

## Resume of Dr. Sadhan Chanda



Full Name: Dr. Sadhan Chanda

Designation: Asst. Professor- II

Institution: Vivekananda College, Madhyamgram (Affiliated to West Bengal State University)

E-mail : [sadhan.physics@gmail.com](mailto:sadhan.physics@gmail.com)

Date of Birth: 20/01/1988

Residential address: Susar KananPhase II, 3rd floor, 2 No. Debigarh, Madhyamgram, Kolkata – 700129

### Academic Qualification

Examination	Board/University	Year of obtaining the degree
Madhyamik (10)	W.B.B.S.E	2003
H.S. (10+2)	W.B.C.H.S.E	2005
B.Sc. (Hons) in Physics	University of Calcutta (R. K. M. Residential College, Narendrapur)	2008
M. Sc. in Physics	University of Calcutta	2010
Ph. D. in experimental Physics	Bose Institute (University of Calcutta)	2016

## Teaching Experience

- (i) Assistant professor in the department of Physics, The Heritage College from **15th July 2016** to 20<sup>th</sup> May 2020.
- (ii) Assistant professor in the department of Physics, Vivekananda college, Madhyamgram from **7<sup>th</sup> July 2020** to till date.

## Teaching Interests

All the theory and practical of Major and Minor courses of undergraduate Physics.

## Exam Qualified

NET- Eligibility for Lectureship (LS) (2012)  
Gate-AllIndia Rank **455**(2010)  
JEST- All India Rank **34**(2010)

**Thesis Title:** "Optoelectronic behaviour of pure and magnetically doped rare earth based perovskite oxide nano-particles" under the supervision of Prof. T. P. Sinha, Bose Institute, Kolkata.

**Programming language known:** Fortran

**Simulation Packages Known:** *Vienna Ab initio simulation package(VASP), WIEN2k.*

**Research Interests:** I am interested in preparing advanced materials and to study structural, dielectric, magnetic and optical properties. I have prepared some perovskite oxide in nano and bulk both phases and investigated structural, dielectric, magnetic and optical properties. I have also applied the density functional theory (DFT) calculations and compare the experimental results with simulated values.

## Research Publications:

### In peer reviewed journals

1. **Sadhan Chanda**, Sujoy Saha, Alo Dutta and T.P. Sinha (2013), [Raman spectroscopy and dielectric properties of nanoceramic NdFeO<sub>3</sub>](#), **Materials Research Bulletin**, vol.48, pp. 1688–1693.
2. **Sadhan Chanda**, Sujoy Saha, Alo Dutta, A. S. Mahapatra, P. K. Chakrabarti, Uday Kumar, T. P. Sinha, [Multiferroicity in La<sub>1/2</sub>Nd<sub>1/2</sub>FeO<sub>3</sub> nanoparticles](#), **Solid State Sciences**, **37** (2014), 55-63.
3. **Sadhan Chanda**, Sujoy Saha, Alo Dutta and T. P. Sinha, ["Structural and transport properties of double perovskite Dy<sub>2</sub>NiMnO<sub>6</sub>"](#). **Materials Research Bulletin**, **62** 153 (2015).
4. **Sadhan Chanda**, Sujoy Saha, Alo Dutta, Bushra Irfan, Ratnamala Chatterjee, T.P. Sinha, ["Magnetic and Dielectric properties of orthoferrites La<sub>1-x</sub>Pr<sub>x</sub>FeO<sub>3</sub> \(x = 0, 0.1, 0.2, 0.3, 0.4 and 0.5\)"](#), **Journal of Alloys and Compounds**, **649**, (2015), 1260-1266.

5. Indrani Das, **Sadhan Chanda**, Alo Dutta, Sourish Banerjee, T.P. Sinha, [\*Dielectric relaxation of  \$Y\_{1-x}R\_xFeO\_3\$  \( \$R = Dy, Er, x = 0, 0.5\$ \)\*](#), **Journal of Alloys and Compounds** 571 (2013) 56–62.
6. Chandrahas Bharti, **Sadhan Chanda**, T.P.Sinha, [\*Electrical transport mechanism in a newly synthesized rare earth double perovskite oxide  \$Sr\_2CeTaO\_6\$\*](#) , **Physica B** 409 (2013) 87–92.
7. Rajesh Mukherjee, **Sadhan Chanda**, Chandrahas Bharti, P. Sahu, T. P. Sinha, [\*Micro-structure, optical properties and ac conductivity of rare earth double perovskite oxides:  \$Sr\_2ErNbO\_6\$\*](#) , **Physica B** 422(2013)78–82.
8. Sujoy Saha, **Sadhan Chanda**, Alo Dutta and T.P. Sinha (2013), [\*Dielectric relaxation of  \$NdMnO\_3\$  nanoparticles\*](#), **Materials Research Bulletin**, vol.48, pp. 4917–4923.
9. Chandrahas Bharti, Mrinmoy K. Das, A. Sen, **Sadhan Chanda** and T. P. Sinha, [\*Rietveld refinement and dielectric relaxation of a new rare earth based double perovskite oxide:  \$BaPrCoNbO\_6\$\*](#) , **Journal of Solid State Chemistry**, 210 (2014) 219–223.
10. Chandrahas Bharti, A. Sen, **Sadhan Chanda**, T.P. Sinha, [\*Structural, vibrational and electrical properties of ordered double perovskite oxide  \$BaLaMnSbO\_6\$\*](#) , **Journal of Alloys and Compounds** 590 (2014) 125–130.
11. Sujoy Saha, **Sadhan Chanda**, Alo Dutta and T. P. Sinha, [\*Dielectric relaxation and phonon modes of  \$NdCrO\_3\$  nanostructure\*](#), **Journal of Sol-Gel Science and Technology**, 69 (2014) 553-563.
12. Sujoy Saha, **Sadhan Chanda**, Alo Dutta, Uday Kumar, Rajeev Ranjan and T. P. Sinha, [\*Dielectric relaxation and anti-ferromagnetic coupling of  \$BiEuO\_3\$  and  \$BiGdO\_3\$\*](#) , **Journal of Magnetism and Magnetic Materials**, 360 (2014) 80–86.
13. S.K. Ghosh, M. Ganguly, S.K. Rout, **S. Chanda**, T.P. Sinha, [\*Structural, optical and dielectric relaxor properties of neodymium doped cubic perovskite \( \$Ba\_{1-x}Nd\_{2x/3}\)\(Zr\_{0.3}Ti\_{0.7}\)O\_3\$\*](#) , **Solid State Sciences** 30 (2014) 68–77.
14. Chandrahas Bharti, Mrinmoy K. Das, A. Sen, **Sadhan Chanda**, T.P. Sinha, [\*Cationic ordering, relaxation dynamics and polaron hopping in a new double perovskite oxide:  \$BaPrCoTaO\_6\$\*](#) , **Journal of Alloys and Compounds**, 617 (2014) 677-682.
15. Anup Pradhan Sakhya, Jameson Maibam, Sujoy Saha, SadhanChanda, Alo Dutta, B Indrajit Sharma, R K Thapa, T P Sinha, "[\*Electronic structure and elastic properties of  \$ATiO\_3\$  \( \$A = Ba, Sr, Ca\$ \) perovskites: A first principles study\*](#)", **Indian Journal of Pure & Applied Physics**, 53 (2015) 102-109.
16. **Sadhan Chanda**, Alo Dutta, Sujoy Saha, Satadeep Bhattacharjee and T. P. Sinha, "[\*Electronic Structure of Double Perovskite  \$Lu\_2CoMnO\_6\$\*](#) ", **Advanced Science Letters**, (accepted).
17. Sujoy Saha, **Sadhan Chanda**, Alo Dutta, Dipankar Das, T.P. Sinha, "[\*Dielectric dispersion and antiferromagnetism in  \$BiTb\_xFe\_{1-x}O\_3\$  \( \$x = 1.0, 0.75\$ \)\*](#)", **Journal of Magnetism and Magnetic Materials**, 398(2016) 289-297.
18. Indrani Das, **Sadhan Chanda**, Sujoy Saha, Alo Dutta, Sourish Banerjee, Sudipta Bandyopadhyay and T. P. Sinha, [\*Electronic structure and transport properties of antiferromagnetic double perovskite  \$Y\_2AlCrO\_6\$\*](#) , **RSC Adv.**, 2016, 6, 8041.
19. **Sadhan Chanda**, Sujoy Saha, Alo Dutta, J. Krishna Murthy, A. Venimadhav, SantiranjanShannigrahi and T. P.Sinha, "[\*Magnetic ordering and conduction mechanism of different electroactive regions in  \$Lu\_2NiMnO\_6\$\*](#) " **Journal of Applied Physics** 120, 134102 (2016).
20. Md. Sariful Sheikh, SadhanChanda, ArkaDey, Alo Dutta, ParthaPratim Ray,

and T. P. Sinha "Investigation of Light Induced Charge Transport Properties In  $\text{Dy}_2\text{NiMnO}_6$  Perovskite Based Schottky Diode" **FERROELECTRICS** 2017, VOL. 518, 204–211

21. Md Sariful Sheikh, **Sadhan Chanda**, Alo Dutta, Sayantani Das, T. P. Sinha "Schottky diode like behaviour in Ag/ $\text{Dy}_2\text{NiMnO}_6$ /FTO device" **Materials Today: Proceedings** 5 (2018) 9839–9845.
22. **Sadhan Chanda**, Ritwik Maity, Sujoy Saha, Alo Dutta, T. P. Sinha "Double perovskite nanostructured  $\text{Dy}_2\text{CoMnO}_6$  an efficient visible light photocatalysts: synthesis and characterization" *Journal of Sol-Gel Science and Technology* (2021) 99:600–613.
23. Sujoy Saha, **Sadhan Chanda**, Alo Dutta and T. P. Sinha "Insulator-to-metal transition in  $\text{RCoO}_3$  (R = Pr, Nd)" *JOURNAL OF ADVANCED DIELECTRICS* (2023) 2350003 (7 pages).
24. Phanikumar Chunduri, **Sadhan Chanda**, Sujoy Saha, Mohandass Gandhi, Sripan Chinnaiyah, A. Rajesh "Structural instability of  $\text{ZnFe}_2\text{O}_4$ - $\text{BaTiO}_3$  magnetoelectric core-shell nanoparticle: An in-situ analysis by PFM" *Journal of the Chinese Chemical Society* (2025) 1–12.
25. Phanikumar Chunduri, **Sadhan Chanda**, Sujoy Saha, A. Rajesh, Sripan Chinnaiyah, and Mohandass Gandhi "Dielectric Relaxation of  $\text{NiO-Gd}_2\text{O}_3$  Composite Nanostructure" *Chemistry Select* (2025) 10, e02000, (1- 10).

#### Conferences, schools and workshops attended:

1. **National Seminar on Ferroelectrics & Dielectrics (NSFD)** at *Guru Ghasidas Vishwavidyalaya (Bilaspur, Chhattisgarh)* during 2-4 December 2010.
2. **Recent Trends in Materials Science (RTMS)** at *Jaypee University of Information Technology (Waknaghat, Himachal Pradesh)* during 8-10 October 2011.
3. **IEEE Magnetics Summer School** at *SRM University (Potheri, Kancheepuram, Tamil Nadu)* during 23-27 July 2012.
4. **Condensed Matter Days (CM Days–2012)** at *Birla institute of Technology (Ranchi, Jharkhand)* during 29-31 August 2012.
5. **DAE-Solid State Physics Symposium (DAE-SSPS)** at *IIT Bombay, (Mumbai)* 3-7 December 2012. (Published: AIP Conf. Proc. 1512, 216 (2013)).
6. **National Seminar on Ferroelectrics & Dielectrics (NSFD)** at *Siksha 'O' Anusandhan University (Kalinga Nagar, Orissa)* during 17-19 December 2012.
7. **Third National Seminar on Recent Trends in Condensed Matter Physics Including Laser Application** at *University of Burdwan (Burdwan, West Bengal)* during 5-7 March 2013.
8. **International Union of Materials Research Society-International Conference in Asia** at *Indian Institute of Science (Bangalore)* during 16-20 December 2013.
9. **Condensed Matter Days (CM Days–2014)** at *Centre for Research in Nanoscience and Nanotechnology, University of Calcutta (Kolkata, West Bengal)* during 27–29 August 2014.
10. **National Seminar on Ferroelectrics & Dielectrics (NSFD–XVIII)** at *Manipur University (Imphal, Manipur)* during 3–5 November 2014.

11. **International Workshop/Conference on Computational Condensed Matter Physics and Materials Science (IWCCMP-2014)** at *ABV-Indian Institute of Information Technology and Management(Gwalior, Madhya Pradesh)* during 25-30 November 2014.
12. **2nd National Seminar on Nanoscience and Nanotechnology, NSNN-2017** at School of Applied science & Humanities, Haldia Institute of Technology during 17-18th March 2017.
13. **National Conference on Recent Trends in Condensed Matter Physics** at Bose Institute, Kolkata during October 31 - Nov 3, 2017.
14. **A one-day workshop on CBCS-Physics Syllabus** at Department of Physics, Bangabasi College, Kolkata on 7th May, 2018.
15. International Conference on **Philosophical Tradition in India: Community Culture and Gender** at Vivekananda College, Madhyamgram during December 11 to 12, 2024.

Place: Madhyamgram, Kolkata

Date : 25<sup>th</sup>February, 2025