

Farzana Tareen

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RESEARCH INTERESTS

Solid State Physics
Thin Films Fabrication
Lightweight materials for aerospace applications
Bismuth iron oxide nanomaterials

TEACHING INTERESTS

Solid State Physics
Modern Physics
Lattice Dynamics
Analytical Geometry
Mechanics

EDUCATION

PhD , Solid State Physics, University of the Punjab, Lahore, Pakistan, 2015.

M-Phil, Solid State Physics, University of Punjab, Pakistan, 2013,
81.3%

M.Sc, Physics, University of the Punjab, 80% Marks

B.Sc, Double Math, Physics, Govt. College Jhelum, 75% Marks

RESEARCH EXPERIENCE

- Synthesis and characterization of Alumina films for aerospace applications
- Synthesis and characterization of bismuth iron oxide nanoparticles for spintronics applications.

TEACHING EXPERIENCE

Lecturer, University of the Punjab, Lahore, Physics department, 2002-20012

Assistant Professor, University of the Punjab, Lahore, Physics department, 2012 to date.

- Teaching Solid State Physics, Analytical Geometry, Mechanics and Modern Physics laboratory to M.SC and BS honors classes.

COMPUTER SKILLS

Microsoft Office
Origin
End Note

AWARDS

- Top position in Public Service Commission Examination for Lecturer.
- 2nd position in M. Phil in University of the Punjab Lahore.
- 3rd position in M. Sc in University of the Punjab Lahore.
- Merit Scholarship in M.Sc
- Gold Medal in F. Sc for getting 1st position in Rawalpindi Board.
- Silver Medal in Metric for getting 6th position in Rawalpindi Board.

PUBLICATIONS

1. “Structural and Optical Properties of Multilayer Heterostructure of CdTe/CdSe Thin Films”, Farzana Majid, Abdul Malik, Sadia Ata, Zaheer Hussain, Ismat Bibi, Munawar Iqbal, Muhammad Rafay and Hina Rizvi. <https://doi.org/10.1515/zpch-2018-1339>.
2. “Physical properties of half-metallic AMnO₃ (A = Mg, Ca) oxides via ab initio calculations” B. Amin, Farzana Majid, M. Bilal Saddique, Bakhtiar Ul Haq, A. Laref, Tahani A. Alrebdi, Muhammad Rashid, Computational Materials Science 146 (2018) 248–254.
3. Graphene and silver decorated ZnO composite synthesis, characterization and photocatalytic activity evaluation Sadia Ata, Ifra Shaheen, Qurat-ul-Ayne, Samina Gh, Diamond and related materials, doi:10.1016/j.diamond.2018.09.015
4. “Nickel nanoparticle synthesis using Camellia Sinensis as reducing and capping agent: Growth mechanism and photo-catalytic activity evaluation”, Ismat Bibi, Shagufta Kamal, Adeel Ahmed, Munawar Iqbal, Shazia Nourend, Kashif Jilani, Nosheen Nazar, Muhammad Amir, Ansar Abbas, Sadia Ataf, Farzana Majid, International Journal of Biological Macromolecules 103 (2017) 783–790.
5. “Hydrothermal Synthesis of Zinc Doped Nickel Ferrites: Evaluation of Structural, Magnetic and Dielectric Properties” Farzana majid, Javeria rauf, Zeitschrift für Physikalische Chemie Article-DOI: <https://doi.org/10.1515/zpch-2018-1305>.
6. “Lead Remediation Using Smart Materials. A Review”, sadia ata, Tabussam Anila, Ismat bibi, Farzana Majid, Zeitschrift für Physikalische Chemie DOI: <https://doi.org/10.1515/zpch-2018-1205>.
7. ‘Structural, Dielectric and Magnetic Studies of Perovskite [Gd_{1-x}M_xCrO₃ (M=La,Co,Bi)] Nanoparticles:PhotocatalyticDegradationofDyes’, IsmatBibi,

Sabir Hussain, Farzana Majid, Shagufta Kamal, Sadia Ata, Misbah Sultan,
Z.Phys.Chem.2019;233(10):1431–1445

8. Effect of Fe and Bi doping on LaCoO₃ structural, magnetic, electric and catalytic properties', Sara Ajmal, Ismat bibi, Farzana majid, Sadia Ata, Journal of Materials Research and Technology , DOI: 10.1016/j.jmrt.2019.08.029
9. 'First-principle simulations of XIn₂S₄ (X=Zn, Cd) thiospinels for energy harvesting devices', Farzana Majida,*, Sadia Atab, H. Moin ul Attiquec, Adnan Alid, Bakhtiar Ul Haqef, A. Larefg, Chemical Physics Letters, 723 (2019), 44-50.
10. Molarity dependent oscillatory structural and magnetic behavior of phase pure BiFeO₃ thin films: Sol–gel approach Attia Awana, M. Nadeema, Saira Riaza,*, S. Sajjad Hussaina, Farzana Majidb, Shahzad Naseem, Ceramics International, 45 (2019), 5111-5123.
11. Effect of Hydrothermal Reaction Time on Electrical, Structural and Magnetic Properties of Cobalt Ferrite, Farzana Majid, Amarah Nazir, Sadia Ata, Ismat Bibi DOI: 10.1515/zpch-2019-1423
12. "Enhanced magnetic and structural properties of Ca doped BiFeO₃ thin films" S Riaz, F. Majid, SMH Shah, S Naseem, Indian Journal of Physics, 2014; 88(10), 1037.
13. "Microwave-assisted sol–gel synthesis of BiFeO₃ nanoparticles" F. Majid, S. Riaz and S. Naseem, Journal of sol gel and science technology. DOI, 10.1007/s10971-014-3477-3

CONFERENCES

- "Preparation and characterization of electrodeposited aluminum oxide thin films", presented in 2012 international conference on Information, Business and Education Technology held on 20th-21st December, China (Beijing).
Authors: **F. Majid**, S. Riaz, S. Atiq and S. Naseem
- "Optical properties of electrodeposited alumina thin films by using spectroscopic ellipsometer", Poster presented at International Conference on Bio-physicochemical basis for Technopreneurship, 2nd - 3rd April 2013, Al-Razi Hall, Undergraduate Block, University of the Punjab, Lahore, Pakistan.
Authors: **F. Majid**, S. Riaz and S. Naseem
- "Structural/ Microstructural properties of electrodeposited Alumina thin films for aerospace applications", Presented at International Scientific Spring Conference, 11th-15th March 2013, National Centre for Physics Islamabad, Pakistan.
Authors: **F. Majid**, S. Riaz and S. Naseem
- "Low temperature formation of electrodeposited aluminum oxide thin films", presented at 2nd

International Conference on Biotechnology, Nanotechnology and its Applications (ICBNA'2013) on June 17-18, 2013 at London (United Kingdom).

Authors: **F. Majid**, S. Riaz and S. Naseem

- “Atomic force microscopy of electrodeposited aluminum oxide thin films”, Presented at 2nd International Conference on Biotechnology, Nanotechnology and its applications (ICBNA'2013) on June 17-18, 2013 at London (United Kingdom).

Authors: **F. Majid**, S. Riaz and S. Naseem

- “Structural, Optical and Mechanical Properties of Alumina Thin Films on 7075 Al Alloy”, Presented at the International Conference on Solid State Physics, 2013, University of the Punjab, Lahore, Pakistan, December 1-6, 2013.

Authors: **F. Majid**, S. Riaz and S. Naseem

- “Synthesis and Characterization of Sol-Gel Deposited Aluminum Oxide at Low Temperatures”, Presented at the 2013 world congress on Advances in Nano, Biomechanics, Robotics, and Energy research at COEX, Seoul, Korea, 25-28 August 2013.

Authors: **F. Majid**, T. Ijaz, S. Riaz, M. Farooq and S. Naseem

- “Optical and structural properties of electrodeposited aluminum oxide at low temperatures”, Presented at the 2013 world congress on Advances in Nano, Biomechanics, Robotics, and Energy research at COEX, Seoul, Korea, 25-28 August 2013.

Authors: M. Imran, **F. Majid**, S. Riaz and S. Naseem

- “Alumina Coatings for use under high Radiation Conditions”, Presented at 40th International Conference on Metallurgical Coatings and Thin Films, San Diego, CA, USA, April 29, May 3, 2013.

Authors: Saira Riaz, **Farzana Majid**, Ishaq Ahmad, G Husnain and Shahzad Naseem

- “Sol-Gel synthesis of BiFeO₃ nanoparticles”, Presented at International Conference on Solid State Physics (ICSSP'13), December 1-6, 2013.

Authors: Saira Riaz, Samar Tariq Mirza, **Farzana Majid** and Shahzad Naseem

- “Structural and magnetic properties of BiFeO₃ thin films by sol-gel”, Presented at International Conference on Solid State Physics (ICSSP'13), December 1-6, 2013.

Authors: Saira Riaz, Sidra Bashir, **Farzana Majid**, Zohra Nazir Kayani and Shahzad Naseem

- “Ferromagnetic and Dielectric Behavior of Bismuth Iron Oxide nanoparticles under as-synthesized conditions”, Presented at The 2014 World Congress on Advances in Civil, Environmental and Materials Research (ACEM14), Busan, Korea, August 24-28, 2014.

Authors: **Farzana Majid**, Saira Riaz and Shahzad Naseem

- “Effect of Reaction Temperature on Structural, Magnetic and Dielectric Properties of Bismuth Iron Oxide Nanoparticles”, presented at The 2014 World Congress on Advances in Civil, Environmental and Materials Research (ACEM14), Busan, Korea, August 24-28, 2014.

Authors: Saira Riaz, **Farzana Majid** and Shahzad Naseem