Faculty Profile

1. Name: ASHIS BHATTACHARJEE
2. Designation: Professor
3. Email(s): ashis.bhattacharjee@visva-bharati.ac.in, ashis2691@gmail.com
4. Date of Birth: 10.01.1962
5. Contact number(s): 9434142050
6. Address: Department of Physics, Siksha Bhavana, Visva-Bharati, Santiniketan 731235
7. Research ID:

   ORCID ID: https://orcid.org/0000-0002-0180-409X
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   Web of Science ID: AAT-3821-2020
   Vidwan ID: https://vidwan.inflibnet.ac.in/profile/48854
   ResearchGate ID: https://www.researchgate.net/profile/Ashis-Bhattacharjee
   Google Scholar ID: https://scholar.google.com/citations?user=tqfREg4AAAAJ&hl=en

8. Membership of Learned Societies: Life Member
   - Indian Physics Association
   - Indian Physics Teachers Association
   - Indian JSPS Alumni Association
   - Indian Thermal Analysis Society
   - Indian Association for the Cultivation of Science, Kolkata

9. Homepage (If any):

10. Publication Summary:
    (a) No. of Research papers - 136
    (b) No. of Book Chapters - 07
    (c) No. of Conference papers - 66
    (d) h-index - 25
    (e) i-10 index - 61

11. Date of Joining Visva-Bharati Service: 16/12/2004 (As Reader in Physics)

12. Education:

Degree	**Year**	**University/Institution**
Ph. D. (Science) in Physics	1992	Indian Association for the Cultivation of Science (degree from Jadavpur University)
M. Sc.	1986	North Bengal University
B. Sc.	1984	Ananda Chandra College, Jalpaiguri (under North Bengal University)

13. Academic Positions held (in reverse chronological order)

Sl. No.	Positions held	Institution	Period
1.	Professor of Physics	Visva-Bharati	2010-present
2.	Visiting Professor	Osaka University, Japan	Sept. – Dec, 2015
3.	Visiting Professor	Saha Institute of Nuclear Physics, Kolkata	Feb-April, 2013
4.	Associate Professor of Physics	Visva-Bharati	2007-2010
5.	Reader in Physics	Visva-Bharati	2004-2007
6.	Senior Lecturer in Physics	St. Joseph's College (University Section), Darjeeling	1999-2004
7.	Lecturer in Physics	St. Joseph's College (University Section), Darjeeling	1995-1999

14. Areas of Research: Molecular Magnetism ● Thermal and Green Synthesis of Nanomaterials ● Solid State Reactions ● Mössbauer Spectroscopy ● Heat Capacity Calorimetry ● Dielectrics

15. Subject Specialization: Experimental Condensed Matter Physics

16. Courses Teach / Taught:

Undergraduate Courses	Theory: Electricity & Magnetism; Heat & Thermodynamics
	Laboratory: Physical Optics, Electricity & Magnetism, Solid State Physics, Thermal Physics
Postgraduate Courses	Theory: Solid State Physics (General & Advanced); Mathematical Methods in Physics
	Laboratory: Advanced Solid State Physics
Ph.D. Course-work	Theory: Techniques of Material Characterization, Thermogravimetry

17. Research Guidance:

(a) No. of Postdoctoral students (Completed): 02
(b) No. of Doctoral students (Completed): 10
(c) No. of M.Sc. Dissertations (Completed): 26

18. Research Collaboration (National / International):

Present

- Prof. Y. Nakazawa, Graduate School of Science, Osaka University, Japan
- Prof. J. Kusz, Institute of Physics, University of Silesia, Poland.
- Prof. K. H. Sugyarto, Department of Chemistry Education, Yogyakarta State University, Indonesia.
- Dr. H. Akutsu, Graduate School of Science, Osaka University, Japan
- Dr. V. Raghavendra Reddy, IUC DAE CSR, Indore, India
- Dr. M. Zubko, Institute of Materials Science, University of Silesia, Poland.

- Dr. P. K. Sahoo, NISER-Bhuvaneswar, Odisha, India.

Former

- Prof. (Emeritus) Michio Sorai, Osaka University, Japan.
- Dr. S. Iijima, National Institute of Bioscience & Human-Technology, Tsukuba, Japan. (Retired)
- Prof. M. Steiner, Hahn-Meitner-Institut, Berlin, Germany. (Retired)
- Late Prof. (Emeritus) Philipp Gütlich, Johannes-Gutenberg Universität, Mainz, Germany.
- Late Prof. M. Roy, Saha Institute of Nuclear Physics, Kolkata, India.
- Prof. S. Koner, Jadavpur University, Kolkata, India

19. Research Grants/Projects

Sl. No.	Project Title	PI/Co-PI	Funding Agency	Amount (₹)	Completed/Ongoing
1.	Investigations into the Multifunctionality of Some Molecular Materials and their Application Potential	PI	SERB, DST, Govt. of India	24.49 Lacs	Completed
2.	Electrical, Magnetic and Microstructural Characterization of some Composite Biopolymers	PI	CSIR, Govt. of India	15.74 Lacs	Completed
3.	Study of Kinetics of Thermal Decomposition of some Molecular and Metallocene Precursors leading to Nano-Scale Metal-Oxides	PI	DST-FIST (Dept. of Physics)	22 Lacs	Completed
4.	Single Molecule Magnets and Molecular Magnetic Coolers from Lanthanide-based Metal-Organic Framework Materials	PI	Indo-Japan Collaborative Project under SPARC, MoE, Govt. of India	49.58 Lacs	Completed
5.	Synthesis and Characterization of Iron Oxide Nanoparticles Through One-Step Thermal Protocol for Biomedical Applications	PI	IUC-DAE CSR	0.45 Lacs@yr. (Revenue)	Ongoing

20. Professional Recognition/ Award/ Prize/Fellowship

Sl. No.	Name of Award	Awarding Agency	Year
1.	Fellow of West Bengal Academy of Science & Technology (FAScT)	West Bengal Academy of Science & Technology	2024
2.	JSPS-BRIDGE Fellow	Japan Society for the Promotion of Science	2019
3.	Research Associate (DFG)	Johannes-Gutenberg University, Mainz, Germany	Feb' 2003 – Jan' 2020
4.	JSPS Fellow	Japan Society for the Promotion of Science	1998
5.	Guest Scientist	Hahn-Meitner-Institute, Berlin, Germany	1998
6.	Center of Excellence Researcher	Science and Technology Agency, Japan	1994
7.	Science and Technology Agency Fellow	Japan Research Development Corporation	1993
8.	Doctoral Fellowship	Indian Association for the Cultivation of	1988

	(Junior & Senior)	Science, India	
9.	Best Article Award	Chemical Society of Japan	2004
10.	Silver Medal for University 2nd Rank in M. Sc. in Physics	University of North Bengal	1986

21. Books / Book Chapters

Sl. No.	Title	Name of Author(s)	Publisher	Year of Publication
1.	Multifunctional Prussian Blue Analogues, Ed. P. Somani. ISBN : 978-81-906027-2-3. Chapter 4	Ashis Bhattacharjee	Applied Science Innovations, Pune, India	2010
2.	Mössbauer Spectroscopy and Transition Metal Chemistry: Fundamentals and Applications', Eds. P. Gütlich, E. Bill and A. X. Trautwein. ISBN 978-3-540-88427-9, DOI: 10.1007/978-3-540-88428-6. Chapter 8	Ashis Bhattacharjee	Springer, Heidelberg, Berlin	2011
3.	Nanomaterials in Bio-Medical Applications : A Novel Approach', Ed. Bichitra Nandi Ganguly. ISBN : 978-1-945291-72-2. Chapter 3.	Ashis Bhattacharjee and Madhusudan Roy	Materials Research Forum LLC	2018
4.	Advances in Materials Science Research. Volume 55, Ed. Maryann C. Wythers, ISBN: 979-8-88697-213-9, Chapter 4. https://novapublishers.com/shop/advances-in-materials-science-research-volume-55/	Ashis Bhattacharjee	Nova Science Publishers Inc., USA	2022
5.	Nanofillers: Fabrication, Characterization & Applications of Inorganic Nanofillers', Ed. Bhasha Sharma & Others. ISBN 9781032245898, Chapter 11. https://www.routledge.com/Nanofillers-Fabrication-Characterization-and-Applications-of-Inorganic/Das-Shekhar-Chaudhary-Sharma/p/book/9781032245898#	Puspendu Barik and Ashis Bhattacharjee	CRC Press, Taylor and Francis Group	2023
6.	Nanostructures and Nanomaterials: Synthesis, Characterization, and Applications', Eds. Dr. G. Patel, Dr. K. Deshmukh and Prof. C. M. Hussain. Chapter 16 (in press)	Toton Sarkar, Sani Kundu, Ashis Bhattacharjee	Jenny Stanford Publishing, Singapore	2025
7.	Nanostructures and Nanomaterials: Synthesis, Characterization, and Applications', Eds. Dr. G. Patel, Dr. K. Deshmukh and Prof. C. M. Hussain. Chapter 38. (in press)	Sani Kundu, Toton Sarkar, Ashis Bhattacharjee	Jenny Stanford Publishing, Singapore	2025

22. Talks Delivered at International / National Conferences/Seminars/Symposium:

International

1. Int. Conf. on Recent Trends in Physics, Devi Ahilya University, Indore, 17-18 Feb, 2023. (Invited Talk)
2. Graduate School of Science, Osaka University, Japan, 9th October, 2019.
3. 53rd Japan Conference on Calorimetry and Thermal Analysis, Fukuoka, 4-6 Nov, 2017. (Plenary Lecture).
4. Int. Conf. on Crystal Ball Vision on Societal Upliftment organized by IJAA, Goa, 7-8 Aug, 2017. (Invited Talk)
5. Graduate School of Science, Osaka University, Japan, 18th November, 2015. (Invited Talk)
6. Graduate School of Science, Osaka University, Japan, 14th September, 2015. (Invited Talk)
7. 5th International Conference on Relaxation Phenomena in Dielectric and Magnetic Systems, Darmstadt Technical University, Germany, October 2 – 6, 2002 (Invited Talk).
8. Hahn-Meitner-Institut, Berlin, Germany, January 1998 (Invited Talk).
9. Institute of Physical Chemistry, Darmstadt Technical University, Darmstadt, Germany. 1998 (Invited Talk).
10. Dept. of Bio-Molecular Engineering, NIBH, Tsukuba, Japan. 1993.

National

1. 7th Regional Science & Technology Congress, 2024-25, Department of Science & Technology, Maldah, West Bengal, 7th January, 2025 (Invited Talk)
2. Conference on Modern Trends in Materials Science, Univ. of North Bengal, 5-6th Feb'2015 (Invited Talk).
3. Saha Institute of Nuclear Physics, Kolkata, 12th April, 2013 (Invited Talk).
4. Refreshers Course, University of North Bengal, Nov'2011.
5. Recent Trends in Condensed Matter Physics (RTCMP-2006) – Indian Association for the
6. Cultivation of Science, Kolkata, India, December 6th, 2006 (Invited Talk).
7. Dept. of Spectroscopy, IACS, Calcutta, India. 1995.
8. Condensed Matter Physics Division, SINP, Calcutta, India. 1995.

23. List of Scientific Publications:

2025

1. Sarkar, T., Kundu, S., Ghorai, G., Sahoo, P. K., Reddy, V. R., **Bhattacharjee, A., '**Synthesis and characterization of zinc ferrite nanomaterials vis-à-vis studies on their photocatalytic application in visible light dye degradation' **Applied Physics A 131** (2025) 266. DOI: 10.1007/s00339-025-08370-9.

2024

2. Sarkar, T., Kundu, S., **Bhattacharjee, A.**, 'Dielectric properties of pristine and green-synthesized hematite nanomaterials vis-à-vis their dependence on particle size and porosity' **Applied Research** DOI:10.1002/appl.202400147
3. Sarkar, T., Kundu, S., Ghorai, G., Sahoo, P. K., **Bhattacharjee, A**., 'Pristine and Nature-inspired Hematite (α-Fe_2O_3) Nanoparticles and Search for their Photocatalytic Application' **Part. Part. Syst. Charact. (2024)**, 2400073 (18 pages) DOI: 10.1002/ppsc.202400073.
4. Kundu, S., Sarkar, T, Al-Ahmadi, A.A., Ali, E., **Bhattacharjee, A.**, 'Thermally Synthesized Hematite (a-Fe_2O_3) Nanoparticles as Efficient Photocatalyst for Visible Light Dye Degradation' **RSC Advances 14 (2024)** 28944 - 28955**.** DOI: 10.1039/d4ra04316b
5. Kundu, S., Sarkar, T., Ghorai, G., Sahoo, P. K., **Bhattacharjee, A.,** 'Reaction atmosphere-controlled thermal conversion of ferrocene to hematite and cementite nanomaterials – structural and spectroscopic investigations' **ACS Omega 9** (2024) 22607−22618 https://doi.org/10.1021/acsomega.3c10332.

6. Tudu, S.C., Sarkar, T., Kundu, S., Ghorai, G., Sahoo, P. K., **Bhattacharjee, A., '**Synthesis and Structural Characterization of ZnS Quantum Dots (< 2 nm) vis-à-vis Studies on their Spectroscopic and Dielectric Properties' **J. Mater Sc: Mater. Electronics, 35** (2024) Article No. 619. 10.1007/s10854-024-12376-z.
7. Kundu, S., Chakraborty, M., **Bhattacharjee, A**., 'Modulation of solid state thermal reaction of iron(III)citrate by a co-precursor studied using thermogravimetry: evaluation of kinetic and thermodynamic parameters and nucleation rate' **Curr. Phys. Chem. 14 (2024)** 143 – 163. 10.2174/0118779468297477240315072636
8. Sarkar, T., Kundu, S., **Bhattacharjee, A.,** 'Dielectric property, ac conductivity and electric modulus studies of pristine and green synthesized ZnO nanomaterials' **Physica Status Solidi A (**2024) 2300615-627.
   DOI: 10.1002/pssa.202300615
9. Sarkar, T., Kundu, S., Ghorai, G., Sahoo, P. K., V. R. Reddy, **Bhattacharjee, A., '**Structure, optical, photoluminescence, photoconductivity and dielectric studies of green synthesized iron oxide nanoparticles' **Applied Phys. A 130** (2024) Article no. 123. DOI: 10.1007/s00339-023-07228-2.

2023

10. Chakraborty, M., Kundu, S., **Bhattacharjee**, A., 'Insights into a Co-precursor Driven Solid-State Thermal Reaction of Ferrocene carboxaldehyde Leading to Hematite Nanomaterial through Reaction Kinetic Study' **RSC Advances 13 (2023) 34972 - 34986**. DOI: 10.1039/d3ra07045j
11. Kundu, S., Sarkar, T., **Bhattacharjee, A., '**Dielectric and Electrical Characterization of Hematite (α-Fe_2O_3) Nanomaterials Synthesized by Thermal Decomposition of Iron(III)citrate' **Applied Physics A 129 (2023) 723-735.** https://doi.org/10.1007/s00339-023-07000-6
12. Kundu, S., Chakrabarty M., **Bhattacharjee, A.,** 'Corrections to Solid-state reaction of ferrocene controlled by co-precursor and reaction atmosphere leading to hematite and cohenite nanomaterials: A reaction kinetic study, J. Phys. Chem C 127 **(**2023) 18397–18408. https://doi.org/10.1021/acs.jpcc.3c04772' **J. Phys. Chem. C** 127 (2023) 24487-24488 https://doi.org/10.1021/acs.jpcc.3c07879
13. Kundu, S., Chakrabarty M., **Bhattacharjee, A., '**Solid-state reaction of ferrocene controlled by co-precursor and reaction atmosphere leading to hematite and cohenite nanomaterials: A reaction kinetic study' **J. Phys. Chem C** 127 **(**2023) 18397–18408. https://doi.org/10.1021/acs.jpcc.3c04772
14. Fitriani F., Mulyani I., Onggo D, Sugiyarto K. H., **Bhattacharjee A.**, Akutsu H., Santria A., 'Synthesis, characterization, and magnetic properties of iron(II) complex with 2,6-bis(pyrazol-3-yl)pyridine ligand and tetracyanonickelate anion' **Indones. J. Chem.** 23 (2023) 1152 – 1160. https://doi.org/10.22146/ijc.81625
15. **Bhattacharjee, A**., 'Comments on - *A novel approach for determination of nucleation rates and interfacial energy of metallic magnesium nanoclusters at high temperature using non-isothermal TGA models, by P. Srivastava et al. published in Chemical Engineering Science 265 (2023) 11822.'* **Chemical Engineering Science** 280 (2023) 119043. https://doi.org/10.1016/j.ces.2023.119043
16. Chakraborty, M., Kundu, S., Das, B., **Bhattacharjee**, A., 'Thermal transformation of 1-(Ferrocenyl)ethanol to iron oxide nanoparticles based on reaction atmosphere: Analysis of the decomposition reaction using non-isothermal thermogravimetry' **Journal of Thermal Analysis & Calorimetry 148**, (2023) 8915–8931. 10.1007/s10973-023-12306-x
17. Sarkar, T., Kundu, S., Ghorai, G., Sahoo, P. K. Sahoo, **Bhattacharjee, A.,** 'Structural, spectroscopic and morphology studies on green synthesized ZnO nanoparticles' **Advances in Natural**

Science: Nanoscience & Nanotechnology, **14** (2023) 035001-035011. **DOI** 10.1088/2043-6262/acd8b6

18. Kundu, S., Sarkar, T., Ghorai, G., Sahoo, P. K., Zubko, M., Reddy, V. R., Weselski, M., **Bhattacharjee, A.**, 'Study on co-precursor driven solid state thermal conversion of iron(III)citrate to iron oxide nanomaterials' **Applied Physics A,** 129, (2023) 264-278. https://doi.org/10.1007/s00339-023-06559-4

2022

19. Chakraborty, M., Dey, A., **Bhattacharjee, A.**, 'Insights into the Thermal Decomposition of Organometallic Compound Ferrocene Carboxaldehyde as Precursor for Hematite Nanoparticles Synthesis' **Zeitschrift für Physikalische Chemie, 236** (2022) 1137-1161. https://doi.org/10.1515/zpch-2021-3175
20. Roy, D., Zubko, M., Kusz, J., **Bhattacharjee, A**., 'Effect of Substitution at the Di- and Trivalent Sites of $\{N(n\text{-}C_4H_9)_4[Fe^{II}Fe^{III}(C_2O_4)_3]\}_\infty$ on the Nature of Solid State Decomposition Reaction Leading to Various Metal Oxides' **Current Physical Chemistry, 12 (**2022) 216-232. https://doi.org/10.2174/1877946812666220820162805

2021

21. Tudu, S. C., Zubko, M., Kusz, J., **Bhattacharjee, A.,** 'Structural, optical and dielectric studies of wurtzite-type CdS quantum dots green synthesized using *Ocimum Sanctum* (*Tulsi*) leaf extract' **Advances in Natural Science: Nanoscience & Nanotechnology 12 (2021) 035010-035021**. https://doi.org/10.1088/2043-6262/ac2732.
22. Sugiyarto, K. H., Onggo, D., Akutsu, H., Reddy, V. R., Sutrisno, H., Nakazawa, Y., Bhattacharjee, A., 'Structural, Magnetic and Mössbauer Spectroscopic Studies of $[Fe(3\text{-}bpp)_2](CF_3COO)_2$ Complex: Role of Crystal Packing Leading to An Incomplete Fe(II) High Spin ⇋ Low Spin Transition' **Cryst. Eng. Comm. (2021) 23, 2854–2861.** https://doi.org/10.1039/D0CE01687J
23. Tudu, S. C., Zubko, M., Kusz, J., **Bhattacharjee, A.**, 'CdS Nanoparticles (<5nm): green synthesized using *Termitomyces Heimii* Mushroom - Structural, Optical and Morphological Characterization' **Applied Physics A, (2021) 121 85-93.** https://doi.org/10.1007/s00339-020-04245-3

2020

24. Mondal, P., Sukul, N. C., Dey, A., **Bhattacharjee, A**., Sohel, Md. S., Sengupta, A., Sukul, A., 'High dilutions of two drugs induce changes in crystal water structure of lactose as revealed by thermogravimetry and differential scanning calorimetry', **Indian Journal of Biochemistry & Biophysics (2020) 57, 467-470.**
25. Dey, A., Zubko, M., Kusz, J., Reddy, V. R., Banerjee, A., **Bhattacharjee, A**., 'Thermal synthesis of hematite nanoparticles: structural, magnetic and morphological characterizations', **Int. J. Nano Dimens. (2020) 11, 188-198.** http://www.ijnd.ir/article_672225.html
26. Tudu, S. C., Zubko, M., Kusz, J., **Bhattacharjee, A**, 'Structural, morphologycal and optical characterization of green synthesized ZnS nanoparticles using *Azadirachta Indica* (Neem) leaf extract', **Int. J. Nano Dimensions (2020) 11, 99-111.** http://www.ijnd.ir/article_670478.html http://hdl.handle.net/20.500.12128/17713
27. Dey, A., Zubko, M., Kusz, J., Reddy, V. R., **Bhattacharjee, A.**, 'Effect of reaction protocol on the nature and size of iron oxide nano particles obtained through solventless synthesis using iron(II)acetate: structural, magnetic and morphological studies',

Springer Nature: Applied Science, 2 (2020) 193 (10 pages). 10.1007/s42452-019-1881-6

28. Das, B. & **Bhattacharjee, A**. 'Study on the melting mechanism of maleic anhydride', **Current Physical Chemistry, 10 (2020) 1-10**. 10.2174/1877946809666191011155328

2019

29. Dey, A., Zubko, M., Kusz, J., Reddy, V. R., Banerjee, A., **Bhattacharjee, A.**, "Solventless Synthesis and Characterization of α-Fe, γ-Fe, Magnetite and Hematite using Iron(III)citrate", **Solid State Science 95 (2019) 105932.** 10.1016/j.solidstatesciences.2019.105932
30. Mondal, P., Dey, A., **Bhattacharjee, A.,** Sukul, N.C., Konar, A., Sukul, A., "Free and bound water in three different concentrations of a homeopathic drug *Mercurius corrosivus* 200 cH and its vehicle ethanol" **Environment & Ecology 37 (2019) 628-633.**
31. Das, B., **Bhattacharjee, A.**, "Effect of Co-precursor Maliec Anhydride on the Thermal Decomposition of Acetyl Ferrocene: A Reaction Kinetic Analysis". **Current Physical Chemistry 9 (2019) 1-14**. https://doi.org/10.2174/1877946809666190201142153

2018

32. Dey, A., Zubko, M., Kusz, J., Bhattacharjee, A., 'Kinetics analysis of the solid state reaction of iron(III)citrate leading to hematite nanoparticles' **Current Physical Chemistry 8 (2018) 290-302**. https://doi.org/10.2174/1877946809666190201131731
33. Bhakat, D & **Bhattacharjee, A**, "A Study on Electrical Conduction in Solid Mixtures" **Chinese J. Physics** 56 (2018) 1467-1475. 10.1016/j.cjph.2018.05.022
34. Bhakat, D., Barik, P. & **Bhattacharjee, A**., "Electrical conductive properties of some composites of gum arabic biopolymer and magnetite nanoparticles", **Ind. J. Pure & Appl. Phys**. 56 (2018) 428-433. http://nopr.niscair.res.in/handle/123456789/44501
35. Das, B., Bhattacharjee, A., "Kinetic Analysis of Non-Isothermal Decomposition of Acetyl Ferrocene". **Int. J. Chem. Kinetics**. DOI 10.1002/kin.21155.
36. Bhakat, D., Barik, P., **Bhattacharjee, A**., "Electrical conductivity behavior of some composites of Gum Arabic biopolymer and Fe_3O_4 nanoparticles". **J. Phys. Chem. Solids** 112C (2018) 73-79. 10.1016/j.jpcs.2017.09.002

2017

37. Das, B., Kusz, J., Reddy, V.R., Zubko, M., **Bhattacharjee, A.,** "Synthesis and Characterization of Hematite Obtained on Thermal Decomposition of Acetyl Ferrocene and It's Mixtures with Maliec Anhydride" **Solid State Science**, 74 (2017) 62-69. https://doi.org/10.1016/j.solidstatesciences.2017.10.010
38. Das, B., Kusz, J., Raghavendra Reddy, V., Zubko, M., **Bhattacharjee, A.** "Synthesis and Characterization of Hematite Obtained on Thermal Decomposition of Acetyl Ferrocene". **Int. J. Materials, Engineering & Technology (IJMET)** 16 (2017) 41-52.
39. **Bhattacharjee, A.,** Sugimoto, M., Nakazawa, Y., Goodwin, H. A., "Pressure-Induced High Spin-Low Spin State Switching in $[Fe(bpp)_2](NCS)_2.2H_2O$" **Current Smart Materials** 2 (2017) 65-72. 10.2174/2405465802666170213142637
40. Rooj, A., Roy, M., **Bhattacharjee, A**., Kinetic Analysis of Thermal Decomposition Reaction of Ferrocene in Presence of Oxalic Acid. **Int. J. Chem. Kinetics** 49 (2017) 319–332. https://doi.org/10.1002/kin.21077

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41. **Bhattacharjee, A.,** 'A Legendary Molecular Magnetic System: A[M(II)M(III)(C_2O_4)$_3$]'. **Current Inorganic Chemistry** 6 (2016) 162-180. https://doi.org/10.2174/1877944107666161208120622
42. Mandal, H., **Bhattacharjee, A**., Roy, M., Kusz, J., Zubko, M., "Physical characterization of tea dusts and its' sources of magnetism", **BOAJ-Physics 1 (2016)** 1 - 8.
43. Rooj, A., Roy, M., Kusz, J., **Bhattacharjee, A**., 'Thermal decomposition of Ferrocene: A solventless method to prepare iron oxides', **Int. J. Exp. Spect. Tech.** 1 (2016) 003-008.
44. Roy, D., Roy, M., Zubko, M., Kusz, J., **Bhattacharjee, A**, "Solid State Thermal Reaction of a Molecular Material and Solventless Synthesis of Iron Oxide" **Int. J. Thermophysics** 37 (2016) 93-117. https://doi.org/10.1007/s10765-016-2099-0
45. Barik, P., **Bhattacharjee, A**. and Roy, M. "Study of dielectric properties of CdS-Gum Arabic composites in low frequency region". **Polymer Composites** 37 (2016) 108-114. DOI 10.1002/pc.23160

2015

46. Barik, P., **Bhattacharjee, A**. and Roy, M. "Preparation, characterization and electrical study of Gum Arabic/ZnO nanocomposites" **Bull. Mater. Sc.** 38 (2015) 1609–1616. https://doi.org/10.1007/s12034-015-0961-5
47. Satpati, B., **Bhattacharjee, A.,** Roy, M., "Cigarette ash: A curious microscopic insight", **J. Nanosci. Nanotech**. 15 (2015) 1362-1367. https://doi.org/10.1166/jnn.2015.9231

2014

48. **Bhattacharjee, A.**, Mandal, H., Roy, M., Kusz, J., Zubko, M., "Magnetic particulate matters in the ashes of few commonly used Indian cigarettes", **EMAS** (2014). 186 (2014) 7399–7411. https://doi.org/10.1007/s10661-014-3936-x
49. **Bhattacharjee, A.**, ***Invited Review*** on 'Calorimetric Study of Phase Transitions in 2D Bimetallic Molecular Magnetic Materials - A[M(II)M(III)(C_2O_4)$_3$]: Revisited', **Current Inorganic Chemistry** 4 (2014) 19-30. DOI: 10.2174/1877944104666140825201438
50. **Bhattacharjee, A.**, Rooj, A., Roy, D., Roy, M., Thermal Decomposition Study of Ferrocene [(C_5H_5)$_2$Fe]," **J. Experimental Physics**, Vol. 2014, Article ID 513268, 8 pages, 2014. http://dx.doi.org/10.1155/2014/513268.

2013

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