

List of Research Publications

The following papers have been published/ communicated during entire Ph.D.

1. “Discovery of Ordered Tetragonal and cubic phases in the Morphotropic Phase Boundary region of $(1-x)\text{Bi}(\text{Mg}_{3/4}\text{W}_{1/4})\text{O}_3\text{-xPbTiO}_3$ Piezoceramics,” **Narendra Kumar Verma** and Akhilesh Kumar Singh, **Ceramics International**, doi.org/10.1016/j.ceramint.2019
2. “Energy transfer dynamics and time resolved photoluminescence in $\text{BaWO}_4:\text{Eu}^{3+}$ nanophosphors synthesized by mechanical activation,” P. Jena, S. Gupta, **Narendra Kumar Verma**, Akhilesh Kumar Singh, R.M. Kadam, **New Journal of Chemistry**, **41**(17)(2017)8947-8958.
3. “Chemically modified on microstructural and Dielectric properties of ordered $0.38\text{Bi}(\text{Mg}_{3/4}\text{W}_{1/4})\text{O}_3\text{0.62PbTiO}_3$ Ceramics,” **Narendra Kumar Verma** and Akhilesh Kumar Singh, (**Communicated**).
4. “Electric Field Induced phase transition in $(1-x)\text{Bi}(\text{Mg}_{3/4}\text{W}_{1/4})\text{O}_3\text{-xPbTiO}_3$ Ceramics with compositions $x = 0.61, 0.63$ and 0.67 ,” **Narendra Kumar Verma** and Akhilesh Kumar Singh, (**Communicated**).
5. “Grain Size-Dependent Phase Transformations Studies on $(1-x)\text{Bi}(\text{Mg}_{3/4}\text{W}_{1/4})\text{O}_3\text{-x PbTiO}_3$ Ceramics,” **Narendra Kumar Verma** and Akhilesh Kumar Singh, (**Communicated**).
6. “Synthesis and Structural Characterization of Multiferroic $\text{Ba}_{1-x}\text{Sr}_x\text{MnO}_3$ Perovskite Manganite,” D. Kumar, C.B. Singh, **Narendra Kumar Verma** and Akhilesh Kumar Singh; **Ferroelectrics**, **518**(1)(2017)191-195.
7. “Synthesis and Band-gap tuning of (Co, Bi) doped PbTiO_3 for Photo-ferroelectrics Applications; C.B. Singh, **Narendra Kumar Verma** and Akhilesh Kumar Singh,” **Integrated Ferroelectrics**, **194**(2018)145-151.

Conference Papers:

1. "Optimization of Synthesis Conditions of $(1-x)\text{Bi}(\text{Mg}_{3/4}\text{W}_{1/4})\text{O}_3-x\text{PbTiO}_3$ Piezoceramics," **Narendra Kumar Verma** and Akhilesh Kumar Singh, AIP Conf. Proc. (accepted).
2. "Effect of Grain Size on Structural and Dielectric Properties of Barium Titanate Piezoceramics Synthesized by High Energy Ball Milling," **Narendra Kumar Verma**, S.K.S. Patel, D. Kumar, C.B. Singh and Akhilesh Kumar Singh, AIP Conf. Proc. **1953**(1)(2018)050075-4.
3. "Synthesis and Dielectric Characterization of $\text{BaZrNb}_2\text{O}_8$ High Temperature Piezoelectric ceramics," **Narendra Kumar Verma**, G. Kamde, D. Kumar, C.B. Singh and Akhilesh Kumar Singh; AIP Conf. Proc. (accepted).
4. "Crystallite Size and Strain Analysis of Nanocrystalline $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ Perovskite by Williamson-Hall Plot Method," D. Kumar, **Narendra Kumar Verma**, C.B. Singh and Akhilesh Kumar Singh, AIP Conf. Proc. **1942** (2018)050024-4.
5. "Synthesis and Structural Characterizations on semiconducting $0.05\text{Ba}(\text{Ca}_{1/3}\text{Sb}_{2/3})\text{O}_3-0.95\text{PbTiO}_3$ Perovskites," C.B. Singh, D. Kumar, Prashant, **Narendra Kumar Verma** and Akhilesh Kumar Singh, AIP Conf. Proc. **1953**(2018)050041-4.
6. "Evolution of Structural Characteristics of $\text{Nd}_{0.7}\text{Ba}_{0.3}\text{MnO}_3$ Perovskite Manganite as a Function of Crystallite Size," D. Kumar, **Narendra Kumar Verma**, C.B. Singh and Akhilesh Kumar Singh, AIP Conf. Proc. **2009**(2018)020013-4.

7. "Structural, Dielectric, Semiconducting and Optical Properties of High-Energy Ball Milled YFeO_3 Nano-particles," C.B. Singh, D. Kumar, **Narendra Kumar Verma** and Akhilesh Kumar Singh, AIP Conf. Proc. (accepted).
8. "Estimation of Lattice Strain and Optical Properties of Scheelite-Type AWO_4 (A = Ca, Sr and Ba) Nanocrystalline Materials Synthesized by Mechanical Activation," P. Jena, D. Kumar, **Narendra Kumar Verma** and Akhilesh Kumar Singh, AIP Conf. Proc. (accepted).

International/National Conferences/ Symposium/Workshops attended:

1. 7th RSC–CRSI Symposium in Chemistry, January 2013, organized by Centre of Advanced study, Department of Chemistry Institute of Sciences Banaras Hindu University, Varanasi, India. (attended)
2. 15th CRSI National Symposium in Chemistry, February 2013, organized by Centre of Advanced study, Department of Chemistry Institute of Sciences Banaras Hindu University, Varanasi, India. (attended)
3. International Conference on Multifunctional Materials for Future Applications 2015, organized by Department of Chemistry, Indian Institute of Technology (IIT) Varanasi, India. (Poster presentation)
4. "International Conference on Technically Advanced Materials & Asian Meeting on Ferroelectricity" November 07-10, 2016 organized by Department of Physics, University of Delhi, India. (Poster presentation)
5. GIAN: "Nano-Chemistry: From Pre-organized Molecular Architectures of Functional Materials" December 19-23, 2016 organized by Department of Chemistry, Indian Institute of Technology (IIT) Varanasi, India. (Workshop Attended)

6. QIP Short term course on “Geometrical and Mathematical Crystallography with Applications to Structural Studies” February 14-19, 2017 organized by School of Materials science and Technology, Indian Institute of Technology (BHU) Varanasi, India. (Workshop Attended)
7. “45th National Seminar on Crystallography” July 09-12, 2017 organized by School of Materials science and Technology, Indian Institute of Technology (BHU) Varanasi, India. (Poster presentation)
8. “Conference on Frontiers at the-Chemistry Allied Sciences Interface” July 22-23, 2017 organized by Center of Advanced study, Department of Chemistry University of Rajasthan Jaipur, India. (Poster presentation)
9. “2nd International Conference on Condensed Matter and Applied Physics” November 24-25, 2017 organized by Govt. Engineering College, Bikaner, Rajasthan, India. (Poster presentation)
10. “National Conference on Advanced Materials and Nanotechnology” March 15-17, 2018 organized by Jaypee Institute of Information Technology, Noida, India. (Poster presentation)
11. “63rd DAE Solid State Physics Symposium” December 18-22, 2018 organized by Bhabha Atomic Research Centre, Mumbai, India. (Poster presentation)
12. “International Conference on Advances in Basic Sciences” February 07-09, 2019 organized by Department of Physics, GDC Memorial College, Bahal Haryana, India. (Poster presentation)
13. “47th National Seminar on Crystallography” June 19-22, 2019 organized by Bhabha Atomic Research Centre Mumbai, In association with Indian crystallographic association, INSA for IUCr & Neutron scattering society of India. (Poster presentation)

14. Institute day celebration during February 26-27, 2015 organized by Indian Institute of Technology (BHU) Varanasi, India. (Poster presentation)
15. Institute day celebration during April 26-27, 2016 organized by Indian Institute of Technology (BHU) Varanasi, India. (Poster presentation)