BARASAT GOVERNMENT COLLEGE

TEACHER'S PROFILE

DR. SARAJIT BISWAS, DEPARTMENT OF PHYSICS

DESIGNATION	:	Assistant Professor (Stage2)
QUALIFICATION	:	M.Sc., Ph.D.
DATE OF JOINING THE SERVICE	:	May 30, 2009
DATE OF JOINING THE INSTITUTION	:	Mar 1, 2019
ADDRESS FOR COMMUNICATION	:	Barasat Govt. College, 10 K.N.C Road, Barasat, Kolkata 700124
PHONE NO	:	Personal information
EMAIL ADDRESS	:	srisabuj.biswas@gmail.com
SPECIALIZATION	:	Nuclear Physics
TEACHING EXPERIENCE	:	(1) UG courses (B.Sc. Physics Honours and General) from May, 2009 to till date (2) PG courses (M.Sc. Physics)- March, 2019 to till date
COLLEGE SERVED	:	(1) Taki Govt. College, Taki, North 24 Parganas (from May, 2009 to February, 2019) (2) Barasat Govt. College, Kolkata-124 (March, 2019 to till date)

ACADEMIC AND ADMINISTRATIVE EXPERIENCE	:	Examination Committee (from 2009 to 2020), Hostel Committee (2009 to 2019), Career Counselling and Placement Committee (from 2019 to 2020), PG Admission Committee (2019 t0 till date),
TOPICS TAUGHT	:	Mathematical Physics, Condensed Matter Physics, General Properties of Matter, Electricity and Magnetism, Heat and Thermodynamics, Electronics (Analog and Digital, OPAMPs)
AREA OF RESEARCH & INTEREST	:	Structural, Electronic and Magnetic Properties of Transition Metal Oxides using Density Functional Theory (DFT)
ONGOING PROJECT DETAILS	:	None
AWARD RECEIVED	:	None
PATENT DETAILS	:	None
EXTRACURRICULAR ACTIVITIES	:	None
CAREER PROFILE	:	*I received B.Sc. (Physics) and M.Sc. (Physics) degree from University of Calcutta, West Bengal, India in the year 2003 and 2005 respectively. I have completed Ph.D. (Physics) degree from West Bengal State University, Kolkata-700126, West Bengal, India. My research interest is on the structural, electronic and magnetic properties of transition metal oxides. I usually work on the Hollandite (K2Cr8O16, K2V8O16), Rutile (CrO2, VO2), ZnO, energy materials such as Mg (AlH4)2, NaO2, KO2 systems. At present, I am working as an Assistant Professor in Physics at Barasat Govt. College, Barasat, Kolkata-700124, India. I have Published about 14 research papers in inland and foreign journals and has contributed about 10 technical papers in national and internal seminars and conferences.*
ACADEMIC LINK	:	(1) https://www.researchgate.net/profile/Sarajit-Biswas

PUBLICATION

JOURNAL PUBLICATION :

(1) Sarajit Biswas, 'First-principles investigation of the metal-insulator transition in rutile RuO_2 (https://doi.org/10.1016/j.tsf.2021.138925)', Thin Solid Films (https://www.journals.elsevier.com/thin-solid-films), October, 2021, ISSN/eISSN: 0040-6090/1879-2731

(2) Sarajit Biswas and Molly De Raychaudhury, 'Metal-insulator transition in Cr-doped hollandite vanadate $K_2Cr_8O_{16}$ (https://doi.org/10.1088/1757-899X/1183/1/012004)', IOP Conference Series: Materials Science and Engineering (https://iopscience.iop.org/journal/1757-899X), September, 2021, ISSN/eISSN: 0965-0393 /1361-651X

(3) Sarajit Biswas and Molly De Raychaudhury, 'First-principles study of the electronic and magnetic properties of Ti-substituted $K_2Cr_8O_{16}$ (https://doi.org/10.1016/j.matpr.2021.06.460)', Materials Today: Proceedings (https://www.journals.elsevier.com/materials-today-proceedings), August, 2021, ISSN: 2352-9407

(4) Sarajit Biswas, 'A DFT Study of the Electronic, Magnetic and Structural Properties of Rutile VO_2 (https://doi.org/10.1007/s40010-021-00731-2)', Proceedings of the National Academy of Sciences, India Section A: Physical Sciences (https://www.springer.com/journal/40010), January, 2021, ISSN eISSN: 0369-8203/2250-1762

(5) Sarajit Biswas, 'First-Principles Investigation of the Structural, Electronic and Magnetic Properties of α-, β- and γ-$Mg(AlH_4)_2$ Complex Hydride (https://link.springer.com/article/10.1007/s10948-019-05237-y)', Journal of Superconductivity and Novel Magnetism (https://www.springer.com/journal/10948), August, 2019, ISSN/ eISSN: 1557-

(6) Sarajit Biswas, 'First-principles study of the metal-insulator transition in the Ti-substituted rutile CrO_2 (https://doi.org/10.1016/j.rinp.2019.102539)', Results in Physics (https://www.sciencedirect.com/journal/results-in-physics), December, 2019, ISSN: 2211-3797

(7) Sarajit Biswas, 'Correlation-induced charge ordering in the metal-insulator transition of Ru-doped tetragonal CrO_2 (https://doi.org/10.1016/j.mseb.2018.12.019)', Materials Science and Engineering B (https://www.sciencedirect.com/journal/materials-science-and-engineering-b), December, 2018, ISSN/eISSN: 0921-5107/1873-4944

(8) Sarajit Biswas, 'First-principles study of the electronic, magnetic and structural properties of ZnO and $Zn_{1-x}Cr_xO$ (x = 0.125, 0.25, 0.375, 0.5) in the room temperature wurtzite structure (https://www.currentscience.ac.in/Volumes/115/08/1504.pdf)', Current Science (https://www.currentscience.ac.in/index.php), October, 2018, ISSN:

(9) Sarajit Biswas, 'Charge ordering in the metal-insulator transition of V-doped CrO_2 in the rutile strucrure (https://link.springer.com/article/10.1007/s00894-018-3647-2)', Journal of Molecular Modeling (https://www.springer.com/journal/894), April, 2018, ISSN/eISSN: 1610-2940/0948-5023

(10) Sarajit Biswas, 'Metal-Insulator transition in the high pressure cubic CaF_2-type structure of CrO_2 (https://doi.org/10.1007/s12034-018-1551-0)', Bulletin of Material Science (https://www.springer.com/journal/12034), March, 2018, ISSN/eISSN: 0250-4707/0973-7669

- **BOOK PUBLICATION :**