



Chapter 8

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Publications & Paper Presented

List of Publications

Publications:

The following paper have been published/communicated during PhD work.

1. **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).
2. **Gurudeo Nirala**, Dharmendra Yadav, Tarun Katheriya & Shail Upadhyay. "Temperature dependent negative permittivity in solid solutions $\text{Sr}_2\text{Mn}_{1-x}\text{Sn}_x\text{O}_4$ ($x = 0, 0.3, 0.5$)". *J. Eur. Ceram. Soc.* **42**, 453–461 (2022).
3. **Gurudeo Nirala**, Dharmendra Yadav & Shail Upadhyay. "Thermally activated polaron tunnelling conduction mechanism in Sr_2MnO_4 synthesized by quenching in ambient atmosphere". *Phys. Scr.* **96**, 045811 (2021).
4. **Gurudeo Nirala**, Dharmendra Yadav & Shail Upadhyay. "Ruddlesden-Popper phase A_2BO_4 oxides: Recent studies on structure, electrical, dielectric, and optical properties". *J. Adv. Ceram.* **9**, 129–148 (2020).
5. Dharmendra Yadav, **Gurudeo Nirala**, Sushma Yadav, Upendra Kumar, Shail Upadhyay & Satyam Kumar. "Study of structural, microstructure, impedance, and DC conductivity of Gd-doped SrCeO_3 ceramics". *Appl. Phys. A Mater. Sci. Process.* **127**, 1–14 (2021).
6. Dharmendra Yadav, **Gurudeo Nirala**, Upendra Kumar & Shail Upadhyay. "Investigation on structural and optical properties of system $\text{Sr}_2\text{Ce}_{1-x}\text{Na}_x\text{O}_4$ ($0.0 \leq x \leq 0.10$)". *J. Mater. Sci. Mater. Electron.* **32**, 8064–8080 (2021).
7. Vishnu Vijaykumar, **Gurudeo Nirala**, Dharmendra Yadav, Upendra Kumar & Shail Upadhyay. "Sucrose-nitrate auto combustion synthesis of $\text{Ce}_{0.85}\text{Ln}_{0.10}\text{Sr}_{0.05}\text{O}_{2-\delta}$ ($\text{Ln} = \text{La}$ and Gd) electrolytes for solid oxide fuel cells". *Int. J. Energy Res.* **44**, 4652–4663 (2020).
8. Dharmendra Yadav, Upendra Kumar, **Gurudeo Nirala**, Ashish Kumar Mall & Shail Upadhyay. "Effect of acceptor Na^{1+} doping on the properties of perovskite SrCeO_3 ". *J. Mater. Sci. Mater. Electron.* **30**, 15772–15785 (2019).

Publications & Paper Presented

9. Dharmendra Yadav, Upendra Kumar, **Gurudeo Nirala** & Shail Upadhyay. "Electrical Conduction and Relaxation in Perovskite Oxide $\text{SrCe}_{0.98}\text{Na}_{0.02}\text{O}_3$ Synthesized by Solid-State Route". *Macromol. Symp.* **388**, 1–7 (2019).
10. Dharmendra Yadav, **Gurudeo Nirala**, Upendra Kumar & Shail Upadhyay. "Synthesis and Characterization of $\text{Sr}_2\text{Ce}_{0.98}\text{Na}_{0.02}\text{O}_4$ ". *AIP Conf. Proc.* **2265**, 030445 (2020).
11. Upendra Kumar, Dharmendra Yadav, **Gurudeo Nirala**, Shail Upadhyay, Epsita Kar & Manish Kumar Srivastava. "Dielectric and impedance spectroscopy studies of $\text{Ba}_{0.90}\text{Y}_{0.10}\text{SnO}_3$ ". *AIP Conf. Proc.* **2265**, 030663 (2020).

Conference Presentations:

1. Gave oral presentation on ‘**Study of compositional and thermal dependent negative permittivity of $\text{Sr}_2\text{Mn}_{1-x}\text{Nb}_x\text{O}_4$ ($x = 0.1, 0.2, 0.3$) solid solutions**’ in “**Dielectrics 2022**” international conference (27-29th April, 2022) organized by the Institute of Physics (IOP), London.
2. Presented poster entitled ‘**Temperature dependent negative permittivity in $\text{Sr}_7\text{Mn}_4\text{O}_{15}/\text{SrO}$ composite**’ in “**International Conference on Recent Advances in Functional Materials (RAFM-2022)**” international conference (14-16th March, 2022), organized by Department of Physics, IQAC and Star College Scheme (GoI), Atma Ram Sanatan Dharma College, DU University of Delhi, New Delhi-110021.
3. Presented poster entitled ‘**Crossover to Negative permittivity in Layered Perovskite $\text{Sr}_2\text{Mn}_{0.5}\text{Sn}_{0.5}\text{O}_4$** ’ 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.
4. Presented poster entitled ‘**Synthesis and Characterization of $\text{Sr}_2\text{Ce}_{0.98}\text{Na}_{0.02}\text{O}_4$** ’ in “**64th DAE SOLID STATE PHYSICS SYMPOSIUM**” international conference (18-22nd December, 2019), held at Indian Institute of Technology Jodhpur, Jodhpur-342037.