyay, A. Banerjee, AIP Conf. Proc. 1347 (2011) 289.	0.40	2
13	13. "*A unique coordination chemistry of sodium"* T. Chattopadhyay, K. S. Banu, **S. Chattopadhyay**,A. Banerjee, S. Mondal, E. Suresh, D. Das, Inorganic Chemistry Communications, 12 (2009) 26.	1.943	8

Books

Sl. No.	Book Details
1	"*Interplay of defects in ZnO"* by **S. Chattopadhyay** Published by **Scholars' Press**, Omni Scriptum GmbH and Co. KG, Heinrich-Bocking-Str. 6-8, 66121,Saarbruken, Germany **First Edition**, 2014 **ISBN 978-3-639-70736-6**
2	*"Proshno-Uttore Snatakyo Podarthobidya: Part 1* by **S. Chattopadhyay** Published by **Archana Publishing Centre**, 10/2B Ramanath Majumdar Street (Ground Floor), Kolkata - 700009, India. **First Edition**, 2013

Book Chapter

Sl. No.	Book Chapter Details
1	*"Ion beam induced defects in ZnO: A radiation-hard metal oxide"* By S. Pal, A. Mondal, A. Sarkar, **S. Chattopadhyay** and D. Jana *Title of the book:* ***Metal Oxide Defects: Fundamentals, Design, Development and Applications*** *published by* ***Elsevier Woodhead Imprint****.* ***ISBN:0323903592***

Invited Lecture

"*Interplay of defects in wide band gap semiconductors"*, **Advanced Defect Characterization Group, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan**.

On June 07, 2010

Paper presentation in Seminar/ workshop/ conference		
Sl. No.	**Details of paper presentation**	**Mode of Presentation**
1	*"Donor and Acceptor Defects in High Purity Granular ZnO",* **National Conference on Frontiers in Modern Physics – 2018, Department of Physics, Adamas University**. On August 17, 2018.	Oral
2	"*Donor and acceptor defects in high purity granular ZnO"*, **Condensed Matter Days 2014, Department of Physics, University of Calcutta, Kolkata, India**. On August 29, 2014.	Oral
3	"*Modification of structural and optical properties of ZnO by low energy ion beam irradiation"*, **Condensed Matter Days 2009, Department of Physics, Jadavpur University, Jadavpur, Kolkata, India**. On August 27, 2009.	Oral
4	"*Correlation of room temperature resistivity with defect state in Mn doped ZnO samples"*, **UGC Sponsored National Conference on Nano Science and its Impact on Society, Department of Physics, Narasinha Dutt College, Howrah, West Bengal, India**. On March 27, 2009.	Oral
5	*"Determination of Permittivity Distribution of Dielectric Materials within a Closed Tank Using Electrical Capacitance Tomography"*, **First National Conference on "Recent Trends and Emerging Technologies in Electrical Systems", Department of Electrical and Electronics Department, National Engineering College, K. R. Nagar, Kovilpatti, Tamilnadu, India**. On October 07, 2005.	Oral
6	*"Study of structural and electrical properties of Mn doped ZnO samples",* **Condense Matter Days 2008, Department of Physics, Biswa Bharati University, Shantiniketan, India**. On August 30, 2008	Poster
7	*"A study on defect dynamics in annealed Si_3N_4 nanoparticles by positron annihilation spectroscopy"*, **International School on Positron Studies & The 15th International Conference on Positron Annihilation, Saha Institute of Nuclear Physics, Kolkata, India.** On January 09, 2009	Poster
8	*"Controlled defects in ZnO by low energy Ar irradiation"* **37th International Symposium on Compound Semiconductor (IACS 2010), ISCS Japan committee, Takamatsu, Japan.** On June 02, 2010.	Poster

Collaborative Programs/ Membership	Life member of Indian Physical Society
WEB address (if any)	https://sites.google.com/site/drsoubhikchattopadhyay
Passport photograph (insert)