

LIST OF PUBLICATIONS

1. Electric Field Induced Structural Transformation across the Morphotropic Phase Boundary of $(1-x)\text{Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3\text{-xPbTiO}_3$ Piezoceramic, **Ashutosh Upadhyay** and Akhilesh Kumar Singh, *Scripta mater.* **115**, 71-74 (2016).
2. Grain Size Dependent Phase Stability and Presence of a Monoclinic (Pm) Phase in the Morphotropic Phase Boundary Region of $(1-x)\text{Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3\text{-xPbTiO}_3$ Piezoceramics, **Ashutosh Upadhyay** and Akhilesh Kumar Singh, *J. Appl. Phys.* **117**, 144102 (2015).
3. Phase Coexistence and the Structure of the MPB Region in $(1-x)\text{Bi}(\text{Mg}_{1/2}\text{Zr}_{1/2})\text{O}_3\text{-xPbTiO}_3$ Solid Solution, *Rishikesh Pandey*, Ashish Tiwari, **Ashutosh Upadhyay** and Akhilesh Kumar Singh, *Acta Mater.* **76**, 198-206 (2014).
4. Electronic Structural and stability of Hydrogen Defects in Diamond and Boron Doped Diamond: A Density Functional Theory Study, **Ashutosh Upadhyay**, Akhilesh Kumar Singh, and Amit Kumar, *Comp. Mater. Sci.* **89**, 257-263 (2014).
5. Synthesis and Characterization of $(1-x)\text{Bi}(\text{Mg}_{2/3}\text{Sb}_{1/3})\text{O}_3\text{-xPbTiO}_3$ Piezoceramics, **Ashutosh Upadhyay**, Saurabh Dwivedi, Rishikesh Pandey, and Akhilesh Kumar Singh, *AIP Conf. proc.* **1731**, 030004 (2016).
6. Synthesis and Structural studies on $(1-x)\text{Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3\text{-xPbTiO}_3$ Piezoceramics, **Ashutosh Upadhyay**, Rishikesh Pandey, Shashwat Anand and Akhilesh Kumar Singh, *AIP Conf. proc.* **1591**, 79 (2014).

Participation in Schools/ Workshops/ Symposiums/ Conferences

1. Participated in the “Institute Day IIT (BHU), Varanasi from April 2-3, 2016” “Synthesis and Characterization of $(1-x)\text{Bi}(\text{Mg}_{2/3}\text{Sb}_{1/3})\text{O}_3-x\text{PbTiO}_3$ Piezoceramics” (*Poster Presentation*).
2. Paper Presented in “60th DAE Solid State Physics Symposium” at Amity University, Noida U. P., India, from Dec. 21-25, 2015 (*Poster Presentation*).
3. Participated in International Workshop on “Symmetry Relationships between Crystal Structures with Application to Structural Phase Transition” by International Union of Crystallography (IUCr) at IIT (BHU) Varanasi, from Oct. 27-31, 2014.
4. Participated in MASTANI Summer School on “MATERIALS Simulation Theory and Numerics” at IISER-Pune, from Jun 30 - July 12, 2014.
5. Participated in workshop on “High Performance Computing” at Inter University Accelerator Centre, New Delhi, from May 5-6, 2014.
6. Participated in Winter School on “Practical Crystallography and Structure Solution” at Department of physics, Banaras Hindu University, Varanasi, from March 5-11, 2014.
7. Participated in “Author workshop jointly organized by Springer and IIT (BHU)” Varanasi, India, on Feb. 10, 2014.
8. Paper Presented in “58th DAE Solid State Physics Symposium” at Thapar University, Patiala, India, from Dec. 17-21, 2013. “Synthesis and Structural Studies on $(1-x)\text{Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3-x\text{PbTiO}_3$ Piezoceramics” (*Poster Presentation*).
9. Participated in “42nd National Seminar on Crystallography and International Workshop on Application of X-ray Diffraction for Drug Discovery” at Jawaharlal Nehru University New Delhi, From Nov. 21-23, 2013. “Structural Characterization of Piezoelectric $(1-x)\text{Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3-x\text{PbTiO}_3$ Ceramics in the morphotropic Phase Boundary Region” (*Oral Speaker*).
10. Participated in “International Conference on Nanoscience and NanoTechnology (ICNN-2013)” at Babasaheb Bhimrao Ambedkar University Lucknow India from Nov. 18-20, 2013. “Electronic Structure and Optical Properties of Scintillating Barium di-Halides” (*Poster Presentation*).

11. Participated in Garuda Boot Camp on “National Computational Grid (GBC-2013), March 6-7, 2013 at IIT (BHU), Varanasi.
12. Participated in workshop on “Electroactive Materials” from Apr. 22-23, 2012 at SMST, IIT (BHU) Varanasi.
13. Participated in Theory and Practical Sessions of workshop on “Materials Modelling and Simulation” Dec. 27-31, 2010 at Centre for Modelling Simulation and Design, University of Hyderabad, India.

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Alguero, M., Ramos, P., Jimenez, R., Amorin, H., Vila, E., Castro, A., High temperature piezoelectric BiScO₃-PbTiO₃ synthesized by mechanochemical methods, *Acta Mater.* 60, 1174-1183, **2012**.

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