Chapter 9

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List of Publications

Publications:

The following papers have been published during PhD work.

1. **Katheriya, Tarun**, Sukhdev Pandey, and Shail Upadhyay. "New frontiers in ceramic composites: tunable electromagnetic interference shielding by realizing negative permittivity in $SnO_2/LaNiO_3$ nanocomposites." *Journal of Materials Chemistry C* (2025).
2. **Katheriya, Tarun**, Gurudeo Nirala, and Shail Upadhyay. "Study of Negative Permittivity in Nanosized $LaNiO_3$ for Electromagnetic Interference Shielding: A Modified Drude Model Approach." *ACS Applied Electronic Materials* (2025).
3. **Katheriya, Tarun**, Gurudeo Nirala, and Shail Upadhyay. "Establishing the correlation of negative permittivity and AC conductivity of $La_{2-x}Sr_xNiO_4$ (x= 0, 0.1, 0.3, 1.0) for microwave shielding applications." *Journal of Materials Chemistry C* 12.23 (2024): 8473-8484.
4. **Katheriya, Tarun**, and Shail Upadhyay. "High temperature study of dielectric and electrical conduction behaviour of La_2NiO_4." *Physica Scripta* 98.10 (2023): 105969.
5. Nirala, Gurudeo, **Tarun Katheriya**, Dharmendra Yadav, Harish Verma, and Shail Upadhyay. "The evolution of coil-less inductive behaviour in La-doped Sr2MnO4." *Emergent Materials* 6, no. 6 (2023): 1951-1962.
6. Gurudeo Nirala, **Tarun Katheriya**, Dharmendra Yadav, Shukdev Pandey, and Shail Upadhyay "Effect of Nb doping on epsilon negative behaviour of Sr_2MnO_4" *J. Mater. Sci.* **57**,15862-15875 (2022).

7. Gurudeo Nirala, Dharmendra Yadav, **Tarun Katheriya** & Shail Upadhyay. "Temperature dependent negative permittivity in solid solutions $Sr_2Mn_{1-x}Sn_xO_4$ (x = 0, 0.3, 0.5)". *J. Eur. Ceram. Soc.* **42**, 453–461 (2022).
8. Mishra, Rajat Kumar, Sarvesh Kumar Avinashi, Savita Kumari, Rajbala Nain, **Tarun Katheriya**, Rakesh Kumar Dwivedi, Shail Upadhyay, and Chandkiram Gautam. "Synergistic doping effect of La_2O_3 on BaO-TiO_2-SiO_2 glass-ceramics: evolution of physical, structural, morphological, and dielectric behaviour for electronics applications." *Journal of Alloys and Compounds* 990 (2024): 174354.

Conference Presentations:

1. Gave oral presentation on '**Study of Radio-frequency Epsilon-negative Behavior In $LaNiO_3$ for Microwave Shielding Applications**' in "**Materials 2025**" international conference (9-11th June, 2025) organized by the United Scientific Group, United States of America.
2. Presented poster entitled '**Evidence of Negative dielectric constant in La_2NiO_4 at high temperatures**' in "**International Union of Materials Research Society-International Conference in Asia IUMRS ICA-2022)**" international conference (19-23rd December, 2022), organized by Department of Physics, **Indian Institute of Technology Jodhpur (IIT Jodhpur)** Rajasthan-342030.
3. Presented poster entitled '**Structural and Electrical Properties of Gd Doped and Undoped $SrCeO_3$** in "**27th International Conference of International Academy of Physical Sciences**" international conference (26-28th October, 2021), organized by the Department of Physics, Institute of Science, Banaras Hindu University, Varanasi-221005.