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## List of Publications

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### International Journals:

1. **Manish Kumar**, Vani Pawar, Priyanka A. Jha, Pardeep K. Jha, and Prabhakar Singh, Compositional degradation with Br content in Cesium lead halide  $\text{CsPbBr}_x\text{I}_{3-x}$ , Journal of Solid State Chemistry, 122893 (2022).
2. **Manish Kumar**, Priyanka A. Jha, Pardeep K. Jha, and Prabhakar Singh, Hysteric photo-conduction and negative differential resistance in cesium lead bromide, J. Appl. Phys. 127, 224904 (2020).
3. **Manish Kumar**, Vani Pawar, Priyanka A. Jha, S.K. Gupta, A.S.K. Sinha, Pardeep K. Jha, and Prabhakar Singh, Thermo-optical correlation for room temperature synthesis: cold -sintered lead halides, Journal of Materials Science: Materials in Electronics, 30, 6, 6071-6081 (2019).
4. **Manish Kumar**, and Prabhakar Singh, Non-linear conduction mechanism in perovskite halide  $\text{CsPbI}_3$ . (To be communicated)
5. **Manish Kumar**, and Prabhakar Singh, Comparative study of perovskite and Ruddlesden-Popper for lead and lead-free halides. (Under preparation)
6. **Manish Kumar**, and Prabhakar Singh, Investigation of hole transport/perovskite layer interface for perovskite solar cells. (Under preparation)
7. Vani Pawar, **Manish Kumar**, Priyanka A. Jha, S.K. Gupta, Pardeep K. Jha, and Prabhakar Singh, Cs/MAPbI<sub>3</sub> composite formation and its influence on optical properties, Journal of Alloys and Compounds 783, 935-942 (2019).
8. Vani Pawar, **Manish Kumar**, Priyanka A. Jha, S.K. Gupta, A.S.K. Sinha, Pardeep K. Jha, and Prabhakar Singh, Ambient atmospheric temperature processed lead halide Perovskites, Journal of Thermal Analysis and Calorimetry, 1-6, (2019).

9. Vani Pawar, **Manish Kumar**, P. K. Dubey, Manish K. Singh, A.S.K. Sinha and Prabhakar Singh, Influence of synthesis route on structural, optical, and electrical properties of TiO<sub>2</sub>, Applied Physics A, 125, 657, (2019).
10. Madhvi Swami, Onkar Nath Verma, Vandna Tomar, **Manish Kumar**, Kamal K Srivastav, Vasant Sathe, Priyanka A Jha, Prabhakar Singh, Correlation between piezoelectric and magnetic properties of Fe and Sm co-substituted potassium niobate piezoelectric ceramics, Physical Chemistry Chemical Physics 20 (27), 18800-18810 (2018).

### **Papers Published as Conference Proceedings:**

1. **Manish Kumar**, Vani Pawar, Priyanka A. Jha, Pardeep K. Jha, and Prabhakar Singh, Influence of Br<sup>-</sup> substitution on the physical properties of cesium lead iodides, AIP Conference Proceedings 2220 (1), 140045 (2020).
2. Vani Pawar, **Manish Kumar**, P. K. Dubey and P. Singh, Formation of TiO<sub>2</sub> Nano-Rods by Hydrothermal Synthesis Method, AIP conference proceedings 2009 (1), 020020 (2018).

### **National/International (Conference/Workshop/Webinar) Presentations:**

1. Visit the Advanced Technology Institute, University of Surrey, the United Kingdom from **6<sup>th</sup> January – 1<sup>st</sup> May 2020** as a Visiting Researcher under **the Royal Academy of Engineering – Industry-Academia Partnership Programme India (IAPPI/77) Project**. Also, oral presentation on titled "**Thermo-optical correlation for room temperature synthesis: cold sintered lead halides**".
2. Participated in First Indian Materials Conclave and 30<sup>th</sup> Annual General Meeting of MRSI "**MRSI-2019**" and presented a paper titled "**The influence on structural, optical and thermodynamic properties: cold- sintered CsPbX<sub>3</sub> (X= I, Br)**" during February 12-15, 2019 organized by Indian Institute of Science, Bangalore.
3. Participated in the Continuing Education Program (**CEP**) course on Perovskite Solar Cells conducted by IIT Bombay during October 15-16, 2019.

4. Participated and presented a poster titled “**Structural and Optical Properties Of Bulk CsPbBr<sub>3</sub>**” in national conference on advanced materials and nanotechnology (**AMN-2018**) held at department of physics and materials science & engineering Jaypee Institute of Information Technology, Noida during March 15-17, 2018.
5. Participated and poster presented in XX- National Seminar on Ferroelectrics & Dielectrics (**NSFD-2018**) organized by department of pure & applied physics Guru Ghasidas Vishwavidyalaya, Bilaspur during 14-16, 2018.
6. Participated and presented a poster titled “**Influence of Br<sup>-</sup> substitution on the physical properties of cesium lead iodides**” in 3<sup>rd</sup> international conference on the condensed matter & applied physics (**ICC 2019**) organized by govt. engineering college, Bikaner during October 14-15, 2019.
7. Participated in an international conference on “**Advances in Biological System and Materials Science in NanoWorld (ABSMSNW)**” held at the department of physics, IIT (BHU), Varanasi from 19-23 February 2017.
8. Participated and presented a poster titled “**Stability vs. efficiency in halide perovskites**” on the institute day (IIT BHU, Varanasi) during February 16-18, 2018.
9. Participated and presented a poster titled “**A comparative study of cold- sintered CsPbX<sub>3</sub> (X= I, Br)**” in an international conference on functional nanomaterials held at the department of physics IIT (BHU), Varanasi during 22-25 February 2019.
10. Online workshop on Rietveld Refinement Method during September 22-24, 2020 organized online by **UGC-DAE** Consortium for Scientific Research.
11. Webinar on device physics of perovskite solar cell, Zurich university of applied sciences on 14<sup>th</sup> September and online webinar on let’s face the interfaces in perovskite solar cells, Yokohama University, Japan on 27<sup>th</sup> July.



