

SHAHID ALI

Associate Professor (Tenured)

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EXPERIENCE

Professor (Recommended)

University of Peshawar

March 2020 – To date Peshawar

- Teaching and Research

Associate Professor

University of Peshawar

Mar 2016 – Mar 2020 Peshawar

- Teaching and Research

Assistant Professor

University of Peshawar

Sep 2012 – Mar 2016 Peshawar

- Teaching and Research

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 2009 Kohat

- Teaching and Research

Postdoctoral Fellow

Elettra Synchrotron Trieste

Sep 2011 – Mar 2012 Italy

- Research

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 radiations

AWARDS AND HONORS



Postdoctoral Fellowship September 2011

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



Full Time PhD Fellowship September 2005

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



Winner Top Physicist July 2005

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

Postdoctoral Fellow

University of Padova

📅 Mar 2009 – Aug 2009 📍 Italy

- Research and projects management

PROJECTS

PSF–NSFC PKR Rs. 2m (In Progress)

Pakistan Science Foundation (PSF)

📅 2021-2023 📍 Islamabad

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

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 nano-materials 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

📍 PhD at Max Planck, Germany July 2005

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

📍 Dr. AQ Khan Merit Fellowship March 2002

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

📍 Gold Medal in MSc Physics February 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 EXPERTIES

XRD FTIR UV-Vis PL SEM+EDX
XPS TEM+EDX IV Measurements
Impedence Analyzer

RESEARCH SUPERVISION

PhD: Completed= 02, In Progress= 05

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

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

MPhil: Completed= 23, In Progress= 06

1. Muhammad Fayaz, Cerium doped glass as an efficient coverglass for photovoltaic application (Completed 2022)

2. Sommya Fazal, Development of europium-doped aluminium phosphate glass for red luminescent solid-state optical devices (Completed 2022)

3. Usman Ali, Beam deflection spectroscopy for the measurement of hazardous iron traces in water (Completed 2022)

4. Ali Raza Khan, Deep dose deposition measurement and its variation with experimental parameters (Completed 2022)

5. Muhammad Altaf, Energy transfer mechanisms in cerium and gadolinium co-doped bismuth borate glasses (Completed 2021)

6. Ume e Habiba, Magnetic properties and magnetocaloric effect of $Mn_{3-x}Fe_xSn_{2(x=0-1)}$ compounds near room temperature (Completed 2020)

7. Asiya Zaman Khan, Synthesis and simulation of silver nanoparticles and determination of their morphological features using Mie and Mie-Gans theories (Completed 2020)

8. Sheena Urooj, Synthesis and simulation of gold nanoparticles and determination of their morphological features using Mie and Mie-Gans theories (Completed 2020)

9. Nazish, Synthesis and luminescence properties of Sm^{3+} -doped Gd_2O_3 nanophosphors for display applications (Completed 2020)

OriginLab

SPSS & R

LaTeX

LyX

Python

LAMMPS

LabView

Mathematica

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

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

MSc in Physics

Quaid-i-Azam University

📅 Jan 2000-Jan 2002 📍 Islamabad

Marks: 2406/3000

BSc in Physics

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.

PUBLICATIONS

* Articles = 49, * IF \approx 200, * Citations = 658, * h-index = 15, * i10-index = 21
Q1 = 22, Q2 = 17, Q3 = 7, Q4 = 3

1. Muhammad Fayaz, **Shahid Ali**, Salma Bibi, Yaseen Iqbal, Muhammad Ali, Falak Zaman, Gul Rooh, J. Kaewkhao, Luminescence and energy transfer mechanism in Ce³⁺ and Gd³⁺ ions in bismuth borate glass, Vol. 49, pp. 24690–24695, **2023**.
 <https://doi.org/10.1016/j.ceramint.2023.04.127>
2. 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, Vol. 284, pp. 115904, **2022**.
 <https://doi.org/10.1016/j.mseb.2022.115904>
3. 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. XX, pp. XX, **2022**.
 <https://doi.org/10.1016/j.ceramint.2022.05.124>
4. Sanam Attique, Nasir Ali, Tahir Imran, Sajid Rauf, Amir Khesro, **Shahid Ali**, Weijian Wang, Rabia Khatoun, 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>
5. 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>
6. **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>
7. 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>
8. 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>
9. Attique, Sanam and Ali, Nasir and Rauf, Sajid and **Ali, Shahid** and Khesro, Amir and Khatoun, 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>
10. 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>

11. Khizar Hayat, Syed Shaheen Shah, **Shahid Ali**, Said Karim Shah, Yaseen Iqbal, , Md. Abdul Aziz, Fabrication and characterization of $\text{Pb}(\text{Zr}_{0.5}\text{Ti}_{0.5})\text{O}_3$ 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>
12. 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>
13. 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>
14. 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 $\text{Pb}(\text{OH})\text{Br}$ into $\text{CH}_3\text{NH}_3\text{PbBr}_3$ perovskite and its application in resistive memory switching devices, *Green Chemistry*, Vol. 22, 3608-3614, **2020**.
<https://doi.org/10.1039/D0GC00878H>
15. 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>
16. Sanam Attique, Nasir Ali, **Shahid Ali**, Rabia Khatoon, Na Li, Shikuan Yang, Huizhen Wu, A potential checkmate to lead: Bismuth in organo-metal halide perovskites, structure, properties, and applications, *Advanced Science*, Vol. 7, 1903143, **2020**.
<https://doi.org/10.1002/adv.201903143>
17. Ume e Habiba, Khurram Shehzad Khattak, **Shahid Ali**, Zawar Hussain Khan, MnAs and $\text{MnFeP}_{1-x}\text{As}_x$ based magnetic refrigerants: a review, *Materials Research Express*, Vol. 7, pp. 46106, **2020**.
<https://doi.org/10.1088/2053-1591/ab727c>
18. Zohaib Ahmad, **Shahid Ali**, Habib Ahmad, Khizar Hayat, Yaseen Iqbal, Syed Zulfiqar, Falak Zaman, Gul Rooh, Jakrapong Kaewkhao, Radio-optical response of cerium-doped lithium gadolinium bismuth borate glasses, *Journal of Luminescence*, Vol. 224, 117341–7, **2020**.
<https://doi.org/10.1016/j.jlumin.2020.117341>
19. Naveed Hussain, Zulfiqar, Tahirzeb Khan, Rajwali Khan, Shaukat Ali Khattak, **Shahid Ali**, Gulzar Khan, Investigation of Structural, optical, Dielectric and Magnetic Properties of SnO_2 Nanorods and Nanospheres, *Materials Chemistry and Physics*, Vol. 241, 122382–7, **2020**.
<https://doi.org/10.1016/j.matchemphys.2019.122382>
20. Irum Bublil, **Shahid Ali**, Muhammad Ali, Khizar Hayat, Yaseen Iqbal, Syed Zulfiqar, Anwar ul Haq, Elti Cattaruzza, Enhancement of solar cell efficiency via luminescent downshifting by an optimized coverglass, *Ceramics International*, Vol. 46, 2110–2115, **2020**.
<https://doi.org/10.1016/j.ceramint.2019.09.193>
21. Nasir Ali, Xiaoyu Wang, Sajid Rauf, Sanam Attique, Amir Khesro, **Shahid Ali**, Naveed Mushtaq, Haibo Xiao, Chang Ping Yang, Huizhen Wu, Enhanced stability in cesium assisted hybrid 2D/3D-perovskite thin films and solar cells prepared in ambient humidity, *Solar Energy*, Vol. 189, 325–332, **2019**.
<https://doi.org/10.1016/j.solener.2019.07.081>
22. Muhammad Hussain, Rajwali Khan, Syed Zulfiqar, Tahir Zeb Khan, Gulzar Khan, Shaukat Khattak, Muneeb Ur Rahman, **Shahid Ali**, Zainab Iqbal, Burhan Ullah, Kashif Safeen, Dielectric and mag-




- netic properties of cobalt doped γ -Fe₂O₃ nanoparticles, *Journal of Materials Science: Materials in Electronics*, Vol. 30, 13698–13707, **2019**.
<https://doi.org/10.1007/s10854-019-01747-6>
23. Nasir Ali, Sajid Rauf, Weiguang Kong, **Shahid Ali**, Xiaoyu Wang, Amir Khesro, Chang Ping Yang, Bin Zhu, Huizhen Wu, An overview of the decompositions in organo-metal halide perovskites and shielding with 2-dimensional perovskites, *Renewable and Sustainable Energy Reviews*, Vol. 109, pp. 160–186, **2019**.
<https://doi.org/10.1016/j.rser.2019.04.022>
24. Ayesha Samreen, Saim Saher, **Shahid Ali**, Humaira Seema, Affaq Qamar, Effect of hetero-structured nano-particulate coating on the oxygen surface exchange properties of La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3- δ} , *International Journal of Hydrogen Energy*, Vol. 44, pp. 6223–6228, **2019**.
<https://doi.org/10.1016/j.ijhydene.2019.01.107>
25. Khizar Hayat, S. Shaheen Shah, **Shahid Ali**, Kamran Rasool, Yaseen Iqbal, Conduction mechanism in lanthanum magnetite nanofibers, *Materials Science in Semiconductor Processing*, Vol. 90, pp. 65–71, **2019**.
<https://doi.org/10.1016/j.mssp.2018.10.008>
26. Syed Zulfiqar, Syed Afzal, Rajwali Khan, Tahir Zeb, Muneeb ur Rahman, Burhan Ullah, **Shahid Ali**, Gulzar Khan, Zia ur Rahman, Akhlaq Hussain, Structural, optical and dielectric properties of PVP coated magnetite (Fe₃O₄) nanoparticles, *Journal of Materials Science: Materials in Electronics*, Vol. 29, 20040–20050, **2018**.
<https://doi.org/10.1007/s10854-018-0134-6>
27. Habib Ahmad, Misbah Ahmed, **Shahid Ali**, M. Rauf Khattak, Wajeeha Shaheen, Jawad A. Gilani, Khalil Ahmad, Verification of calculations carried out with the Eclipse treatment planning system, *Polish Journal of Medical Physics and Engineering*, Vol. 24, pp. 109-114, **2018**.
<https://doi.org/10.2478/pjmpe-2018-0015>
28. Khizar Hayat, **Shahid Ali**, Attaur Rahman, Sajid Khan, Said Karim Shah and Yassen Iqbal, Effect of B-site dopants on the electrical properties of BaMn_{1-x}A_xO₃ ceramics via low temperature impedance spectroscopy, *Materials Research Express*, Vol. 5, pp–086304, **2018**.
<https://doi.org/10.1088/2053-1591/aad367>
29. M. Javid Iqbal, Sajid Khan, Khizar Hayat, Yaseen Iqbal and **Shahid Ali**, Synthesis and ac electrical characterization of nickel oxide nanofibers, *Materials Research Express*, Vol. 5, pp–065002, **2018**.
<https://doi.org/10.1088/2053-1591/aac580>
30. Sajid Khan, Khizar Hayat, **Shahid Ali**, Kamran Rasool, Jouhar ud Din, Falak Niaz, Yaseen Iqbal, Effect of localized electric field on the carrier transport properties of NiO nanofibers, *Materials Science and Engineering: B*, Vol. 229, pp-155–159, **2018**.
<https://doi.org/10.1016/j.mseb.2017.12.032>
31. Sohail Roomi, **Shahid Ali**, Habib Ahmad, Khizar Hayat, Syed Zulfiqar, Yaseen Iqbal, Development of a new rare-earth (Dy³⁺)-based thermoluminescent dosimeter, *Journal of Luminescence*, Vol. 196, pp.373–378, **2018**.
<https://doi.org/10.1016/j.jlumin.2017.12.069>
32. Habib Ahmad, **Shahid Ali**, Sohail Roomi, Yaseen Iqbal, Muhammad Ajmal, Khizar Hayat, Syed Zulfiqar, Conversion of LiF-based thermoluminescent dosimeters into photoluminescent dosimeters via Dy doping, *Materials Research Express*, Vol. 4, pp–105015, **2017**.
<https://doi.org/10.1088/2053-1591/aa8ebf>
33. **S. Ali**, Y. Khan, Y. Iqbal, K. Hayat, M. Ali, Size determination of gold nanoparticles in silicate glasses by UV–Vis spectroscopy, *Journal of Nanophotonics*, Vol. 11, pp–016011, **2017**.
<https://doi.org/10.1117/1.JNP.11.016011>
34. I. Ahmad, M. Javed Akhtar, I. B. K. Jadoon, M. Imran, M. Imran, **Shahid Ali**, Equilibrium modeling of cadmium biosorption from aqueous solution by compost, *Environmental Science and Pollution*

Research, Vol 24, pp-5277–5284, 2017.


 <https://doi.org/10.1007/s11356-016-8280-y>

35. Shabeer Ahmad Mian, Younas Khan, Uzair Ahmad, Mohammad Adil Khan, Gul Rahman, **Shahid Ali**, Investigating the adsorption mechanism of glycine in comparison with catechol on cristobalite surface using density functional theory for bio-adhesive materials, *RSC Advances*, Vol. 6, pp-114313, 2016.
 <https://doi.org/10.1039/C6RA20683B>
36. Khizar Hayat, Falak Niaz, **Shahid Ali**, M. Javid Iqbal, M. Ajmal, M. Ali, Yaseen Iqbal, Electrical properties and humidity sensing characteristics of La_2CuO_4 nanofibers, *Sensors and Actuators B*, Vol. 231, pp. 102–109, 2016.
 <https://doi.org/10.1016/j.snb.2016.02.127>
37. Khizar Hayat, S. Shaheen Shah, M. Yousaf, M. Javid Iqbal, Muhammad Ali, **Shahid Ali**, Muhammad Ajmal, Yaseen Iqbal, Processing, device fabrication and electrical characterization of LaMnO_3 nanofibers, *Materials Science in Semiconductor Processing*, Vol 41, pp. 364–369, 2016.
 <https://doi.org/10.1016/j.mssp.2015.10.009>
38. **S. Ali**, N. Ali, Y. Iqbal, A. Samreen, Q. Hayat, K. Hayat, M. Ajmal, M. Javid Iqbal, Structural modifications induced in silicate glass by field-aided solid-state diffusion of gold and chromium ions, *Journal of Non-Crystalline Solids*, Vol. 420, pp. 38–42, 2015.
 <https://doi.org/10.1016/j.jnoncrysol.2015.04.019>
39. K. Alam, R. Khan, **S. Ali**, M. Ajmal, G. Khan, W. Muhammad, M. A. Ali, Variability of aerosol optical depth over Swat in northern Pakistan based on satellite data, *Arabian Journal of Geosciences*, Vol. 8 (1), pp 547–555, 2015.
 <https://doi.org/10.1007/s12517-013-1237-2>
40. M. Saleem, Y. Iqbal, S. Qin, X. Wu, **S. Ali**, F. Zhu, Processing and characterization of A-site deficient $[(\text{Ca}, \text{Sr})_x(\text{La}, \text{Nd})_{2/3-2x/3}]\text{TiO}_3$ dielectric ceramics, *Journal of Materials Science: Materials in Electronics*, Vol. 25, 5282–5287, 2014.
 <https://doi.org/10.1007/s10854-014-2302-7>
41. **S. Ali**, Y. Iqbal, M. Ajmal, F. Gonella, E. Cattaruzza, A. Quaranta, Field-driven diffusion of transition metal and rare-earth ions in silicate glasses, *Journal of Non-Crystalline Solids*, Vol. 405, pp. 39–44, 2014.
 <https://doi.org/10.1016/j.jnoncrysol.2014.08.042>
42. **S. Ali**, Y. Iqbal, A. Samreen, N. Ali, Field-assisted diffusion behavior of transition metal ions in silicate glasses, *Journal of Non-Crystalline Solids*, Vol. 404, pp. 13–18, 2014.
 <https://doi.org/10.1016/j.jnoncrysol.2014.07.027>
43. E. Cattaruzza, G. Battaglin, F. Gonella, A. Quaranta, G. Mariotto, C. Sada, **S. Ali**, Chromium doping of silicate glasses by field-assisted solid-state ion exchange, *Journal of Non-Crystalline Solids*, Vol. 357, pp. 1846–1850, 2011.
 <https://doi.org/10.1016/j.jnoncrysol.2010.12.050>
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