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LIST OF PUBLICATIONS

1. "Quenching-driven advancements in functional properties of high-temperature lead-free Sc, Ga modified $0.67BiFeO_3$-$0.33BaTiO_3$ relaxor ceramics", Srishti Paliwal, Prosun Mondal, Akhilesh Kumar Singh, Materials Chemistry and Physics, Volume 312, 2024, 128613, ISSN 0254-0584, https://doi.org/10.1016/j.matchemphys.2023.128613.
2. "Enhanced Functionalities of Isovalently Substituted $0.67(Bi_{1-x}La_xFe_{0.97}Ga_{0.03}O_3)$-$0.33(BaTiO_3)$ Relaxor Piezoceramics Synthesized via Air Quenching", Srishti Paliwal, Prosun Mondal and Akhilesh Kumar Singh, (Under Review:-Journal of Solid State Chemistry)
3. Site engineering: A Tool to enhance functional properties in high-temperature lead-free relaxors prepared via air quenching," S. Paliwal, P. Mondal, V. P. Singh and A. K. Singh, 2023 IEEE International Symposium on Applications of Ferroelectrics (ISAF), Cleveland, OH, USA, 2023, pp. 1-4, doi: 10.1109/ISAF53668.2023.10265487.
4. "Enhanced high-temperature dielectric and ferroelectric properties of Sb_2O_5 modified $Bi_4Ti_3O_{12}$", Srishti Paliwal, Krishna Prajapati, Akhilesh Kumar Singh, AIP Conf. Proc. 12 January 2024; 2995 (1): 020110. https://doi.org/10.1063/5.0178191
5. "Effect of sintering temperature on the Structural, Dielectric, Ferroelectric and Optical properties of Sm/Ta co-doped $Bi_4Ti_3O_{12}$ Aurivillius piezoceramics", Srishti Paliwal, Prosun Mondal, Krishna Prajapati, and Akhilesh Kumar Singh (To be submitted).
6. "Tailoring the functional properties of $Bi_{0.5}Na_{0.25}K_{0.25}TiO_3$)-($BaSn_{0.11}Ti_{0.89}O_3$) solid solution", Srishti Paliwal, Prosun Mondal and Akhilesh Kumar Singh (To be communicated)
7. "High-Performance PVDF/$BaTi_{0.89}Sn_{0.11}O_3$ (BST) Ferroelectric Composite for Advanced Piezoelectric Nanogenerators", Srishti Paliwal, Prosun Mondal, and Akhilesh Kumar Singh (To be communicated)

Co-authored

8. "Enhancement in Polarization and Energy Density of PVDF Matrix Using Hydroxylated CeO_2-NPs as Filler in Nanocomposite Thick Film", V. P. Singh, S. K. Satyarthi, S. Paliwal and A. K. Singh, 2023 IEEE International Symposium on Applications of Ferroelectrics (ISAF), Cleveland, USA, 2023, pp. 1-4, doi: 10.1109/ISAF53668.2023.10265521.
9. "Fabrication of non-volatile memory transistor by charge compensation of interfacial ionic polarization of a ferroelectric gate dielectric", Rajarshi Chakraborty, Nila Pal, Utkarsh Pandey, Subarna Pramanik, Srishti Paliwal et al., Applied Materials Today, https://doi.org/10.1016/j.apmt.2023.101862
10. "Off-Stoichiometry effects on Crystal Structure, Microstructure and Dielectric Properties of (1-x)Bi(Mg3/4W1/4)O3-xPbTiO3 Ceramics", Narendra Kumar Verma, Srishti Paliwal and Akhilesh Kumar Singh (To be communicated).

11. "High temperature ferroelectricity in Sb-doped $Bi_4Ti_3O_{12}$", Krishna Prajapati, Pragyanand Prajapati, Srishti Paliwal and Akhilesh Kumar Singh (To be communicated)

CONFERENCES AND WORKSHOPS ATTENDED

1. Presented the poster entitled "Enhancing Functionality of Lead-Free Ferroelectric $BiFeO_3$-$BaTiO_3$ based Piezoceramics through Chemical Modification and Site Engineering" on 5 Dec 2023 in the 2023 MRS Fall Meeting, Boston, USA (Hybrid).
2. Oral presentation on "Effects of sintering temperature on the functional properties of site engineered $Bi_4Ti_3O_{12}$" at International Conference on Condensed Matter and Devices Physics-2023 held in PDEU Gandhinagar,
3. Showcased our research work at G20/Y20 Summit at IIT (BHU) on 17th August 2023.
4. Presented paper entitled "Site engineering: A Tool to enhance functional properties in high-temperature lead-free relaxors prepared via air quenching" at IEEE ISAF 2023 held in Ohio, USA.
5. Presented conference paper entitled "Enhanced High Temperature Dielectric and Ferroelectric Properties of Sb_2O_5 modified $Bi_4Ti_3O_{12}$" in 66th DAE Solid State Physics Symposium held in BIT Meshra Ranchi.
6. Showcased our research work at G20/Y20 Summit at IIT (BHU) on 17th August 2023.
7. Presented paper entitled "Site engineering: A Tool to enhance functional properties in hightemperature lead-free relaxors prepared via air quenching" at IEEE ISAF 2023 held in Ohio, USA.
8. Oral presentation at 49th National Seminar on Crystallography on topic "Effect of sintering method on crystal structure, dielectric, ferroelectric and microstructural properties of Sc and Ga modified $BiFeO_3$-$BaTiO_3$".
9. Presented a poster entitled "Structural investigation of new lead-free binary piezoceramic composition with Sc, Ga co-doped cation sites in BF-BT for high temperature energy harvesting application" in 48th National Seminar on Crystallography jointly organized by I.I.T., Roorkee and Indian Crystallography Association.
10. Successfully completed two days workshop on "Better XRD and orthogonal data analysis" (6th -7th July 2021) jointly organized by Malvern Panalytical and I.I.T. Jammu.
11. Successfully completed a 21 days online training program on "Basics and Applications of X-Ray Diffraction" (1st - 21st June 2021) organized by Narayan Institute of Advance Sciences (N.I.A.S.) and International Society for Life Sciences.

12. Presented a poster entitled “Improved ferroelectric properties in Sb modified Bismuth Titanate” in 6th International Conference on Nanoscience and Nanotechnology held from 1st -3rd Feb, 2021.

13. Successfully completed a One Week National Faculty Development Program jointly organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) OF MHRD and Bishop Moore College, Mavelikara, affiliated to the University of Kerala & St. John’s College, Agra from 9-15 September 2020 on Research Ethics & Characterization Techniques in Materials Science.