

List of Publications

Dr. Bushra Parveen

Chairperson

1. **Parveen, B.**, Hassan, M., Atiq, S., Riaz, S., Naseem, S., & Toseef, M. A. (2017). Structural and dielectric study of nano-crystalline single phase Sn_{1-x}Ni_xS (xNi= 0–10%) showing room temperature ferromagnetism. Progress in Natural Science: Materials International, 27(3), 303-310.
2. **Parveen, B.**, Hassan, M., Atiq, S., Riaz, S., Naseem, S., & Zaman, S. (2017). Structural, dielectric and ferromagnetic properties of nano-crystalline Co-doped SnS. Journal of materials science, 52(12), 7369-7381.
3. Iqbal, M. F., Ashiq, M. N., Iqbal, S., Bibi, N., & **Parveen, B.** (2017). High specific capacitance and energy density of synthesized graphene oxide based hierarchical Al₂S₃ nanorambutan for supercapacitor applications. Electrochimica Acta, 246, 1097-1103.
4. Iqbal, M. F., Ashiq, M. N., Razaq, A., Saleem, M., **Parveen, B.**, & Hassan, M. U. (2018). Excellent electrochemical performance of graphene oxide based strontium sulfide nanorods for supercapacitor applications. Electrochimica Acta, 273, 136-144.
5. **Parveen, B.**, Hassan, M., Riaz, S., Atiq, S., Naseem, S., Irfan, M., & Iqbal, M. F. (2018). Investigation of physical properties of SnS: Fe diluted magnetic semiconductor nanoparticles for spintronic applications. Journal of Magnetism and Magnetic Materials, 460, 111-119.
6. **Parveen, B.**, Hassan, M. U., Khalid, Z., Riaz, S., & Naseem, S. (2017). Room-temperature ferromagnetism in Ni-doped TiO₂ diluted magnetic

semiconductor thin films. *Journal of applied research and technology*, 15(2), 132-139.

7. Parveen, B., Atiq, S., Ali, G., Iqbal, M. F., Safeer, A., & He, L. (2021). Dielectric and impedance spectroscopic analysis of $\text{Sn}_{1-x}\text{Zr}_x\text{O}_2$ ferromagnetically-like behavior semiconductors. *Journal of Magnetism and Magnetic Materials*, 168227.
8. Kamran, M., **Parveen, B.**, Naqvi, S., R., Ud din, A., Ikram, Usman, M., Kun, H., S. Observation of controlled vortices with periodic defects of current applied superconductors. *Applied Nanoscience*, accepted
9. Safeer, A., Azam, L. A., Bashir, D., Khan, S., **Parveen, B.**, & Ahmad, N. (2020). Effect of Mn (12 at%) Substitution on Magnetic Anisotropy and Magnetization Reversal of Equiatomic FeCo Alloy Nanorod Arrays. *Physica B: Condensed Matter*, 412138.
10. Mahmood, W., Awan, S. U., Ud Din, A., Ali, J., Nasir, M. F., Ali, N., **Parveen, B.**, & Abbas Shah, N. (2019). Pronounced Impact of p-Type Carriers and Reduction of Bandgap in Semiconducting ZnTe Thin Films by Cu Doping for Intermediate Buffer Layer in Heterojunction Solar Cells. *Materials*, 12(8), 135

Dr. Muhammad Hafeez

Associate Professor

1. **M. Hafeez**, A. S. Saleemi, S. U. Rehman, M. Adrees, S. Mehmood, I. A. Mir and L. Zhu, CVD growth of layered Cr_2O_3 hexagonal Flakes for optoelectronic applications. *Applied surface Science*, 2021, 536, 147713. (I.F. 6.18).

2. M. Adrees Z. S. Khan **M. Hafeez**, M. Rizwan, K. Hussain, M. A. Mohammed, N. Alyemeni, L. Wijaya, S. Ali “Foliar exposure of zinc oxide nanoparticles improved the growth of wheat (*Triticum aestivum* L.) and decreased cadmium concentration in grains under simultaneous Cd and water deficient stress” *Ecotoxicology and Environmental Safety*, [208](#), 2021, 111627.
3. S. U. Rehman, A. Samad, M. Saeed, B. Amin, **M. Hafeez**, I. A. Mir, L. Zhu. “Computational insight of ZrS₂/graphene heterobilayer as an efficient anode material” *Applied surface Science*, 551, 2021, 149304
4. **M. Hafeez**, B. A. Al-Asbahi, M. H. Hj Jumali, M. Yahaya, F. Inam, M. F. Bhopal, A. S. Bhatti, Critical role of defect states on visible luminescence from ZnS nanostructures doped with Au, Mn and Ga, *Materials Science in Semiconductor Processing*, 2020, 117, 105193. (I.F. 3.08)
5. A. S. Saleemi, **M. Hafeez**, A. Munawar, N. Akhtar, W. Abbas, M. E. Mazhar, Z. Shafiq, A. P. Davis and S.L. Lee, Synthesis and Sensing Efficiency of Bioinspired CN Wrapped ZnFe₂O₄ Microspheres- Ionic Liquid Composite Towards Ultra-High Sensitivity Arsenic(III) Monitoring of Ground Drinking Water, *Journal of Materials Chemistry C*, 2020,(I.F. 7.06)
6. S. U. Rehman, B. Amin, **M. Hafeez**, I. A. Mir, L. Zhu, “Realization of Noble Heterobilayers with Enhanced Optoelectronic Properties, *Applied Surface Science*, 2020, 505, 144530. (I.F. 6.18).
7. M. Saeed, W. Uddin, A. S. Saleemi, **M. Hafeez**, M. Kamil, R. Ullah, S. U. Rehman, L. Zhu “Optoelectronic Properties of MoS₂-ReS₂ and ReS₂-MoS₂ Heterostructures” *Physica B; Condensed Matter*, 2020, 577, 411809. (I.F. 1.90).
8. M. Adrees, Z. S. Khan, S. Ali, **M. Hafeez**, S. Khalid, M. Z. U Rehman, A. Hussain, K. Hussain, S. Ali, S. Chatha M. Rizwan, “Simultaneous mitigation

- of cadmium and drought stress in wheat by soil application of iron nanoparticles” *Chemosphere*, 2020, 238, 124681. (I.F. 5.78).
9. Z. S. Khan, M. Rizwan, **M. Hafeez**, S. Ali, M. Adrees, M. F. Qayyum, S. Khalid, M. Z. U. Rehman, M. A. Sarwar, Effects of silicon nanoparticles on growth and physiology of wheat in cadmium contaminated soil under different soil moisture levels, *Environmental Science and Pollution Research*, 2020, 27, 4958. (I.F. 3.06)
 10. **M. Hafeez**, S. U. Rehman, A. S. Saleemi, M. Saeed, L. Zhu: “Role of substrate interface energy in the synthesis of high quality uniform layered ReS₂” *Applied Surface Science*, 2019, 493, 1215. (I.F: 6.18).
 11. S. U. Rehman, **M. Hafeez**, W. Uddin, S. A. Khan, Q. Lu, L. Wei, M. Saeed, M. Sohail, A. S. Saleemi, S. Kumar, L. Zhu “Orientation dependent electronic and optical properties of ZnS nanowires and ZnS-Si core shell nanowires” *Applied Surface Science*, 2019, 486, 539. (I.F: 6.18).
 12. Z. S. Khan, M. Rizwan, **M. Hafeez**, S. Ali, M. R. Javed, M. Adrees, “The accumulation of cadmium in wheat (*Triticum aestivum*) as influenced by zinc oxide nanoparticles and soil moisture conditions”. *Environmental Sci. & Pollution Research*, 2019, 26, 19859(I.F. 3.06).
 13. I. A Mir, M. A Bhat, Z. Muhammad, S. U. Rehman, **M. Hafeez**, Q. Khan, L. Zhu, “Differential and comparative sensing modes of AIS and AIS@ ZnS core-shell quantum dots towards bioanalytes.” *Journal of Alloys and Compounds*, 2019, 811, 151688. (I.F: 4.65).
 14. **M. Hafeez**, L. Gan, A. S. Bhatti, T. Y. Zhai, Rhenium dichalcogenides (ReX₂, X=S or Se): an emerging class of TMD family, *Material Chemistry Frontiers*, 2017, 1, 1917-1932. (I.F: 6.79).
 15. **M. Hafeez**, L. Gan, H. Q. Li, Y. Ma, T. Y. Zhai, “Chemical Vapor Deposition of Ultrathin Hexagonal ReSe₂ Flakes for Anisotropic Raman Property and

- Optoelectronic Application” *Advanced Materials* 2016, 28, 8296–8301. (I.F: 27.40).
16. **M. Hafeez**, L. Gan, H. Q. Li, Y. Ma, T. Y. Zhai, “High Quality Large-area Bilayer ReS₂ Film/Multilayer ReS₂ Flakes Synthesized by Chemical Vapor Deposition for High Performance Photodetector” *Advanced Functional Materials* 2016, 26, 4551-4560.(I.F: 16.84).
 17. Q. Zhang, C. Wei, X. Li, **M. Hafeez**, L. Gan, H. Q. Li, X. L. Wei, Y. S. Zhao, Y. Ma, T. Y. Zhai, Polar Surface Driven Growth of ZnS Microsprings with Novel Optoelectronic Properties, *NPG Asia Material* 2015, 7, e213; (I.F: 8.13).
 18. U. Nosheen, M. A. Shehzad, S. Rehman, **M. Hafeez**, M. A. Khan, U. Manzoor and A. S. Bhatti, “The pronounced role of impurity phases in the optical properties of Mn catalyzed ZnS nanostructures.” *AIP Advances*, 2015, 5, 097115. (I.F: 1.33).
 19. M. Ramzan, A.M. Rana, E. Ahmed, M. F. Wasiq, A.S. Bhatti, **M. Hafeez**, A. Ali, M. Y. Nadeem. “Optical characterization of hafnium oxide thin films for heat mirrors” *Materials Science in Semiconductor Processing* 2015, 32, 22-30. (I.F: 3.08).
 20. J. Mujtaba, U. Manzoor, S. Zia, **M. Hafeez**, A. S. Bhatti. “Piezoelectric, Piezophototronic, and UV sensing Properties of Single Ultra Long Nanobelt” *Science of Advanced Materials*.2015, 7, 789.
 21. K. Karimov, N. Ahmad, M. M. Bashir, F. Aziz, M. Z. Yousaf, A. Khan, M. Tahir, N. A. Zaidi, **M. Hafeez**, A. S. Bhatti. “Flexible resistive tensile load cells based on MWCNT/rubber composites” *Pigment & Resin Technology* 2015, 44(3), 187-191. (I.F: 0.89).
 22. **M. Hafeez**, A. Ali, S. Manzoor, and A. S. Bhatti. “Anomalous optical and magnetic behavior of multi-phase Mn doped Zn₂SiO₄ nanowires: a new class

- of dilute magnetic semiconductors” *Nanoscale*, 2014, 6, 14845-14855. (I.F: 6.90).
- 23.M. Ramzan, A.M. Rana, E. Ahmed, A.S. Bhatti, **M. Hafeez**, A. Ali, M. Y. Nadeem. “Optical description of HfO₂/Al/HfO₂ multilayer thin film devices” *Current Applied Physics* 2014, 14, 1854. (I.F: 2.28).
- 24.M. Ramzan, A. M. Rana, **M. Hafeez**, E. Ahmed, A. S. Bhatti, M. F. Wasiq and M. Y. Nadeem “Optical Analysis of Hafnium Oxide- Aluminum Multilayer Structures for Transparent Heat Mirrors” *Acta Chimica. Slovenica*. 2014, 61, 80–86. (I.F: 1.26).
- 25.S. Rehman, M. A. Shehzad, **M. Hafeez**, and A. S. Bhatti “Essential role of catalysts (Mn, Au, and Sn) in the vapor liquid solid growth kinematics of ZnS nanowires *Journal Of Applied Physics*, 2014, 115, 024312. (I.F: 2.28).
- 26.**M. Hafeez**, S. Rehman, U. Manzoor, M. A. Khan and A. S. Bhatti” Catalyst driven optical properties of the self – assembled ZnS nanostructures” *Physical Chemistry Chemical Physics*, 2013, 15, 9726- 9734. (I.F: 3.43)
- 27.M. A. Shehzad, **M. Hafeez**, S. Rehman and A. S. Bhatti. “Tuned synthesis of novel 3D ZnO mesoscopic crystals using buffer layer assisted grown catalysts”. *AIP Advances*, 2013, 3, 072102. DOI:10.1063/1.4813524 (I.F: 1.34).
- 28.**M. Hafeez**, T. Zhai, A. S. Bhatti, Y. Bando, D. Golberg “Oxygen vacancy driven modulations in In₂O₃ pyramidal beaded nanowires”. *Crystal Growth and Design*, 2012, 12 (10), 4935–4943.(I.F: 4.08).
- 29.**M. Hafeez**, T. Zhai, A. S. Bhatti, Y. Bando, D. Golberg “Enhanced Field-Emission and Optical Properties of Controlled Tapered ZnS Nanostructures”. *Journal of Physical Chemistry C* 2012, 116, 8297-8304. DOI: 10.1021/jp3010635 (I.F: 4.19).

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31. S. Rehman, **M. Hafeez**, U. Manzoor, M. A. Khan and A.S.Bhatti. “Competitive role of Mn diffusion with growth in Mn catalyzed nanostructures” *Journal of Applied Physics*, 2012, 111, 084301. (I.F: 2.28)
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Dr. Zeeshan Mustafa

Assistant Professor

1. **Zeeshan Mustafa**, Dhanapal Pravarthana , Baomin Wang , Huali Yang and Run-Wei Li, Manipulation of Exchange Bias Effect via All-Solid-State Li-Ion Redox Capacitor with Antiferromagnetic Electrode, **Physical Review Applied** 14, 014062 (2020).
2. Safia Anjum, Maryam Anjum, **Zeeshan Mustafa**, Investigation of magnetic and dielectric properties of Ag_x-substituted Co_{0.05-x} Zn_{0.95}O dilute magnetic semiconductor prepared by co-precipitation method, **Applied Physics A**, (2020) 126:753
3. Dhanapal Pravarthana, Baomin Wang, **Zeeshan Mustafa**, Sandeep Agarwal, Ke Pei, Huali Yang and Run-Wei Li, Reversible Control of Magnetic Anisotropy and Magnetization in Amorphous Co₄₀Fe₄₀B₂₀ Thin Films via All-Solid-State Li-ion Redox Capacitor, **Physical Review Applied** 12, 054065 (2019)

4. Safia Anjum, Anam Mansoor, **Zeeshan Mustafa**, Shahid Atiq, Comparison between centrosymmetric and non-centrosymmetric chromium substituted M-type barium hexaferrites, **Applied Physics A**, (2020) 126:731.
5. Fatima Sehar, Safia Anjum, **Zeeshan Mustafa**, Shahid Atiq, Co-existence of Ferroelectric and Ferromagnetic Properties of Bi³⁺ Substituted M-type Barium Hexaferrites, **Journal of Superconductivity and Novel Magnetism**, 2020.
6. Safia Anjum, Tafrij Ilayas, **Zeeshan Mustafa**, Influence of antimony substitution on structural, magnetic and optical properties of cadmium spinel ferrite, **Applied Physics A** (2020) 126:227.
7. Safa Anjum, Amber Sehar, **Zeeshan Mustafa**, Effect of La³⁺ ions substituted M-type barium hexa-ferrite on magnetic, optical, and dielectric properties, **Applied Physics A** (2019) 125:664.
8. Safia Anjum, Fatima Sehar, **Zeeshan Mustafa**, M. S. Awan, Enhancement of structural and magnetic properties of M-type hexaferrite permanent magnet based on synthesis temperature, **Applied Physics A** (2018) 124:49.
9. Fatima Sehar, Safia Anjum, **Zeeshan Mustafa**, Evolution of ferro electric and ferro magnetic properties of rare earth aluminum substituted M-Type hexa ferrites at room temperature, **Digest Journal of Nanomaterials and Biostructures** Vol. 15, No. 3, 2020, p. 609 – 620.
10. Safia Anjuma, Fatima Sehar, F Bashir, M S Awan, **Zeeshan Mustafa**, Role of bismuth in cobalt spinel ferrite, **Materials Today: Proceedings 2** (2015) 5182 – 5189.
11. Safia Anjuma, Fatima Sehar, **Zeeshan Mustafa**, Study of synthesis parameters of Nano-structured M-type Hexa Ferrite permanent Magnet, **Lambert academic Publishing Germany**.

Dr. Alvina Rafiq Butt

Assistant Professor

- 1) M. Ikram, T. Inayat, A. Haider, A. Ul-Hamid, J. Haider, W. Nabgan, A. Saeed, A. Shahbaz, S. Hayat, K. Ul-Ain and **A. R. Butt**, “Graphene Oxide-Doped MgO Nanostructures for Highly Efficient Dye Degradation and Bactericidal Action” Published in Nanoscale Research Letter, Vol. 16, No. 56 (2021), 1-11.
- 2) Muhammad Shahid Sharif, Muhammad Aqeel, Ali Haider, Sadia Naz, Muhammad Ikram, Anwar Ul-Hamid, Junaid Haider, Irfan Aslam, Asma Nazir and **Alvina Rafiq Butt**, “Photocatalytic, Bactericidal and Molecular Docking Analysis of Annealed Tin Oxide Nanostructures” Published in Nanoscale Research Letter , Vol. 16, No. 33 (2021), 1-16.
- 3) T. Shujah, M. Ikram, **A. R. Butt**, S. G. Hussain, M. K. Shahzad, Q. Zafar, and S. Ali, “Growth of Zinc Oxide and Zinc Stannate Nanostructured Thin Films for Carbon Monoxide Sensing Application” Published in Nanoscience and Nanotechnology Letters, Vol. 11, No. 8 (2019), 1050-1059.
- 4) **A. R. Butt**, M. Nafees, S. Ali, A. Haider, M. R. Butt, M. Shamoan, M. J. Haider, I. Shahzadi, S. Ali, M. Ijaz, M. Ikram, “Metal Oxide Nanoparticles for Cellular Response, Anti-Cancer Drugs Loading and Adsorption Kinetics” Published in Nanoscience and Nanotechnology Letters, Vol. 11, No. 4 (2019), 470-479.
- 5) T. Shujah, M. Ikram, **A. R. Butt**, M. K. Shahzad, K. Rashid, Q. Zafar, and S. Ali, “H₂S Gas Sensor Based on WO₃ Nanostructures Synthesized via Aerosol Assisted Chemical Vapor Deposition Technique” Published in Nanoscience and Nanotechnology Letters, Vol. 11, No. 4 (2019), 1-10.

- 6) M. Waseem Akram, Muhammad Fakhar-e-Alam, M. Atif, **Alvina Rafiq Butt**, Ali Asghar, Yasir Jamil, K. S. Alimgeer & Zhiming M. Wang, “In vitro evaluation of the toxic effects of MgO nanostructure in Hela cell line” Published in Scientific Reports, Vol. 8, No. 4576 (2018), 1-11.
- 7) M. Waseem Akram, Muhammad Fakhar-e-Alam, **Alvina Rafiq Butt**, T. Munir, Akbar Ali, K. S. Alimgeer, Khalid Mehmood-ur-Rehman, Seemab Iqbal, Salamat Ali, Muhammad Ikram, N. Amin, and Zhiming M. Wang, “Magnesium Oxide in Nanodimension: Model for MRI and Multimodal Therapy” Published in Journal of Nanomaterials, Vol. 2018, No. 4210920 (2018), 1-12.
- 8) Khalid Rashid, **Alvina Rafiq Butt**, Munir Ahmad, Muhammad Nafees, Salamat Ali, Muhammad Ikram, Uzma Sattar, “Kinetics and Mechanism of the Adsorption of water-soluble anticancer drug on iron oxide nanoparticles doped with ferromagnetic materials” Published in International Journal of Biosciences, Vol. 13, No. 4 (2018), 322-332.
- 9) R. Zahid, M. Manzoor, A. Rafiq, M. Ikram, M. Nafees, **A. R. Butt**, S. G. Hussain & S. Ali, “Influence of Iron Doping on Structural, Optical and Magnetic Properties of TiO₂ Nanoparticles” Published in Electronic Materials Letters, Vol. 14, No. 4 (2018), 587-593.
- 10) T. Shujah, **A. Butt**, M. Ikram, S. Shabbir, S. Ali, “Effect Of Deposition Temperature Variation On Thin Films Synthesis Via AACVD” Published in Digest Journal of Nanomaterials and Biostructures, Vol. 11, No. 3 (2016), 891 - 898.
- 11) A. R. Butt, I. A. Butt, A. Nazir, M. Ikram, S. Sadiq, K. Rashid, T. Shujah and S. Ali, “Molecular Imaging of CaO Nanowhiskers in Living Organs”

Published in Nucleus International Atomic Energy Agency, Vol. 54, No. 4 (2015), 159-164.

- 12) A. R. Butt, S. Ejaz, J. C. Baron, M. Ikram, S. Ali, “CaO nanoparticles as a potential drug delivery agent for biomedical applications” Published in Digest Journal of Nanomaterials and Biostructures, Vol. 10, No. 3 (2015), 799 – 809.
 - 13) Khalid Rashid Javed, Munir Ahmad, Salamat Ali, Muhammad Zakria Butt, Muhammad Nafees, **Alvina Rafiq Butt**, Muhammad Nadeem, and Abubakar Shahid, “Comparison of Doxorubicin Anticancer Drug Loading on Different Metal Oxide Nanoparticles” Published in Medicine, Vol. 94, No. 11 (2015),1-6.
 - 14) **Alvina R. Butt**, M. S. Rafique, M. Imran, M.Khaleeq-ur-Rahman, “Investigation of Anisotropic behavior of Plasma ions using Nuclear and Electrical Diagnostic Techniques” Published in Proceedings of Pakistan Institute of Physics International Conference, (2006).
 - 15) Shazia Bashir, M. S. Rafique, M. Khaleeq-Ur-Rahman, Faizan-Ul-Haq and **B. R. Alvina**, “CO₂ and Nd:YAG Laser Radiation Induced Damage In Aluminium” Published in Science International Lahore, FIZIKA A, Vol. 15, No. 1 (2006), 181-192.
- S. Shahid, **Alvina B. R.**, & Khaleeq-ur-Rahman, M. S. R. M. (2003). “A study of laser induced damages in Al with TEA CO₂ and Nd: YAG Lasers” Published in Science International Lahore, Vol. 15, No. 1 (2003), 17-20.

Dr. Rabia Ahmad

Assistant Professor

1. **R. Ahmad**, M. S. Rafique, A. Ajami, S. Bashir, W. Husinsky and S. Iqbal, Influence of laser and material parameters on two photon absorption in Rhodamine B and Rhodamine 6G solutions in MeOH, *Optik*. 183. 835-841 (2019).
2. **R. Ahmad**, M. S. Rafique, A. Ajami, P. Nekvindova, B. Sevecova, S. Iqbal, Femtosecond laser induced two photon absorption in Au embedded glasses, *Las. & Part. Beams*, **37**. 61-66 (2019).
3. S. Iqbal, M.S. Rafique, M. Zahid, S. Basheer, M. A. Ahmad, **R. Ahmad**, Impact of carrier gas flow rate on the synthesis of nanodiamonds via microplasma technique, *Materials science in semiconductor processing*, 74. 31-41 (2018).
4. S. Iqbal, M. S. Rafique, S. Akhtar, N. Liaqat, N. Iqbal, **R. Ahmad**, “A comparative study on finding an effective root for the introduction of hydrogen into microplasma during diamond growth”, *J. Physics and Chemistry of Solids*, 122. 72-86 (2018).
5. S. Iqbal, M. S. Rafique, N. Iqbal, S. Basheer, S. Arif, **R. Ahmad**, “Impact of radiation induced crosslinking on structural, morphological, mechanical and optical properties of Polymethylmethacrylate thin films”, *Prog. Org. Coat.*, 111. 202-209 (2017).
6. M. B. Tahir, M. S. Rafique, **R. Ahmad**, M. Rafique, T. Iqbal, A. Hassan, “Energetic Metallic ion Implantation in Polymers via Cost-effective laser driven ion source”, *App. Phy. B*. 123. 204 (2017)

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Dr. Hafsa Faiz
Assistant Professor

1. Wasif Zia, Khurram Siraj, **Hafsa Faiz**, Atika Firdos, A facile synthesis of single phase delafossite CuBO₂ powders, Materials Research Express, 6, 096314 (2019).
2. M. Fiaz Khan, K. Siraj, A. Sattar, S. Majeed , **Hafsa Faiz** , M.I. Khan , J. Raisanen , K. Mizohata , M. Kemell, Effect of Au ion beam on structural, surface, optical and electrical properties of ZnO thin films prepared by RF sputtering, Ceramics International, 44, 16464-16469 (2018).
3. M. F. Khan, K. Siraj, A. Sattar, **Hafsa Faiz**, A. Usman, J. Raisanen, Modification of structural and electrical properties of ZnO thin films by Ni⁺² ions irradiation, Digest Journal of Nanomaterials and Biostructures, 12, 3(2017) 689 - 695.
4. Shahbaz Majeed, K Siraj, S Naseem, Muhammad F Khan, M Irshad, **Hafsa Faiz** and A Mahmood, Structural and optical properties of gold-incorporated diamond-like carbon thin films deposited by RF magnetron sputtering, Materials Research Express, 4 (2017) 076403.
5. **Hafsa Faiz**, K. Siraj, M. F. Khan, M. Irshad, S. Majeed, M. S. Rafique, S. Naseem, Microstructural and optical properties of dysprosium doped copper oxide thin films fabricated by pulsed laser deposition technique, Journal of Material Science: Materials in Electronics, 27:8197–8205 (2016).

6. **Hafsa Faiz**, K Siraj, M S Rafique, S Naseem and A W Anwar, Effect of zinc induced compressive stresses on different properties of copper oxide thin films, *Indian Journal of Physics*, 89(4):353-360 (2015).
7. M. Fiaz Khan, K. Siraj, M.S. Anwar, M. Irshad, J. Hussain, **Hafsa Faiz**, 700 keV Ni⁺² ions induced modification in structural, surface, magneto-optic and optical properties of ZnO thin films, *Nuclear Instruments and Methods in Physics Research B*, 368 ,45–49(2016).

Farzana Siddique

Assistant Professor

1. Iqbal, S. S., Ahmad, T. S., Bashir, A., Bahadar, A., & **Siddique, F.** (2021). Tuning the Ablation, Thermal and Mechanical Characteristics of Phenolic Resin Reinforced EPDM Ultra-High Temperature Insulation. In *Key Engineering Materials* (Vol. 875, pp. 88-95). Trans Tech Publications Ltd.
2. Rana, M. A., Ahmed, A., **Siddique, F.**, & Ahmed, J. (2021). Cascade exciton model analysis of energetic pion-induced fission of heavy nuclei: Target mass and projectile energy dependence. *International Journal of Modern Physics E*, 30(07), 2150065

FATIMA ASLAM

Assistant Professor

1. **Fatima Aslam**, M. Hassan; Theoretical Investigation of Cs₂InBiX₆ (X= Cl, Br, I) double perovskite halides using first-principle calculations.

2. **Fatima Aslam**, B. Sabir, and M. Hassan. "Structural, electronic, optical, thermoelectric, and transport properties of indium-based double perovskite halides Cs_2InAgX_6 ($X= Cl, Br, I$) for energy applications." *Applied Physics A* 127.2 (2021): 1-12.
3. Noor, N. A., W. Tahir, **Fatima Aslam**, and A. Shaukat. "Ab initio study of structural, electronic and optical properties of Be-doped CdS, CdSe and CdTe compounds." *Physica B: Condensed Matter* 407, no. 6 (2012): 943-952.

Muhammad Rizwan Sami

Assistant Professor

1. **M R Sami** and A Shahbaz, Role of quantum paths in generation of attosecond pulses, *Chinese Phys. B* **29** 104207, (2020)

JAWAIRIA MUKHTAR

Assistant Professor

1. **Jawairia Mukhtar** , M. Ikram Ul Haq, Sofia Safdar, & Muhammad Zulqarnain (2020). Relationship of Brand Credibility with Brand Loyalty. *Academic*

Journal of Social Sciences, Volume No 4 Issue No 1, 18-28 (HEC Y Category Journal).

2. **Jawairia Mukhtar** , Raza, M., Jawaid, A., & M. Ikram Ul Haq (2018). THE EFFECT OF INTERVENTIONS ON QUALITY ADJUSTED LIFE YEARS (QALY) OF DIALYSIS PATIENTS. *Gomal University Journal of Research*, 34(2), 73-79 (HEC Z Category Journal).

KHADIJA TUL KUBRA

Senior Lecturer

1. **Khadija Tul Kubra**, M.S. Rafique, Synthesis of Photocatalytic Water Splitting Device with Comparative Analysis for the Efficiency of Solar Driven Hydrogen. IJSER, ID: 1088076 (Accepted)
2. **Khadija Tul Kubra**, M.S. Rafique, K.Siraj, A.Ghaffar, “Solar Driven Hydrogen from Phptocatalytic Water Splitting”. *Science International*, 8 (2015) 1013-5316.

Irfan Aslam

Lecturer

1. Muhammad Shahid Sharif, Muhammad Aqeel, Ali Haider, Sadia Naz, Muhammad Ikram, Anwar Ul-Hamid, Junaid Haider, **Irfan Aslam**, Asma Nazir & Alvina Rafiq Butt , Photocatalytic, Bactericidal and Molecular Docking Analysis of Annealed Tin Oxide Nanostructures, *Nanoscale Research Letters* volume 16, Article number: 33 (2021)

