

SHAHID ALI

Professor (Tenured)

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✉ Department of Physics, University of Peshawar 25120 Peshawar, PAKISTAN
🌐 <http://www.uop.edu.pk/departments/Teaching-Faculty/?r=1190&q=Dr-Shahid-Ali>
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🌐 <https://www.webofscience.com/wos/author/record/F-6021-2013>
🌐 <https://www.scopus.com/authid/detail.uri?authorId=59738778100>
🌐 <http://scholar.google.com.pk/citations?user=Fr57EToAAAAJ&hl=en>



Tenured Professor with over 15 years of teaching and research experience in nanomaterials, photovoltaics, and glass science. Published over 60 articles in high-impact journals (with IF over 330, Citations over 1400, h-index = 22, i10-index = 40), secured multiple grants totaling PKR 60 million, and supervised 4 PhD and 30 MPhil students to successful completion. Expertise in X-ray absorption fine structure spectroscopy, nanomaterials synthesis, and solar energy applications. Recognized with prestigious awards, including Chinese Academy of Sciences Fellowship (PIFI), IAEA/ICTP Fellowship and the Top Physicist Award by HEC Pakistan.

EXPERIENCE

Director

Materials Research Laboratory

📅 March 2024 – To date 📍 Peshawar

- Set research priorities, drive innovation in emerging areas
- Manage budgets, resources, and safety protocols to ensure efficient lab operations
- Secure funding, foster industry/academia partnerships, and advocate for the lab's impact through publications and patents

Professor

University of Peshawar

📅 August 2020 – To date 📍 Peshawar

- Led research initiatives in nanomaterials & photovoltaics, publishing 10+ papers in Q1 journals.
- Supervised 5 PhD and 10 MPhil students, with 2 PhD completions.
- Secured PKR 17.4M in research grants for solar energy & nanomaterials projects.

Associate Professor

University of Peshawar

📅 Mar 2016 – Aug 2020 📍 Peshawar

- 15+ papers on luminescent materials and solar cells in high-impact journals.
- Led PKR 15.4M HEC-NRPU project on next-gen photovoltaics.
- Mentored 7 MPhil students to successful completion.

RESEARCH FIELDS

- Fabrication of metal ions doped glasses by field-assisted solid-state ion diffusion technique
- Physics and chemistry of the diffusion process and precipitation of the nanoparticles in glass
- Studies of the structural modifications induced in silicate glasses by ionic diffusion
- Synthesis and characterization of nanofibers for optical, electrical, sensing and thermal properties
- Synthesis and characterization of thermoluminescent and photoluminescent dosimeters
- X-ray absorption fine structure spectroscopy by using synchrotron radiation

AWARDS AND HONORS



Chinese Academy of Sciences Fellowship March 2026

Visiting Scientist under the President's International Fellowship Initiative (PIFI) for a period of 6 months at University of Science and Technology of China, Hefei, Anhui, China



Higher Education Commission of Pakistan Fellowship October 2017

Pakistan program for collaborative research between University of Peshawar Pakistan and The University of Venice Italy



Postdoctoral Fellowship Sep 2011

Postdoctoral fellowship by the International Atomic Energy Agency (IAEA) and the International Center for Theoretical Physics (ICTP), Trieste, Italy

Assistant Professor

University of Peshawar

📅 Sep 2012 – Mar 2016 📍 Peshawar

- 10+ publications on transition metals and rare-earth doped nanomaterials.
- Supervised 5 MPhil students with completion.
- Collaborated on projects with the University of Padova and Elettra Synchrotron.

Assistant Professor

Abdul Wali Khan University

📅 Mar 2010 – Sep 2012 📍 Mardan

- Teaching and Research

Assistant Professor

Kohat University of Science and Technology

📅 Aug 2009 – Mar 2010 📍 Kohat

- Teaching and Research

Postdoctoral Fellow

Elettra Synchrotron Trieste

📅 Sep 2011 – Mar 2012 📍 Italy

- Research

Postdoctoral Fellow

University of Padova

📅 Mar 2009 – Aug 2009 📍 Italy

- Research and projects management

PROJECTS

HEC-NRPU PKR Rs. 13.574m (Co-PI) (In Progress)

Higher Education Commission (HEC)

📅 2026-2029 📍 Islamabad

- Investigation of Novel Ti_3C_2 -MXene/TMOs 2D-Sheet's Composites as Energy Storage Materials

PSF-NSFC PKR Rs. 2m (Completed)

Pakistan Science Foundation (PSF)

📅 2021-2023 📍 Islamabad

- Highly luminescent down-shifting metal halide nanocrystal/borosilicate composite glass for improving utilization efficiency of solar energy



Full Time PhD Fellowship Sep 2005

PhD fulltime fellowship by the Ministry of Foreign Affairs, Rome, Italy



Winner Top Physicist Jul 2005

The Higher Education Commission (HEC) of Pakistan selected to participate in the 55th Multidisciplinary Nobel Laureate Meeting in Lindau, Germany



PhD at Max Planck, Germany Jul 2005

Awarded PhD fellowship by the Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany (not availed)



Dr. AQ Khan Merit Fellowship Mar 2002

Dr. Abdul Qadir Khan merit fellowship in MPhil at Quaid-i-Azam University, Islamabad (not availed)



Gold Medal in MSc Physics Feb 2002

Gold Medal in MSc Physics from Quaid-i-Azam University, Islamabad



First Position in BSc Physics 1998–1999

First position in BSc Physics at Islamia College Peshawar, Peshawar (Physical Science Group)



Presidential TFS Award 1998–1999

Awarded a prestigious scholarship "Presidential Talent Farming Scheme Award" by the University Grants Commission (UGC) Islamabad



First Position in FSc 1996–1997

First position at Government Degree College, Mardan, BISE Peshawar



Merit Scholarship 1996–1997

Merit scholarships awarded at Government Degree College, Mardan, BISE Peshawar



First Position in SSc 1993–1995

First position at Government High School, Mardan, BISE Peshawar

RESEARCH EXPERTISE

XRD

FTIR

UV-Vis

PL

SEM

EDX

XPS

TEM

Impedance

IV Measurements

OriginLab

SPSS & R

LaTeX

LyX

Python

LAMMPS

SIESTA

Wien2k

Mathematica

HEC-NRPU PKR Rs. 15.4m (Completed)

Higher Education Commission (HEC)

📅 2019-2021 📍 Islamabad

- Synthesis of a novel coverglass for the next generation photovoltaics

EU Erasmus+ €25.647k (Completed)

European Union (EU)

📅 2017-2021 📍 Slovenia

- Mobility project between the University of Nova Gorica, Slovenia and the University of Peshawar, Pakistan

DoST Project PKR Rs. 27.4m (Completed)

Directorate of Science and Technology (DoST)

📅 2015-2017 📍 Peshawar

- Transition metals and rare-earth doped nanomaterials for potential applications in lasers, telecommunication, live cell-imaging and cancer dosimetry

HEC-SRGP PKR Rs. 0.415m (Completed)

Higher Education Commission (HEC)

📅 2013-2018 📍 Islamabad

- Thermochemical ion-exchange of metal nanoparticles in silicate glasses for optical devices and integrated optics

RESEARCH SUPERVISION

✳ HEC and IRTC Approved Supervisor

✳ PhD: Completed=03, In Progress=04

1. Inam ud Din, Green synthesis of silver and iron nanoparticles for biomedical applications (Completed 2025)

2. Ayesha Samreen, The effect of surface modification on the performance of LSCF-based material for solid oxide fuel cell (Completed 2020)

3. Habib Ahmad, Design and analysis of shielding Cerrobend blocks and investigation of performance of thermoluminescence / photoluminescence - based detectors during in-vivo dosimetry (Completed, 2017)

Camtasia

Audio & Video Editing

Adobe Photoshop

Graphic Designing

LANGUAGES

English ● ● ● ● ●

Urdu ● ● ● ● ●

Pashto ● ● ● ● ●

Arabic ● ● ● ● ●

Italian ● ● ● ● ●

EDUCATION

Postdoctorate/Training

Elettra Synchrotron, Trieste

📅 Aug 2011-Mar 2012 📍 Italy

Training on: X-Ray Absorption Fine Structure (XAFS) Spectroscopy of nanostructured materials and characterization techniques

Supervisor: Dr. Giorgio Paolucci

Co-supervisor: Dr. Giuliana Aquilanti

Postdoctorate

University of Padua

📅 Mar 2009-Aug 2009 📍 Italy

Projects Management

PhD in Physics

University of Padua

📅 Jan 2006-Mar 2009 📍 Italy

Thesis title: Transition metals and erbium doping of silicate glasses by field-assisted solid-state ion exchange

Coursework Marks: 118/120

Supervisor: Prof. Paolo Mazzoldi

Co-supervisor: Prof. Francesco Gonella

MSc in Physics

Quaid-i-Azam University

📅 Jan 2000-Jan 2002 📍 Islamabad

Marks: 2406/3000

BSc in Physics

MPhil: Completed= 29, In Progress= 02

29. Farheen Umar, Morphological investigation of bare and functionalized metal nanoparticles using Mie and Mie-Gans models (Completed 2024)
28. Tahir Ali, Optimizing structural stability and catalytic performance of $\text{La}_{2-x}\text{Sm}_x\text{NiO}_{4+\delta}$: a prospective electrode solid oxide fuel cell (Completed 2024)
27. Ibrar Zada, Assessment of radiological hazards in coal mines of district Nowshera (Completed 2024)
26. Tauseef Khan, Efficiency enhancement of solar cell via luminescent downshifting by coverglass (Completed 2023)
25. Salma Bibi, Upconversion mechanisms in rare-earth doped glass to improve the efficiency of solar cells (Completed 2023)
24. Sheer Nabi, Synthesis and characterization of luminescent carbon dots extracted from green tea (Completed 2023)
23. Muhammad Fayaz, Cerium doped glass as an efficient coverglass for photovoltaic application (Completed 2022)
22. Sommya Fazal, Development of europium-doped aluminium phosphate glass for red luminescent solid-state optical devices (Completed 2022)
21. Usman Ali, Beam deflection spectroscopy for the measurement of hazardous iron traces in water (Completed 2022)
20. Ali Raza Khan, Deep dose deposition measurement and its variation with experimental parameters (Completed 2022)
19. Muhammad Altaf, Energy transfer mechanisms in cerium and gadolinium co-doped bismuth borate glasses (Completed 2021)
18. Ume e Habiba, Magnetic properties and magnetocaloric effect of $\text{Mn}_{3-x}\text{Fe}_x\text{Sn}_{2(x=0-1)}$ compounds near room temperature (Completed 2020)
17. Asiya Zaman Khan, Synthesis and simulation of silver nanoparticles and determination of their morphological features using Mie and Mie-Gans theories (Completed 2020)
16. Sheena Urooj, Synthesis and simulation of gold nanoparticles and determination of their morphological features using Mie and Mie-Gans theories (Completed 2020)
15. Nazish, Synthesis and luminescence properties of Sm^{3+} -doped Gd_2O_3 nanophosphors for display applications (Completed 2020)
14. Muhammad Haroon, Dosimetric response of dysprosium doped $\text{Li}_2\text{O-Gd}_2\text{O}_3\text{-Bi}_2\text{O}_3\text{-B}_2\text{O}_3$ glasses (Completed 2020)
13. Zohaib Ahmad, Dosimetric response of rare-earth doped $\text{Li}_2\text{O-Gd}_2\text{O}_3\text{-Bi}_2\text{O}_3\text{-B}_2\text{O}_3\text{-CeF}_3$ borate glasses (Completed 2019)

Islamia College Peshawar

📅 Aug 1997-Aug 1999 📍 Peshawar

Marks: 365/550

FSc in Pre-Engineering

Government Degree College

📅 May 1995-May 1997 📍 Mardan

Marks: 820/1100

SSc in Science

Government High School

📅 Apr 1993-Apr 1995 📍 Mardan

Marks: 645/850

REFEREES

Prof. Giuliana Aquilanti

@ giuliana.aquilanti@elettra.trieste.it

✉ XAFS beamline, Elettra Synchrotron Area
Science Park - 34149 Basovizza - Trieste, Italy

Prof. Francesco Gonella

@ gonella@unive.it

✉ Department of Molecular Sciences & Nanosystems, Ca' Foscari University of Venezia, via Torino 155/b, I-30172 Venezia-Mestre, Italy.

Prof. Yaseen Iqbal

@ yaseeniqbal@uop.edu.pk

✉ Department of Physics, Director of the Materials Research Laboratory, Department of Physics, University of Peshawar, 25120 Khyber Pakhtunkhwa Pakistan.

MEMBERSHIPS & COMMITTEES



Member, National Curriculum Revision Committee (NCRC) Physics

Higher Education Commission of Pakistan



Member, Advanced Studies and Research Board MS/MPhil 2024-2026

University of Peshawar



Member, Advanced Studies and Research Board PhD 2025-2026

University of Peshawar

12. Muhammad Adnan Khalid, Silver-doped silica nanofibers for gas sensing application (Completed 2019)
11. Saad Haroon Anwar, Green synthesis of silver and gold nanoparticles from thymelaea passerina plant extract and its medical applications (Completed 2018)
10. Zafar Iqbal, Iron nanoparticles based carbon nanofibers for water filtration applications (Completed 2018)
9. Irum Bubli, Downshifting of solar spectrum via laser irradiation of the Ag and Au-doped cover glass (Completed 2017)
8. Younas Khan, Field-assisted solid-state diffusion of silver in amorphous silica: a density functional theory study (Completed 2017)
7. Mehdi Hussain, Synthesis and structural properties of erbium-doped silica nanofibers (Completed 2017)
6. Aasia Noureen, Optical properties of erbium-doped silica nanofibers for telecommunication applications (Completed 2017)
5. Sohail Roomi, Fabrication and characterization of thermoluminescence detectors for radiotherapy dosimetry (Completed 2016)
4. Saira Bibi, Strengthening of sodalime silicate and borosilicate glasses by binary thermal ion exchange of Li^+/K^+ with Na^+ (Completed 2015)
3. Nasir Ali, Properties of metal nanoparticles embedded in sodalime silicate glass via Field-Assisted Solid-state Ion-Exchange (FASSIE) technique (Completed 2013)
2. Qaisar Hayat, Thermochemical ion exchange of metal ions in sodalime silicate glasses for optical waveguide and integrated optics (Completed 2013)
1. Ayesha Samreen, Diffusion behavior of transition metals in silicate glasses by field-assisted solid-state ion-exchange technique (Completed 2011)

 **Member, Graduate Studies Committee 2025-2026**
Department of Physics, Shaheed Benazir Bhutto Women University, Peshawar

 **Member, Graduate Studies Committee 2025-2026**
Department of Physics, University of Peshawar

 **Convener, Tenure Track System (TTS) Committee 2024-2026**
University of Peshawar

 **Convener, Policy Review Committee for ORIC 2025**
University of Peshawar

 **Member, Board of Studies 2025-2026**
Department of Physics, University of Haripur

 **Reviewer, National Research Program for Universities (NRPU) 2025**
Higher Education Commission of Pakistan

 **Member, Board of Studies 2025-2026**
Department of Physics, University of Peshawar

 **Member, Board of Faculty 2025-2026**
University of Peshawar

PUBLICATIONS

* Articles = 64, * IF $\approx$ 330, * Citations = 1380, * h-index = 22, * i10-index = 40
Q1 = 22, Q2 = 30, Q3 = 8, Q4 = 4

64. Nazir Ahmad, Shao Wang, Lina Yang, Mingyu Cheng, Guo Qingling, Ye Shanshan, **Shahid Ali**, Jing Xia, Wenxiu He, Genqiang Zhang, Synergizing Phase Engineering and Site-selective Substitution Through Rational Design of High-Entropy Layered Oxide Cathode Enables Air-Stable and Long-life Sodium-ion Batteries, *Energy & Environmental Science*, **2026**.

 <https://doi.org/10.1039/D5EE07341C>

63. Salman Nadir, Khizar Hayat, Yaseen Iqbal, Said Karim Shah, Jasim Yousaf, **Shahid Ali**, BNT/PVDF fibers for next-generation flexible piezoelectric energy harvesting devices, *Ceramics International* Vol. 52, No. 15, pp. 29403-29413, **2026**.

 <https://doi.org/10.1016/j.ceramint.2026.05.018>

62. Bing Zeng, Dehui Zheng, Yi Jin, Tingting Hou, Minglin Liu, Zihang Yang, Maruf S. M. Ul Haque, Yingcong Liang, **Shahid Ali**, Yue Zhang, Muhammad Siddique Ahmad, Kamel Meguellati, Neuromorphic allosteric in a porous metallated framework: adaptive Lewis-acid catalysis for the synthesis of key pharmaceuticals, *Journal of Catalysis* Vol. 458, pp. 116850, **2026**.

- <https://doi.org/10.1016/j.jcat.2026.116850>
61. Jasim Yousaf, Khizar Hayat, Sajid Khan, Jouhar Ud Din, Numan Ali, **Shahid Ali**, Yaqoob Khan, Said Karim Shah, $\text{Ti}_3\text{C}_2\text{-MXene/ZnO/PVDF}$ composite fibers as renewable energy materials for piezoelectric nanogenerator applications, *Journal of Alloys and Compounds* Vol. 1039, pp. 183392-10, **2025**.
- <https://doi.org/10.1016/j.jallcom.2025.183392>
60. Inam Ud Din, Rahaf Ajaj, Abdur Rauf, Zubair Ahmad, Naveed Muhammad, **Shahid Ali**, Hassan A. Hemeg, Imran Ullah, Ficus benghalensis extract mediated green synthesis of silver nanoparticles, its optimization, characterization, computational studies, and its in vitro and in vivo biological potential, *PLOS ONE* Vol. 20, No. 7, pp. 1-17, **2025**.
- <https://doi.org/10.1371/journal.pone.0326858>
59. Inam Ud Din, **Shahid Ali** et al. Combatting Multidrug Resistance through Ficus benghalensis-root Assisted Silver Nanoparticles Targeting MRSA Biofilms, **Accepted** in *Scientific Reports*, **2025**.
- <https://doi.org/10.1007/s12649-025-02897-x>
58. Inam Ud Din, Shahid Ali, Abdur Rauf, Naveed Muhammad, Hassan A. Hemeg, Sedran Afsar, Zubair Ahmad, Gokhan Zengin, Imran Ullah, Green Synthesis of Iron Nanoparticles Using Ficus benghalensis Stem Extract and its Biomedical Applications, *Waste and Biomass Valorization* Vol. 16, pp. 6547–6558, **2025**.
- <https://doi.org/10.1007/s12649-025-02897-x>
57. Muhammad Ali, **Shahid Ali**, Haroon ur Rashid, Yaseen Iqbal, Improvement in solar cells efficiency with luminescent downshifting nanocomposite lamination: A green alternative for ethylene–vinyl acetate, *Solar Energy* Vol. 282, pp. 112986-10, **2024**.
- <https://doi.org/10.1016/j.solener.2024.112986>
56. Sardar Ali, Muhammad Ismail, Syed Zulfiqar, Althaf Hussain Shaik, Tahir Zeb Khan, Shaukat Khattak, Gulzar Khan, Mohammed Rafi Shaik, **Shahid Ali**, Study of an enhanced photocatalytic hybrid $\text{MnO}_2\text{@SnO}_2$ core-shell Z-scheme nano heterojunction for efficient H_2 production, *International Journal of Hydrogen Energy* Vol. 89, pp. 424-433, **2024**.
- <https://doi.org/10.1016/j.ijhydene.2024.09.357>
55. Muhammad Amir, Hanan AL Chaghouri, Yaseen Iqbal, **Shahid Ali**, Muhammad Amin, Enhancement of CO gas sensing with ZnO nanostructures on MWCNTs films, *Ceramics International* Vol. 50, pp. 48768-48778, **2024**.
- <https://doi.org/10.1016/j.ceramint.2024.09.230>
54. Nasir Ali, Khurram Shehzad, Sanam Attique, Ayaz Ali, Fazli Akram, Adnan Younis, **Shahid Ali**, Yan Sun, Guolin Yu, Huizhen Wu, and Ning Dai, Exploring Non-Toxic Lower Dimensional Perovskites for Next-Generation X-Ray Detectors, *Small* Vol. 2024, pp. 2310946 1-36, **2024**.
- <https://doi.org/10.1002/sml.202310946>
53. Habib Ahmad, Javaid Ali, Khalil Ahmad, Ghufra Biradar, Ashfaq Zaman, Yasir Uddin, Muhammad Sohail, **Shahid Ali**, Assessment of peripheral dose as a function of distance and depth from cobalt-60 beam in water phantom using TLD-100, *Journal of the Egyptian National Cancer Institute* Vol. 36 (1), pp. 22-36, **2024**.
- <https://doi.org/10.1186/s43046-024-00227-1>
52. Saad Haroon Anwar, **Shahid Ali**, Ahmad Nawaz, Bilal Islam, Muhammad Adnan Khalid, Natasha Anwar, Optimization, characterization, and antioxidant activity of biosynthesized gold nanoparticles from *Thymelaea passerina* plant extract, *Nanoscience and Technology: An International Journal* Vol. 16, No. 2, pp. 9–20, **2024**.
- <https://doi.org/10.1615/NanoSciTechnolIntJ.2024048383>
51. Ayesha Samreen, Muhammad Sudais Ali, Muhammad Huzaifa, Nasir Ali, Bilal Hassan, Fazl Ullah, **Shahid Ali**, and Nor Anisa Arifin, Advancements in Perovskite-Based Cathode Materials for Solid Oxide Fuel Cells: A Comprehensive Review, *Chemical Records* Vol. 24 (1), pp. e202300247, **2023**.
- <https://doi.org/10.1002/tcr.202300247>
50. Nasir Ali, Sanam Attique, Arash Rahimi-Iman, **Shahid Ali**, Fazli Akram, Ning Dai, Huizhen Wu, Beyond lead: Progress in stable and non-toxic lower-dimensional perovskites for high-performance photodetection, *Sustainable Materials and Technologies*, Vol. 38, pp. e00759, **2023**.
- <https://doi.org/10.1016/j.susmat.2023.e00759>
49. Muhammad Fayaz, **Shahid Ali**, Salma Bibi, Yaseen Iqbal, Muhammad Ali, Falak Zaman, Gul Rooh, J. Kaewkhao, Luminescence and energy transfer mechanism in Ce^{3+} and Gd^{3+} ions in bismuth borate glass, *Ceramics International*, Vol. 49, pp. 24690–24695, **2023**.
- <https://doi.org/10.1016/j.ceramint.2023.04.127>
48. Nasir Ali, Sanam Attique, Sajid Rauf, **Shahid Ali**, Amir Khesro, Fazli Akram, Huizhen Wu, Fabrication of C12H28ClN -assisted perovskites thin films with micrometer-sized grains via low-temperature hot-casting in

ambient air for resistive memory device application, *Materials Science and Engineering: B*, Vol. 284, pp. 115904, 2022.

 <https://doi.org/10.1016/j.mseb.2022.115904>

47. Sommya Fazal, Falak Zaman, **Shahid Ali**, Yaseen Iqbal, Khizar Hayat, J. Kaewkhao, Syed Zulfiqar, A. El-Denglawey, Investigation of europium-doped aluminium phosphate glass for red light generation, *Ceramics International*, Vol. 48, pp. 24751–24757, 2022.

 <https://doi.org/10.1016/j.ceramint.2022.05.124>

46. Sanam Attique, Nasir Ali, Tahir Imran, Sajid Rauf, Amir Khesro, **Shahid Ali**, Weijian Wang, Rabia Khatoon, Akmal Abbas, Ehsan Ullah Khan, Shikuan Yang, Huizhen Wu, An overview of the pressure and strain-induced changes in the structural and optoelectronic properties of organometal halide perovskites, *Solar Energy*, Vol. 239, pp. 198–220, 2022.

 <https://doi.org/10.1016/j.solener.2022.05.009>

45. Muhammad Imran, Natasha, Behzad Murtaza, Sabah Ansar, Noor Samad Shah, Zia Ul Haq Khan, **Shahid Ali**, Grzegorz Boczkaj, Farhan Hafeez, Shafaqat Ali, Muhammad Rizwan, Potential of nanocomposites of zero valent copper and magnetite with Eleocharis dulcis biochar for packed column and batch scale removal of Congo red dye, *Environmental Pollution*, Vol. 305, pp. 119291, 2022.

 <https://doi.org/10.1016/j.envpol.2022.119291>

44. **Shahid Ali**, Muhammad Rahim, Perveen Fazil, Malik Shoaib Ahmad, Azeem Ullah, Muhammad Raza Shah, Gul Rukh, Muhammad Ateeq, Rozina Khattak, Muhammad Sufaid Khan, Ola A. Abu Ali, Dalia I. Saleh, Tang Hua, Synthesis and photonics applications of afzelechin conjugated silver nanoparticles, *Coatings*, Vol. 11, pp. 1295–1304, 2021.

 <https://doi.org/10.3390/coatings11111295>

43. Syed Zulfiqar, Saeed ur Rahman, Tahirzeb Khan, Rajwali Khan, Gulzar Khan, Shaukat Khattak, Nasir Rahman, **Shahid Ali**, Tang Hua, Dielectric and ferromagnetic properties of (Ni, Co) co-doped SnO₂ nanoparticles, *Materials Science: Materials in Electronics*, Vol. 32, pp. 19859–19870, 2021.

 <https://doi.org/10.1007/s10854-021-06510-4>

42. Zulfiqar, Sardar Ali Khan, Nasir Rahman, Tahirzeb Khan, RajWali Khan, Majid Khan, Sufaid Shah, **Shahid Ali**, Hua Tang, Shahid Hussain, Mudasser Husain, Muneeb Ur Rehman, Oxygen vacancies induced variations in Structural, Optical and Dielectric Properties of SnO₂/Graphite Nanocomposite, *Materials Science: Materials in Electronics*, Vol. 32, 2, pp. 1402–1412, 2021.

 <https://doi.org/10.1007/s10854-020-04912-4>

41. Attique, Sanam and Ali, Nasir and Rauf, Sajid and **Ali, Shahid** and Khesro, Amir and Khatoon, Rabia and Khan, Ehsan Ullah and Akram, Fazali and Yang, Shikuan and Wu, Huizhen, Non-Toxic and Less-Toxic Hybrid Perovskites: A Synergistic Strategy for Sustainable Photovoltaic Devices, *Solar RRL*, Vol. 5, pp. 2100212, 2021.

 <https://doi.org/10.1002/solr.202100212>

40. Imdad Ali, Imkan, Farhat Ikram, Farid Ahmad, Jan Nisar, Muhammad Raza Shah, **Shahid Ali**, Shafiullah, Ismail I. Althagafi, Muhammad Ateeq, Sensing Applications of Triazole Conjugated Silver Nanoparticles, *Journal of Molecular Structure*, Vol. 1226, pp. 129306, 2021.

 <https://doi.org/10.1016/j.molstruc.2020.129306>

39. Khizar Hayat, Syed Shaheen Shah, **Shahid Ali**, Said Karim Shah, Yaseen Iqbal, , Md. Abdul Aziz, Fabrication and characterization of Pb(Zr_{0.5}Ti_{0.5})O₃ nanofibers for nanogenerator applications, *Journal of Materials Science: Materials in Electronics*, Vol. 31, pp. 15859–15874, 2020.

 <https://doi.org/10.1007/s10854-020-04148-2>

38. Hamza Nasir, Nasir Rahman, Syed Zulfiqar, Tahir Zeb, **Shahid Ali**, Raj Wali, Khizar Hayat, Variations in structural, optical and dielectric properties of CuO nanostructures with thermal decomposition, *Journal of Materials Science: Materials in Electronics*, Vol. 31, 10649–10656, 2020.

 <https://doi.org/10.1007/s10854-020-03614-1>

37. Ayesha Samreen, Maria Galvez-Sanchez, Robert Steinberger-Wilckens, Nor Anisa Arifin, Saim Saher, **Shahid Ali**, Affaq Qamar, Electrochemical performance of novel NGCO-LSCF composite cathode for intermediate temperature solid oxide fuel cells, *International Journal of Hydrogen Energy*, Vol. 45, pp. 21714–21721, 2020.

 <https://doi.org/10.1016/j.ijhydene.2020.04.122>

36. Sanam Attique, Nasir Ali, Khatoon Rabia, **Shahid Ali**, Akmal Abbas, Yangchun Yu, Jiahui Hou, Bingqiang Cao, Huizhen Wu, Shikuan Yang, Aqueous phase fabrication and conversion of Pb(OH)Br into CH₃NH₃PbBr₃ perovskite and its application in resistive memory switching devices, *Green Chemistry*, Vol. 22, 3608–3614, 2020.

 <https://doi.org/10.1039/D0GC00878H>

35. Nasir Ali, Sanam Attique, Sajid Rauf, Xiaoyu Wang, Amir Khesro, **Shahid Ali**, Muhammad Imran Asghar, Shikuan Yang, Peter D. Lund, Huizhen Wu, The effect of dodecylammonium chloride on the film morphology, crystallinity, and performance of lead-free Bi-based solution-processed photovoltaics devices, *Solar Energy*, Vol. 207, 1356–1363, **2020**.
<https://doi.org/10.1016/j.solener.2020.07.034>
34. Sanam Attique, Nasir Ali, **Shahid Ali**, Rabia Khatoon, Na Li, Shikuan Yang, Huizhen Wu, A potential check-mate to lead: Bismuth in organo-metal halide perovskites, structure, properties, and applications, *Advanced Science*, Vol. 7, 1903143, **2020**.
<https://doi.org/10.1002/advs.201903143>
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- Aug 2014 National Conference on Quantum Technologies, Hazara University 🇵🇰 **Pakistan**
- Mar 2014 International Scientific Spring at NCP, Islamabad 🇵🇰 **Pakistan**
- Dec 2012 13th National Symposium on Frontiers in Physics, Peshawar University 🇵🇰 **Pakistan**

- Oct 2012 6th Vacuum and Surface Sciences Conference of Asia and Australia 📍 **Pakistan**
 - Feb 2012 Winter College on Optics: Advances in Nano-Optics and Plasmonics, ICTP 📍 **Italy**
 - Jan 2012 Preparatory School to the Winter College, ICTP, Trieste 📍 **Italy**
 - Nov 2011 Synchrotron Applications in Cultural Heritage and Environ. Sciences, ICTP 📍 **Italy**
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