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EDUCATION

- University of Malaya, Kuala Lumpur, Malaysia
Postdoc (2016)
- Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Topi, Pakistan
Doctor of Philosophy in Engineering Sciences (Applied Physics), 2012
- Quaid-e-Azam University, Islamabad, Pakistan
Master of Philosophy in Electronics, 1998
- University of Peshawar, Peshawar, Pakistan
M.Sc. in Electronics, 1992
- University of Peshawar, Peshawar, Pakistan
B.Sc. 1990

DISTINCTION

- Gold Medal in M.Sc. (Electronics), University of Peshawar (1992)
- Silver Medal in F.Sc. (General Science), Board of Intermediate and Secondary Education, Peshawar (1988)

RESEARCH

- M. Phil research on “Digital Image Compression using Thresholding and Edge Detection” under the supervision of Dr. Abbas A. Naqvi, Department of Electronics, Quaid-e-Azam University, Islamabad, Pakistan
- Ph.D. research on “Investigation of Electrical and Optoelectronic Properties of Vanadyl Phthalocyanine for Organic Electronic Devices” under supervision of Prof. Dr. Muhammad Hassan Sayyad, Faculty of Engineering Sciences, GIK Institute of Engineering Sciences and Technology, Topi, Swabi, KP, Pakistan

RESEARCH INTERESTS

- Perovskite Solar Cells
- Organic Solar Cells
- Organic Sensors
- Thin Film Deposition and Characterization
- Investigation of organic materials for the fabrication of electronic and optoelectronic devices
- Nanostructures

EXPERIMENTAL SKILLS

Thin Film Deposition: Vacuum Thermal Evaporation and Spin Coating.

Material Characterization: AFM, UV/Visible/IR and FT-IR Spectroscopy, Raman Spectroscopy, Surface Profiler, X-ray Diffraction

Device Characterization: Electrical, Optical, Structural and Temperature Dependent Analyses

WORK EXPERIENCE

- Professor (May 10, 2022 to date), Department of Electronics, University of Peshawar, Pakistan
- Associate Professor (August 02, 2021 to May 09, 2022), Department of Electronics, University of Peshawar, Pakistan
- Associate Professor (October 04, 2015 to August 01, 2021), Jinnah College for Women, University of Peshawar, Pakistan
- Assistant Professor (August 23, 2007 to October 03, 2015), Jinnah College for Women, University of Peshawar, Pakistan
- Lecturer (January 27, 1996 to August 22, 2007), Jinnah College for Women, University of Peshawar, Pakistan
- Visiting faculty at Department of Geography and Geomatics, University of Peshawar (2023) *Computers and Information Technology*, Department of Electronics, University of Peshawar (Spring 2013) *Solid State Electronic Materials*, Department of Gender Studies, University of Peshawar (2006-7, 2021-22) *Computers and Information Technology*, Department of Computer Science, University of Peshawar (2003-5) *Analog and Digital Electronics*

RESEARCH FUNDING PROJECTS

- Principal Investigator of “*A synergistic approach of surface engineering of electron transport layer by amino acid for enhanced efficiency and stability of perovskite solar cells*” for a period of three years funded by the Higher Education Commission (HEC) of Pakistan, under the National Research Program for Universities (NRPU) research grant worth Rs. 18.75 millions.
- Principal Investigator of “*Ternary Non-Fullerene based Polymer Solar Cells: Fabrication and investigation of solar cells on rigid and flexible substrates*” for a period of two years funded by the Higher Education Department (HED), Khyber Pakhtunkhwa, under the Higher Education Research Endowment Fund (HEREF) research grant worth Rs. 3.68 millions.

- Co-Principal Investigator of “*AI-Powered Dual-Spray System for Precision Crop Management and Weed Eradication in Wheat and Maize*” for a period of three years funded by the Higher Education Commission (HEC) of Pakistan, under the National Research Program for Universities (NRPU) research grant worth Rs. 6.99 millions.

RESEARCH COLLABORATION

- Low Dimensional Materials Research Center, Department of Physics, University of Malaya, Malaysia since 2010
- GIK Institute of Engineering Sciences and Technology, Topi, Swabi, KP, Pakistan since 2012
- Department of Physics, Abdul Wali Khan University Mardan, Pakistan since 2012
- Center for Advanced Materials (CAM), Qatar University, Doha, Qatar since 2014
- Electrical Engineering, South Dakota State University, South Dakota, USA from 2017 to 2020
- Department of Chemistry, Bacha Khan University Charsadda, Pakistan since 2019
- Syracuse University, New York, USA since 2020
- Department of Physics, Islamic International University, Islamabad since 2023
- Faculty of Engineering, Technology & Built Environment, UCSI, Malaysia since 2023
- Fytronix Electronic Technologies, Firat Teknokent, Elazig, Turkey since 2024

AWARDS & ACHIEVEMENTS

- Indigenous Scholarship for PhD Studies by Higher Education Commission Pakistan (2008-12)
- Research fellow at Low Dimensional Materials Research Center, Department of Physics, University of Malaya, Malaysia for almost a year under International Research Support Initiative Program by Higher Education Commission Pakistan and Student Exchange Program of University of Malaya (2010)
- Postdoc Fellowship Program by Higher Education Commission, Pakistan (2015-16)

GUEST EDITOR INTERNATIONAL JOURNAL

- Guest Editor in the Special Issue “Applications of Scanning Electron Microscopy in Electronic Materials’ Thin films and Devices” in Scanning.

CONFERENCES ORGANIZED

- Organizing member of Symposium, University of Malaya, Malaysia 2016
- Organizing member of Symposium, GIK Institute, Pakistan 2013

TRAININGS

- Attended a training on Perovskite Solar Cells from November 7 - 17, 2017 at the Department of Electrical Engineering and Computer Science at the South Dakota State University, USA.
- Attended a training on Electrochemical Impedance Spectroscopy (EIS) from August 20 - 25, 2023 at the Center for Advanced Studies, Qatar University, Qatar.
- Provided training on online teaching methodologies to the core faculty of JCW, University of Peshawar.

JOURNAL PUBLICATIONS

1. L. Skhirtladze, M. Ghasemi, I. Ullah, **F. Aziz**, Z. Chen, N. A. Roslan, N. Nordin, A. Supangat, A. Arifin, J. V. Grazulevicius, Thickness-Dependent Performance of a 2AC-CF₃Ph Single-Component Donor–Acceptor–Donor UV Organic Photodiode. *Synthetic Metals* **320**, (2026) 118218 (IF=3.29).
2. M. Hussain, N. A. Khan, W. C. Lin, M. Yaseen, **F. Aziz**, M. Ali, N. Abbas, Ultra-sensitive low-frequency dual-mode humidity sensor using a methyl red-PVA-graphene oxide composite, *RSC Advances* **16**, (2026) 1888-1899 (IF= 4.6).
3. N. I. F. A. Halil, S. N. Hisamuddin, K. U. Rehman, **F. Aziz**, I. Ullah, N. Fatima, N. A. Roslan, A. A. M. Sabri, and A. Supangat, Synergistic enhancement of optical properties in ternary organic semiconductors for high-performance optoelectronic devices, *Optical and Quantum Electronics* **16**, (2025) 40 (IF = 4).
4. S. M. Z. Iqbal, M. M. Bashir, M. Riaz, Shehryar, N. Abbas, F. Aziz, and N. Fatima, Synthesis and characterization of sodium-doped zinc ferrite nanomaterials for enhanced ionic conduction and thermoelectrical applications, *International Journal of Modern Physics B* **39**, (2025) 2550247 (IF = 2.8).
5. M. Nofil, E. Raza, **F. Aziz**, A. Supangat, N. Abbas, Optimizing small molecule-based organic solar cells with metal phthalocyanines for enhanced efficiency and stability, *Inorganic Chemistry Communications* **173**, (2025) 113812 (IF = 4.52).
6. C. Zhichu, M. Tahir, F. Muhammad, **F. Aziz**, A. Ayub, F. Badshah, M. S. Refat, S. M. Cakmak, S. Rehan, A. M. A. Adam, A. M. Alsuhaibani, A. Ayob, M. R. Sarker, A. Khan, InP/ZnS core/shell quantum dots: Synthesis, characterization and their application in fullerene derivative based flexible solar cells, *Results in Physics* **69** (2025) 108120 (IF = 4.4)
7. N. Fatima, LW Lim, S. Bukhari, E. Raza, **F. Aziz**, Z. Shah, Z. Ahmad, A. Kamboh, M. Tahir, F. Yakuphanoglu, A. Supangat, K. Sulaiman, Impact of Compositional Engineering on PTB7-Th:PC71BM Capacitive Humidity Sensor Performance, *Journal of Electronic Materials* **53** (2024) 6671-6678 (IF = 2.2)
8. S. A. Roslan, A. A. M. Sabri, N. A. Roslan, T. M. Bawazeer, M. S. Alsoufi, F. Aziz and A. Supangat, Equal proportion of donor/acceptor active layer for reduced dark current in visible organic photodiode, *Optical Materials*, **147** (2024) 11478 (IF= 3.9).
9. Ehsan Raza, Jolly Bhadra, Muhammad Asif, **F. Aziz**, Noora J. Al-Thani, Zubair Ahmad, A numerical approach to study the effect of bandgap and electron affinity in HTL-free perovskite solar cells and design of two-terminal silicon/ perovskite tandem solar cell, *Materials Today Communications* **37** (2023) 107383 (IF = 3.662).

10. Ehsan Raza, Zubair Ahmad, Muhammad Asif, **F. Aziz**, Muhammad Qasim Mehmood, Jolly Bhadra, Noora J. Al-Thani, Design and optimization of four-terminal mechanically stacked and optically coupled silicon/perovskite tandem solar cells with over 28% efficiency, *Heliyon* **9** (2023) 13477 (IF = 3.776).
11. Muhammad Tahir, Ikram Ud Din, Muhammad Zeb, **F. Aziz**, Fazal Wahab, Zahid Gul, Alamgeer, Mahidur R. Sarker, Sajad Ali, Sawal Hamid Md Ali and Ioannis Kyriassis, Thin Films Characterization and Study of N749-Black Dye for Photovoltaic Applications, *Coatings* **12** (2022) 1163 (IF= 2.864).
12. Ehsan Raza, Zubair Ahmad, Muhammad Asif, **F. Aziz**, Kashif Riaz, Muhammad Qasim Mehmood, Jolly Bhadra, Noora J. Al-Thani, Numerical modeling and performance optimization of carbon-based hole transport layer free perovskite solar, *Optical Materials* **125** (2022) 112075 (IF= 3.754).
13. Raza, E., Z. Ahmad, **F. Aziz**, M. Asif, A. Ahmed, K. Riaz, J. Bhadra, N. J. Al-Thani, Numerical simulation analysis towards the effect of charge transport layers electrical properties on cesium based ternary cation perovskite solar cells performance, *Solar Energy* **225** (2021) 842-850 (IF= 5.742).
14. Raza, E., **F. Aziz**, A. Mishra, N.J. Al-Thani, Z. Ahmad, MAPbI₃ microrods based photo resistor switches: fabrication and electrical characterization, *Materials* **14** (2021) 4385 (IF= 3.623).
15. Ahmad, Z., A. Mishra, S. M. Abdulrahim, D. Taguchi, P. Sanghyun, **F. Aziz**, M. Iwamoto, T. Manaka, J. Bhadra and N. J. Al-Thani, Consequence of aging at Au/HTM/perovskite interface in triple cation 3D and 2D/3D hybrid perovskite solar cells, *Scientific Reports* **11** (2021) 1-11 (IF= 4.1).
16. Rehman, K., **F. Aziz**, Z. Ahmad, K. Alamgir, M. Asif, M. Tahir, K. Sulaiman, S. Bashir, E. Raza and F. F. Muhammad Sharif, Improvement of capacitive humidity sensors using tris (8-hydroxyquinoline) gallium (Gaq 3) nanofibers as a dielectric layer, *Journal of Materials Science: Materials in Electronics* **31** (2020) 21702-21710 (IF= 2.478).
17. Tahir, M., M. Ilyas, **F. Aziz**, M. R. Sarker, M. Zeb, M. A. Ibrahim and R. Mohamed, Fabrication and Microelectronic Properties of Hybrid Organic-Inorganic (poly (9, 9, dioctylfluorene)/p-Si) Heterojunction for Electronic Applications, *Applied Sciences* **10** (2020) 7974 (IF= 2.48).
18. Uddin, S. I., M. Tahir, **F. Aziz**, M. R. Sarker, F. Muhammad, D. Nawaz Khan and S. Hamid Md Ali (2020), Thickness Optimization and Photovoltaic Properties of Bulk Heterojunction Solar Cells Based on PFB-PCBM Layer, *Energies* **13** (2020) 5915 (IF= 3.06).
19. Raza, E., Z. Ahmad, A. Mishra and **F. Aziz**, Metal halide-based photodetector using one-dimensional MAPbI₃ micro rods, *Journal of Materials Science: Materials in Electronics* **31** (2020) 12109-12115 (IF= 2.478).
20. Islam, Z. U., M. Tahir, W. A. Syed, **F. Aziz**, F. Wahab, S. M. Said, M. R. Sarker, S. H. Md Ali and M. F. M. Sabri, Fabrication and photovoltaic properties of organic solar cell based on zinc phthalocyanine, *Energies* **13** (2020) 962 (IF= 3.06).
21. Z. Ahmad, **F. Aziz**, H. Y. Abdullah, Study on the stability of the mixed (MAPbI₃ and MAPbBr₃) perovskite solar cells using dopant-free HTL, *Organic Electronics*, **76** (2020) 105453 (IF= 3.31).
22. **F. Aziz**, A. Anuar, Z. Ahmad, N. A. Roslan, A. H. A. Makinudin, T. M. Bawazeer, N. Alsenany, M. S. Alsoufi, A. Supangat, Enhancing the Electrical Properties of Vertical OFETs Using a P (VDF-TrFE) Dielectric Layer, *Journal of Electronic Materials*, **49** (2019) 1-10 (IF= 1.77).
23. R. Andika, **F. Aziz**, Z. Ahmad, M. Doris, V. Fauzia, T. M. Bawazeer, N. Alsenany, M. S. Alsoufi and A. Supangat, Organic nanostructure sensing layer developed by AAO template for the application in humidity sensors, *Journal of Materials Science: Materials in Electronics*, **30** 2382-8 (2019) (IF= 2.478).
24. L.W. Lim, **F. Aziz**, Z. Ahmad, N.A. Roslan, A. Supangat, K. Sulaiman, Planar capacitive type humidity sensor fabricated using PTB7-Th by facile solution processing approach, *Applied Physics A : Materials Science & Processing* **125** (2019) 16 (IF= 1.81).
25. E. Raza, **F. Aziz**, Z. Ahmad, Stability of organometal halide perovskite solar cells and role of HTMs: recent developments and future directions, *RSC Advances* **8** (2018) 20952-67 (IF= 3.12).
26. **F. Aziz**, A.A. Bakar, Z. Ahmad, T.M. Bawazeer, N. Alsenany, M.S. Alsoufi, A. Supangat, Template-assisted growth of nanoporous VTTBn films: Morphology and moisture sensitivity studies, *Materials Letters* **211** (2017) 195-8 (IF= 3.20).
27. **F. Aziz**, Z. Ahmad, M. A. Najeeb, H. A. Malik, S. M. Abdullah, F. Touati, K. Sulaiman, Colloidal distribution of the PCPDTBT and VOPcPhO in the organic amalgam thin films and their optical properties, *Applied Physics A: Materials Science & Processing* **123** (2017) 773 (IF= 1.81).
28. M.I. Azmer, **F. Aziz**, Z. Ahmad, E. Raza, M.A. Najeeb, N. Fatima, T.M. Bawazeer, M.S. Alsoufi, R. Shakoor, K. Sulaiman, "Compositional engineering of VOPcPhO-TiO₂ nano-composite to reduce the absolute threshold value of humidity sensors", *Talanta*, **174** (2017) 279-84 (IF= 5.34).
29. F.F. Muhammad, M.Y. Yahya, S.S. Hameed, **F. Aziz**, K. Sulaiman, M.A. Rasheed, Z. Ahmad, Employment of single-diode model to elucidate the variations in photovoltaic parameters under different electrical and thermal conditions, *PLOS ONE* **12** (2017) e0182925 (IF= 2.74).
30. N. Fatima, **F. Aziz**, Z. Ahmad, M. Najeeb, M. Azmeer, K.S. Karimov, M. Ahmed, S. Basheer, R. Shakoor, K. Sulaiman, "Compositional engineering of the pi-conjugated small molecular VOPcPhO: Alq₃ complex to boost humidity sensing", *RSC Advances*, **7** (2017) 19780-6 (IF= 3.12).
31. **F. Aziz**, N.A. Bakar, S. Bashir, H. Alhummany, T. Bawazeer, N. Alsenany, A. Mahmoud, A. Supangat, K. Sulaiman, "Effective transformation of PCDTBT nanorods into nanotubes by polymer melts wetting approach", *Journal of Saudi Chemical Society*, **21** (2017) 720-30 (IF= 3.52).
32. F.F. Muhammad, M.Y. Yahya, **F. Aziz**, M.A. Rasheed, K. Sulaiman, "Tuning the extinction coefficient, refractive index, dielectric constant and optical conductivity of Gaq3 films for the application of OLED displays technology", *Journal of Materials Science: Materials in Electronics*, **28** (2017) 14777-86 (IF= 2.478).
33. M. Doris, **F. Aziz**, H. Alhummany, T. Bawazeer, N. Alsenany, A. Mahmoud, R. Zakaria, K. Sulaiman, A. Supangat, "Determining the Effect of Centrifugal Force on the Desired Growth and Properties of PCPDTBT as p-Type Nanowires", *Nanoscale Research Letters*, **12** (2017) 67(1-11) (IF= 3.58).
34. M. A. Najeeb, S. M. Abdullah, **F. Aziz**, Z. Ahmad, R.A. Shakoor, A. M. A. Mohamed, U. Khalil, S. Wageh, A. A. Al-Ghamdi, K. Sulaiman, "A comparative study on the performance of hybrid solar cells containing ZnS QDs in hole transporting layer and photoactive layer", *Journal of Nanoparticles Research*, **18** (2016) 384(1-8) (IF= 2.13).
35. L. W. Lim, **F. Aziz**, F. F. Muhammad, A. Supangata, K. Sulaiman, "Electrical properties of Al/PTB7-Th/n-Si metal-polymer-semiconductor Schottky barrier diode" *Synthetic Metals*, **221** (2016) 169-175 (IF= 3.29).
36. F. Wahab, M. Sayyad, D.N. Khan, M. Tahir, **F. Aziz**, R. Khan, K.S. Karimov, "Sensing properties of cobalt-phthalocyanine-based multipurpose sensor", *Journal of Electronic Materials*, **46** (2016) 2045-52 (IF= 1.77).
37. M. A. Najeeb, S. M. Abdullah, **F. Aziz**, Z. Ahmad, S. Rafique, S. Wageh, A. A. Al-Ghamdi, K. Sulaiman, F. Touati, R.A. Shakoor, N.J. Al-Thani, "Structural, morphological and optical properties of PEDOT:PSS/QDs nano-composite films prepared by spin-casting", *Physica E: Low-dimensional Systems and Nanostructures*, **83** (2016) 64-8 (IF= 3.57).

38. H.A. Malik, **F. Aziz**, M. Asif, E. Raza, M.A. Najeeb, Z. Ahmad, W. Swelm, Q. Zafar, F. Touati, A.H. Kamboh, "Enhancement of optical features and sensitivity of MEH-PPV/VOPcPhO photodetector using CdSe quantum dots", *Journal of Luminescence*, **180** (2016) 209-13 (IF= 3.28).
39. E. Raza, M. Asif, **F. Aziz**, M. I. Azmer, H. A. Malik, C. H. Teh, M. A. Najeeb, Q. Zafar, Z. Ahmad, F. Wahab, R. D.aik, N. M. Sarih, A. Supangat, K. Sulaiman, "Influence of thermal annealing on a capacitive humidity sensor based on newly synthesized macroporous PBOBzT2", *Sensors and Actuators B: Chemical*, **233** (2016) 146-53 (IF= 7.10).
40. M. A. Najeeb, S. M. Abdullah, **F. Aziz**, M. I. Azmer, W. Swelm, A. A. Al-Ghamdi, Z. Ahmad, A. Supangat and K. Sulaiman, "Improvement in the photovoltaic properties of hybrid solar cells by incorporating a QD-composite in the hole transport layer", *RSC Advances*, **6** (2016) 23048-57 (IF= 3.12).
41. Q. Zafar, **F. Aziz** and K. Sulaiman, "Eco-benign visible wavelength photodetector based on phthalocyanine-low bandgap copolymer composite blend", *RSC Advances*, **6** (2016) 13101-9 (IF= 3.12).
42. F. Rehman, M. Tahir, S. Hameed, F. Wahab, **F. Aziz**, F. Khalid, M. N. Khalid, and W. Ali, "Investigating sensing properties of poly-(dioctylfluorene) based planar sensor," *Materials Science in Semiconductor Processing*, **39** (2015) 355-61 (IF= 3.09).
43. **F. Aziz**, K. Sulaiman, W. K. Al-Rawi, Z. Ahmad, M. H. Sayyad, K. Karimov, L. L. Wei, M. Tahir, and L. Lin, "Enhancement of electrical properties of vanadyl phthalocyanine derivative by PCBM," *Pigment & Resin Technology*, **44** (2015) 148-56 (IF= 1.01).
44. K. Karimov, N. Ahmad, M. M. Bashir, **F. Aziz**, M. Z. Yousaf, A. Khan, M. Tahir, N. A. Zaidi, M. Hafeez, and A. S. Bhatti, "Flexible resistive tensile load cells based on MWCNT/rubber composites," *Pigment & Resin Technology*, **44** (2015) 187-91 (IF= 1.01).
45. M. Tahir, M. H. Sayyad, F. Wahab, **F. Aziz**, I. Ullah, and G. Khan, "Enhancement in electrical properties of ITO/PEDOT:PSS/PTCDA/Ag by using calcium buffer layer," *Physica B: Condensed Matter*, **466-467** (2015) 38-43 (IF= 1.90)..
46. **F. Aziz**, Z. Ahmad, S. M. Abdullah, K. Sulaiman and M. H. Sayyad, "Photovoltaic effect in single-junction organic solar cell fabricated using Vanadyl Phthalocyanine soluble derivative", *Pigment & Resin Technology*, **44** (2015) 26-32 (IF= 1.01).
47. F. Wahab, M. H. Sayyad, M. Tahir, D. N. Khan, **F. Aziz**, M. Shahid, M. A. Munawar, J. A. Chaudry, and G. Khan, "Electrical characterization of cobalt phthalocyanine/n-Si heterojunction," *Synthetic Metals*, **198** (2014) 175-80 (IF= 3.29).
48. F. Wahab, M. H. Sayyad, D. Nawaz Khan, M. Tahir, **F. Aziz**, M. Shahid, M. Ali Munawar, and J. Anwar Chaudry, "Electrical characterization of cobalt phthalocyanine/p-silicon heterojunction," *Materials Science in Semiconductor Processing*, **26** (2014) 101-6 (IF= 3.09).
49. M. Tahir, M. H. Sayyad, F. Wahab, F. A. Khalid, **F. Aziz**, S. Naeem, and M. N. Khalid, "Enhancement in the sensing properties of methyl orange thin film by TiO₂ nanoparticles," *International Journal of Modern Physics B*, **28** (2014) 1450032 (IF= 0.83).
50. M. Tahir, M. H. Sayyad, J. Clark, F. Wahab, **F. Aziz**, M. Shahid, M. A. Munawar, and J. A. Chaudry, "Humidity, light and temperature dependent characteristics of Au/N-BuHHPDI/Au surface type multifunctional sensor," *Sensors and Actuators B: Chemical*, **192** (2014) 565-71 (IF= 7.10).
51. M. Tahir, M. H. Sayyad, F. Wahab, **F. Aziz**, M. Shahid, and M. A. Munawar, "Perylene diimide: Synthesis, fabrication and temperature dependent electrical characterization of heterojunction with p-silicon," *Physica B: Condensed Matter*, **426** (2013) 6-12 (IF= 1.90).
52. M. Tahir, M. H. Sayyad, F. Wahab, D. N. Khan, and **F. Aziz**, "The electrical characterization of Ag/PTCDA/PEDOT:PSS/p-Si Schottky diode by current-voltage characteristics," *Physica B: Condensed Matter*, **415** (2013) 77-81 (IF= 1.90).
53. Z. Ahmad, M. H. Sayyad, F. Wahab, K. Sulaiman, M. Shahid, J. A. Chaudry, M. A. Munawar, and **F. Aziz**, "Enhancement of electronic and charge transport properties of NiPc by potassium-tetrasulpho group," *Physica B: Condensed Matter*, **413** (2013) 21-23 (IF= 1.90).
54. S. M. Abdullah, Z. Ahmad, **F. Aziz**, K. Sulaiman, "Investigation of VOPcPhO as an acceptor material for bulk heterojunction solar cells," *Organic Electronics*, **13** (2012) 2532-7 (IF= 3.31).
55. **F. Aziz**, M. H. Sayyad, Zubair Ahmad, K. Sulaiman, M.R. Muhammad, Kh.S. Karimov "Spectroscopic and microscopic studies of thermally treated Vanadyl 2,9,16,23-tetraphenoxy-29H,31H-phthalocyanine thin films", *Physica E: Low-dimensional Systems and Nanostructures*, **44** (2012) 1815-9 (IF= 3.57).
56. **F. Aziz**, K. Sulaiman, K. Karimov, M. Muhammad, M. H. Sayyad, and B. Majlis, "Investigation of optical and humidity-sensing properties of vanadyl phthalocyanine thin films," *Molecular Crystals and Liquid Crystals*, **566** (2012) 22-33 (IF= 0.51).
57. **F. Aziz**, M. H. Sayyad, K. Sulaiman, B. Majlis, K. S. Karimov, Z. Ahmad, and G. Sugandi, "Influence of humidity conditions on the capacitive and resistive response of an Al/VOPc/Pt co-planar humidity sensor," *Measurement Science and Technology*, **23** (2012) 014001 (IF= 1.86).
58. **F. Aziz**, M. Sayyad, K. S. Karimov, M. Saleem, Z. Ahmad, and S. M. Khan, "Characterization of vanadyl phthalocyanine based surface-type capacitive humidity sensors," *Journal of Semiconductors*, **31** (2010) 114002.

CONFERENCES

1. **F. Aziz**, "Impact of Interfacial Engineering on the Performance of Perovskite Solar Cells", *3rd Edition of International Conference on Emerging Trends in Physics (ICP-2026)*, University of Management and Technology, Lahore, Pakistan, June 4-6, 2026
2. **F. Aziz**, "Organic Humidity Sensors", *2nd International Meet & Expo on Semiconductors, Optoelectronics and Nanostructures (SEMICONMEET2022)*, Barcelona, Spain, September 12-14, 2022 (Invited Talk).
3. **F. Aziz**, M. A. Najeeb, Z. Ahmad, R. A. Shakoor³ and K. Sulaiman, "A facile route to improve efficiency of bulk heterojunction solar cell by compositional engineering of PCPDTBT:VOPcPhO, *International Conference on Renewable Energy and Environment (ICREE 2017)* Toronto, Canada, November 1-3, 2017.
4. **F. Aziz**, K. Sulaiman, Z. Ahmad, M. Hassan Sayyad, Kh. S. Karimov "Enhancement of electrical properties of vanadyl phthalocyanine derivative by PCBM" *Nanoscience and Nanotechnology for Next Generation, (NanoNG2014)*, Elazığ, Turkey, August 20-22, 2014.
5. **F. Aziz**, Z. Ahmad, S. M. Abdullah, K. Sulaiman and M. Hassan Sayyad, "Photovoltaic effect in single-junction organic solar cell fabricated using Vanadyl Phthalocyanine soluble derivative" *4th International Conference of Solid State Science and Technology, (ICSSST 2012)*, Malacca, Malaysia, December 18-20, 2012.
6. **F. Aziz**, K. Sulaiman, Kh. S. Karimov and M. Hassan Sayyad, "The Influence of Doping of Fullerene Derivative (PCBM) on the Optical Properties of Vanadyl Phthalocyanine complex (VOPcPhO)" *International Conference on Computer, Electrical and Systems Sciences and Engineering (ICCESSE 2011)*, Bali, Indonesia, October 26-28, 2011.
7. **F. Aziz**, K. Sulaiman, M. R. Muhammad, M. Hassan Sayyad, K. S. Karimov and B. Y. Majlis, "Investigation of optical and humidity-sensing properties of vanadyl phthalocyanine-derivative thin films" *KJF 2011:International Conference on Organic Materials for Electronics and Photonics*, Gyeongju, Korea, September 15-18, 2011.
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phthalocyanine thin films: A comparative study” *International Conference on Condensed Matter and Materials Physics (ICCMMP2011)*, Venice, Italy, April 27-29, 2011.

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