

Curriculum Vitae

Name	Dr. Aksar Ali Biswas	
Designation	Assistant Professor	
Department	Physics	
Institution	Jangipur College	
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Academic Qualification		
Examination	College/University	Year of Passing
B.Sc (Hons.)	University of Kalyani	2006
M.Sc. (Phys.)	University of Kalyani	2008
Ph.D. (Phys.)	University of Kalyani	2014
Teaching Experience		
Organization / Institution	Designation	Duration
IMPS Polytechnic College, Jalpaiguri	Lecturer in Physics	Aug 2015 - Feb 2017
Jangipur College	Assistant Professor	March 2017 - Present
Area of Specialization:		
i) Specialization in M.Sc.: Nuclear & Elementary Particle Physics		
ii) Area of Research interests (Theory and Experiment):		
Magnetic materials (Pyrochlores $A_2B_2O_7$, Perovskites ABO_3, Double Perovskites $A_2B_2O_6$), Crystal field Theory, Low temperature magnetic properties, Optical properties, Geometrical Frustration, Magnetic Ordering etc.		
Publications (Top Ten):		
1. "Optical and Magnetic Properties of Cubic Double Perovskites Ba_2RSbO_6 (R= Dy, Gd) Coordinated to Lattice Dynamical and Crystal-Field Computations" – Y. M. Jana, S. Nandi, <u>A. Ali Biswas</u> , H. C. Gupta, R. Upadhyay, C. Upadhyay, and D. Samanta, Phys. Status Solidi B 259 , 2100460 (2021).		
2. "Bioremediation potential of arsenic by non-enzymatically biofabricated silver nanoparticles adhered to the mesoporous carbonized fungal cell surface of <i>Aspergillus foetidus</i> MTCC8876" – T. Mukherjee, S. Chakraborty, <u>A. Ali Biswas</u> , and T. K. Das, J. Environ. Mang. 201 , 435 (2017).		
3. "Synthesis, X-ray Rietveld analysis, infrared and Mössbauer spectroscopy of R_2FeSbO_7 (R=Y, Dy, Gd, Bi) pyrochlore solid solution" – Y.M. Jana, P. Halder, A. Ali Biswas, A. Roychowdhury, D. Das, S. Dey, and S. Kumar, J. Alloys Comp. 656 , 226 (2016).		
4. "FT-IR and Raman vibrational spectroscopic studies of R_2FeSbO_7 ($R^{3+} = Y, Dy, Gd, Bi$) pyrochlores" -Y.M. Jana, P. Halder, A. Ali Biswas, R. Jana, and G.D. Mukherjee, Vib. Spect., 84 , 74 (2016).		
5. Crystal-field study of magnetization and specific heat properties of frustrated pyrochlore $Pr_2Zr_2O_7$ J. Alam, Y. M. Jana, and <u>A. Ali Biswas</u> , 416 , 391 (2016).		
6. "Magnetic ground-state of strongly frustrated pyrochlore anti-ferromagnet $Er_2Sn_2O_7$ " – J. Alam, Y. M. Jana, and <u>A. Ali Biswas</u> , J. Magn. Magn. Mater. 361 , 175 (2014).		

7. “Crystal-field and molecular field in ferromagnetic Mott insulator $Y_2V_2O_7$ pyrochlore” – A. Ali Biswas, and Y. M. Jana, Phys. Exp. **3**, 27 (2013).
8. “Crystal-field, exchange interactions and magnetism in pyrochlore ferromagnet $R_2V_2O_7$ ($R^{3+} = Y, Lu$)” – A. Ali Biswas, and Y. M. Jana, J. Magn. Magn. Mater. **329**, 118 (2013).
9. “Nuclear hyperfine level pattern and hyperfine specific heat of frustrated Gd-pyrochlores $Gd_2M_2O_7$ ($M = Ti, Sn, Hf, Zr$)” – A. Ali Biswas, and Y. M. Jana, Hyperfine Interactions **222**, S13 (2013).
10. “Estimation of single-ion anisotropies, crystal-field and exchange interactions in Gd-based frustrated pyrochlore antiferromagnets $Gd_2M_2O_7$ ($M = Ti, Sn, Hf, Zr$)” – A. Ali Biswas, and Y. M. Jana, J. Magn. Magn. Mater. **323**, 3202 (2011).

Paper Presented/Attended/Resource Person in Seminar/Conference/Workshops/FDP’s (Top Ten):

1. “**Synthesis and X-ray Rietveld analysis of novel pyrochlore compound $Ca_3Dy_3Ti_7Ta_2O_{26.5}$** ”- 3rd National Physics Meet (NPM-2024) organized by Department of Physics, University of Kalyani, Kalyani (WB), India.
2. “**Preparation, X-ray Rietveld refinement of rare earth double perovskite Ba_2GdNbO_6** ” – International Conference on Recent Trends in Biotechnology & Chemistry organized by Department of Molecular Biology & Biotechnology and Department of Chemistry, Sripat Singh College, Jiaganj, Murshidabad, WB, India.
3. “**X-ray Rietveld analysis of double perovskite compound Ba_2NdSbO_6** ” – 2nd National Physics Meet (NPM-2023) organized by Department of Physics, University of Kalyani, Kalyani (WB), India.
4. “**Magnetic ground-state of strongly frustrated pyrochlore anti-ferromagnet $Er_2Sn_2O_7$** ” – One Day Conference on Condensed Matter Physics and Materials (CMPM-2013) organized by Department of Physics, University of Kalyani, Kalyani (WB), India.
5. “**Crystal-field, exchange interactions, and ferromagnetic properties of pyrochlores $R_2V_2O_7$ ($R = Lu, Y$)**” – 6th India-Singapore Joint Physics Symposium on Physics of Advanced Materials (PAM-2013) organized by Department of Physics & Meteorology, IIT Kharagpur (WB), India.
6. “**Origin of ferromagnetic ordering of $Lu_2V_2O_7$ studied with crystal-field theory in the mean-field approach**” – International Conference on Recent Trends in Applied Physics and Material Science (RAM-2013) organized by Govt. College of Engineering & Technology, Bikaner, Rajasthan, India.
7. “**Electronic and magnetic properties of $Lu_2V_2O_7$ from the crystal-field analysis of magnetic susceptibility**” – National Conference on Advances in Materials Science and Technologies (AMST-2012) organized by Kakatiya University, Warangal (AP), India.
8. “**Crystal-field and molecular field in ferromagnetic mott insulator $Y_2V_2O_7$ pyrochlore**” – A national Conference on Condensed Matter Days (CMDAYS-2012) organized by Department of

Applied Physics, BIT Mesra, Jharkhand, India.

9. **“Nuclear hyperfine specific heat properties of frustrated pyrochlore compounds $Gd_2Hf_2O_7$ and $Gd_2Zr_2O_7$ ”** – National Conference on Recent Trends in Material Science (RTMS-2011) organized by Jaypee University of Information Technology (JUIT) Waknaghat (HP), India.
10. **“Crystal-field interaction in frustrated spin-glass pyrochlore $Tb_2Nb_2O_7$ revisited: estimation of exchange interaction”** – 56th DAE Solid State Physics Symposium (DAESSPS-2011) organized by SRM University, Kattankulathur, Tamilnadu, India.

Other details(if any):