

Personal Information

Kazi Haniem Maria
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Educational Qualification

- ✓ **Ph.D in Optoelectronics and Nanostructure Science**, Graduate School of Science and Technology, Shizuoka University, Shizuoka, Japan, 2015.
- ✓ **M.Sc. in Physics** with Thesis (1st Class), Department of Physics, University of Dhaka, 2005.
- ✓ **B.Sc in Physics** (1st Class), Department of Physics, University of Dhaka, 2004.
- ✓ **Higher Secondary Certificate** (1st divisions), Mymensingh Girls Cadet College, 2000.
- ✓ **Secondary School Certificate** (1st divisions), Mymensingh Girls Cadet College, 1998.

Professional Experience

Professor
From: September, 2021 to present
Department of Physics, University of Dhaka, Dhaka-1000.

Associate Professor
From: May, 2016 to present
Department of Physics, University of Dhaka, Dhaka-1000.

Assistant Professor
From: January, 2014 to May, 2016.
Department of Physics, University of Dhaka, Dhaka-1000.

Lecturer
From : July, 10 to January, 2014.
Department of Physics, University of Dhaka, Dhaka-1000.

Lecturer, Department of Physics,
University of Information Technology and Science, Dhaka.
From : January, 2009 to June,2010.

Awards and Honors:

- Awarded The World Academy of Science (TWAS) Post-Doctoral Fellowship-2021 for Conducting Post-doctoral research work at INTEC (Institute for the Technological Development of the Chemical Industry), a research institute that depends on UNL (National University of Litoral) and CONICET (National Scientific and Technical Research Council), Argentina from February 2022 to July 2022.
- Awarded India Science and Research Fellowship for Conducting Post-doctoral research work at the Indian Institute of Science, from September 2019 to February 2020.

- Awarded MEXT Scholarship from the Japanese government for Ph.D in Shizuoka University.
- Awarded JSPS Fellowship for attending HOPE meeting with Nobel Laureates.
- Awarded Rowshan Innas Ali Research Award, 2015 from the University of Dhaka.
- Awarded STRC (Semiconductor Technology Research Centre) Research Fellowship from the University of Dhaka.
- Awarded University Scholarship (General) based on B.Sc (Hons.) result.
- Awarded Dhaka Board Scholarship (General) for 4 years based on HSC results.
- Awarded Dhaka Board Scholarship (General) based on SSC result.
- Awarded Govt. Scholarship (Talent pool) in Primary Scholarship Exam.

Research Interest:

I have been interested in researching and developing various functional materials, including ceramic magnetic materials, glassy (amorphous) magnetic materials, nanostructured/nanocomposite materials, nanoparticle synthesis and characterization, and development of metallic alloys/ intermetallic and their heat treatment and beneficiation of various minerals. Currently, I am working on carbon nanotube production, purification, functionalization, and application. A brief description of my research areas is as follows:

- i) Processing/synthesis, structural characterization, and study of magnetic, dielectric, and electrical properties of ceramic magnets (MFe_2O_4 ; $M = Ni, Co, Mg, Cu, Cd, Zn, Li$) and ($MFe_{12}O_{19}$; $M=Ba, Sr$) with the addition, substitution and doping of various elements like rare earth and/or transition/alkaline metal oxides. The main objectives of these research works are
 - To synthesize a series of Cu-Zn, Co-Cd, Co-Zn, Ni-Cd, Ni-Mg, Li-Zn ferrites by conventional ceramic method and to investigate the correlation between the structural parameters and various non-magnetic substituted ions in ferrites.
 - Determinations of structural property e.g. phase analysis, density, and porosity of the samples.
 - Determination of intrinsic/extrinsic magnetic properties i.e Curie temperature, saturation magnetization, remanence, coercivity, and frequency dependence permeability for different concentrations of Zn, Mg, and Cd in different compositions of ferrites from the temperature dependence of magnetization $M(T)$ and permeability, B-H, and M-H loops.
 - Determination of order of spin canting in the dilute system by calculating the Y-K angle.
 - Determination of electrical properties, namely, DC resistivity at room temperature, AC electrical resistivity, and dielectric constant as a function of frequency.
- ii) Study of the magnetic, structural, and electrical properties of amorphous and nanocrystalline Fe and Co-based alloy ribbons with the addition of Si, B, Nb, Cr, Cu, prepared by melt-spinning technique. This work was based on the experimental investigation of nanocrystal formation from the Finemet type of amorphous ribbons subjected to controlled thermal treatment and the evolution of unique soft magnetic properties. The objectives are as follows:
 - Synthesis of the FINEMET alloys in the form of ribbon with varying amounts of Cu and Nb in the amorphous state by rapid solidification technique.

- Growth of nanocrystals on amorphous matrix by thermal treatment.
 - Characterization of nanostructured phases such as the size of the nanograins, Composition of the nanograins.
 - Correlation of the evaluation of nanograins with the magnetic properties.
 - Optimization of annealing temperature corresponding to the good magnetic properties.
- iii) Synthesis of Single-walled nanotube, modified the production method to get efficient production, functionalize the nanotube structure to disperse it in water, application of nanotube as nanocomposite.
- iv) Thin Film synthesis, thin film exfoliation for gas sensing application.

Research Experience:

- Post Doc. in Material Chemistry and Nanomaterials at INTEC (Institute for the Technological Development of the Chemical Industry (June 2022 - November 2022), a research institute that depends on UNL (National University of Litoral) and CONICET (National Scientific and Technical Research Council), Santa Fe, Argentina.
- Post Doc. in Thin Film deposition, wet chemical synthesis of nanoparticles, exfoliation of nanosheets, (August 2019 – February 2020), Centre for Nanoscience and Engineering, Indian Institute of Science, Bengaluru, India.
- Ph.D in Nanostructured Science (October 2012–September 2015), Shizuoka University, Japan.

Title of the thesis: Development of Bipolar Pulsed Arc Discharge Method for the Efficient Production of Single-walled Carbon Nanotubes, their Purification and Production of Nanotube/Cellulose Composites

Summary: A new production method has been developed to efficiently produce less defective SWNTs. To suppress the cathode deposition of DC arc discharge and increase the soot production, bipolar pulsed arc discharge has been developed for the production of SWNTs where the source material is effectively used without cathode deposition. In this discharge, both electrodes contribute to the sublimation of carbon alternately and the electrodes remain clean during the discharge. Thus, the bipolar pulsed arc discharge is found to be well controlled.

A facile purification method of SWNTs has been demonstrated by using a combination of dispersion and centrifugation as produced SWNTs are usually contaminated with a metal catalyst, amorphous carbon, and carbon nanoparticles. In our method, gelatin is used as a dispersing agent to wrap the surface of the nanotube to form a stable dispersion. The CNT-based sheet has been prepared by using a papermaking process. Cellulose is considered a smart medium for nanocomposite due to its lightweight, biodegradability, biocompatibility, easy modification, eco-friendly and low cost. This work provides a novel and simple pathway to make CNT/cellulose sheets as multifunctional biomaterials for electronic, magnetic, semiconducting, and biotechnological applications.

- Research in Condensed Matter Physics (July 2009–June 2010), Semiconductor Technology and Research Centre, University of Dhaka, Dhaka.

Summary: Characterization of different ferrite materials and determining the optimum doping of non-magnetic elements into inverse spinel ferrite. Characterization of FINEMET nanomaterial.

➤ Master Thesis (September 2007–December 2008), Department of Physics, University of Dhaka.

Title of the MS thesis: Study of the structural, magnetic, and electrical properties of Cu-Zn ferrite.

Summary: Experimental study of structural and magnetic properties of Cu-Zn ferrite.

Thesis supervision 27 (MS-completed), 4 (MS-running) 2 (M.Phil-completed), 2 (M.Phil-running), 2 (Ph. D-running)

Title of the completed supervised work: (MS Thesis)

1. Investigation of multiferroic properties of Ni-Zn-based ferrite and Ba-Ti-based ceramic composites via standard solid-state reaction method.
2. Study of the Structural, Electrical, and Magnetic Properties of Calcium and Strontium Substituted Barium Titanate (BaTiO_3) Ceramics.
3. Effect of Eu^{3+} doping on structural, electrical and magnetic properties of $\text{Ni}_{0.4}\text{Zn}_{0.45}\text{Cu}_{0.15}\text{Fe}_{(2-x)}\text{Eu}_x\text{O}_4$ ferrites.
4. Synthesis and characterization of Hydroxyapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$) nano-particle and preparation of HAP/Chitosan-Gelatin network composites for further investigation on bone tissue engineering.
5. Fabrication and characterization of multi-walled carbon nanotube-reinforced starch biocomposites.
6. Investigation of the rare earth Yttrium influence on the structural, electrical and magnetic properties of Mn-Ni-Zn ferrites.
7. A comparative study of structural, optical, and electrical properties of chemical-bath-deposited undoped and aluminum (Al) doped zinc sulfide thin films.
8. Preparation and Characterization of Hydroxyapatite nano-particle And HAp-Chitosan Gelatin Based Scaffold for Bone Tissue Engineering and in vivo test.
9. Synthesis and Characterization of Undoped and Aluminium Doped Zinc Sulfide Thin Films by Chemical Bath Deposition Technique.
10. Synthesis of $(1-x)\text{BaTi}_{0.5}\text{Mn}_{0.5}\text{O}_3 - (x)\text{Ni}_{0.6}\text{Zn}_{0.4}\text{Fe}_{1.85}\text{Sm}_{0.15}\text{O}_4$ Composites via Double Sintering Ceramic Technique and Investigation of its Multiferroic Properties.
11. Banana Tree Fiber: A New Dimension to the World of Bio-composites, Ambient with Multi-walled Carbon Nanotubes.
12. Synthesis and Structural Studies of Copper Doped Barium Zirconium Cerate for Application in Solid Oxide Fuel Cell
13. Structural and Thermal Characterizations of $\text{SrNd}_{0.65}\text{Zr}_{0.35}\text{O}_{3-\delta}$ for an Application in Solid Oxide Fuel Cells.
14. Cultivation and Identification of Rat's Bone Marrow Cell inside the 3D Porous Network of Synthesized Hydroxyapatite-Chitosan-Gelatin Based Scaffold.
15. Role of Vanadium Substitution in Tailoring the Structural, Electrical and Magnetic Properties of $\text{Mn}_{0.6}\text{Zn}_{0.4}\text{V}_x\text{Fe}_{2-x}\text{O}_4$ Ferrites Synthesized by Conventional Ceramic Method

16. Synthesis and Characterization of $\text{SrZr}_{0.5}\text{Y}_{0.5-x}\text{Ca}_x\text{O}_3$ Perovskite for Solid Oxide Fuel Cell
17. PEGylation of $\text{Mg}_x\text{Co}_{1-x}\text{Fe}_2\text{O}_4$ Nanoparticles and their Conjugation with Anticancer Drug Doxorubicin for a Comparative Study of Drug Loading and Drug Release in Drug Delivery Process
18. Understanding the influences of Mg doping on the physical properties of $\text{BaZr}_{0.5}\text{Y}_{0.5-x}\text{Mg}_x\text{O}_3$ perovskite oxide as an electrolyte for intermediate temperature range solid oxide fuel cell (SOFC)
19. Dextran Coated Magnetic $\text{Co}_x\text{Mg}_{1-x}\text{Fe}_2\text{O}_4$ Nanoparticles: Study of Drug Loading and Drug Release Capacity in Hyperthermia-triggered Anti-Cancer Drug Delivery
20. Analyzing The Interaction Of Ferromagnetic Phase into Ferroelectric Phase by Changing Substituent Ratio in $(1-x)\text{La}_{0.5}\text{Ba}_{0.5}\text{TiO}_3 + (x)\text{Co}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$ Composites via Standard Solid State Method.
21. Synthesis and compositional analysis of ZnO powder using different chemical precursors
22. $(1-x)\text{Ba}_{0.6}\text{Sr}_{0.4}\text{Cr}_{0.6}\text{Ti}_{0.4}\text{O}_3 + (x)\text{CoFe}_{1.8}\text{La}_{0.2}\text{O}_4$ Composites, via Solid State Reaction Method: Interpretation of Modified Multiferroic Properties
23. Tailored SnS thin films: Manifestation of its optical properties by Fe doping via spin coating technique
24. Controlled crystal phase and morphology: Improving the magnetic, electrical, optical, and photocatalytic activities of Cr-doped SnS_2 nanoparticles synthesized via the hydrothermal method
25. Synthesis of Mg Doped CuO Thin Films Deposited via Spray Pyrolysis Technique and Analysis of the Structural, Morphological, Optical, and Electrical Properties
26. Correlation of Physico-chemical Properties with SLP and Tmax Attained by RF-induction Heating of Mg-rich Mg-Co Nanoferrite for Different Particle Sizes
27. Comparative study of the effect of sintering aids on structural, microstructural, electrical, and magnetic properties of Mg-Cu-Zn ferrite.

Title of the completed supervised work: (M.Phil Thesis)

1. Magnetic Characteristics of Zn Substituted Cobalt Ferrites
2. Synthesis and Magnetic Properties of Folate Chitosan Coated Cobalt Ferrite Nanoparticles for Biomedical Applications.

Publications:

(a) Book Chapter:

Kazi Hanium Maria, Tetsu Mieno, “Production of Water Dispersible Carbon Nanotubes and Nanotube/Cellulose Composite”, chapter 12 in “Carbon Nanotubes - Recent Progress” April 26th 2018.

<https://www.intechopen.com/books/carbon-nanotubes-recent-progress/production-of-water-dispersible-carbon-nanotubes-and-nanotube-cellulose-composite>

(b) International Reviewed Journals

Year 2024

1. Iffat Nur Esha, A. Hossain, Nazrul Islam Khan, **Kazi Hanium Maria**, “Arguments on the estimation of V ion distribution at various sites contributing to saturation magnetization in Mn–Zn ferrites”, Solid State Communications, **386**, 115514, 2024.

<https://doi.org/10.1016/j.ssc.2024.115514>

- Armin Anwar, U. S. Akther, **Kazi Haniun Maria**, M. K. Alam, A. Kumar, N. I. Khan, “Regulated Ni–Zn–Co ferrites: structural, electrical and magnetic properties tailored by co doping”, *Journal of Material Science: Material in Electronics*, **35**(19), 2024. <https://doi.org/10.1007/s10854-023-11748-1>

Year 2023

- Shamima K. Choudhury, **Kazi Haniun Maria**, Mahabub Alam Bhuiyan, Mehnaz Sharmin, “Role of female physicists during the COVID-19 pandemic in Bangladesh and their career challenges and opportunities”, *AIP Conf. Proc.* **3040**, 050004 (2023). <https://doi.org/10.1063/5.0176111>
- M. Ummay Sumaya, **Kazi Haniun Maria**, F.T.Z. Toma, M.A. Zubair, M.T. Chowdhury, “Effect of stabilizer content in different solvents on the synthesis of ZnO nanoparticles using the chemical precipitation method”, *Heliyon*, **9**, e20871, 2023. <https://doi.org/10.1016/j.heliyon.2023.e20871>
- U. Habiba, I. N. Esha, Md. Riad Kashem, M. N. I. Khan, **Kazi Haniun Maria**, “Exploring the Coupling Effect of Ferromagnetic, $\text{Co}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$ with the Ferroelectric, $\text{Ba}_{0.5}\text{La}_{0.5}\text{TiO}_3$ at Different Concentrations in Composite Multiferroics”, *Journal of Magnetism and Magnetic Materials*, **580**, 170890, 2023. <https://doi.org/10.1016/j.jmmm.2023.170890>
- Kazi Haniun Maria**, Rezaul Md Kabir, I. N. Esha, F. T. Z. Toma, M. S. Bashar, Kazi Md. Amjad Hussain, “Characterization of tin disulfide thin films prepared by spin coating technique: Effect of spin speed and deposition time on film properties”, *Transactions of Indian Institute of Metal*, **76**, 2709–2720, 2023. <https://doi.org/10.1007/s12666-023-02968-4>

Year 2022

- A. Nahar, **Kazi Haniun Maria**, S. I. Liba, Md. Anwaruzzaman, M. N. I. Khan, A. Islam, Sheikh Manjura Hoque, “Surface-modified CoFe_2O_4 nanoparticles using Folate-Chitosan for cytotoxicity Studies, hyperthermia applications and Positive/Negative contrast of MRI”, *Journal of Magnetism and Magnetic Materials*, **555**, 169282, 2022. <https://doi.org/10.1016/j.jmmm.2022.169282>

Year 2021

- Sajib Kumar Mohonta, **Kazi Haniun Maria**, Sharmin Rahman, Harinarayan Das, Sheikh Manjura Hoque, “Synthesis of hydroxyapatite nanoparticle and role of its size in hydroxyapatite/chitosan-gelatin biocomposite for bone grafting”, *International Nano Letter*, **11** (3), 381-393, 2021. <https://doi.org/10.1007/s40089-021-00347-9>
- Mahajabin Binte Mustafiz, **Kazi Haniun Maria**, Mohammad Jellur Rahman, Tetsu Mieno, “Bio-composites from Banana Tree Fibers Ambient with Multi-walled Carbon Nanotubes: Manufacturing and Properties”, *International Nano Letter*, **11** (2), 149-158, 2021. <https://doi.org/10.1007/s40089-021-00331-3>
- Kazi Haniun Maria**, Neha Sakhuja, Ravindra Kumar Jha, Navakanta Bhat, “Ultra-sonication assisted synthesis of 2D SnS_2 nanoflakes for Room-temperature NO gas

detection”, IEEE Sensor Journal, **21** (9), 10420-10427, 2021. [10.1109/JSEN.2021.3059087](https://doi.org/10.1109/JSEN.2021.3059087)

11. A. Hossain, Iffat Nur Esha, I. B. Elius, Nazrul Islam Khan, **Kazi Haniem Maria**, “Interrelation between Cationic Distribution and Electromagnetic Properties of Vanadium Substituted Mn-Zn Ferrites”, Journal of Material Science: Material in Electronics, **32**(1), 977-992, 2021. <https://doi.org/10.1007/s10854-020-04874-7>

Year 2020

12. I. N. Esha, K. N. Munny, M. N. I. Khan, **Kazi Haniem Maria**, “ $(1 - x)\text{BaTi}_{0.5}\text{Mn}_{0.5}\text{O}_3 + (x)\text{Ni}_{0.6}\text{Zn}_{0.4}\text{Fe}_{1.85}\text{Sm}_{0.15}\text{O}_4$ composite multiferroics: Analyzing the customizing effect on conductive and magnetic properties of $\text{BaTi}_{0.5}\text{Mn}_{0.5}\text{O}_3$ by substituting $\text{Ni}_{0.6}\text{Zn}_{0.4}\text{Fe}_{1.85}\text{Sm}_{0.15}\text{O}_4$ at different concentrations”, AIP Advances **10** (12), 125026, 2020. <https://doi.org/10.1063/5.0028086>
13. Tamanna Mariam, Iffat Nur Esha, Nazrul Islam Khan, Shamima Choudhury, **Kazi Haniem Maria**, “Synthesis of zinc substituted cobalt ferrites via standard double sintering ceramic technique: A study on their structural, magnetic and dielectric properties”, Journal of Ceramic Processing and Research, **21**(4),442-449, 2020. <https://doi.org/10.36410/jcpr.2020.21.4.442>
14. Sharmin Rahman, **Kazi Haniem Maria**, Mohammad. Saif Ishtiaque, Arijun Nahar, Harinarayan Das, Sheikh Manjura Hoque, “Evaluation of a novel nanocrystalline hydroxyapatite powder and a solid hydroxyapatite/Chitosan-Gelatin bioceramic for scaffold preparation used as a bone substitute material”, Turkish Journal of Chemistry, **44**(4), 884-900, 2020. <https://doi.org/10.3906/kim-1912-40>
15. **Kazi Haniem Maria**, P. Sultana, M. B. Asfia, “Chemical Bath Deposition of Aluminum doped Zinc Sulfide Thin Films using non-toxic complexing agent: Effect of Aluminum doping on optical and electrical properties” AIP Advances, **10**(6), 065315, 2020. <https://doi.org/10.1063/5.0011191>
16. Amrita Khan, Mahabub Alam Bhuiyan, Golam Dastagir Al-Quaderi, **Kazi Haniem Maria**, Shamima Choudhury, Md. Amjad Hossain, D.K. Saha, Shireen Akhter, “Study of the magnetic properties of Zn doped Cobalt ferrite ($\text{CoZn}_x\text{Fe}_{2-x}\text{O}_4$)”, Biointerface Research in Applied Chemistry, **10** (3), 5665-5669, 2020. <https://doi.org/10.33263/BRIAC103.665669>
17. **Kazi Haniem Maria**, U. S. Akther, I. N. Esha, Md. Sazzad Hossain, M. N. I. Khan, “Estimation of Structural, Electrical and Magnetic variations of Mn-Ni- Zn Ferrites by Substituting Rare earth Y^{3+} for high-frequency applications”, Journal of Superconductivity and Novel Magnetism, **33**, 2133- 2142, 2020. <https://doi.org/10.1007/s10948-020-05471-9>

Year 2019

18. I. N. Esha, Md. Al-Amin, F.T. Z. Toma, M. N. I. Khan, **Kazi Haniem Maria**, “Synthesis and Analysis of the Influence of Eu^{3+} on the Structural, Ferromagnetic, Dielectric and Conductive Characteristics of $\text{Ni}_{0.4}\text{Zn}_{0.45}\text{Cu}_{0.15}\text{Fe}_{(2-x)}\text{Eu}_x\text{O}_4$ Composites Using Conventional Double Sintering Ceramic Method”, Journal of Ceramic Processing and Research, **20**(5), 530-539, 2019. <https://doi.org/10.36410/jcpr.2019.20.5.530>

Year 2018

19. I. N. Esha, F.T. Z. Toma, Md. Al-Amin, M. N. I. Khan, **Kazi Hanium Maria**, “Synthesis of type-II based $(1-x)\text{Ba}_{0.6}(\text{Ca}_{1/2}\text{Sr}_{1/2})_{0.4}\text{Ti}_{0.5}\text{Fe}_{0.5}\text{O}_{3+(x)}\text{Ni}_{0.40}\text{Zn}_{0.45}\text{Cu}_{0.15}\text{Fe}_{1.9}\text{Eu}_{0.1}\text{O}_4$ composites via standard solid state reaction method and investigation of multiferroic properties”, AIP Advances **8** (12), 125207, 2018. <https://doi.org/10.1063/1.5078505>
20. S. Alam, M. F. Mina, M. J. Rahman, M. A. Gafur, **Kazi Hanium Maria**, Tetsu Mieno, AKM M. Alam, M. D. H. Beg, “Effects of micrometre-sized graphite flake to reinforce the performances of poly(lactic acid) thermoplastic biocomposites”, Polymer and Polymer Composites, **2018**, 1-13, 2018. <https://doi.org/10.1177/0967391118811218>
21. A. K. M. Moshiul Alam, M. D. H. Beg, R. M. Yunus, M. F. Mina, **Kazi Hanium Maria**, Tetsu Mieno, “Modification of structure and properties of well-dispersed dendrimer coated multi-walled carbon nanotube reinforced polyester nanocomposites”, Polymer Testing, **68**, 116-125, 2018. <https://doi.org/10.1016/j.polymertesting.2018.04.005>

Year 2017

22. F.T. Z. Toma, I. N. Esha, Md. Al-Amin, M. N. I. Khan, **Kazi Hanium Maria**, “Study of the Structural, Electrical and Magnetic Properties of Calcium (Ca) and Strontium (Sr) Substituted Barium Titanate (BaTiO_3) Ceramics”, Journal of Ceramic Processing and Research, **18**(10), 701-710, 2017. http://jcpr.kbs-lab.co.kr/file/JCPR_vol.18_2017/JCPR18-10/02.2017-162_701_710.pdf
23. **Kazi Hanium Maria**, Tetsu Mieno, “Production and Properties of Carbon Nanotube/Cellulose Composite paper”, Journal of Nanomaterial, **2017**, 6745029, 2017. <https://doi.org/10.1155/2017/6745029>

Year 2016

24. **Kazi Hanium Maria**, Tetsu Mieno, “Effect of Gelatin into the Water Dispersion and Centrifugal Purification of the Single Walled Carbon Nanotubes”, Japanese Journal of Applied Physics, **55**, 01AE04, 2016. <http://iopscience.iop.org/article/10.7567/JJAP.55.01AE04>
25. A. K. M. Moshiul Alam, M. D. H. Beg, R. M. Yunus, M. F. Mina, **Kazi Hanium Maria**, Tetsu Mieno, “Evolution of functionalized multi-walled carbon nanotubes by dendritic polymer coating and their anti-scavenging behavior during curing process”, Materials Letters, **167**, 58-60, 2016. [doi:10.1016/j.matlet.2015.12.130](https://doi.org/10.1016/j.matlet.2015.12.130)

Year 2015

26. **Kazi Hanium Maria**, Tetsu Mieno, “Synthesis of Single-Walled Carbon Nanotubes by Low-Frequency Bipolar Pulsed Arc Discharge Method”, Vacuum, **113**, 11-18, 2015. [doi:10.1016/j.vacuum.2014.11.025](https://doi.org/10.1016/j.vacuum.2014.11.025)

Year 2014

27. Enayet Hossain, Shamima Choudhury, M. A. Bhuiyan, **Kazi Hanium Maria**, M. H. Mesbah Ahmed, D. K. Saha, M. A. Hakim, “Magnetic Softening of Nanocrystalline

Fe₇₄Cu_{1.5}Nb_{2.5}Si₁₂B₁₀ Alloy by the Process of Annealing”, *Advanced Science Focus*, **2**, 1–5, 2014. <http://dx.doi.org/10.1166/asfo.2014.1063>

Year 2013

28. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Structural Phase Transformation and Hysteresis behavior of Cu-Zn ferrites”, *International Nano letters*, **3**, 42, 2013. doi:[10.1186/2228-5326-3-42](https://doi.org/10.1186/2228-5326-3-42)
29. M. A. Hakim, Suman Kumar Nath , S .S .Sikder, **Kazi Haniun Maria**, “Cation distribution and Electromagnetic Properties of Spinel type Ni-Cd ferrites” *Journal of Physics and Chemistry of solids*, **74**, 1316-1321, 2013. [doi:10.1016/j.jpics.2013.04.011](https://doi.org/10.1016/j.jpics.2013.04.011)
30. Md. Mahbubul Haque, **Kazi Haniun Maria**, Shamima Choudhury , Mahabub Alam Bhuiyan, M.A.Hakim, “Synthesis, Microstructure and Magnetic properties of Ni-Mg ferrites”, *Journal of Ceramic Processing and Research*, **14**(1), 82-86, 2013. http://jcpr.kbs-lab.co.kr/file/JCPR_vol.14_2013/JCPR14-1/14_1_18.pdf

Year 2012

31. Suman Kumar Nath , **Kazi Haniun Maria**, Saroaut Noor, S .S .Sikder, S. Manjura Hoque and M. A. Hakim, “Magnetic Ordering in Ni-Cd Ferrite”, *Journal of Magnetism and Magnetic Materials*, **324**, 2116-2120, 2012. [doi:10.1016/j.jmmm.2012.02.023](https://doi.org/10.1016/j.jmmm.2012.02.023)
32. Saroaut Noor, M. A. Hakim, S. S. Sikder, S. Manjura Hoque, **Kazi Haniun Maria**, Per Nordblad, “Magnetic ordering on Cd²⁺ substituted cobalt ferrites”, *Journal of Physics and Chemistry of solids*, **73**, 227-231, 2012. [doi:10.1016/j.jpics.2011.10.038](https://doi.org/10.1016/j.jpics.2011.10.038)
33. Siba Pada Mondal, **Kazi Haniun Maria**, S. S. Sikder, Shireen Akhter, M. A. Hakim, Shamima Choudhury “Influence of Annealing conditions on Nanocrystalline and Ultra-soft Magnetic Properties in Fe_{75.5}Cu₁Nb₁Si_{13.5}B₉”, *Journal of Materials Science and Technology*, **28**(1), 21-26, 2012. <http://www.jmst.org/EN/Y2012/V28/I1/21>
34. Saadni Islam, **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, D.K. Saha, “Behavior of temperature dependence of permeability curves at different stages of crystallizations of nanocrystalline Fe_{70.5}Cr₃Cu₁Nb₃Si_{13.5}B₉”, *Turkish Journal of Physics*, **36**, 253-259, 2012. [doi:10.3906/fiz-1105-17](https://doi.org/10.3906/fiz-1105-17)

Year 2011

35. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Influence of Zn Substitution on the Curie Temperature and Transport Properties of Cu Ferrite”, *International Journal of Physics and Applications*, **3**(1), 23-32, 2011.
36. **Kazi Haniun Maria**, Saadni Islam, Shamima Choudhury, M. A. Hakim, D.K. Saha, S. Manjura Hoque, “Isothermal Annealing and Magnetic Properties of Fe_{70.5}Cr₃Cu₁Nb₃Si_{13.5}B₉ Amorphous Alloys”, *International Nano Letter*, **1**, 97-102, 2011.

(c) National Reviewed Journals

37. Nafisa alam, **Kazi Haniun Maria**, Mohammad Jellur Rahman, Parvin Sultana and Tetsu Mieno, “A Wet Chemical Synthesis and Characterization of MWCNT-Starch Biocomposites”, J. Bangladesh Academy of Sciences, **44**(1), 43-52, 2020.
<https://doi.org/10.3329/jbas.v44i1.48562>
38. Samir Kumar Saha, **Kazi Haniun Maria**, Enayet Hossain, Mahabub Alam Bhuiyan, D. K. Saha, Shamima Choudhury, “Impact of Annealing Time on the Formation of Nanocrystal in Amorphous Fe_{75.5}Si_{13.5}Cu₁Nb₁B₉ Alloy and their Ultra-Soft Magnetic Properties”, J. Bangladesh Academy of Sciences, **40**(2), 137-145, 2016.
<http://dx.doi.org/10.3329/jbas.v40i2.30769>
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41. Siba Pada Mondal, **Kazi Haniun Maria**, S. S. Sikder, Shireen Akhter, M. A. Hakim, Shamima Choudhury “Correlation between Structure and the Magnetic Properties of Amorphous and Nanocrystalline Fe₇₄Cu_{0.5}Nb₃Si_{13.5}B₉ alloys”, Journal of Bangladesh Academy of sciences, **35**(2), 187-195, 2011. <http://dx.doi.org/10.3329/jbas.v35i2.9423>
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Paper Presented in International/National Conferences /Seminars /Symposiums

/Workshops (Abstract published)

International Conference:

1. **Kazi Haniun Maria**, “Unraveling the role of nanoparticles towards electronics and therapeutic approaches: derived from diverse synthesis” Paper presented as Plenary Speaker at the International Conference on Frontiers in Pure and Applied Physics (ICFPAP), organized by Department of Physics, University of Science and Technology Meghalaya in collaboration with Physics Academy of North East (PANE), India, February 29- March 2, University of Science and Technology Meghalaya, India, 2024.
2. **Kazi Haniun Maria**, “Synthesis and Characterization Of CuO Nanoparticle Using Heat Treatment Approach: Annealing Effects on the Crystallite Size and Band Gap of CuO Nanoparticles” Paper presented as Principle Speaker in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.

3. I. N. Esha, Rezaul Md Kabir, F. T. Z. Toma, M. S. Bashar, K. M. A. Hussain, **Kazi Hanium Maria**, “Effect of Spin Speed and Deposition Time on Tin Disulfide Thin Film Properties Deposited via Spin Coating Technique” Paper (oral) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
4. Tamanna Hoque, **Kazi Hanium Maria**, Sadia Hossain, I. N. Esha, Aminul Islam, Arup Kumar, Rimi Rashid, Sheikh Manjura Hoque, “Comparative Study Of Dextran & PEG-Coated Co-Mg Ferrite Nanoparticles As Temperature Sensitive Drug Carriers In Hyperthermia-Triggered Anti-Cancer Drug Delivery”, Paper (oral) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
5. Rutaba Jania and **Kazi Hanium Maria**, “Liquid Phase Exfoliation- An Effective Approach Toward the Fabrication of 2D Nanosheets from TMDs Layered Material,” Paper (poster) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
6. Umma Syda Akther, Armin Anwar, **Kazi Hanium Maria**, M.N.I. Khan, “Influence of Co doping on the Structural, Electrical and Magnetic Properties of Ni-Zn Ferrites,” Paper (poster) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
7. Umme Habiba, I. N. Esha, M. N. I. Khan, S. Manjura Hoque, M. S. Bashar, **Kazi Hanium Maria**, “Investigating the Ferroelectric and Ferromagnetic Properties of (1-x) Ba_{0.5}La_{0.5}TiO₃ + (x)Co_{0.8}Zn_{0.2}Fe₂O₄ Composite Multiferroics via Solid State Reaction Techniques”, Paper (poster) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
8. K. N. Munny, I. N. Esha, **Kazi Hanium Maria**, S. Manjura Hoque, M. N. I. Khan, “Exploring the Multiferroic Behavior of (1-x)BaTi_{0.5}Mn_{0.5}O₃ - (x)Ni_{0.6}Zn_{0.4}Fe_{1.85}Sm_{0.15}O₄ Composites Synthesized via Conventional Solid State Reaction Technique”, Paper (poster) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
9. Zerine Tasnim, J. Maudood, M. S. Islam, M. N. I. Khan, M. A. Mamun, S. Manjura Hoque, S. Hossain, **Kazi Hanium Maria**, “Investigation of Physical and Structural Properties of Magnesium Doping on BaZr_{0.5}Y_{0.5-x}Mg_xO₃ Perovskite Oxide”, Paper (poster) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
10. Ferdous Jahan Antee, R. Rahman, A. Anwar, I. N. Esha, S. Manjura Hoque, M. N. I. Khan, M. S. Bashar, **Kazi Hanium Maria**, “Customizing the Multiferroic Properties of

- (1-x) Ba_{0.6}Sr_{0.4}Cr_{0.6}Ti_{0.4}O₃ + (x) CoFe_{1.8}La_{0.2}O₄ Composites Synthesized by Double Sintering Ceramic Technique”, Paper (poster) presented in 1st International Dhaka Science Conference for Women (WSTC-2023), organized by Dhaka Nanomaterial Group and International Science Program (ISP), Sweden, February 15- 16, Pan Pacific Sonargaon Hall, Dhaka, Bangladesh, 2023.
11. **Kazi Hanium Maria**, “ppb-Level nitric oxide gas detection by exfoliated SnS₂ based chemiresistive sensors for breath analysis”, paper presented as Invited Speaker in International Conference on “Science and Technology for Celebrating the Birth Centenary Of Bangabandhu (ICSTB-2021), March, 11-13, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh, 2021.
 12. **Kazi Hanium Maria**, “Formation of Metal Chalcogenide Thin Films by Chemical Bath Deposition and An Effective Liquid Phase Exfoliation Approach to Prepare Transition Metal Dichalcogenides 2D Nanoflakes for Gas Sensing Applications”, paper presented as Invited Speaker in International Conference on Advances in Nano Optoelectronics and its Applications, October, 12-14, organized by Department of Physics, Rajib Gandhi University, Arunachal Pradesh, India, 2020.
 13. **Kazi Hanium Maria**, “A brief of Ongoing Material Science Research in Nano and Advanced Material Laboratory”, paper presented as Invited Speaker in International Webinar on “Material Science Research and the Recent Trends”, July 28, organized by Department of Physics, Balagarh Bijoy Krishna Mahavidyalaya, Kolkata, India, 2020.
 14. **Kazi Hanium Maria**, “Room-temperature NO gas Sensing by 2D SnS₂ Synthesized by Liquid Exfoliation”, paper presented as Invited Speaker International Webinar on “Recent Trends in VLSI Design and Fabrication Technology”, July 18-20, organized by Department of Electronics and Communication Engineering, Quba College of Engineering and Technology, Nellore, Andhra Pradesh, India, 2020.
 15. **Kazi Hanium Maria**, “Expectation and Achievement: How successful are Women in science?”, Women scientists’ and Entrepreneurs’ Conclave as Invited Speaker, organized by Indian International Science Festival, November 7-8, Biswa Bangla Convention Centre, Kolkata, India, 2019.
 16. Tamanna Mariam, **Kazi Hanium Maria**, M. N. I. Khan and Shamima Choudhury, “Effect of Zn substitution on Structural, Dielectric and Magnetic Properties of Cobalt Ferrites and their applications”, Spring Meeting and Exhibit organized by The Material Research Society, April 22-26, Phoenix, Arizona, USA, 2019.
 17. Tetsu Mieno, Md. Abul Kalam, and **Kazi Hanium Maria**, “Production of Carbon Nano-materials by the Bipolar-Pulsed Arc-Discharge Method”, 57th Fullerenes-Nanotubes-Graphene General Symposium organized by The Fullerenes Nanotubes Graphene Research Society and The Chemical Society of Japan, September 3-5, Sakata Hirata Hall, Nagoya University, Japan, 2019.
 18. I. N. Esha, F.T. Z. Toma, Md. Al-Amin, M. N. I. Khan and **Kazi Hanium Maria**, “Study of the Influence of Eu⁺³ on the Magnetic, Dielectric and Resistive Properties of Ni_{0.4}Zn_{0.45}Cu_{0.15}Fe(2-x)Eu_xO₄ Ferrites Synthesized by Standard Solid State Reaction Method”, Paper (oral) presented in Second Regional Conference on Women in Physics, Nepal (RCWIP), organized by Nepal Society for Women in Physics (NSWIP) and Tribhuvan University, Nepal, March 27- 29, CV Raman Hall, Kathmandu University, Dhulikhel, Kavre, 2019.

19. **Kazi Haniam Maria**, “Synthesis of type-II based $(1-x) \text{Ba}_{0.6} (\text{Ca}_{1/2}\text{Sr}_{1/2})_{0.4} \text{Ti}_{0.5} \text{Fe}_{0.5} \text{O}_{3+(x)}\text{Ni}_{0.40} \text{Zn}_{0.45}\text{Cu}_{0.15}\text{Fe}_{1.9}\text{Eu}_{0.1}\text{O}_4$ composites via standard solid state reaction method and investigation of its multiferroic properties” poster presented in 10th Hope Meeting with Nobel Laureates organized by Japan Society for the Promotion of Science (JSPS), March 12-15, Yokohama, Japan, 2018.
20. **Kazi Haniam Maria**, Tetsu Mieno, “Fabrication and Characterization of Carbon Nanotube/ Cellulose Composite Paper” poster presented in International Conference on Women in Physics organized by International Union of Pure and Applied Physics (IUPAP) and Institute of Physics (IOP) hosted by Birmingham University, July 16-20, Birmingham, United Kingdom, 2017.
21. **Kazi Haniam Maria** and Tetsu Mieno, “The formation of bipolar pulsed arc discharge for the efficient production of single-walled carbon nanotubes” Inter-academia conference of Shizuoka University, December 1-2, Shizuoka University, Shizuoka, Japan, 2015.
22. Md. Abul Kalam, **Kazi Haniam Maria** and Tetsu Mieno, “Discharge current and pressure dependence of production rate of single-walled carbon nanotubes by the low frequency bipolar pulse arc discharge method” Inter-academia conference of Shizuoka University, September 28-30, Shizuoka University, Hamamatsu, Japan, 2015.
23. **Kazi Haniam Maria** and Tetsu Mieno, “High Efficiency Production of Single-Walled Carbon Nanotubes by the Bipolar Pulsed Arc Discharge and Centrifugal Purification”, The Sixteenth International Conference on the Science and Application of Nanotubes, Nagoya University, Nagoya, Japan, June 29- July 3, 2015.
24. **Kazi Haniam Maria** and Tetsu Mieno, “Purification of SWNTs by Gelatin Mixture and Centrifugation Method”, 7th International symposium on advanced plasma science and its applications for nitrides and nanomaterials, March 26-31, Nagoya University, Nagoya, Japan, 2015.
25. **Kazi Haniam Maria** and Tetsu Mieno, “Efficient production of single-walled carbon nanotubes by the low frequency bipolar pulsed discharge”, The 6th collaborative Forum between Shizuoka University and the National Institute Fusion Science (NIFS), February 26, Shizuoka University, Japan, 2015
26. **Kazi Haniam Maria** and Tetsu Mieno, “An Effective Method for the production of Single Walled Carbon Nanotubes by the Bipolar Pulsed Arc Discharge Method”, The 48th Fullerenes-Nanotubes-Graphene General Symposium, February 21-23, University of Tokyo, Tokyo, Japan, 2015.
27. **Kazi Haniam Maria** and Tetsu Mieno, “Effect of Gelatin into the Water Dispersion and Centrifugal Purification of the Single Walled Carbon Nanotubes”, International symposium toward the future of advanced researches, January 27-28, Shizuoka University, Hamamatsu, Japan, 2015.
28. Md. Abul Kalam, **Kazi Haniam Maria** and Tetsu Mieno, “Synthesis of single-walled carbon nanotubes by bipolar pulsed arc discharge method (Parameter Dependence)”, 2015 Workshop on Green Science and Technology of Global Young Researchers, Shizuoka University, January 26, Shizuoka, Japan, 2015.

29. **Kazi Haniun Maria** and Tetsu Mieno, “Bipolar pulsed arc discharge synthesis and water dispersion of single-walled carbon nanotube by gelatin/PGA wrapping”, Science forum of Shizuoka University, Sogo building, Shizuoka, Japan, August 11, 2014.
30. **Kazi Haniun Maria**, Tetsu Mieno, “Bipolar Pulsed Arc Discharge: A New Method for High Efficiency Production of Single Walled Carbon Nanotubes” poster presented in Shizuoka University International Symposium, December 1-2, Shizuoka, Japan, 2014.
31. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Cation Distribution and Magnetic ordering in Ni-Cd Ferrite”, poster presented in Shizuoka University International Symposium, January 7-8, Shizuoka, Japan, 2013.
32. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Curie Temperature and Dielectric Properties of Zinc Substituted Copper Ferrites” paper (oral) presented in International Conference on Recent Advance in Physics (RAP) organized by Department of Physics, March 27-29, Dhaka, 2010.
33. Saadni Islam, **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, D. K. Saha, S. Manjura Hoque, “Effect of Annealing Temperature on the Magnetic Properties of $Fe_{70.5}Cr_3Cu_1Nb_3Si_{13.5}B_9$ Amorphous Alloys”, paper (oral) presented in International Conference on Recent Advance in Physics (RAP) organized by Department of Physics, March 27-29, Dhaka, 2010.
34. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, D. K. Saha, S. Manjura Hoque, “Microstructure-Property Relationship in Zn Substituted Cu Ferrites”, Paper (oral) presented in ICMAM (International Conference on Magnetism and Advanced Magnetic Materials) organized by BUET, AECD and SIDA, March 3-7, Dhaka.
35. Saadni Islam, **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, D.K. Saha, S. Manjura Hoque, “Isothermal Annealing and Magnetic Properties of $Fe_{70.5}Cr_3Cu_1Nb_3Si_{13.5}B_9$ Amorphous Alloys”, Paper (oral) presented in ICMAM (International Conference on Magnetism and Advanced Magnetic Materials) organized by BUET, AECD and SIDA March 3-7, Dhaka, 2010.
36. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Complex Permeability and Transport properties of $Cu_{1-x}Zn_xFe_2O_4$ ”, Poster presented in ICMAD (International Conference on Advanced Material and Devices), December 9-11, Jeju, Korea, 2009.
37. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Complex Permeability and Transport properties of Zn substituted Copper Ferrites”, Paper (oral) presented in International Conference on Gender Participation in the Development of Science organized by IAP-NASIC-BAS, Dhaka, 14-15 Nov, 2009.
38. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Structure and Magnetic properties of $Cu_{1-x}Zn_xFe_2O_4$ ” paper (oral) presented in ICFP (International Conference on Frontiers of Physics) June 2-5, Nepal, 2009.
39. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Permeability and Transport properties of Zn substituted Copper Ferrites”, Paper (oral) presented in International Physics Conference organized by Bang. Physical Soc., May 15-17, Dhaka, 2009.
40. **Kazi Haniun Maria**, Shamima Choudhury, M. A. Hakim, “Study of the Structural, Magnetic and Electrical Properties of Cu-Zn Ferrites”, Paper (oral) presented in Bose

Conference on Contemporary Physics organized by Physics Department and ICTP, March 19-21, Dhaka, 2008.

National Conference:

41. **Kazi Haniyum Maria**, “Untangling the Role of Synthesis Conditions on the Structure of Nanoparticles towards Electronics and Therapeutic Approaches” paper presented as Invited Speaker in BCSIR CONGRESS-2023, Golden Jubilee Celebration, March, 8 -10, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh, 2024.
42. M.A.G. Osman, Faria Chowdhury, M. S. Bashar, Shirin Akter Jahan, **Kazi Haniyum Maria**, “Iron-Doped Tin Disulfide Synthesis via Hydrothermal Method: Multifaceted Investigation of Optical, Morphological, and Structural Properties”, Orally presented in BCSIR CONGRESS-2023, Golden Jubilee Celebration, March, 8 -10, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh, 2024.
43. Rutaba Jania, **Kazi Haniyum Maria**, “A Quest to Analyze the Dispersibility of TMDs”, Orally presented in BCSIR CONGRESS-2023, Golden Jubilee Celebration, March, 8 -10, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh, 2024.
44. T. Begum, Mehnaz Sharmin, I.N. Esha, **Kazi Haniyum Maria**, “Tailoring Structure, Surface Morphology, Optical and Electrical Properties of Copper Oxide Thin Films by Magnesium Doping”, poster presented in “8th Conference of Bangladesh Crystallographic Association” organized by Bangladesh Crystallographic Association and Department of Physics, University of Dhaka, 24-25 November, 2023 at Department of Physics, University of Dhaka, Dhaka-1000, Bangladesh
45. Motiur Rahman, Iffat Nur Esha, M. Samir Ullah, S. Manjura Hoque, **Kazi Haniyum Maria**; “Comparative Study of the Effect of Sintering Aids on the Structural, Microstructural, Electrical and Magnetic Properties of Mg-Cu-Zn Ferrite”, poster presented in “8th Conference of Bangladesh Crystallographic Association” organized by Bangladesh Crystallographic Association and Department of Physics, University of Dhaka, 24-25 November, 2023 at Department of Physics, University of Dhaka, Dhaka-1000, Bangladesh
46. Motiur Rahman, Iffat Nur Esha, M. Samir Ullah, S. Manjura Hoque, **Kazi Haniyum Maria**, “Effect of Bi₂O₃ as a sintering aid on the magnetic properties of Mg-Cu-Zn ferrites”, poster presented in “1st National Conference on Advances in Science and Technology” organized by Faculty of Science, BUET, 7-8 December, 2023 at Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
47. R. Rahman, Ferdous Jahan Antee, A. Anwar, I. N. Esha, M. N. I. Khan, M. S. Bashar, **Kazi Haniyum Maria**, “Tailoring of (1-x)Ba_{0.6} Sr_{0.4} Cr_{0.6} Ti_{0.4} O₃ +(x)CoFe_{1.8} La_{0.2} O₄ Composites via Double Sintering Ceramic technique and analyzing its Multiferroic Properties .” poster presented in International Conference on Electronics and Informatics 2022 Organized by Bangladesh Electronics and Informatics Society, January 26-28, Dhaka, 2023.

48. R. Rahman, Ferdous Jahan Antee, A. Anwar, I. N. Esha, M. N. I. Khan, M. S. Bashar, **Kazi Haniun Maria**, “ $(1-x)\text{Ba}_{0.6}\text{Sr}_{0.4}\text{Cr}_{0.6}\text{Ti}_{0.4}\text{O}_3 + (x)\text{CoFe}_{1.8}\text{La}_{0.2}\text{O}_4$ Composites: synthesis and analysis of Multiferroic Properties via Double Sintering Ceramic Technique.” poster presented in National Conference on Physics Organized by Bangladesh Physical Society, March 9-11, Dhaka, 2023.
49. **Kazi Haniun Maria**, “Influence of surfactant on the synthesis of nanomaterials and the role of their concentration on the size of the nanomaterials”, paper presented as Invited Speaker in 7th Conference of Bangladesh Crystallographic Association, December, 8-9, organized by Bangladesh Crystallographic Association, Dhaka, Bangladesh, 2022.
50. Ferdous Jahan Antee, R. Rahman, A. Anwar, I. N. Esha, M. N. I. Khan, M. S. Bashar, **Kazi Haniun Maria**, “Interpretation of Tailored Multiferroic Properties of $(1-x)\text{Ba}_{0.6}\text{Sr}_{0.4}\text{Cr}_{0.6}\text{Ti}_{0.4}\text{O}_3 + (x)\text{CoFe}_{1.8}\text{La}_{0.2}\text{O}_4$ Composites via Double Sintering Ceramic Technique.” poster presented in 7th Conference of Bangladesh Crystallographic Association, organized by Bangladesh Crystallographic Association, December 08-09, Dhaka, 2022.
51. **Kazi Haniun Maria**, “An Effective Liquid Phase Exfoliation Approach to Prepare Transition Metal Dichalcogenides 2D Nanoflakes for Gas Sensing Applications”, paper presented as Invited Speaker in 6th Conference (virtual) of Bangladesh Crystallographic Association, January, 15-16, organized by Bangladesh Crystallographic Association, Dhaka, Bangladesh, 2021.
52. Umme Habiba, I. N. Esha, M. N. I. Khan, M. S. Bashar, **Kazi Haniun Maria**, “Exploring the Coupling Effect of Ferromagnetic, $\text{Co}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$ with the Ferroelectric, $\text{Ba}_{0.5}\text{La}_{0.5}\text{TiO}_3$ at Different Concentrations in Composite Multiferroics”, Oral presentation in International Conference on Physics, organized by Bangladesh Physical Society, May 19-21, Dhaka, 2022.
53. Zerine Tasnim, Fariha Tasnim, I.N.Esha, J. Maudood, M. S. Islam, M. N. I. Khan, M. A. Mamun, S. Hossain, **Kazi Haniun Maria**, “The Influence of Magnesium Doping on $\text{BaZr}_{0.5}\text{Y}_{0.5-x}\text{Mg}_x\text{O}_3$ Perovskite Oxide for Applications in Solid Oxide Fuel Cell” Orally Presented in the International Conferences on Physics, Organized by Bangladesh Physical Society, May 19-21, Dhaka, 2022.
54. Tamanna Hoque, Sheikh Manjura Hoque, I. N. Esha, Aminul Islam, Arup Kumar, Rimi Rashid and **Kazi Haniun Maria**, “Dextran Coated Co-Mg Ferrite Nanoparticles: Investigation as temperature sensitive drug carriers”, Orally presented in International Conference on Physics, organized by Bangladesh Physical Society, 19-21 May, Dhaka, 2022.
55. Fariha Tasnim, Zerine Tasnim, I.N.Esha, J. Maudood, M. S. Islam, M. N. I. Khan, M. A. Mamun, S. Hossain, **Kazi Haniun Maria**, “Improvement in Structural Stability and Conducting Properties of Perovskite Oxide $\text{SrZr}_{0.5}\text{Y}_{0.5-x}\text{Ca}_x\text{O}_3$ for Intermediate Temperature Solid Oxide Fuel Cell Application” Orally presented in the International Conference on Physics- 2022, Organized by Bangladesh Physical Society, May 19-21, Dhaka, 2022.
56. M. U. Sumaya, F. T. Z. Toma, M. T. Chowdhury and **Kazi Haniun Maria**, “Synthesis and compositional analysis of ZnO powder using different chemical precursors”, Oral presentation presented in International Conference on Physics, organized by Bangladesh Physical Society, May 19-21, Dhaka, 2022.

57. Umme Habiba, M. N. I. Khan, S. M. Haque, I. N. Esha, **Kazi Hanium Maria**, “Analyzing the Enhanced Magnetic Properties of $\text{Ba}_{0.5}\text{La}_{0.5}\text{TiO}_3$ by Substituting Ferromagnetic $\text{Co}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$ at Different Ratios Via Standard Solid State Method”, Poster presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
58. A. Hossain, I. N. Esha, S. M. Hoque, R. Rashid, M. N. I. Khan, **Kazi Hanium Maria**, “Fabrication of $\text{Mn}_{0.6}\text{Zn}_{0.4}\text{V}_x\text{Fe}_{2-x}\text{O}_4$ Ferrites by Conventional Ceramic Method and Analysis of the Variation of Its Characteristics with V_2O_5 Substitution”, Paper (oral) presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
59. A. Nahar, **Kazi Hanium Maria**, S. I. Liba, H. Das, R. Rashid, A. Islam, and S. M. Hoque, “The hyperthermia effect of magnetic nanocomplex for cancer treatment”, Paper (oral) presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
60. K. Mohuna, Al-Mamun, H. N. Das, A. Kumar, Aminul Islam, **Kazi Hanium Maria** and S. Manjura Hoque, “Investigation of Rat’s Bone Marrow Cell attachment with Prepared Hydroxyapatite and Hydroxyapatite-Chitosan-Gelatin Based Scaffold”, Paper (oral) presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
61. Mahajabin Binte Mustafiz, Mohammad Jellur Rahman and **Kazi Hanium Maria**, “Preparation and Characterization of Multi Walled Carbon Nanotube Reinforced 15 Banana Tree Fiber Composite”, Paper (oral) presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
62. M. R. Kabir, F. T. Z. Toma, T. Faruque, I. N. Esha, S. Ahmed, M. N. I. Khan, K. M. A Hussain, and **Kazi Hanium Maria**, “Preparation and Characterization of SnS Thin Film Deposited by Spin Coating Technique”, Poster presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
63. S. R. Bappy, M. M. Mia, M. S. Hossain, S. Hossain, I. B. Elius, J. Maudood, and **Kazi Hanium Maria**, “To Study the Properties of $\text{BaZr}_{0.2}\text{Ce}_{0.8-x}\text{Cu}_x\text{O}_{3-\delta}$ for Solid Oxide Fuel Cell Applications”, Poster presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
64. M. M. Mia, S. R. Bappy, I. B. Elius, J. Maudood, **Kazi Hanium Maria**, Md. Sazzad Hossain, and Shahzad Hossain, “Characterizations of $\text{SrNd}_{0.65}\text{Zr}_{0.35}\text{O}_{3-\delta}$ for Application in Solid Oxide Fuel Cell”, Poster presented in International Conference on Physics, organized by Bangladesh Physical Society, March 5-7, Dhaka, 2020.
65. M. U. Sumaya, F. T. Z. Toma, T. Faruque, S. S. Chowdhury, K. M. A Hussain, M. A. Zubair, M. T. Chowdhury and **Kazi Hanium Maria**, “Synthesis of ZnO Nano Powder by Chemical Precipitation Method”, Poster presented in National Conference on Electronics and Informatics, organized by Bangladesh Electronics Society, December 4- 5, Dhaka, 2019
66. S. K. Mohonta, **Kazi Hanium Maria**, S. Rahman, H. N. Das, A. Mamun, A. Nahar, S. M. Hoque, "Synthesis of Hydroxyapatite by Wet Chemical Precipitation Method and Characterization of Hydroxyapatite-Chitosan-Gelatin Based Bone Scaffold for

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