**Научные интересы:** Моя текущая исследовательская работа в основном сосредоточена на разработке сегнетоэлектрической, антисегнетоэлектрической и релаксорной многофункциональной керамики и керамических композитов на основе полимеров для датчиков, преобразователей и устройств сбора энергии.

**Education:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Degree** | **Board/University** | **Year** | **Subjects** | **Division** |
|  |  |  |  |  |
| High School | U. P. Board | 2004 | Science and Mathematics | First |
| Intermediate | U. P. Board | 2006 | Physics, Chemistry and Mathematics | First |
| Graduation | University of Allahabad, (Central University), Prayagraj, India | 2010 | Physics, Mathematics, Chemistry | Second |
| Post-Graduation | University of Allahabad, (Central University), Prayagraj, India | 2012 | Applied Physics | First |
| Ph. D. | Indian Institute of Technology (ISM) Dhanbad, Jharkhand, India | 2021 | Title: “STUDIES ON THE TEMPERATURE DEPENDENT DIELECTRIC PROPERTIES OF  HOMO AND HETEROVALENT TRANSITION METAL SUBSTITUTED SODIUM NIOBATE ELECTROCERAMICS” | Awarded |

**Introduction:**

Доктор Абхинав Ядав работает научным сотрудником в Научно-исследовательском институте физики Южного федерального университета, Ростов-на-Дону, Россия. Он начал работать в университете в сентябре 2021 года под руководством профессора Игоря П. Раевского. Его исследования сосредоточены в области экспериментальной физики конденсированных сред в материаловедении. Он получил степень бакалавра физики и степень магистра физики со специализацией в области ядерной физики и физики элементарных частиц в Центральном университете Аллахабада, Праяградж, Уттар-Прадеш, Индия, в 2010 и 2012 годах соответственно. После этого он сдал экзамен GATE национального уровня и в сентябре 2015 года поступил на физический факультет Индийского технологического института (Индийская школа горного дела) Дханбад, Джаркханд, Индия, для получения докторской степени (Ph.D.), которую он завершенил в марте 2021 года. Во время работы над докторской диссертацией он сосредоточился на синтезе и исследовании электрокерамики на основе ниобата натрия, замещенного гомо- и гетеровалентным переходным металлом, для различных применений в области накопления энергии.

**Publications:**

1. **Publication in SCI Journals (During Ph.D.)**
2. **Abhinav Yadav**, S. P. Mantry, Mohd. Fahad, P. M. Sarun, “Temperature dependent dielectric relaxation and ac-conductivity of alkali niobate ceramics studied by impedance spectroscopy”, ***Physica B: Condensed Matter*,** **537 (2018) 290-295.**
3. **Abhinav Yadav**, Mohd. Fahad, S. Satapathy, P. M. Sarun, “Effect of tantalum on the temperature dependent electrical characteristics of NaNb1-*x*Ta*x*O3 (0.0 ≤ *x* ≤ 0.3) ceramics between 400 and 560 oC”, ***Journal of Alloys and Compounds*,** **797 (2019) 902-911.**
4. **Abhinav Yadav**, M. Kumari, P. M. Sarun, “Influence of vanadium substitution on dielectric and electrical characteristics of NaNbO3 ceramics in polymorphic R and S phase”, ***Materials Chemistry and Physics*,** **264** **(2021) 124424-124436.**
5. **Abhinav Yadav,** Mohd. Fahad,P. M. Sarun, “Frequency dependent studies of dielectric and impedance properties of NaNb0.92V0.08O3 ceramics”, ***Materials Today: Proceedings***, [**46**](https://doi.org/10.1016/j.matpr.2020.05.151) **(2021) 6286-6289.**
6. S. P. Mantry, **Abhinav Yadav,** Mohd. Fahad, P. M. Sarun, “Effect of vanadium substitution on the dielectric and electrical conduction properties of SrTiO3 ceramics”, ***Material Research Express*,** **5 (2018) 036303.**
7. S. Singh, **Abhinav Yadav**, M. Kumari, P. M. Sarun, “Analysis of giant dielectric permittivity and electrical properties for energy storage devices through impedance spectroscopy in CaCu3Ti4O12”, ***Journal of Material Science: Materials in Electronics,* 33, (2022*),* 9395–9402*.***
8. M. Kumari, **Abhinav Yadav**, P. M. Sarun, “Systematic Investigation of Structural, Optical and Dielectric Properties of 0.05 mol% Eu:BaTiO3 Ceramics”, ***Materials Today: Proceedings*** [**46**](https://doi.org/10.1016/j.matpr.2020.05.151) **(2021) 6102-6106.**
9. S. Singh, **Abhinav Yadav**, M. Kumari, P. M. Sarun, “Frequency dependent study on dielectric, impedance and modulus behavior of bismuth vanadate ceramics”, ***Materials Today: Proceedings*** [**46**](https://doi.org/10.1016/j.matpr.2020.05.151) **(2021) 6330-6334.**
10. M. Kumari, **Abhinav Yadav**, P. M. Sarun, “Structural, optical and origin of significantly enhanced dielectric characteristics of Sn doped BaTiO3 ceramics”, **communicated.**
11. M. Kumari, **Abhinav Yadav**, P. M. Sarun, “Influence of sintering temperature on microstructural and dielectric properties of BaSn0.20Ti0.80O3 ceramics”, **communicated.**
12. **Publication in SCI Journals (During Post-Ph.D.)**
13. S. Sahoo, **Abhinav Yadav**, K. P. Andryushin, R N P Choudhary, “Influence of (0.19HfO2-0.81ZrO2) ceramics filler content on structural and dielectric properties of PVDF Polymer”, **Synthetic Metals**, **287 (2022),117097**.
14. S. Sahoo, **Abhinav Yadav**, K. P. Andryushin, P. K. Mahapatra, R N P Choudhary, “Systematic Investigations of structural transformation, dielectric and multiferroic properties of (Gd1-*x*Ba*x*)(Fe1-*x*Ti*x*)O3 ceramics by tuning composition ”, **Accepted, *Ceramics International***.
15. **Abhinav Yadav**, I. P. Raevski, P. M. Sarun, “Investigation on structural, dielectric, and impedance characteristics of Zr modified sodium niobate at elevated temperature”, **communicated.**
16. **Abhinav Yadav**, S. Sahoo, S. Singh, I. P. Raevski, P. M. Sarun, “Influence of Mn-doping on the structure, high-temperature dielectric, and conductive properties of NaNbO3 ceramics”, **communicated.**
17. **Conference Proceedings (During Ph.D.)**
18. **Abhinav Yadav**, Mohd. Fahad, S. P. Mantry, P. M. Sarun, “Investigation on the complex permittivity of transition metal ion doped sodium niobate ceramics between 313-373 K”, ***AIP Conference Proceedings 2009, 020018 (2018);*** ***doi: 10.1063/1.5052087*.**
19. **Abhinav Yadav**, S. P. Mantry, P. M. Sarun, “Effect of Temperature and Frequency on the Studies of Structural and Dielectric Behavior of ABO3 Type Orthorhombic Perovskite”, ***AIP Conference Proceedings 2115, 030595 (2019)***; [***https://doi.org/10.1063/1.5113434***](https://doi.org/10.1063/1.5113434).
20. **Abhinav Yadav**, Mohd. Fahad, S. Singh, P. M. Sarun, “Frequency Dependent Dielectric, Impedance and Conductivity Studies of NaNb0.75Zr0.25O3 Ceramic”, ***AIP Conference Proceedings 2220, 080024 (2020);*** [***https://doi.org/10.1063/5.0001277***](https://doi.org/10.1063/5.0001277)**.**
21. S. P. Mantry, **Abhinav Yadav**, Mohd. Fahad, P. M. Sarun, “Studies of Dielectric and electrical conductivity behavior of strontium titanate ceramic”, ***AIP Conference Proceedings 2009, 020011 (2018);*** ***doi: 10.1063/1.5052080.***
22. M. Kumari, **Abhinav Yadav**, S. Singh, P. M. Sarun, “Structural, Dielectric and Impedance Properties of BaTi0.90Sn0.10O3 Ceramics”, ***AIP Conference Proceedings 2220, 080023 (2020);*** [***https://doi.org/10.1063/5.0001281***](https://doi.org/10.1063/5.0001281)**.**
23. S. Singh, **Abhinav Yadav**, M. Kumari, P. M. Sarun, “Frequency Dependent Dielectric and Impedance Behavior of Bismuth Vanadate Ceramics”, ***AIP Conference Proceedings 2220, 080047 (2020);*** [***https://doi.org/10.1063/5.0001283***](https://doi.org/10.1063/5.0001283).
24. M. Kumari, S. P. Mantry, **Abhinav Yadav**, P. M. Sarun, “Investigation on Structural, Dielectric and Conduction Properties of BaTi0.95Sn0.05O3 Ceramic”, ***AIP Conference Proceedings 2244, 050007 (2020);*** ***https://doi.org/10.1063/5.0009354*.**

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