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List of Publications

1. Control of Layering in Aurivillius Phase Nanocomposite Thin Films and Influence on Ferromagnetism and Optical Absorption; L. Mühlhain, **Chandra Bhal Singh**, A. K. Singh, I. Fina, C. Himcinschi, A. Lotnyk, and A. Bhatnagar; : *ACS Appl. Electron. Mater.*, 4, 1997–2004 (2022).
2. Synthesis and band-gap tuning of (Co, Bi) doped PbTiO₃ for photoferroelectrics applications; **Chandra Bhal Singh**, N.K. Verma and A.K. Singh; *Integrated Ferroelectrics* **194**, 145-151 (2018)
3. Synthesis and Structural Investigations on Multiferroic Ba_{1-x}Sr_xMnO₃ Perovskite Manganites; Dinesh Kumar, **Chandra Bhal Singh**, N.K. Verma and A.K. Singh; *Ferroelectrics* **518**, 191-195 (2017).
4. Development of Textured Electrode, Index Matching Layer and Nanostructured Materials for Light Trapping inside Photovoltaic; **Chandra Bhal Singh**, A. K. Singh et al; *Materials Today: Proceedings* 5.(2018).
5. Structural, Dielectric, Semiconducting and Optical Properties of High-Energy Ball Milled YFeO₃ Nano-particles; **Chandra Bhal Singh**, Dinesh Kumar, N. K. Verma and A. K. Singh; *AIP Conf. Proc.* (2019).
6. Synthesis, Structural and Semiconducting Properties of Ba(Ca_{1/3}Sb_{2/3})O₃-PbTiO₃ Solid Solutions, **Chandra Bhal Singh**, Dinesh Kumar, Prashant, N.K. Verma and A.K. Singh; *AIP Conf. Proc.* **1953**, 050041-4 (2018).
7. Evolution of Structural Characteristics of Nd_{0.7}Ba_{0.3}MnO₃ Perovskite Manganite as a Function of Crystallite Size; Dinesh Kumar, N.K. Verma, **Chandra Bhal Singh** and A.K. Singh; *AIP Conf. Proc.* **2009**, 020013-4 (2018).
8. Effect of Grain Size on Structural and Dielectric Properties of Barium Titanate Piezoceramics Synthesized by High Energy Ball Mill; N.K. Verma, S.K.S. Patel, Dinesh Kumar, **Chandra Bhal Singh**, and A.K. Singh; *AIP Conf. Proc.* **1953**, 050075-5 (2018).
9. Synthesis and Dielectric Characterization of BaZrNb₂O₈ High Temperature Piezoelectric ceramics; N. K. Verma, G. Kamde, Dinesh Kumar, **Chandra Bhal Singh** and A. K. Singh; *AIP Conf. Proc.* (2019).

10. Low temperature solution-processed ZnO nano-structures as light trapping layer for $0.9\text{KNbO}_3\text{-}0.1\text{Ba}(\text{Ni}_{0.5}\text{Nb}_{0.5})\text{O}_3$ Perovskite Oxide Solar Cells ; **Chandra Bhal Singh** and A. K. Singh; (To be communicated)
11. Room Temperature synthesis of KBiFe_2O_5 nanoflacks using Mechanochemical Method: Structural, Magnetic and dielectric property Study; **Chandra Bhal Singh**, Dinesh Kumar and A. K. Singh (To be communicated)
12. Investigation of Structural, Optical and Photoresponse of RF Magnetron Sputtering of $0.9\text{KNbO}_3\text{-}0.1\text{Ba}(\text{Ni}_{0.5}\text{Nb}_{0.5})\text{O}_3$ Thin films; **Chandra Bhal Singh** and A. K. Singh; (To be communicated)
13. Band gap Engineering and Photoelectric Properties of Transition elements doped BaTiO_3 ; **Chandra Bhal Singh** and A. K. Singh (To be Communicated)
14. Band Gap Narrowing in $0.65\text{PbTiO}_3\text{-}0.35\text{Bi}(\text{Ni}_{(2-y)/3}\text{Co}_{y/3}\text{Nb}_{1/3})\text{O}_3$ Ferroelectric Ceramics by varying the Co/Ni stoichiometric ratio for Photoferroelectrics Applications **Chandra Bhal Singh** and A. K. Singh (To be Communicated)
15. Band gap Engineering of $x\text{PbTiO}_3\text{-(}1-x\text{)Bi}(\text{Ni}_{2/3}\text{Nb}_{1/3})\text{O}_3$ Multiferroic oxide and Composition Dependent Structural, Dielectric, Magnetic and Ferroelectric Properties **Chandra Bhal Singh** and A. K. Singh (To be Communicated)
16. Light induced Charge transportation, Nanoscale Polarization and Switchable Flexo-photovoltaic effect in (Co, Bi) doped PbTiO_3 Thin Film Photodetectors; **Chandra Bhal Singh** and A. K. Singh (To be Communicated)

List of Conferences/Workshops/Seminars/Symposiums Attended

International Conferences:

1. **“International Conference on Multifunctional Materials for Future Applications”** October 27-29, 2015 organized by Department of Chemistry, Indian Institute of Technology (BHU), Varanasi, India (**Poster presentation**).
2. **“5th International Conference on Advances in Energy Research”** December 2015 organized by IIT (Bombay), Mumbai, India (**Oral presentation**).
3. **“International Conference on Nanoscience and Technology”** February 29, 2016 to March 02, 2016 organized by Indian Institutes of Science Education and Research, Pune, 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. **“Indo-US International conference on nanotechnology (NSAAMB-2016)”** organized by Department of Chemistry, BHU, Varanasi (**Poster presentation**).
6. **“International Conference on Energy Options for Tomorrow ICEOT-2017,** organized by The Neotia University, Kolkata (**Oral presentation**).
7. **“International Conference on Materials Engineering, IIM-ICME 2017”,** organized by IIM and IIT Kanpur, Kanpur, India (**Poster presentation**).
8. **“2nd International Conference on Condensed Matter and Applied Physics”** November 24-25, 2017 organized by Govt. Engineering College, Bikaner, Rajasthan, India (**Poster presentation**).
9. **“The International Symposium on Integrated Functionalities (ISIF - 2017)”**, December 10-13, 2017 held at Shangri-La’s Eros, New Delhi, India (**Oral Talk and Poster presentation**).
10. **“International Conference on Nano-structured Materials and Devices (ICNSMD-2018)”**, December 10-13, 2018, jointly organized by the Society for Technologically Advanced Materials of India (STAMI) and University of Delhi, Delhi (**Oral presentation**).
11. **“International Symposium on Semiconductor Materials & Devices ISSMD-2020”**, Oct 31 –Nov 2, 2020 jointly organized by Dr. B. R. Ambedkar National

Institute of Technology, Jalandhar, Semiconductor Society (India) & Society for Semiconductor Devices (**e-Poster presentation**).

12. **“International Workshop on Renewable energy & storage devices for sustainable Development IWRESD-2021”**, Jan. 12-14, 2021, organized by Amity University, Noida, U.P. India (**e-Poster presentation**).
13. **“International conference on Energy Materials & Devices (ICEMD-2022)”**, Jan 11-12, 2022 organized by the department of physics (MMV), BHU, Varanasi, India (**Oral Presentation**).

National Conferences:

14. **“Silver Jubilee Conference on Study of Matters using Intense Radiations & under extreme conditions”** November 03-06, 2016 organized by UGC-DAE-CSR, Indore Centre, Indore, India (**Poster presentation**).
15. **“45th National Seminar on Crystallography”** July 09-12, 2017 organized by School of Materials science and Technology, Indian Institute of Technology (BHU), Varanasi, India (**Oral Talk** and **Poster presentation**).
16. **“63rd DAE Solid State Physics Symposium”** December 18-22, 2018 organized by Guru Jambheshwar University of Science and Technology (GJUS&T), Hisar, Haryana, India (**Poster presentation**).

National Workshops:

17. 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: participant**).
18. International Webinar on **“Emerging Areas in Chemical Sciences: Opportunities and challenges (EACS-2020)”**, Aug 12th – 13th 2020, organized by Guru Ghasidas Vishwavidyalay, Bilaspur, C.G., India [**Workshop: participant**].
19. Online short term training program **“Computational Tools for Physics (CTP-2020)”**, Nov. 23rd -27th .Organized by Sardar Vallabhbhai National Institute of Technology, Surat, India [**Workshop: participant**].

20. Online short term training program on “**Research opportunities in Semiconductor Materials & Devices (ROSMD-2021)**”, Oct. 22-26, 2021 organized by IITDM Kancheepuram [**Workshop: participant**].
21. Online program “**2nd International Nanoscale Analytics workshop**, Munich”, May 18-21, 2022 organized by neaspec, attocube systems AG, Germany [**Workshop: participant**]

Institute level Presentations:

22. **Institute day celebration** during February 26-27, 2015 organized by Indian Institute of Technology (BHU), Varanasi, India (**Poster presentation**).
23. **Institute day celebration** during April 26-27, 2016 organized by Indian Institute of Technology (BHU), Varanasi, India (**Poster presentation**).
24. **Institute day celebration** during February 25-26, 2017 organized by Indian Institute of Technology (BHU), Varanasi, India (**Poster presentation**).
25. **Institute day celebration** during February 16-18, 2018 organized by Indian Institute of Technology (BHU), Varanasi, India (**Poster presentation**).