

Dr. Aga Shahee || Curriculum Vitae

Ramanujan Fellow | Coordinator of Frontier Research Institute for Interdisciplinary Sciences (FRIIS), Islamic University of Science and Technology (IUST), Awantipora, Pulwama, Jammu & Kashmir, India-192122

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ORCID-0000-0003-3860-1648 **Webpage:** <https://sites.google.com/view/q2m-group>



Introduction

With 14 years of experience in the field of strongly correlated electron and quantum materials, I specialize in synthesis, crystal growth, and the exploration of novel structural, electric, and magnetic phases. My research focuses on magneto-structural phase transitions, charge-orbital ordering, magnetoelectric effects, multiferroicity, and quantum magnetism, with the aim of contributing to groundbreaking innovations in this multidisciplinary field.

Research Focus

- My research centers on explore novel phases of multiferroic and quantum materials, employing a combination of synthesis, crystal growth, scattering, spectroscopy, and physical property measurements. This comprehensive approach aims to unravel the intriguing phenomena of structure, (anti)ferromagnetism, charge-orbital order, multiferroicity, and their combinations.
- My research also centers on the design, nanofabrication, and characterization of devices utilizing magnetoelectronic and magnetic materials. I'm dedicated to harnessing the unique properties of these materials, aiming to advance electronic and spin-based applications, enhance memory functionality, and explore opportunities for energy harvesting.

By combining these research efforts, I aim to contribute to a deeper understanding of the fundamental properties of multiferroic and quantum materials, paving the way for transformative technological advancements in the field of materials science.

Education

Ph.D. Physics

Research Avenue:

Advisors: Dr. Niranjan P. Lalla

Thesis Title: Crystal structure and phase-transition studies of few perovskite-based manganites and chromates using powder x-ray diffraction and transmission electron microscopy

Devi Ahilya Vishwavidyalaya, Indore, India

UGC DAE Consortium for Scientific Research Indore, India

2010-2015

M.Phil. Physics

Research Avenue:

Advisors: Dr. Niranjan P. Lalla

Synopsis Title: Synthesis, structure, and dielectric studies of possible Multiferroic $\text{La}_{1-x}\text{Bi}_x\text{CrO}_3$

Courses: Condensed Matter Physics; Nanomaterials; Vacuum, Thin Film & Cryogenic Techniques; Material Characterization; Numerical Techniques using C++ and MATLAB

Devi Ahilya Vishwavidyalaya, Indore, India

UGC DAE Consortium for Scientific Research Indore, India

2009-2010

MSc. Physics

Prof. Rais Ahmad & University Gold Medals

Courses: Quantum electrodynamics; Microprocessor, and microcomputer; Nuclear and particle physics; Computational method and programming.

University of Kashmir, J&K, India

2005-2007

BSc. Non-Medical

(Eng., Phys., Math., Chem.)

Courses: Gen. English; Mathematics; Physics; Chemistry.

University of Kashmir, J&K, India

2002-2005

Research and Academic Positions

Ramanujan Fellow and Coordinator of Frontier Research Institute for Interdisciplinary Sciences (FRIIS)

Project: Exploration of novel phases of multiferroic and quantum materials and devices for spintronic, memory and energy harvesting applications

Islamic University of Science and Technology (IUST), India

Oct 2023-Present

Ramanujan Fellow Project: Exploration of novel phases of 2D vdW multiferroic materials	University of Kashmir, Srinagar (J&K), India July 2022-Oct 2023
Research Associate Advisor: Prof. Dr. Mathias Kläui Project: Nano-Fabrication and characterization of 2D Van der Waals (vdW) spintronics and AFM-antispintronics devices	Johannes-Gutenberg-Universität Mainz, Germany Dec 2020-July 2022
Brain Korea and IBS Post-Doctoral Fellow Advisor: Prof. Kee Hoon Kim Project: Crystal growth and physical properties studies of multiferroic and magnetically frustrated quantum materials	Seoul National University, South Korea Nov 2016-Nov. 2020
Institute Post-Doctoral Fellow Advisor: Prof. Avinash V. Mahajan Project: NMR and physical properties studies of magnetically frustrated quantum materials	Indian Institute of Technology Bombay, India Sept 2015- Nov 2016
Graduate researcher (CSIR India-Junior/Senior Research Fellowship “JRF/SRF”) Advisor: Dr. Niranjan P. Lalla (Scientist-G) Project: Exploring charge orbital ordering, magnetic field drove structural phase transitions and kinetic arrest in wide bandwidth manganites	UGC DAE Consortium for Scientific Research Indore, India Feb 2009- Sept 2015

Teaching Experience

i). Teaching Assistant Organization: Indian Institute of Technology Bombay, India	Jan 2016-Nov 2016
ii). Lecturer Physics Organization: Women College, Nawakadal, Srinagar, J&K, India	April 2008- Dec 2009
iii). Lecturer Physics Organization: Govt. Hr. Sec. School, Kuchumuqam, Baramulla, J&K, India	July 2007- Dec 2008

Skills

My skills include expertise in various areas of materials science and engineering, specifically:

Synthesis and Crystal Growth: I am experienced in solid-state and sol-gel synthesis techniques, as well as single crystal growth using flux and chemical vapor transport methods.

Structure and Microstructural Analysis: I have extensive knowledge in the use of advanced characterization techniques such as transmission electron microscopy, powder x-ray diffraction, and powder neutron diffraction at low temperatures and high magnetic fields. I am skilled in performing lattice and spin structural refinements using software tools such as FullProf, JANA, X'Pert HighScore, and Laue diffraction for single crystal alignment.

Magnetic and Electronic Property Measurements: I am proficient in low-temperature measurement techniques such as neutron diffraction, magnetic susceptibility using SQUID and VSM, electric polarization, pyroelectric-current, magnetoelectric current, heat capacity, and electrical transport under extreme conditions using PPMS and 5T/8T/12T superconducting magnets.

2D Device Fabrication: I have expertise in mechanical exfoliation and various dry/wet transfer techniques used to stack van der Waals heterostructures. I am skilled in working in gloveboxes and cleanrooms for nanofabrication, and I have experience with optical lithography, electron beam lithography (EBL), magnetron sputtering of Au/Cr, and PLD (physical vapour deposition) sputtering of Pt/Pd.

Device Characterization: I am experienced in performing spin transport and 2nd harmonic Hall voltage measurements for spin-orbit torque analysis.

Awards, Fellowships and Honors

➤ State University Research Excellence (SERB - SURE)	May 2023
➤ Ramanujan Fellowship – SERB India	Feb. 2022
➤ Post-Doctoral Fellowship, Johannes Gutenberg-Universität Mainz, Germany	Dec. 2020
➤ Prestigious Brain Korean BK21 Plus Post-Doctoral Fellowship, South Korea	Oct. 2018
➤ Prestigious IBS Post-Doctoral Fellowship, Seoul National University, South Korea	Nov. 2016
➤ Prestigious Institute Post-Doctoral Fellowship, IIT Bombay, India	Sept. 2015
➤ Young Scientists speaker at XXIII Conference on Applied Crystallography (CAC-2015), Poland	July. 2015
➤ Best poster presentation award in 59 th DAE Solid State Physics Symposium, India	Dec. 2014
➤ NET- Senior Research Fellowship (SRF) –CSIR India	July. 2011
➤ All India Rank = 51 in Joint Entrance Screening Test (JEST- 2009) Ph.D. Admissions in Physics	Feb. 2009
➤ NET-Junior Research Fellowship (JRF) – CSIR India	Dec. 2008
➤ (NET) – Lectureship (LS) – CSIR-UGC India in the capacity of Physical Sciences	June. 2008
➤ University Gold Medal	July. 2007
➤ Professor Rais Ahmad Gold Medal	July. 2007

Research Grant Received:

SERB - Ramanujan Fellowship Grant	(Budget allotted = 116 lakh)	Feb. 2022
SERB -State University Research Excellence (SURE)	(Budget allotted ~ 24.26 lakh)	May 2023

Mentorship

• Masarat Fayaz Bhat Masters Student from Department of Nanotechnology, UoK	Dec. 2022 to April 2023
• Lone Fawad Majeed Masters Student from Department of Nanotechnology, UoK	Dec. 2022 to April 2023
• Syed Ilyas Yousef, Rayees Ahamd Dar, Mohd Ali, Mubashir Nazir Masters Students from Department of Physics, UoK	July. 2023 to Dec. 2023

Professional Membership

- Life member of Indian Physical Society (**IPS**)
- Life member of Neutron Scattering Society of India (**NSSI**)
- Lead Coordinator of Physics, Nanotechnology, Materials Science (**PNM**) Club- JK Scientist Spectrum (**JKS**).
- Alumina of Following:

• DAVV Indore , India;	• IIT Bombay , India;
• Kashmir University , India;	• UGC-DAE CSR Indore , India;
• Seoul National University , South Korea;	• Johannes Gutenberg-University of Mainz, Germany.

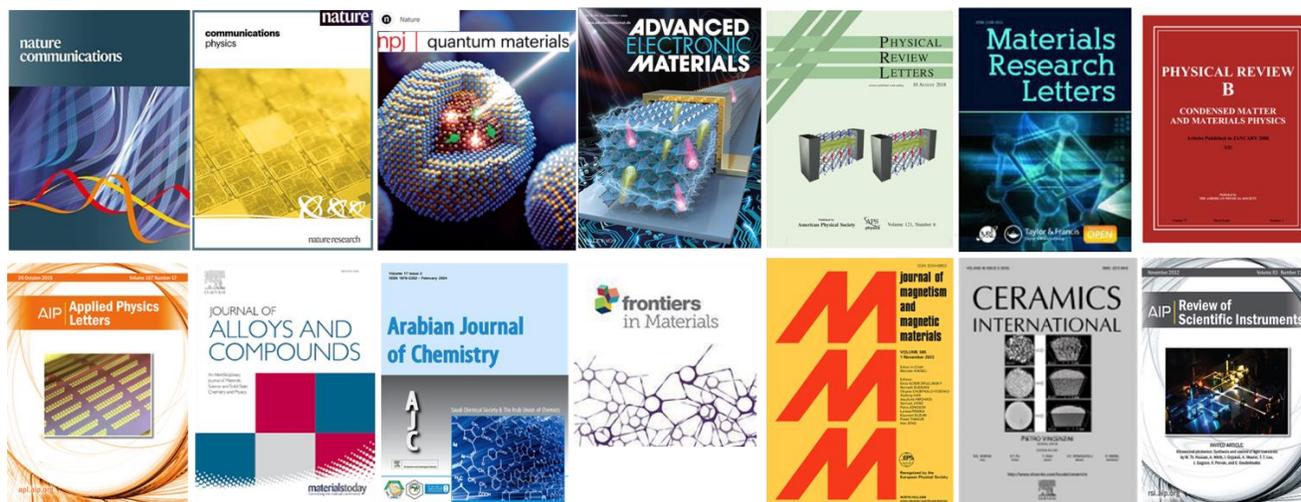
Quantitative parameters

International Journal Publications	= 38	International AIP Conference Proceeding	= 11
Impact Factor	> 168	Citations	= 569
H-index	= 13	i10-index	= 21
Talk	= 14	Oral	= 10
Poster	= 19	Research Interest Score	= 1010

Few Selected Talk and Presentations

1. Invited Talk Title “*Experimental Discovery of the Liner Magnetolectric Effect in the Topological Magnon Antiferromagnet Cu_3TeO_6* ” in International Conference on Energy Materials and Rechargeable Batteries (ICEMRB-2023) is being organized by Manav Rachna University Faridabad, India held on 19-22 December 2023.
2. Invited Talk Title “*Discovery of Magnetolectric Multiferroicity in Two-Dimensional van der Waals $CuCrP_2S_6$* ” in International Multidisciplinary Conference on Recent Innovations in Science, Engineering, Management and Humanities (RISEMH 2023) organized by J S University, Shikohabad, Firozabad, India on 16-17 December 2023.
3. Invited Talk Title “*Unveiling Extraordinary Magnetolectric Coupling in Room Temperature Z-Type Hexaferrite Films*” in International Conference on Nanotechnology for Better Living (NBL23) being organized by NIT Srinagar (J&K), India held on 25-29 May 2023.
4. Invited Talk Title “*Towards Spin-Induced Ferroelectricity in two-dimensional van der Waals materials*” in one-day event on “X-ray Diffraction and Electron Microscopy Organized by UGC-DAE Consortium for Scientific Research, Indore held on 24-03-2023.
5. Invited Talk Title “*Anomalously large magnetolectric coupling in Co_2Z hexaferrite Films*” in National Conference on Physics and Chemistry of Materials (NCPCM-2023), organized by Department of Physics, Govt. Holkar Science College, Indore from 16-18 March 2023.
6. Invited Talk Title “*Magneto-electric Multiferroic: New quantum materials beyond the semiconductor era*” Organized by Department of Physics, Central University Of Kashmir, J&K, India, held from 28th June 2020.
7. Invited Talk Title “*Basics of X-Ray Powder Diffraction: A Tool for Crystal Structure Analysis*” in Virtual International Conference on Material Science (Device Fabrication) Organized by Department of Physics, Shri Neelkantheshwar Government Postgraduate College, Khandwa, MP, India, held from 5th – 6th June 2020.
8. Invited SFB/TRR (Spin + X) Colloquium–Seminar, Talk title “*Doping tunable multiferroicity in $PbCu_3TeO_7$ and magneto-lectric coupling in Van der Waal $CuCrP_2S_6$* ” at Johannes Gutenberg–Universität Mainz, Mainz, Germany, held on 12-03-2020.
9. Oral “ *Zn^{2+} doping tunable multiferroicity in $S = 1/2$ kagome staircase $PbCu_3TeO_7$* ” at 11th International Conference on Magnetic and Superconducting Materials (MSM19), 17-24 August 2019 held at Seoul National University, South Korea.
10. Invited Talk Title “*Magnetically driven ferroelectric order in $S = 1/2$ kagome staircase compound $PbCu_3TeO_7$* ” held on 26 July 2019 at Department of Physics, Jamia Millia Islamia, New Delhi, India, held on 02nd August 2019.
11. Invited Talk Title “*Ferroelectric polarization driven magnetically in $S = 1/2$ kagome staircase compound $PbCu_3TeO_7$* ” held on 02 August 2019 at Department of Physics, National Institute of Technology Srinagar, J&K, India, held on 29th July-2019.
12. Oral “*Tuning multiferroicity towards zero magnetic field in Zn substituted $Pb(Cu_{1-x}Zn_x)_3TeO_7$* ” The (Korean Physical Society) KPS Fall Meeting 2018, 24-26 Oct-2018, held at Changwon Convention Center (CECO), Changwon, South Korea.
13. Seminar Title “*Structural phase-transitions and its correlation with magnetic and transport properties of few wideband manganites*” at Institute of Materials Physics, University of Göttingen, Germany, held on 25 Sept-2015.
14. Oral as Young Scientific speaker “*Tuning the ground state of $La_{0.2}Sr_{0.8}MnO_{3-\delta}$ between charge-ordered cubic and JT-distorted tetragonal phase*” at XXIII Conference on Applied Crystallography (CAC-2015), held during 20-24 Sept-2015, at Czarny Potok, Krynica Zdrój, Poland.
15. Séminaire MCMF, Title “*Structural phase-transitions and correlated physical properties of few wideband manganites*” at Institut Néel, CNRS-Grenoble, France on 15 Sept-2015.
16. Seminar Title “*Structural phase-transitions and correlated physical properties of few wideband manganites*” at Indian Institute of Technology Kanpur, India on 31 August 2015.
17. Seminar Title “*Structural phase-transitions and correlated physical properties of few wideband manganites*” at Indian Institute of Technology Bombay, India on 24 August 2015.
18. Talk Title “*Powder X-Ray Diffraction: A Tool for Crystal Structure Analysis*”, Workshop on Surface Science (WSS-14), held during 20-24 Mar-2014 at Christian Eminent College-Indore (M.P), India”.
19. Oral “*Direct visualization of Glass-like kinetic arrest of first-order structural phase transition in ferromagnetic $La_xMnO_{3+\delta}$ ($x=1, 0.9, 0.83$)*” 28th M. P. Young Scientist Congress, held during 24 Feb.- 01 Mar. 2013 at Vigyan Bhawan, Bhopal (India).
20. Oral “*Glass-like kinetic arrest of first-order structural phase transition in ferromagnetic $LaMnO_{3.15}$* ” The 30th IPS Colloquium for Young Physicists (2012), held during 16-17 Aug-2012, at Saha Institute of Nuclear Physics (SINP), Kolkata, India.
21. Oral “*Evidence of Magneto-elastic (ME) coupling across the Metal-Insulator (M-I) Transition in $La_{0.833}MnO_{3-\delta}$* ” International Conference on Frontiers in Nano-Science, Nanotechnology and their Applications ‘NanoSciTech-2012’ held during 15– 18 Feb-2012, at Punjab University, Chandigarh, Punjab, India.
22. Oral “*Electron-beam induced phase transition from R-3c to Pnma in oxygen excess $LaMnO_{3+\delta}$* ” International Conference on Recent Trends in Physics ‘ICRTP2012’ held during 4–5 Feb-2012, at Devi Ahilya University, Indore (M. P.) India.

Publications in International Journals: (available on [Google Scholar](#) and [ResearchGate](#))



1. *Enhanced thermally-activated skyrmion diffusion with tunable effective gyrotropic force*, T Dohi, M Weißenhofer, N Kerber, F Kammerbauer, Y Ge, K Raab, J Zázvorka, M-A Syskaki, **A. Shahee**, M Ruhwedel, T Böttcher, P Pirro, G Jakob, U Nowak, M Kläui, [Nature Communications 14 \(1\), 5424 \(2023\)](#). **IF: 17.69**
2. *Observation of linear magnetoelectric effect in a Dirac magnon antiferromagnet Cu_3TeO_6* , **A. Shahee**, K. Yoo, B. Koteswararao, N. V. T-Oganessian, K. H. Kim, [Front.Mater.10:1179651 \(2023\)](#). **IF: 3.985**
3. *Observation of magnetic-field-induced ferroelectricity in a compound $CaFe_3O(PO_4)_3$* , U. K. Voma, **A. Shahee**, K-T Kim, J. Lee, K. Boya, S. Bhowal, K. H. Kim, B. Koteswararao, [J. App. Phys. 133, 164105 \(2023\)](#) . **IF: 2.877**
4. *Strong bulk spin-orbit torques quantified in the van der Waals ferromagnet Fe_3GeTe_2* , F. Martin, K. Lee, M. Schmitt, A. Liedtke, **A. Shahee**, H. T. Simensen, T. Scholz, T. G. Saunderson, D. Go, M. Gradhand, Y. Mokrousov, T. Denneulin, A. Kovács, B. Lotsch, A. Brataas, K.Mathias, [Materials Research Letters, 11, 84-89 \(2023\)](#). **IF: 8.516**
5. *Skyrmionic Spin Structures in Layered Fe_3GeTe_2 Up To Room Temperature*, M. Schmitt, T. Denneulin, A. Kovács, T. G. Saunderson, P. Rüßmann, **A. Shahee**, T. Scholz, A. Tavabi, M. Gradhand, P. Mavropoulos, B. Lotsch, Y. Mokrousov, S. Blügel, M. Kläui, [Communications Physics – Nature \(2022\)](#) accepted. **IF: 6.50**
6. *Observation of anomalously large magnetoelectric coupling in the hexagonal Z-type ferrite films*, KW Shin, M Soroka, **A Shahee**, KH Kim, J Buršik, R Kužel, M Vronka, M. H. Aguirre, [Advanced Electronic Materials 2101294, 1-9 \(2022\)](#). **IF: 7.633**
7. *Observation of Spin-Induced Ferroelectricity in a Layered van der Waals Antiferromagnet $CuCrP_2S_6$* , CB Park, **A Shahee**, KT Kim, DR Patil, SA Guda, N Ter-Oganessian, K. H. Kim, [Advanced Electronic Materials 2101072, 1-9 \(2022\)](#). **IF: 7.633**
8. *Explore the charge transfer and d-d excitation in perovskite manganite using 2p3d resonant inelastic X-ray scattering*, RN Aljawfi, M Abu-Samak, S Kumar, **A Shahee**, M A.Swillam, [Journal of Alloys and Compounds 904, 164020 \(2022\)](#). **IF: 6.371**
9. *Effect on Optical and Structural Parameters in Heavy Ca Doped ZnO Nanostructures*, Kamakhya P. Misra, A. Kumawat, **A. Shahee** and S. Chattopadhyay, [Materials Technology: Advanced Performance Materials, 36, 529-540 \(2021\)](#). **IF: 3.297**
10. *Gapless Quantum Spin Liquid in the Triangular System $Sr_3CuSb_2O_9$* , S. Kundu, **A. Shahee**, A. Chakraborty, K. M. Ranjith, B. Koo, J. Sichelschmidt, Mark T. F. Telling, P. K. Biswas, M. Baenitz, I. Dasgupta, S. Pujari, and A. V. Mahajan, [Phys. Rev. Lett. 125, 267202 \(2020\)](#). **IF: 9.161**
11. *Spin- $1/2$ chain compound $Ba_2Cu_2Te_2P_2O_{13}$: Magnetization, specific heat, and local-probe NMR*, V. Kumar, **A. Shahee**, S. Kundu, M. Baenitz, and A. V. Mahajan, [Phys. Rev. B 102, 104419](#). **IF: 3.908**
12. *Contrasting temperature dependence of band gap in $CH_3NH_3PbX_3$ ($X=I, Br, Cl$): Insight from lattice dilation and electron-phonon coupling*, R. Saxena, J. Kangsabanik; A. Kumar; **A. Shahee**, S. Singh, N. Jain, S. Ghorui, V. Kumar, A. V. Mahajan, A. Alam, D. Kabra, [Phys. Rev. B 102, 0812011 \(2020\)](#) **IF: 3.908**
13. *Impact of annealing on the structural and optical properties of ZnO nanoparticles and tracing the formation of clusters via DFT calculation*, R. N. Aljawfi, M. J. Alam, F. Rahman, S. Ahmad, **A. Shahee**, S. Kumar, [Arabian J. Chemistry, 13, 2207-2218 \(2020\)](#). **IF: 5.165**

14. *Dislocations and particle size governed band gap and ferromagnetic ordering in Ni doped ZnO nanoparticles synthesized via co-precipitation*, S. Chattopadhyay, A. Agarwala, **A. Shahee**, S. Jain, N. Halder, A. Rao, P. D. Babu, M. Saran, A. K. Mukhopadhyay, [Ceramics International](#), **45**, 23341-23354 (2019). **IF: 4.527**
15. *The spin-1/2 coupled tetramer system Ba(TiO)Cu₄(PO₄)₄ probed by magnetization, specific heat, and P-NMR*, V Kumar, **A Shahee**, S Kundu, M Baenitz, AV Mahajan, [J. Mag. Mag. Materials](#) **492**, 165600 (2019) **IF: 2.993**
16. *Structural, thermodynamic, and local probe investigations of the honeycomb material Ag₃LiMn₂O₆*, R. Kumar, Tusharkanti Dey, P. M. Ette, K. Ramesha, A. Chakraborty, I. Dasgupta, R. Eremina, S. Tóth, **A. Shahee**, S. Kundu, M. Prinz-Zwick, A. A. Gippius, H. A. Krug von Nidda, N. Büttgen, P. Gegenwart, and A. V. Mahajan, [Phys. Rev. B](#) **99**, 144429 (2019). **IF: 3.908**
17. *Unconventional magnetism in the 4d⁴ based (S=1) honeycomb system Ag₃LiRu₂O₆*, R. Kumar, T. Dey, P. M. Ette, K. Ramesha, A. Chakraborty, I. Dasgupta, J. C. Orain, C. Baines, S. Toth, **A. Shahee**, S. Kundu, M. Prinz-Zwick, A. A. Gippius, N. Buttgen, P. Gegenwart, A. V. Mahajan, [Phys. Rev. B](#) **99**, 054417 (2019) **IF: 3.908**
18. *Charge orbital and spin ordering transitions in La_{1-x}Sr_xMnO_{3+δ} (x = 0.67 & 0.71)*, **A. Shahee**, S. Kaushik and N. P. Lalla, [J. Alloy. Compd.](#), **782**, 277-287 (2019). **IF: 6.371**
19. *Magnetic field-induced ferroelectricity in S = 1/2 kagome staircase compound PbCu₃TeO₇*, K. Yoo, B. Koteswararao, J. Kang, **A. Shahee**, W. Nam, F. Balakirev, V. S. Zapf, N. Harrison, A. Guda, N. Ter-Oganessian and K. H. Kim, [Nature-npj Quantum Materials](#) **3**, 45 (2018). **IF: 7.032**
20. *Nano scale phase coexistence and charge-ordering with 3d_{x²-y²} orbital-ordering in La_{0.25}Sr_{0.75} MnO_{3.01}*, **A. Shahee**, NP Lalla, [J. Alloy. Compd.](#), **714**, 79-88 (2017). **IF: 6.371**
21. *Infield X-ray diffraction studies of field and temperature driven structural phase transition in Nd_{0.49}Sr_{0.51}MnO_{3+δ}*, **A Shahee**, S Sharma, K Singh, NP Lalla, [J. Mag. Mag. Materials](#) **434**, 174-180 (2017). **IF: 2.993**
22. *Studies on magnetic field and temperature driven magneto-structural phase transition in La_{0.5}Sr_{0.5}MnO_{3+δ}*, **A Shahee**, S Sharma, K Singh, NP Lalla, [J. Alloy. Compd.](#), **708**, 734-742 (2017). **IF: 6.371**
23. *In-field X-ray and neutron diffraction studies of re-entrant charge-ordering and field induced metastability in La_{0.175}Pr_{0.45}Ca_{0.375}MnO_{3-δ}*, S Sharma, **A Shahee**, P Yadav, I da Silva, NP Lalla, [J. Appl. Phys.](#) **122** (17), 175902 (2017). **IF: 2.546**
24. *Charge ordering in B-site Mo doped Pr_{0.20}Sr_{0.80}Mn_{1-x}Mo_xO_{3-δ}*, S Sharma, **A Shahee**, P Yadav, NP Lalla, [J. Alloy. Compd.](#), **722**, 878-887 (2017). **IF: 6.371**
25. *Magnetocaloric effect and magnetic properties of the isovalent Sr²⁺ substituted Ba₂FeMoO₆ double perovskite*, I Hussain, MS Anwar, SN Khan, **A. Shahee**, ZU Rehman, BH Koo, [Ceram. Int.](#), **43**, 10080-10088 (2017). **IF: 4.527**
26. *Complex dielectric and impedance behavior of magnetoelectric Fe₂TiO₅*, S. Sharma, T. Basu, **A. Shahee**, K. Singh, N. P. Lalla, E. V. Sampathkumara, [J. Alloy. Compd.](#), **663**, 289–294 (2016). **IF: 6.371**
27. *Structural, electronic and magnetic properties of Sm_{0.55}Sr_{0.45-x}Ag_xMnO₃ (0.00 ≤ x ≤ 0.10) system*, M. A. Bhat, K. Devendra, **Aga Shahee**, N. K. Gaur, [J. Alloy. Compd.](#), **661**, 216-220 (2016). **IF: 6.371**
28. *Low-temperature high magnetic field powder x-ray diffraction setup for field-induced structural phase transition studies from 2 to 300 K and at 0 to 8-T field*, **A Shahee**, S Sharma, D Kumar, P Yadav, P Bhardwaj, N Ghodke, K Singh, NP Lalla, P Chaddah, [Rev. Sci. Instrum.](#) **87** (10), 105110 (2016). **IF: 1.587**
29. *Comment on “Quantum paraelectric glass state in SrCu₃Ti₄O₁₂”* S. Sharma, **A. Shahee** and N. P. Lalla, [Appl. Phys. Lett.](#) **106**, 026101 (2015). **IF: 3.791**
30. *Strong charge ordering above room temperature in B-site disordered electron-doped manganite SrMn_{0.875}Mo_{0.125}O₃*, **A. Shahee**, and N. P. Lalla, [Mater. Res. Express](#) **2**, 046106 (2015). **IF: 1.618**
31. *Evidence of ferromagnetic short-range correlations in cubic La_{1-x}Sr_xMnO_{3-δ} (x=0.80, 0.85) above antiferromagnetic ordering*, **Aga Shahee**, Kiran Singh, R. J. Choudhary and N. P. Lalla, [Physica status solidi \(b\)](#) **1-7** 252, 1832–1838 (2015). **IF: 1.710**
32. *Multiglass properties and magnetoelectric coupling in uniaxial anisotropic spin cluster-glass Fe₂TiO₅*, S. Sharma, T. Basu, **A. Shahee**, K. Singh, N. P. Lalla and E. V. Sampathkumaran, [Phys. Rev. B](#) **90**, 144426 (2014). **IF: 3.908**
33. *Oxygen deficiency induced suppression of JT-distortion and stabilization of charge ordering in La_{0.2}Sr_{0.8}MnO_{3-δ}*, **A. Shahee**, R. J. Choudhary, R. Rawat, N. P. Lalla, [Physica status solidi \(b\)](#), **251**, 965–973 (2014). **IF: 1.710**
34. *Effect of oxygen off-stoichiometry on coupled structural and magnetic phase-transitions in La_{0.15}Sr_{0.85}MnO_{3-δ} (δ=0.02,0.14)*, **A. Shahee**, R. J. Chaudhari, R. Rawat, A. M. Awasthi, N. P. Lalla, [Solid State Commun.](#), **177**, 84 (2014). **IF: 1.804**
35. *Direct visualization of cubic to tetragonal phase transition in La_{0.2}Sr_{0.8}MnO_{3-δ} using transmission electron microscopy*, **A. Shahee**, N. P. Lalla, [Physica B: Cond. Matt.](#) **448**, 290-296 (2014). **IF: 2.436**

36. *Kinetic arrest of the first-order R-3c to Pbnm phase transition in supercooled $La_xMnO_{3+\delta}$ ($x=1$ and 0.9)*, A. Shahee, D. Kumar, C. Shekhar, N. P. Lalla, [J P hys.: Cond. Matt. 24, 225405 \(2012\)](#). **IF: 2.333**
37. *Lattice Expansion in ZnSe Quantum Dots*, S. Chattopadhyay, N. V. Kulkarni, Kaushik Choudhury, R. Prasad, A. Shahee, B. N. Raja Sekhar, P. Sen, [Materials Lett., 65, 1625-27 \(2011\)](#). **IF: 3.423**
38. *Low Cost Ferroelectric Loop Study Set up With New and Simple Compensation Circuit: Operated at Variable Frequencies*, C. S. Das, A. Majumdar, A. Shahee, N. P. Lalla, T Shripathi, R. Hippler, [Ferroelectrics Letters, 38, 78–86 \(2011\)](#). **IF: 0.860**

AIP Conference Proceeding:

39. *Geometrical frustration in a new $S=1/2$ distorted check-board lattice $PbCuTeO_5$* , SP Chilakalapudi, A. Shahee, AV Mahajan, S Srinath, B Koteswararao, [AIP Conf. Proc. 1832 \(1\), 130032 \(2017\)](#).
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