Curriculum Vitae

ASHIS BHATTACHARJEE

Professor
Department of Physics
Institute of Science
Visva-Bharati University
Santiniketan-731235, INDIA

Date of Birth: 10th January, 1962
Date of Joining Visva-Bharati service: 16th December, 2004

Tel: +91-9434142050 / 9064625478
Email: ashis.bhattacharjee@visva-bharati.ac.in, ashis2691@gmail.com

ORCID ID: https://orcid.org/0000-0002-0180-409X
Scopus ID: 26431769600
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

Education

- Ph.D. (Science) in Physics, Jadavpur University, India, 1992. (*Research work done at IACS, Kolkata*)
- M.Sc. in Physics, North Bengal University, India, 1986. (Specialization: *Solid State Physics*)
- B.Sc. (Honours) in Physics, North Bengal University, India, 1984.

Academic Positions Held

- **Professor of Physics**, Visva-Bharati University, Santiniketan, India: 2010-present
- **Associate Professor of Physics**, Visva-Bharati University, Santiniketan, India: 2007-2010
- **Reader in Physics**, Visva-Bharati University, Santiniketan, India: 2004-2007
- **Reader in Physics**, St. Joseph's College (University Section), Darjeeling, India: 1998-2004
- **Lecturer in Physics**, St. Joseph's College (University Section), Darjeeling, India: 1995-1998

Research Fellowships/Positions/Awards Obtained

- **JSPS-BRIDGE Fellow,** Osaka University, Japan: 1-30 Oct, 2019
- **Visiting Professor**, Graduate School of Science, Osaka University, Japan: Sept. – Dec, 2015
- **Visiting Professor**, Saha Institute of Nuclear Physics, Kolkata, India: Feb-April, 2013

- **Research Associate (DFG),** Johannes-Gutenberg University, Mainz, Germany:
  Nov 2009 – Jan 2010, Oct 2007 – Jan 2008, May-Aug 2006, March 2002 – Feb 2003
- **Japan Society for the Promotion of Science Fellow,** Osaka University, Japan: Oct 1998 - Sept 2000
- **Guest Scientist** at Hahn-Meitner-Institute, Berlin, Germany: Jan – Feb, 1998
- **Center of Excellence (COE) Researcher** (Science and Technology Agency, Japan), National Institute of Bioscience & Human-Technology, Tsukuba, Japan: Sept 1994 – March 1995
- **Science and Technology Agency (STA) Fellow** (Japan Research Development Corporation), National Institute of Bioscience & Human-Technology, Tsukuba, Japan: Feb 1993 – Aug 1994
- **Doctoral Fellowship (Junior & Senior),** Indian Association for the Cultivation of Science, India: Aug 1987 – Jan 1993

- **Best Article Award** by Chemical Society of Japan (2004)
- **Silver Medal for University 2nd Rank** in M. Sc. in Physics, University of North Bengal, India (1986).

Professional Service

Section Editor: Current Indian Science (Bentham Science Publishers), *2022~*
Editorial Board Member: Current Material Science (Bentham Science Publishers), 2022~
President, *Indian JSPS Alumni Association (East Chapter), 2022~2025*
General Secretary*, Indian JSPS Alumni Association (East Chapter), 2018-2021*

Reviewer: CrystEngComm / Dalton Transactions / Journal of Materials Science / Journal of Materials Science for Electronics / Journal of Physics & Chemistry of Solids / Materials Chemistry and Physics / Journal of Applied Physics / International Journal of Chemical Kinetics / Journal of Alloys & Compounds

Life Membership:

- Indian Thermal Analysis Society.
- Indian JSPS Alumni Association.
- Indian Association for the Cultivation of Science, Kolkata

Service to University

- Member, Academic Council, Visva-Bharati (2010 – till date)
- Vice-Principal, Institute of Science, Visva-Bharati (August, 2012 – September, 2016)
- Member, Central Admission Committee, Visva-Bharati (2012-2013)
- Member, Research Board, Visva-Bharati (2007 – 2012)

- Member, Syllabus Committee, Institute of Science, Visva-Bharati (2010)
- Member, Routine Committee, Institute of Science, Visva-Bharati (2009 – 2016)
- Member, Siksha-Bhavana NAAC Committee, Visva-Bharati (2019 – till date)

- Member, DST-FIST Committee, Department of Physics, Visva-Bharati (2011 – 2016)
- Member, Purchase Committee, Department of Physics, Visva-Bharati (2006 – till date)
- Convener, Syllabus Committee, Department of Physics, Visva-Bharati (2010 – 2011)
- Convener, Syllabus Committee, Department of Physics, Visva-Bharati (2014 – 2015)
- Director, Under-Graduate Committee, Department of Physics, Visva-Bharati (2007-2012)
- Secretary, Physics Alumni Association, Department of Physics, Visva-Bharati (2011-2013)

Courses Taught

Theory

Pre-Doctoral:	Techniques of Material Characterization, Thermogravimetry
Post-Graduate:	Condensed Matter Physics (General & Advanced); Mathematical Methods in Physics
Under-Graduate:	Electricity & Magnetism; Heat & Thermodynamics

Laboratory

Post-Graduate:	Advanced Condensed Matter Physics
Under-Graduate:	Physical Optics, Electricity & Magnetism, Solid State Physics, Thermal Physics

Research Projects Implemented/Ongoing

1. 'Investigations into the Multifunctionality of Some Molecular Materials and their Application Potential'.
   Amount: Rs. 24.49 Lacs, funded by SERB, DST, Govt. of India, Sept'2007-Feb'2011.
2. 'Electrical, Magnetic and Microstructural Characterization of some Composite Biopolymers'.
   Amount: Rs. 15.74 Lacs funded by CSIR, Govt. of India, July, 2011 – June, 2014.
3. 'Study of Kinetics of Thermal Decomposition of some Molecular and Metallocene Precursors leading to Nano-Scale Metal-Oxides'.
   Amount: Rs 22 Lacs for TG- DSC Set-up, funded through DST-FIST to Dept. of Physics, April, 2011 – September, 2016.
4. 'Single Molecule Magnets and Molecular Magnetic Coolers from Lanthanide-based Metal-Organic Framework Materials'
   Amount: Rs. 49.58 Lacs; Indo-Japan Collaborative Project under SPARC, MoE, Govt. of India, May'2019 – March, 2023.

International Scientific Conferences Organized

1. International Conference on Advancement in Science & Technology (ICAST-2018), sponsored by Japan Society for the Promotion of Science (JSPS), BRNS, CSIR, Visva-Bharati University, 3-4 September, 2018. **Organizing Secretary**
2. International Virtual Conference on Advances in Molecular Materials Research (AMMR 2021), sponsored by SPARC Project, Ministry of Education, Govt. of India, 3 – 5 February, 2021. **Organizer**

Other Scientific Activities

1. **Guest Editor, Special Issue on "Advances in Molecular Spin Transition Materials—In Memory of Prof. Dr. Philipp Gütlich", Materials, MDPI (2023). https://www.mdpi.com/journal/materials/special_issues/NT24D2P0T3**
2. **Session Chair**, Nobel Laureate S&T Seminar Series (2nd Seminar) organized by IJAA, 17th May, 2022.
3. **Session Chair**, Nobel Laureate S&T Seminar Series (1st Seminar) organized by IJAA, 6-7th Dec, 2021.

Research Guidance

Doctoral (Degree Awarded: 6; Ongoing: 4)

1. Mr. Debasis Roy, Thesis entitled "Study of Thermal Decomposition of Some Oxalate-Based Molecular Materials Leading to Metal Oxides", 2013. (**Awarded**)
2. Mr. Haradhan Mandal, Thesis entitled "Investigations into the nature of some solid waste pollutants through different physical techniques", 2014. (**Awarded**)
3. Mr. Amlan Rooj, Thesis entitled "Investigation into the thermal decomposition of ferrocene in different reaction atmosphere", 2016. (**Awarded**)
4. Mr. Dhanajay Bhakat, Thesis entitled "Investigations into the effect of 'guest' molecules on the electrical properties of some 'host' polymers", 2017. (**Awarded**)
5. Ms. Bratati Das, Thesis entitled "Study on the Thermal Decomposition of a Ferrocene Compound for Solventless Synthesis of Iron-Oxide", 2018. (**Awarded**)
6. Ms. Anubha Dey, "Solid State Synthesis and Characterization of Iron Oxides using Organometallic Compounds as Precursor", 2021 (**Awarded**).
7. Mr. Subhas Chandra Tudu, "Characterization of Metal Sulphide Nanoparticles Synthesized by Green Chemical Routes" (**Ongoing**)
8. Ms. Manisha Chakraborty, "Study on Solid State Synthesis and Characterization of Iron Oxides using Some Ferrocene Compounds vis-à-vis Reaction Kinetics", (**Ongoing**)
9. Mr. Toton Sarkar, "Characterization of Some Metal Oxide Nanoparticles Synthesized through Green Chemical Routes" (**Ongoing**)
10. Mr. Sani Kundu, "Investigations in to the Effect of Organic Co-Precursor on the Thermal decomposition of Organo-Iron Precursor Leading to Different Iron Oxides' (**Ongoing**)

PhD Course-Work

1. Mr. Debasis Roy, Department of Physics, Visva-Bharati University, 2009.
2. Mr. Haradhan Mandal, Department of Physics, Visva-Bharati University, 2009.
3. Mr. Amlan Rooj, Department of Physics, Visva-Bharati University, 2009.
4. Mr. Dhanajay Bhakat, Department of Physics, Visva-Bharati University, 2009.
5. Ms. Bratati Das, Department of Physics, Visva-Bharati University, 2014.
6. Ms. Anubha Dey, Department of Physics, Visva-Bharati University, 2015.
7. Mr. Subhas Chandra Tudu, Department of Physics, Visva-Bharati University, 2017
8. Mr. Sani Kundu, Department of Physics, Visva-Bharati University, 2019
9. Mr. Toton Sarkar, Department of Physics, Visva-Bharati University, 2019
10. Ms. Manisha Chakraborty, Department of Physics, Visva-Bharati, 2019.

M.Sc. Dissertation

1. Manjira Bagchi, 2013, Visva-Bharati University
2. Algama Masud, 2013, Visva-Bharati University
3. Partha Kumbhakar, 2014, Visva-Bharati University
4. Sudam Saha, 2014, Visva-Bharati University
5. Ayan Kumar, 2014, Indian School of Mines, Dhanbad
6. Jhinuk Das, 2015, Visva-Bharati University
7. Partha Pratim Hazra, 2015, Visva-Bharati University
8. Surajit Goldar, 2015, Visva-Bharati University
9. Sumanta Hembram, 2018, Visva-Bharati University
10. Soumit Patra, 2019, Visva-Bharati University
11. Priyadarshini Roy, 2019, Visva-Bharati University
12. Tandrima Ghosh, 2019, Visva-Bharati University
13. Manjistha Ghosh, 2020, Visva-Bharati University
14. Priyanka Pramanik, 2020, Visva-Bharati University
15. Sambita Mukherjee, 2021, Visva-Bharati University
16. Sk Soyel, 2021, Visva-Bharati University
17. Mou Garai, 2022, Visva-Bharati University
18. Chayanika Mahata, 2022, Visva-Bharati University
19. Sudip Chell, 2022, Visva-Bharati University
20. Himdri Das, 2023, Visva-Bharati University
21. Ivy Sen, 2023, Visva-Bharati University
22. Shreya Koley, 2023, Visva-Bharati University

Present Research Interest

Experimental Condensed Matter Physics:

Thermal Synthesis of Iron Oxide Nanomaterials & Reaction Kinetics ● Green Synthesis of Metal Oxide/Sulphide Nanomaterials ● Spin Transition of Iron(II) Complexes ● Molecular Magnetism ● Mössbauer Spectroscopy ● Heat Capacity Calorimetry ● Dielectric Property

Research Collaborators

Present

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

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.

Scientific Talks Delivered

International

1. Graduate School of Science, Osaka University, Japan, 9th October, 2019.
2. 53rd Japan Conference on Calorimetry and Thermal Analysis, Fukuoka, 4-6 Nov, 2017. (Plenary Lecture).
3. Int. Conf. on Crystal Ball Vision on Societal Upliftment organized by IJAA, Goa, 7-8 Aug, 2017. (Invited Talk)
4. Graduate School of Science, Osaka University, Japan, 18th November, 2015. (Invited Talk)
5. Graduate School of Science, Osaka University, Japan, 14th September, 2015. (Invited Talk)
6. 5th International Conference on Relaxation Phenomena in Dielectric and Magnetic Systems, Darmstadt Technical University, Germany, October 2 – 6, 2002 (Invited Talk).
7. Institut für Anorganische Chemie und Analytische Chemie, Johannes Gutenberg Universität, Germany. 2002.

8. Hahn-Meitner-Institut, Berlin, Germany. 1998 (Invited Talk).
9. Institute of Physical Chemistry, Darmstadt Technical University, Darmstadt, Germany. 1998 (Invited Talk).
10. Research Center for Molecular Thermodynamics, Osaka University, Osaka, Japan. 1998.
11. Dept. of Bio-Molecular Engineering, NIBH, Tsukuba, Japan. 1993.

National

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

Research Publications

Book Chapters

1. '**Multifunctional Prussian Blue Analogues**', Ed. P. Somani (Applied Science Innovations, Pune, India, 2010). "*Understanding of Phase Transitions and Thermally-Induced Metal-to-Metal Electron Transfer in a Mixed- Valence Prussian Blue Analogue*". ISBN : 978-81-906027-2-3. Chapter 4.
2. '**Mössbauer Spectroscopy and Transition Metal Chemistry: Fundamentals and Applications**', Eds. P. Gütlich, E. Bill and A. X. Trautwein, (Springer, Heidelberg, Berlin, 2011). ISBN 978-3-540-88427-9, DOI: 10.1007/978-3-540-88428-6, Chapter 8.
3. '**Nanomaterials in Bio-Medical Applications : A Novel Approach**', Ed. Bichitra Nandi Ganguly (Materials Research Forum LLC, 2018). "*Synthesis of Nanoparticles through Thermal Decomposition of Organometallic Materials and Application for Biological Environment*", Ashis Bhattacharjee and Madhusudan Roy. ISBN : 978-1-945291-72-2. Chapter 3.
4. '**Advances in Materials Science Research.** Volume 55, Ed. Maryann C. Wythers (Nova Science Publishers Inc., USA, 2022). '*Ferrocene – Precursors for the Synthesis of Potentially Useful Iron Oxide Nanoparticles through Solid State Thermal Decomposition*', Ashis Bhattacharjee, ISBN: 979-8-88697-213-9, Chapter 4.
   https://novapublishers.com/shop/advances-in-materials-science-research-volume-55/
5. **'Nanofillers: Fabrication, Characterization & Applications of Inorganic Nanofillers',** Ed. Bhasha Sharma & Others (CRC Press, Taylor and Francis Group **2023)**. '*The integral postulation of inorganic nanofillers derived polymers applications in agriculture',* Puspendu Barik and Ashis Bhattacharjee.
   ISBN 9781032245898, Chapter 11.
   https://www.routledge.com/Nanofillers-Fabrication-Characterization-and-Applications-of-Inorganic/Das-Shekhar-Chaudhary-Sharma/p/book/9781032245898#

Scientific Papers Published in Journal

2022

1. 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.
2. 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**) 10.2174/1877946812666220820162805.

2021

3. 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' **Adv. Nat. Sci.: Nanosci. Nanotechnol. 12 (2021) 035010-035021**. https://doi.org/10.1088/2043-6262/ac2732.
4. 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
5. 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

6. 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.**
7. 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
8. 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
9. 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
10. Das, B. & **Bhattacharjee, A**. 'Study on the melting mechanism of maleic anhydride', **Current Physical Chemistry, 10 (2020) 1-10**. 10.2174/1877946809666191011155328

2019

11. 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
12. 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.**
13. 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

14. 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
15. 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
16. 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
17. Das, B., Bhattacharjee, A., "Kinetic Analysis of Non-Isothermal Decomposition of Acetyl Ferrocene". **Int. J. Chem. Kinetics**. DOI 10.1002/kin.21155.
18. 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

19. 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
20. 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.
21. **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
22. 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

2016

23. **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
24. 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.
25. 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.
26. 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
27. 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

28. 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
29. 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

30. **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
31. **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 Chem**istry 4 (2014) 19-30. DOI: 10.2174/1877944104666140825201438
32. **Bhattacharjee, A.**, Rooj, A., Roy, D., Roy, M., Thermal Decomposition Study of Ferrocene $[(C_5H_5)_2Fe]$," **J. Experimental Physics**, Vol. 2014, Article ID 513268, 8 pages, 2014. doi:10.1155/2014/513268.

2013

33. **Bhattacharjee, A.**, Mandal, H., Roy, M., Kusz, J. and W. Hofmeister, "Microstructural and Magnetic Characterization of the Fly Ashes from Thermal Power Plants in West Bengal, India", **Environmental Monitoring & Assessment** (**Springer**) 185 (2013) 8673–8683. DOI 10.1007/s10661-013-3203-6
34. Bhattacharjee, A., Mandal, H., Roy, M., Kusz, J., and Hofmeister, W., "Physical Characteristics of Fly Ashes From Three Thermal Power Plants In West Bengal, India: A Comparative Study", **Int. J. Chem. Tech. Research** 5 (2013) 836-843.
35. **Bhattacharjee, A.**, Roy, M., Ksenofontov, V., Kitchen, J. A., Brooker, S., and Gütlich, P., "Pressure Effect Studies on the Spin Transition Behavior of the Dinuclear Iron(II) Compound $[Fe^{II}_2(PMAT)_2](BF_4)_4$ .DMF", **Eur. J. Inorg. Chem.** (2013) 843–849**.** https://doi.org/10.1002/ejic.201201522
36. **Bhattacharjee, A.**, Roy, D., Roy, M., Adhikari, A., "Thermal degradation of molecular magnetic material – $\{N(n\text{-}C_4H_9)_4[Fe(II)Fe(III)(C_2O_4)_3]\}_\infty$: A reaction kinetics study". **J. Serb. Chem. Soc. 78 (2013) 523–536.** https://doi.org/10.2298/JSC120519145B

37. **Bhattacharjee, A.**, Rooj, A., Roy, M., Kusz, J., Gütlich, P., "Synthesis of hematite nanoparticles through solventless thermal decomposition of ferrocene modulated by oxalic acid". **J. Mater. Sci. (Springer) 48** (2013) 2961-2968. https://doi.org/10.1007/s10853-012-7067-x

2012

38. **Bhattacharjee, A.**, Roy, D., Roy, M., "Thermal decomposition of molecular materials $\{N(n\text{-}C_4H_9)_4\ [M^{II}Fe^{III}(C_2O_4)_3]\}_\infty$, M^{II} = Zn, Co, Fe". **Int. J. Thermophys. (Springer) 33** (2012) 2351–2365. 10.1007/s10765-012-1293-y
39. **Bhattacharjee, A.**, Roy, D., Roy, M., "Thermal degradation of a molecular magnetic material - $\{N(n\text{-}C_4H_9)_4\ [M^{II}Fe^{III}(C_2O_4)_3]\}_\infty$". **J. Thermal Analysis & Calorimetry 109** (2012) 1423-1427. https://doi.org/10.1007/s10973-011-1829-6

2011

40. **Bhattacharjee, A**., Bhakat, D., Sen, R. and Koner, S., "Electrical and Magnetic Properties of $\{[Ru(bpy)_3][Fe(dca)_3]_2\}_n$", **Physica B: Physics of Condensed Matter 406** (2011) 4625-4629. https://doi.org/10.1016/j.physb.2011.09.042
41. **Bhattacharjee, A.**, Mandal, H., Roy, M., Kusz, J. and W. Hofmeister, "Microstructural and Magnetic Characterization of the Fly Ashes from Kolaghat Thermal Power Plants in West Bengal, India", **J. Magn. Magn. Mater.** 323 (2011) 3007–3012. https://doi.org/10.1016/j.jmmm.2011.06.036
42. Sen, R., Koner, S., **Bhattacharjee, A.,** Kusz, J., Miyashita, Y., Okamoto, K.-I., "Entrapment of [Ru(bpy)3]2+ in the anionic metal-organic framework: Unprecedented photoluminescence behavior exhibiting dual photo-emission at room temperature" **Dalton Transaction 40 (2011) 6952-6960**. https://doi.org/10.1039/C0DT01647K
43. **Bhattacharjee, A.**, Mandal, H. Roy, M., Chini, T. K., "A Preliminary Study to Identify Magnetic Particulate Matters in Vehicle Fuel Wastes, **Environmental Monitoring & Assessment** 176 (2011) 473-481. https://doi.org/10.1007/s10661-010-1598-x

2010

44. **Bhattacharjee, A.**, Goodwin, H. A. and Gütlich, P., "Photo-induced spin state switching in $[Fe(bpp)_2](NCS)_2.2H_2O$", **American Physical Society, Conf. Proceedings, 1313 (2010)128-130**. https://doi.org/10.1063/1.3530465
45. Sen,R., Hazra,D. K., Koner,S., Helliwell,M., Mukherjee,M., **Bhattacharjee, A.**, "Hydrothermal synthesis of dimeric lanthanide compounds: X-ray structure, magnetic study and heterogeneous catalytic epoxidation of olefins", **Polyhedron 29 (2010) 3183–3191.** https://doi.org/10.1016/j.poly.2010.08.033
46. **Bhattacharjee, A.**, Mandal, H., Roy, M. and Kusz, J., "Microstructural and Magnetic Characterization of the Dusts from a Stone Crushing Industry in Birbhum, India", **J. Magn. Magn. Mater. 322** (2010) 3724-27. https://doi.org/10.1016/j.jmmm.2010.07.042
47. Gaspar, A., Martínez, V., Boldog, I., Ksenofontov, V., **Bhattacharjee, A.,** Guetlich, P., Real, J., "Spin crossover phenomenon in nanocrystals and nanoparticles of $[Fe(3\text{-}Fpy)_2M(CN)_4]$ (MII = Ni, Pd, Pt) 2D coordination polymers", **Chemistry of Materials 22 (2010)** 4271-4281. https://doi.org/10.1021/cm101022u
48. Sen, R, Bhattacharya, A., Mal, D., **Bhattacharjee, A.**, Gütlich, P., Mukherjee, A. K., Solzi, M., Pernechele, C., and Koner, S., "A cyano-bridged bimetallic ferrimagnet: Synthesis, X-ray structure and magnetic study", **Polyhedron 29 (2010)** 2762–2768. https://doi.org/10.1016/j.poly.2010.06.022
49. **Bhattacharjee, A.**, Roy, D., Roy, M., S. Chakraborty, A. De, J. Kusz, W. Hofmeister, "Rod-like ferrites obtained through thermal degradation of a molecular ferrimagnet", **J. Alloy. Comps. 503** (2010) 449–453. https://doi.org/10.1016/j.jallcom.2010.05.031
50. Dutta, B., Jana, S., **Bhattacharjee, A.**, Gütlich, P., Iijima, S. and Koner, S., "γ-Fe_2O_3 Nanoparticle in Y Zeolite Matrix: Preparation, Characterization, and Heterogeneous Catalytic Epoxidation of Olefins", **Inorg. Chim Acta 363** (2010) 696-704. https://doi.org/10.1016/j.ica.2009.11.025
51. **Bhattacharjee, A**., Bhakat, D. and Roy, M., "Electrical conduction property of molecular magnetic material – $\{N(n\text{-}C_4H_9)_4[Fe(II)Fe(III)(C_2O_4)_3]\}_\infty$: Before and after thermal degradation", **Physica B : Cond. Matter**, **405** (2010) 1546-1550. https://doi.org/10.1016/j.physb.2009.12.037

2009

52. Sen, R., **Bhattacharjee, A.**, Gütlich, P., Miyashita, Y., Okamoto, K.-I. and Koner, S., " Structural and magnetic diversity in metal-dca polymer moieties: Paramagnetic and antiferromagnetic 1D chain compound and weakly ferromagnetic 2D motif". **Inorg. Chim. Acta** 362 (2009) 4663-4670. https://doi.org/10.1016/j.ica.2009.06.036
53. Gütlich, P., **Bhattacharjee, A.**, Seredyuk, M., Gaspar, A. B., "Mössbauer Spectroscopy in Molecular Magnetism", **Hyperfine Interactions** 189 (2009) 3 – 19. **Review Article**. https://doi.org/10.1007/978-3-642-01370-6_2
54. **Bhattacharjee, A.**, Bałanda, M., Miyazaki, Y., Sorai, M., Gütlich, P., "Uncompensated Magnetization in the Layered Molecular Antiferromagnet $\{N(n\text{-}C_5H_{11})_4[Mn^{II}Fe^{III}(ox)_3]\}_\infty$ ", **Polyhedron** 28 (2009) 2899-04. https://doi.org/10.1016/j.poly.2009.06.081
55. **Bhattacharjee, A**., Bhakat, D., "Molecular Material - $\{N(n\text{-}C_4H_9)_4[Ni(II)_{0.5}\,Fe(II)_{0.5}\,Fe(III)(C_2O_4)_3]\}_\infty$: Magnetic, Mössbauer and Electrical Conductivity Studies", **Physica B** 404 (2009) 3448 – 3451. https://doi.org/10.1016/j.physb.2009.05.040
56. **Bhattacharjee, A.,** Ksenofontov, V., Goodwin. H., Gütlich, P., "Pressure-induced hysteresis in the high spin ↔ low spin transition in bis(2,4-bis(pyridin-2-yl)thiazole) iron(II) tetrafluoroborate" **J. Phys. Condens. Matter** 21 (2009) 026011-019. https://doi.org/10.1088/0953-8984/21/2/026011

2008

57. **Bhattacharjee, A.**, Ksenofontov, V., Kitchen, J. A., Klingele, M. H., Brooker, S., and Gütlich, P., "Effect of pressure and light on the magnetic behaviour of a dinuclear iron(II) spin transition compound : $\{[(Fe(II)_2(PMAT)_2](BF_4)_4\cdot DMF\}$". **Appl. Phys. Lett.** 92 (2008) 174104-174107. https://doi.org/10.1063/1.2911918
58. **Bhattacharjee, A.,** Kusz, J., Goodwin, H. A., Gütlich, P., "Synchrotron powder-diffraction study of the spin transition compound $[Fe(bpp)_2](NCS)_2.2H_2O$ and the soft X-ray induced structural phase conversion" **J. Mol. Structure**, 890 (2008) 178-183. https://doi.org/10.1016/j.molstruc.2008.05.033
59. **Bhattacharjee, A**., Köningsbruggen, P. J. van, Shum, W. W., Miller, J. S. and Gütlich, P., "Mössbauer spectroscopic study of Spin Crossover Behavior of $[Fe^{II}(isoxazole)_6](ClO_4)_2$ ". **J. Phys. Chem. Solids** 69 (2008) 2713 -2718. https://doi.org/10.1016/j.jpcs.2008.06.141

60. Boldog, I., Gaspar, A. B., Martínez, V., Pardo-Ibañez, P., Ksenofontov, V., **Bhattacharjee, A**., Gütlich, P., and Real, J. A., "Spin crossover nanocrystals with magnetic, optical and structural bi-stability near room temperature", **Angewande Chemie**. **Intl. Edn**. 47 (2008) 6433-6437. https://doi.org/10.1002/anie.200801673
61. Boldog, I., Gaspar, A. B., Martínez, V., Pardo-Ibañez, P., Ksenofontov, V., **Bhattacharjee, A**., Gütlich, P., and Real, J. A., "Spin crossover nanocrystals with magnetic, optical and structural bi-stability near room temperature", **Angew. Chem.** 120 (2008) 6533 –6537. https://doi.org/10.1002/ange.200801673
62. Sen, R., Bera, R., Adhikary, C., **Bhattacharjee, A.**, Gütlich, P., Ghosh, S., Mukherjee, A. K. and Koner, S., "Novel magnetic and catalytic properties of hydrothermally synthesized two-dimensional $VO(H_2PO_4)_2$", **Langmuir** 24 (2008) 5970-5975. https://doi.org/10.1021/la7040086
63. Garcia, Y., Ksenofontov, V., Mentior, S., Dîrtu, M. M., Gieck, C., Bhatthacharjee, A. and Gütlich, P., "Rapid Cooling Experiments and Use of an Anionic Nuclear Probe to Sense the Spin Transition of the 1D Coordination Polymers $[Fe(NH_2trz)_3]SnF_6{\cdot}n\,H_2O$ (NH_2trz=4-amino-1,2,4-triazole)". **Chem. Eur. J.** 14 (2008) 3745 – 3758. https://doi.org/10.1002/chem.200701305
64. Mal, D., Sen, R., Adhikary, C., **Bhattacharjee, A.**, Gütlich, P., Miyashita, Y., Okamoto, K.-I. and Koner, S. "Synthesis, X-ray crystal structure and magnetic study of a dicyanamido bridged 1D chain nickel (II) complex". **Inorg. Chim. Acta** 361 (2008) 183–187. https://doi.org/10.1016/j.ica.2007.07.011
65. Mal, D., Sen, R., Adhikary, C., Miyashita, Y., Okamoto, K.-I., **Bhattacharjee, A.**, Gütlich, P., Koner, S., "Synthesis, X-ray crystal structure and magnetic study of a rare $\mu_{1,5}$-dca bridged ferromagnetic dimeric copper(II) complex". **J. Coord. Chem.** 61 (2008) 3486–3492. https://doi.org/10.1080/00958970802072773

2007
66. **Bhattacharjee, A.**, Gütlich, P., 'Mössbauer spectroscopic study of Low Temperature Spin Structure and Magnetic Interactions in $NPt_4Mn(II)[Fe(III)(ox)_3]$' **J. Phys. Condens. Matter** 19 (2007) 356201. https://doi.org/10.1088/0953-8984/19/35/356201
67. **Bhattacharjee, A**., Koningsbruggen, P. J. van, Shum, W. W., Miller, J. S. and Gütlich, P., "Study of Spin Crossover Behavior of $[Fe^{II}(isoxazole)_6](BF_4)_2$ with Mössbauer Spectroscopy". **J. Phys. Condens. Matter**. 19 **(2007)** 406202. https://doi.org/10.1088/0953-8984/19/40/406202
68. **Bhattacharjee, A., "**Comment on 'Multiple magnetic-pole reversals in the molecular-based mixed-valency ferrimagnet $\{[N(n\text{-}C_4H_9)_4][FeFe(C_2O_4)_3]\}_\infty$' by Guodong Tang et al., *Physica B* 392 (2007) 337–340.]". Physica B 399 (2007) 77-78. https://doi.org/10.1016/j.physb.2007.06.004
69. **Bhattacharjee, A.,** Koner, S., Miyazaki, Y., "Low temperature calorimetric investigation into the magnetic transition in Prussian blue analog - $Mn(III)[Fe(III)(CN)_6].10H_2O.2CH_3OH$". **J. Magn. Magn. Mater**. 312 (2007) 435 - 442. https://doi.org/10.1016/j.jmmm.2006.11.188
70. **Bhattacharjee, A.,** Koner, S., Miyazaki, Y., Erratum to "Low temperature calorimetric investigation into the magnetic transition in Prussian blue analog - $Mn(III)[Fe(III)(CN)_6].10H_2O.2CH_3OH$". [J. Magn. Magn. Mater. 312 435 – 442]. **J. Magn. Magn. Mater.** 317 (2007) 80–81. https://doi.org/10.1016/j.jmmm.2006.11.188
71. Milan, A., Palacio, F., Falqui, A., Snoeck, E., Serin, V., **Bhattacharjee, A**, Ksenofontov, V., Gütlich, P. and Gilbert, I., "Maghemite polymer nanocomposites with modulated magnetic properties". **Acta Materialia** 55 (2007) 2201-09. https://doi.org/10.1016/j.actamat.2006.11.020
72. Adhikary, C., Mal, D., Sen, R**., Bhattacharjee, A.,** Gütlich, P., Chaudhuri, S. and Koner, S., "Synthesis, X-ray crystal structure and magnetic study of a novel μ_2-1,1-azido bridged dimeric copper(II) complex". **Polyhedron** 26 (2007) 1658-1162. https://doi.org/10.1016/j.poly.2006.12.002

2006
73. **Bhattacharjee, A.,** Kusz, J., Ksenofontov, V., Sugiyarto, K. H., Goodwin, H. A. and Gütlich, P., "X-ray diffraction and LIESST effect of the spin transition material $[Fe(bpp)_2](NCS)_2.2H_2O$", **Chem. Phys. Letts**. 431 (2006) 72 – 77. https://doi.org/10.1016/j.cplett.2006.09.052
74. **Bhattacharjee, A.,** Saha, S., Koner, S. N., Ksenofontov, V. and Gütlich, P., "Metal to Metal Electron Transfer and Magnetic Interactions in a Mixed-Valence Prussian Blue Analogue: $Mn(III)[Fe(III)(CN)_6].10H_2O.2CH_3OH$". **J. Magn. Magn. Mater**. 302 (2006) 173-180. https://doi.org/10.1016/j.jmmm.2005.09.004
75. Bhattacharjee, A., Saha, S., Koner, S., Miyazaki, Y., Phase transitions in mixed-valence potassium manganese hexacyanoferrate Prussian blue analogue: Heat capacity calorimetric study', J. Magn. Magn. Mater. 312 (2006) 435-442. https://doi.org/10.1016/j.jmmm.2006.11.188

2005
76. **Bhattacharjee, A.**, Falk, K., Haase, W. and Sorai, M., "Calorimetric investigation of the magnetic phase transitions in the $[MnR_4(TPP)][TCNE]$ complexes, R = F or $C_{14}H_{29}$, TPP= tetra-phenyl porphyrin". **J. Phys. Chem. Solids** 66 (2005) 147-154. https://doi.org/10.1016/j.jpcs.2004.09.001

2004
77. **Bhattacharjee, A.**, Miyazaki, Y. and Sorai, M., "Calorimetric investigation of phase transitions in the layered molecule-based antiferromagnetic material: $NPt_4[Mn^{II}Fe^{III}(ox)_3]$ (Pt = n-C_5H_{11}, ox = oxalato)". **J. Magn. Magn. Mater**. 280 (2004) 1-9. https://doi.org/10.1016/j.jmmm.2004.02.015
78. Bhattacharjee, A., Gutlich, P., "Magnetic properties of quasi-2D antiferromagnet {N(n-C5H11)4[MnIIFeIII(ox)3]}N below Neel temperature: revisited". **J. Magn. Magn. Mater**. 268 (2004) 380-387. https://doi.org/10.1016/S0304-8853(03)00551-1
79. Nakamoto, T, **Bhattacharjee, A** and Sorai, M., "Cause for Unusually Large Thermal Hysteresis of Spin Crossover in $[Fe(2\text{-pic})_3]Cl_2{\cdot}H_2O$". **Bull. Chem. Soc. Jpn**. 77 (2004) 921-932. https://doi.org/10.1246/bcsj.77.921 (**Best Article Award)**
80. Saha, S., Mal, D., Koner, S., **Bhattacherjee, A.**, Gütlich, P, Mukherjee, S., Mukherjee, M. and Okamoto K.-I., "Syntheses, Structures and Magnetic Properties of the Azido Adducts of Quadridentate Schiff Base Manganese(III) Complexes". **Polyhedron** 23 (2004) 1811-1817. https://doi.org/10.1016/j.poly.2004.04.007

2003

81. **Bhattacharjee, A**., Ksenofontov, V., Sugiyarto, K. H., Goodwin, H. and Gütlich, P., "Anomalous High Spin ⇄ Low Spin Transition Observed in $[Fe(II)(bpp)_2(NCS)_2].2H_2O$". **Advanced Functional Materials** 13 (2003) 877 - 882. https://doi.org/10.1002/adfm.200304356
82. **Bhattacharjee, A**., Reiman, S., Ksenofontov, V. and Gütlich, P., "Mössbauer spectroscopy under high magnetic field: Observation of different spin sites in $NBu_4[Fe^{II}Fe^{III}(ox)_3]$ (Bu = *n*-C_4H_9, ox = oxalato) leading to spin glass state at low temperatures". J**. Phys. Condens. Matter** 15 (2003) 5103 – 5112. https://doi.org/10.1088/0953-8984/15/29/322
83. **Bhattacharjee, A.,** "Contradicting Reports on Magnteic Properties of Layered Molecular-Based Material $N(n\text{-}C_3H_7)_4[Fe^{II}Fe^{III}(C_2O_4)_3]$ by Christopher J. Nuttal and Peter Day". **Chemistry of Materials** 15 (2003) 2287. https://doi.org/10.1021/cm021280f

2002

84. **Bhattacharjee, A.**, Nakazawa, Y., Kobayashi, H. and Sorai, M., "AC magnetic susceptibility of molecule-based magnetic material $NBu_4[Fe^{II}Fe^{III}(ox)_3]$ (Bu=*n*-$C_4H_9^+$, ox=oxalate)". **J. Physical Society of Japan.** 71 (2002) 2263 - 2267. https://doi.org/10.1143/jpsj.71.2263
85. **Bhattacharjee, A.**, Saito, K. and Sorai, M., "Heat Capacity Study of Rare Earth Orthoferrite $HoFeO_3$: Magnetic Phase Transitions and their Magnetic Field Dependence". **J. Physics & Chemistry of Solids** 63 (2002) 569 – 574. https://doi.org/10.1016/S0022-3697(01)00195-0

2001

86. **Bhattacharjee, A.**, Miyazaki, Y., Nakazawa, Y., Koner, S., Iijima, S. and Sorai, M., "Studies of the magnetic transition of a molecule-based magnetic material: $[Fe(CN)_6$-Mn(cyclam)$].3H_2O$". **Physica B** 305 (2001) 56 - 64. https://doi.org/10.1016/S0921-4526(01)00586-5
87. **Bhattacharjee, A.**, Miyazaki, Y., Yoo, J., Nakano, M., Christou, G., Hendrickson, D. and Sorai, M.,"Heat capacity calorimetry of Mn_4 cluster complexes". **Polyhedron** 20 (2001) 1607 - 1613. https://doi.org/10.1016/S0277-5387(01)00661-1
88. Miyazaki, Y., **Bhattacharjee, A.**, Nakano, M., Saito, K., Aubin, S. M. J., Eppley, H. J., Christou, G., Hendrickson, D. and Sorai, M., "Magnetic field dependent heat capacity of the single-molecule magnet $[Mn_{12}O_{12}(O_2CEt)_{16}(H_2O)_3]$". **Inorganic Chemistry** 40 (2001) 6632 - 6636. https://doi.org/10.1021/ic010567w
89. Saito, K., Sato, A., **Bhattacharjee, A.** and Sorai, M., "High precision determination of heat capacity anomaly due to spin reorientation in $TmFeO_3$ and $HoFeO_3$". **Solid State Communication** 120 (2001) 129 - 132. https://doi.org/10.1016/S0038-1098(01)00359-3
90. **Bhattacharjee, A.**, Miyazaki, Y. and Sorai, M., "Heat capacity studies of a molecule-based magnetic material : $NBu_4[Co^{II}Fe^{III}(ox)_3]$". **J. Alloy & Compounds** 326 (2001) 251 - 254. https://doi.org/10.1016/S0925-8388(01)01320-2
91. **Bhattacharjee, A.**, Miyazaki, Y., Feyerherm, R., Steiner, M. and Sorai, M., "Magnetic and heat capacity studies of a molecule-based magnetic material $NBu_4[Fe^{II}Fe^{III}(ox)_3]$". **Indian J. Physics** 75A (2001) 399 – 404.
92. **Bhattacharjee, A.**, Feyerherm, R. and Steiner, M., "Spin glass like behaviour of a mixed-metal molecule-based material: $NBu_4Co^{II}[Fe^{III}_{0.5}Cr^{III}_{0.5}(ox)_3]$, Bu_4 = *n*-$(C_4H_9)_4$, ox = oxalate". **Indian J. Physics** 75A (2001) 127 - 130.

2000

93. **Bhattacharjee, A.**, Miyazaki. Y. and Sorai, M., "Calorimetric study of the effect of non-magnetic organic cation (A) on the magnetic properties of $A[Fe^{II}Fe^{III}(ox)_3]$, A = $N(n\text{-}C_4H_9)_4^+$ and $N(n\text{-}C_3H_7)_4^+$". **Solid State Communication** 115 (2000) 539 -543. https://doi.org/10.1016/S0038-1098(99)00254-9
94. **Bhattacharjee, A.**, Miyazaki, Y. and Sorai, M., "Heat capacities and phase transitions of the molecule-based mixed-valence complex $NBu_4[Fe^{II}Fe^{III}(ox)_3]$ and the mixed-metal complex $NBu_4[Zn^{II}Fe^{III}(ox)_3]$". **J. Physical Society of Japan** 69 (2000) 479-488. https://doi.org/10.1143/JPSJ.69.479
95. **Bhattacharjee, A.**, Saito, K and Sorai, M., "Magnetic field dependent heat capacity of the molecule-based magnetic material $NBu_4[Fe^{II}Fe^{III}(ox)_3]$, (Bu = *n*-$C_4H_9^+$, ox = oxalate)". **Solid State Communication** 113 (2000) 543 - 548. https://doi.org/10.1016/S0038-1098(99)00549-9

1999

96. **Bhattacharjee, A.,** "Effect of non-magnetic organic cation (A) on the magnetic properties of $ANi^{II}[Fe^{III}(ox)_3]$, A = $N(n\text{-}C_4H_9)_4^+$ and $N(n\text{-}C_3H_7)_4^+$". **Solid State Communication** 111 (1999) 601 – 606. https://doi.org/10.1016/S0038-1098(99)00254-9
97. **Bhattacharjee, A.**, Feyerherm, R. and Steiner, M., "Study of the negative magnetization phenomenon in $NBu_4[Fe^{II}Fe^{III}(ox)_3]$". **J. Physical Society of Japan** 68 (1999) 1679 – 1683. https://doi.org/10.1143/JPSJ.68.1679
98. **Bhattacharjee, A.** and Feyerherm, R., "Study of the negative magnetization phenomenon in $NBu_4[Fe^{II}Fe^{III}(ox)_3]$". **Current Science**, 76 (1999) 70 - 73. https://www.jstor.org/stable/24101331
99. **Bhattacharjee, A.** and Iijima, S., "Magnetic susceptibility of some mixed-metal compounds: $NBu_4Fe(II)[Al(III)_xFe(III)_{1-x}(ox)_3]$". **J. Material Science Letter** 18 (1999) 885 – 887. https://doi.org/10.1023/A:1006608629387
100. **Bhattacharjee, A.**, Feyerherm, R. and Steiner, M., "Magnetic properties of oxalate-ligand based molecular materials: $NBu_4M(II)[Fe(III)(ox)_3]$, Bu = n-$(C_4H_9)_4$, M = Co, Cr". **J. Magn. Magn. Mater**. 195 (1999) 336 – 344. https://doi.org/10.1016/S0304-8853(98)00597-6
101. **Bhattacharjee, A.**, Feyerherm, R. and Steiner, M., "Magnetic properties of mixed-metal compounds:$NBu_4Co^{II}_{0.5}Fe^{II}_{0.5}[M^{III}(ox)_3]$, Bu = n-$(C_4H_9)_4$, M = Cr, Fe". **Physica Status Solidi (A)** 175 (1999) 681-693. https://doi.org/10.1002/(SICI)1521-396X(199910)175:2<683::AID-PSSA683>3.0.CO;2-3

1998

102. Chakraborty, A.K., Bera, R.N., **Bhattacharjee, A.** and Mallik, B., "Dark and photoconductive properties of hydroxymethyl ferrocene". **Synthetic Metals**, 97 (1998) 63-68. https://doi.org/10.1016/S0379-6779(98)00114-3
103. Sakai, K., Tanaka, Y., Tsuchiya, Y., Hirata, K., Tsubomura, T., Iijima, S., **Bhattacharjee, A**., "New Structural Aspects of -Pyrrolidinonate- and -Pyridonate-Bridged, Homo- and Mixed-Valence, Di- and Tetranuclear cis-Diammineplatinum Complexes: Eight New Crystal Structures, Stoichiometric 1:1 Mixture of $Pt(2.25+)_4$ and $Pt(2.5+)_4$, New Quasi-One-Dimensional Halide-Bridged $[Pt(2.5+)_4\text{-}Cl\cdots]_\infty$ System, and Consideration of Solution Properties". **J. Am. Chem. Soc**. 120 **(1998)** 8366-8379. https://doi.org/10.1021/ja980019q

1997

104. **Bhattacharjee, A.** and Iijima, S., "Magnetic susceptibility of some mixed-metal compounds: $NBu_4M(II)_x[Fe(III)_{0.5}Cr(III)_{0.5}(ox)_3]$" **Physica Status Solidi A** 158 (1997) 503-508. https://doi.org/10.1002/1521-396X(199702)159:2<503::AID-PSSA503>3.0.CO;2-7

1996

105. **Bhattacharjee, A.**, Iijima, S. and Mizutani, F., "Magnetic susceptibility of some mixed-metal compounds: $NBu_4Fe(II)[Fe(III)_xCr(III)_{1-x}(ox)_3]$". **J. Magnetism & Magnetic Materials** 153 (1996) 235 - 240. https://doi.org/10.1016/0304-8853(95)00485-8
106. **Bhattacharjee, A.**, Iijima, S., Hayakawa, H., Hagiwara, M. and Katsumata, K, "Magnetism of a new oxalate-bridged metal complex $NPr_4Mn(II)[Cr(III)(ox)_3]$". **Molecular Crystal & Liquid Crystal** 286 (1996) 141 - 146. https://doi.org/10.1080/10587259608042278
107. **Bhattacharjee, A.,** "Effect of organic cation (A) on the magnetic susceptibility of $NBu_4Fe(II)[Fe(III)(ox)_3]$, A = $N(C_3H_7)_4$, $As(C_6H_5)_4$, $N(C_4H_9)_4$". **J. Material Science Letters** 15 (1996) 102 – 104. https://doi.org/10.1007/BF00291438

1995

108. **Bhattacharjee, A.**, Iijima, S., Mizutani, F., Katsura, T., Matsumoto, N. and Okawa, H., "Magnetic susceptibility of some mixed-metal compounds: $NBu_4Zn(II)_xFe(II)_{1-x}[Fe(III)(ox)_3]$". **Japanese J. Applied Physics Part 1** 34 (1995) 1521-1525. https://doi.org/10.1143/JJAP.34.1521

1994

109. Chakraborty, A.K., **Bhattacharjee, A.** and Mallik, B., "Organometallic photoconductors: dark and photoconductive studies of ferrocene and some of its derivatives". **Bulletin of Chemical Society of Japan**, 67 (1994) 607-611. https://doi.org/10.1246/bcsj.67.607
110. **Bhattacharjee, A.** and Mallik, B., "Effect of mechanical pressure on the charge transport in some ferrocene derivatives in the presence of adsorbed vapours". **J. Material Science**, 29 (1994) 4875-4882. https://doi.org/10.1007/BF00356537

1993

111. **Bhattacharjee, A.** and Mallik, B., "Electrical conductivity of benzoyl ferrocene in presence of adsorbed vapors", **Japanese J. Applied Physics Part 1,** 32 (1993) 1568 – 1574. https://doi.org/10.1143/JJAP.32.1568

1992

112. **Bhattacharjee, A.** and Mallik, B., "Electrical conductivity of ferrocenedicarboxylic acid: comparison with other ferrocene derivatives". **Indian J. Physics,** 66A (1992) 369-373.
113. **Bhattacharjee, A.** and Mallik, B., "Adsorption-induced electrical conductivity of some ferrocene derivatives: rates of adsorption and desorption of vapors". **Bulletin of Chemical Society of Japan**, 65 (1992) 3462-3469. https://doi.org/10.1246/bcsj.65.3462
114. **Bhattacharjee, A.** and Mallik, B., "Effect of mechanical pressure on the adsorption-induced electrical conductivity of ferrocene". **J. Material Science Letter**, 11 (1992) 35-37. https://doi.org/10.1007/BF00720774

1991

115. **Bhattacharjee, A.** and Mallik, B., "Adsorption-induced unusual changes in the electrical conductivity of some ferrocene derivatives". **Bulletin of Chemical Society of Japan**, 64 (1991) 3129-3136. https://doi.org/10.1246/bcsj.64.3129
116. **Bhattacharjee, A.** and Mallik, B., "Adsorption-induced electrical conductivity of ferrocene: rates of adsorption and desorption of vapors". **J. Physics & Chemistry of Solids**, 52 (1991) 1187-1192. https://doi.org/10.1016/0022-3697(91)90053-3

1990

117. **Bhattacharjee, A.** and Mallik, B., "Electrical conductivity of ferrocene and some of its derivatives". **Bulletin of Electrochemistry**, 6 (1990) 780-784.

1989

118. Mallik, B. and **Bhattacharjee, A.,** "Adsorption-induced unusual changes in the electrical conductivity of ferrocene". **J. Physics & Chemistry of Solids**, 50 (1989) 1113-1119. https://doi.org/10.1016/0022-3697(89)90020-6

Papers Presented at Seminar/Symposium/Conference

International

1. S. Kundu, et al., Int. Conf. on Frontier Areas of Science & Technology (ICFAST-2022), University of Hyderabad, 9-10 September, 2022.
2. M. Chakrabarty, et al., Int. Conf. on Frontier Areas of Science & Technology (ICFAST-2022), University of Hyderabad, 9-10 September, 2022.
3. T. Sarkar, et al., Int. Conf. on Frontier Areas of Science & Technology (ICFAST-2022), University of Hyderabad, 9-10 September, 2022.
4. A. Bhattacharjee, Int. Conf. on Emerging Advancement in Science & Technology (IC-EAST 2019), SSPL, Delhi, 5-6 September, 2019.
5. A. Dey and A. Bhattacharjee, Int. Conf. on Advancement in Science & Technology (ICAST-2018), Visva-Bharati University, Santiniketan, 3-4 September, 2018.
6. B. Das and A. Bhattacharjee, Int. Conf. on Advancement in Science & Technology (ICAST-2018), Visva-Bharati University, Santiniketan, 3-4 September, 2018.
7. S. C. Tudu and A. Bhattacharjee, Int. Conf. on Advancement in Science & Technology (ICAST-2018), Visva-Bharati University, Santiniketan, 3-4 September, 2018.
8. Mandal, H., et al., Int. Conf. On Global Scenario In Environment and Energy (ICGSEE2013), MANIT, Bhopal, India, 14-16th March 2013.
9. Barik, P., et al., Int. Conf. on Recent Advances in Composite Materials (ICRACM 2013), Goa (Org. by BHU), Feb 18-21, 2013,
10. Rooj, A., et al., Int. Workshop on Nanomaterials (IWON 2012), Jadavpur University, 14-15 Dec, 2012.
11. Barik, P., et al., Int. Workshop on Nanomaterials (IWON 2012), JU, 14-15 Dec, 2012.
12. Bhattacharjee, A., et al., Int. Conf. on Physics of Emerging Functional Materials (PEFM-2010), BARC, Mumbai, 22-24 Sept, 2010
13. Rooj, A., et al., Int. Conf. on Fundamentals and Applications of Nanoscience & Technology, Jadavpur Univ., Kolkata, 9-11 Dec., 2010.
14. Roy, D., et al., Int. Conf. on Fundamentals and Applications of Nanoscience & Technology (ICFANT-2010), Jadavpur University, Kolkata, 9-11 Dec., 2010.
15. Gütlich, P., et al., Int. Symposium on the Industrial Application of the Mössbauer Effect, 17-22 August, 2008, Budapest

16. Bhattacharjee, A. 6th Seeheim Workshop on Mössbauer Spectroscopy, Seeheim, Germany, June 9 – 13, 2003.
17. Bhattacharjee, A., et al., 8th Int. Conf. on Molecule-Based Magnets at Valencia, Spain, October 5 – 10, 2002.
18. Sorai, M., et al., 8th Int. Conf. on Molecule-Based Magnets at Valencia, Spain, October 5 – 10, 2002.
19. Bhattacharjee, A., et al., 5th Int. Conf. on Relaxation Phenomena in Dielectric and Magnetic Materials at Darmstadt Technical University, Germany, October 2 – 6, 2002.
20. Bhattacharjee, A. 5th Seeheim Workshop on Mössbauer Spectroscopy, Seeheim, Germany, May 21 – 25, 2002.
21. Bhattacharjee, A., et al., 16th IUPAC Conf. on Chemical Thermodynamics & 55th Calorimetry Conf., Halifax, Canada. 2000.
22. Bhattacharjee, A., et al., VIIth Int. Conf. on Molecule-Based Magnetism (ICMM'2000), Texas, USA, 2000.
23. Bhattacharjee, A., et al., Int. Symposium on Condensed Matter Physics (SCMP) at IACS, Kolkata, India, 2000.
24. Bhattacharjee, A., et al., COE Conf. at Nagoya University, Japan, 1999.
25. Bhattacharjee, A., et al., 4th Int. and 2nd Japan-China Conf. on Calorimetry and Thermal Analysis, Tsukuba, Japan. 1999.
26. Sorai, M., et al., 49th Japanese Annual Meeting on Coordination Chemistry at Hokkaido University, Japan, 1999.
27. Bhattacharjee, A., et al., 35th Annual Meeting of Japanese Society of Calorimetry and Thermal Analysis, Tokyo University, Japan, 1999.
28. Miyazaki, Y., et al., Annual Meeting of Japanese Society of Calorimetry and Thermal Analysis at University of Tokyo, Japan, 1999.
29. Bhattacharjee, A., et al., Int. Symp. on Molecular Design and Functionalities of Assembled Metal Complexes at Kyoto, Japan, 1999.
30. Bhattacharjee, A., Miyazaki, Y. and Sorai, M. Int. Conf. on Magnetic Materials (ICMM) at SINP, Kolkata, India, Dec. 2000.
31. Bhattacharjee, A., et al., 41st Spring Meeting of Japan Society for Applied Physics at Tokyo, 1994.
32. Bhattacharjee, A., et al., 67th Annual Meeting of Chemical Society of Japan at Tokyo, 1994

National

33. T. Sarkar et al, 66th DAE Solid State Physics Symposium (DAE-SSPS) December 18-22, 2022 BIT Mesra.
34. S. Kundu, et al, 66th DAE Solid State Physics Symposium (DAE-SSPS) December 18-22, 2022 BIT Mesra.
35. M. Chakraborty et al., 66th DAE Solid State Physics Symposium (DAE-SSPS) December 18-22, 2022 BIT Mesra.
36. S. Kundu and A. Bhattacharjee, 29th National (Virtual) Conf. on Condensed Matter Physics, December 10-12, 2021, Central University of Jharkhand, Ranchi.
37. S. C. Tudu, A. Bhattacharjee, National Seminar On Recent Trends in Advanced Functional Materials, Midnapore College, 13 – 14th January, 2020.
38. S. C. Tudu, A. Bhattacharjee, National Conf. on Frontiers of Material Science and Photonics: Issues and Developments (NCFMSP – 2020), March 05- 06, 2020, SKBU, Purulia.
39. A. Dey, et al., National Seminar on Condensed Matter Physics including Laser Applications, Burdwan University, 27-28 Feb, 2019.
40. A. Dey & A. Bhattacharjee, 25th West Bengal Science & Technology Congress-2018, Kolkata, 4-5th March, 2018.
41. A. Dey & A. Bhattacharjee, WBSTC, 2017 10-11 Nov, 2017, Burdwan, WB
42. A. Dey & A. Bhattacharjee, West Bengal Science & Technology Congress (WBSTC), 2016 7-8 Nov, 2016, Bankura.
43. B. Das & A. Bhattacharjee, West Bengal Science & Technology Congress (WBSTC), 7-8 Nov, 2016, Bankura.
44. B. Das & A. Bhattacharjee, Bi-Annual Conf. of Indian Thermal Analysis Society (THERMANS), 18-20th Jan, 2016, IIT-Banaras.
45. B. Das & A. Bhattacharjee, Condensed Matter Days-2015, 28-30 Aug, 2015, Visva-Bharati.
46. D. Bhakat, A. Bhattacharjee, Condensed Matter Days-2015, 28-30 Aug, 2015, Visva-Bharati.
47. B. Das & A. Bhattacharjee, NSCMPLA-2015, Burdwan University, WB, 27-28 Feb, 2015
48. D. Bhakat & A. Bhattacharjee, Condensed Matter Days-2014, 28-30 Aug, 2014, Kolkata.
49. A. Bhattacharjee, et al., THERMANS 2013, BARC 19-21 Dec, 2013.
50. A. Bhattacharjee, et al., NSNMRN 2013, Ooty, 25-27 August, 2013
51. M. Roy, et al., NSNMRN 2013, Ooty, 25-27 August, 2013
52. Roy, D. et al, National Seminar on Condensed Matter Physics including Laser Applications, Burdwan Univ., 5-7 March, 2013.
53. Bhattacharjee, A., et al, National Seminar on Condensed Matter Physics including Laser Applications, Burdwan Univ., 5-7 March, 2013.
54. Roy, D. et al., National Seminar on Condensed Matter Physics including Laser Applications, Burdwan Univ. 2012.
55. Bhattacharjee, A. et al, National Conf. on Physics, (PANE-2010), Manipur University, Imphal, Oct 5-6, 2010.
56. Dey, A. & Bhattacharjee, A. Condensed Matter Days (CMDAYS-2010), Kalyani University, Kalyani, Aug 28-30, 2010.
57. Bhattacharjee, A. SSP-DAE Symposium, BARC, Mumbai, Dec 16-20, 2008
58. Bhattacharjee, A. CMMP-07, Rajasthan University, Jaipur, 1-3 Feb, 2007.
59. Bhattacharjee, A. RTCMP-2006, IACS, Kolkata, Dec 4, 2006 (Invited Talk).
60. Bhattacharjee, A., et al., CMDAYS 2004, NEHU, Shillong, India, August 25-27.
61. Bhattacharjee, A., et al., M. Symposium on Condensed Matter Physics (SCMP-99) at IACS, Calcutta, 1999.
62. Bhattacharjee, A., et al., 38th DAE Solid State Physics Symposium at IACS, Calcutta, 1995.

****

(*Updated on 15.12.2022*)