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List of Publications

International Journals:

1. **1.** Influence of sintering temperature on ion dynamics of $Na_{0.5}Bi_{0.5}TiO_{3-\delta}$: Suitability as an electrolyte material for SOFC, **Pragati Singh**, Pardeep K. Jha, Priyanka A. Jha, and Prabhakar Singh, International Journal of Hydrogen Energy, 45 (2020) 17006-17016.

2. **2.** Ion dynamics of non-stoichiometric $Na_{0.5+x}Bi_{0.5-x}TiO_{3-\delta}$: A degradation study, **Pragati Singh**, Pardeep K. Jha, A.S.K. Sinha, Priyanka A. Jha, Prabhakar Singh, Solid State Ionics 345 (2020) 115158.

3. **3.** Polyol-mediated synthesis of Bi-deficient Mg^{2+}-doped sodium bismuth titanate and study of oxide ion migration behaviour with functional properties, **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh, Journal of Alloys and Compounds, 860 (2021) 158492.

4. **4.** Influence of iso-valent 'Sm' double substitution on the ionic conductivity of $La_{0.9}Sr_{0.1}Al_{0.9}$Mg0.1$O_{3-\delta}$ ceramic system. Onkar Nath Verma, Priyanka A. Jha, **Pragati Singh**, Pardeep K. Jha, Prabhakar Singh, Materials Chemistry and Physics, 241 (2020) 122345.

5. **5.** Signature of oxide ion conduction in alkaline earth metal doped Y_3GaO_6, **Pragati Singh**, Raghvendra Pandey, Tadeusz Miruszewski, Kacper Dzierzgowski, Aleksandra Mielewczyk-Gryn, Prabhakar Singh, ACS Omega, 5 (2020) 30395-30404.

6. **6.** Examine the consequences of calcium substitution on the physical properties and conduction mechanism of Y_3GaO_6, **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh (Revision Submitted).

7. **7.** To examine the effect of magnesium substitution on the structural and electrical properties of $Y_{2.94}Ca_{0.06}GaO_6$, **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh (To be submitted).

Papers Published as Conference Proceedings:

1. Electrical conductivity study of A-site nonstoichiometric $Na_{0.5+x}Bi_{0.5-x}TiO_{3-\delta}$, **Pragati Singh**, Priyanka A. Jha, Raghvendra Pandey, Pardeep K. Jha, Prabhakar Singh, AIP Conf. Proc., 2220 (2020)140027.

2. Tailoring the electrical and structural properties of sodium bismuth titanate with sintering temperature, **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh, Material today proceedings, 44 (2021) 166-169.

3. Effect of synthesis route on the structural and electrical properties of sodium bismuth titanate: A comparative study of solid-state and polyol mediated synthesis, **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh, Material today proceedings, 46 (2021)5711-5715.
4. A comparative electrical conductivity behaviour of $BaTiO_3$ and $CaTiO_3$, Dhruvil S. Hapani, **Pragati Singh**, Pardeep K. Jha, Prabhakar Singh, AIP Conf. Proc. 2009, (2018) 020010.

5. Polyol-mediated synthesis of La0.9Sr0.1Ga0.8Mg0.2O2.85-Ce0.85Sm0.15O1.925 composite electrolyte for IT-SOFCs, Raghvendra Pandey, **Pragati Singh**, A.K. Singh, Prabhakar Singh, Materials Today: Proceeding, (2020)

6. Insight into structural and electrical properties of potassium and lithium doped non-stoichiometric sodium bismuth titanate ($Na_{0.54}Bi_{0.46}TiO_{3-\delta}$), **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh, Springer Proceedings in Materials, 14 (2022) 171-185.

7. Phase formation and Ionic Conduction in Potassium-Doped Strontium Metasilicate, Hera Tarique, R.Shahid, A.K.Singh, **Pragati Singh**, Raghvendra Pandey, Prabhakar Singh, Springer Proceedings in Materials, 14 (2022) 27-34.

National/International Conference Presentations:

1. Participated in National conference on Advanced materials and nanotechnology **"AMN-2018"** and presented a paper titled **"Electrical Behavior of**

$Na_{0.5}Bi_{0.5}TiO_3$ Ceramics" during March 15-17, 2018 organized by Department of Physics and Materials science and engineering, JIIT Noida.

2. Participated in National symposium on Applied spectroscopy: Biology and Medical Science and presented a paper titled **"Influence of sintering temperature on the conductivity of $Na_{0.5}Bi_{0.5}TiO_3$"** during February 19-20, 2019 organized by Department of Physics Udai Pratap (Autonomous) College, Varanasi.
3. Participated in International Conference on Electron Microscopy and Allied Analytical Techniques - **"EMAAT – 2019"** and present a paper titled **"Enhancement of conductivity in non-stoichiometric $Na_xBi_{(1-x)}TiO_{3-\delta}$ (x = 0.48 - 0.52)"** during June 7-9, 2019 organized by Himachal Pradesh University, Shimla.
4. Participated in a workshop on **"Electron microscopy and allied techniques (EMAAT 2019)"** during June 5-6, 2019 organized by Himanchal Pradesh University and Electron Microscope Society of India (EMSI), Shimla.
5. Participated in a workshop on "**Recent Trends in Nanotechnology: Devices and Materials Perspective"** during February 15-16, 2019 organized Department of Electronics and communication engineering, JIITNoida.
6. Participated in 3^{rd} International conference on Condensed Matter and Applied Physics "**ICC-2019**" and presented a paper titled "**Electrical conductivity study of A-site non-stoichiometric $Na_{0.5}Bi_{0.5}TiO3-\delta$**" during October 14-15, 2019 organized by Govt. Engineering College, Bikaner, Rajasthan.
7. Participated in the "**Institute Day- IIT (BHU) Varanasi**" as a volunteer organized by Department of Physics, IIT (BHU) Varanasi during February 25-26,2017.
8. Participated in International conference on Advances in Biological Systems and Materials Science in Nano-World "**ABSMSNW"** during 19^{th}-23^{rd} February 2017 organized by Department of Physics, IIT (BHU) Varanasi.
9. Participated in 11^{th} International conference (Online) on Materials Processing and Characterization **"ICMPC-2020"** and delivered a talk on titled **"Tailoring the electrical and structural properties of sodium bismuth titanate with sintering**

temperature" during 15-17, December 2020 organized by Indian Institute of Technology, Indore.

10. Participated in National conference (Online) on functional materials **"NCFM-2020"** and delivered a talk on titled **"Polyol-mediated synthesis of La0.9Sr0.1Ga0.8Mg0.2O2.85-Ce0.85Sm0.15O1.925 composite electrolyte for intermediate temperature solid oxide fuel cells"** during25-26 July, 2020 organized by Sharda University, Noida.