

## 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<sub>1-x</sub>Ni<sub>x</sub>S (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 Al<sub>2</sub>S<sub>3</sub> 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 TiO<sub>2</sub> 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  $\text{Cr}_2\text{O}_3$  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 ZrS<sub>2</sub>/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 ZnFe<sub>2</sub>O<sub>4</sub> 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 MoS<sub>2</sub>-ReS<sub>2</sub> and ReS<sub>2</sub>-MoS<sub>2</sub> 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 ReS<sub>2</sub>” *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 (ReX<sub>2</sub>, 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 ReSe<sub>2</sub> 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 ReS<sub>2</sub> Film/Multilayer ReS<sub>2</sub> 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 Zn<sub>2</sub>SiO<sub>4</sub> 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 HfO<sub>2</sub>/Al/HfO<sub>2</sub> 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 In<sub>2</sub>O<sub>3</sub> 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).

30. **M. Hafeez**, U. Manzoor, A. S. Bhatti, M. B. Kaynar, S. I. Shah, “Catalyst Solubility and Self Doping in ZnS nanostructures”. *Journal of Applied Physics* 2012, 111, 024313. (I.F: 2.28).
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)
32. **M. Hafeez**, U. Manzoor, A. S. Bhatti “Morphology Tuned ZnS nanostructures for Hydrogen Sensor”. *Journal of Materials Science:Materials in Electronics* 2011, 22, 1772. (I.F: 2.2)

**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<sub>x</sub>-substituted Co<sub>0.05-x</sub> Zn<sub>0.95</sub>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 Co<sub>40</sub>Fe<sub>40</sub>B<sub>20</sub> 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 Bi<sup>3+</sup> 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 La<sup>3+</sup> 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, “H<sub>2</sub>S Gas Sensor Based on WO<sub>3</sub> 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 TiO<sub>2</sub> 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**, “CO<sub>2</sub> and Nd:YAG Laser Radiation Induced Damage In Aluminium” Published in Science International Lahore, FIZIKA A, Vol. 15, No. 1 (2006), 181-192.
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**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)

7. **R. Ahmad**, M. S. Rafique, M. B. Tahir, H. Malik. “Implantation of various energy metallic ions on aluminium substrate using a table top laser driven ion source”, Las. & Part. Beams, 32. 261-270 (2014).

**Dr. Hafsa Faiz**  
**Assistant Professor**

1. Wasif Zia, Khurram Siraj, **Hafsa Faiz**, Atika Firdos, A facile synthesis of single phase delafossite CuBO<sub>2</sub> 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<sup>+2</sup> 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<sup>+2</sup> 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. Key Engineering Materials Submitted: 2020-02-14, ISSN: 1662-9795, Vol. 875, pp 88-95 Revised: 2020-07-14 © 2021 Trans Tech Publications Ltd, Switzerland Accepted: 2020-07-14 Online: 2021-02-04 Tuning the Ablation, Thermal and Mechanical Characteristics of Phenolic Resin Reinforced EPDM Ultra-High Temperature Insulation Sadia Sagar Iqbal<sup>1,a\*</sup>, Tasawer Shahzad Ahmad<sup>2,b</sup>, Arshad Bashir<sup>3,c</sup>, Ali Bahadar<sup>4,d</sup>, Farzana Siddique<sup>5</sup> -  
1-Department of Physics, Garrison University, DHA, Lahore, Pakistan---
2. Key Engineering Materials Submitted: 2020-02-14 ISSN: 1662-9795, Vol. 875, pp 168-176 Revised: 2020-07-14 © 2021 Trans Tech Publications Ltd, Switzerland Accepted: 2020-2014, Online: 2021-02-04 Synthesis, Spectral and Thermal Characteristics of Silica/PVP Nanofluids SHABBIR Sharif<sup>1</sup>, SADIA Sagar Iqbal<sup>1,a\*</sup>, FARZANA Siddique<sup>1</sup>, ALVINA Rafiq Butt<sup>1</sup>, TASAWER Shahzad Ahmad<sup>2</sup> and ARSHAD Bashir<sup>3</sup> Department of Physics, Lahore Garrison University, DHA, Lahore,

3. Ref.:IJMPE-D-20-00204 "Cascade exciton model analysis of energetic pion induced fission of heavy nuclei: Target mass and projectile energy dependence"
4. Hybrid reinforcement to improve hyperthermal characterization of elastometric instruction, Submitted. ISAM. 2019 International
5. Generation of microporosity in PVDF laminate Accepted. 2019 International membranes, for the Study of permeation flux of various solvents by tuning the microporosity in PVDF laminate membranes, Key Engineering Materials, ISAM
6. Blended polimer composites: Ablation, thermal and mechanical aspects. Accepted. ISAM, 2019 International

**FATIMA ASLAM**

**Assistant Professor**

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