

# CURRICULUM VITAE

**Dr. Nagaraja T.**

**M.Sc., KSET., Ph.D. (Physics).**



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## **OBJECTIVE**

- Very happy to work in the field of Physics to gain knowledge as an academician as well as a researcher.

## **CURRENT OCCUPATION**

- Assistant Professor    October 2023(Till date)

Department of Physics, Bachelor of Science, Dayananda Sagar College of Arts Science & Commerce (DSCASC), Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru-560111, Karnataka, India.

## **ACADEMIC PROFILE**

- Ph.D. in Physics (Full-Time, 2022): Bangalore University, Bengaluru
- Qualified **KSET (SLET)-Karnataka State Eligibility Test** for Assistant Professorship in Physics
- M.Sc. (Physics, 71.34%, 2015): Govt. Science College, Chitradurga
- B.Sc. (PCM, 81.94%, 2013): Govt. Science College, Chitradurga

## **DOCTORAL THESIS**

- Synthesis and Studies on Pb-based Multiferroic-Polymer Composites.  
**Supervisor:** Dr Basavaraj Angadi,                      **Date of award:** 18.03.2022

## **Research Interests and Experience**

- Oxides, Multiferroics, Polymers, Multiferroic-Polymer Composites, thin films.
- More than five years of research experience.

## Research Skills

- Synthesis of materials by solid-state reaction technique, combustion method, solution casting method, etc.
- Data plotting and analysis using Origin software.
- Determination of Crystal structure through the Rietveld refinement method using Fullprof software.
- Finding the Grain size using ImageJ software.
- Analysis of Raman spectra with proper data fitting. etc.

## Research Instruments Handled/Operated:

- X-ray Diffractometer
- Raman Spectrometer
- Fourier Transform Infrared Spectrometer (FTIR)

## PUBLICATIONS:

- Probing the spin-phonon coupling through Raman spectroscopy in  $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3 - \text{Pb}(\text{Co}_{1/3}\text{Nb}_{2/3})\text{O}_3$  ceramics, **Nagaraja T**, Basavaraj Angadi, Vasant Sathe, Jagadeesha Angadi V, S. P. Kubrin, Ceramic International 48 (2022) 35915-35926.
- Investigation on diffuse phase transition through Raman and Dielectric properties of  $\text{Pb}(\text{Fe}_{0.5}\text{Nb}_{0.5})\text{O}_3 - \text{Pb}(\text{Co}_{0.33}\text{Nb}_{0.67})\text{O}_3$  solid solutions, **Nagaraja T**, Shidaling Matteppanavar, Shivaraja I, Sunanda T. Dadami, Sudhindra Rayaprol, S. K. Deshpande, Vasant Sathe, Basavaraj Angadi, Materials Chemistry and Physics 267 (2021) 124678.
- Impedance and modulus studies of  $\text{Pb}(\text{Fe}_{0.5}\text{Nb}_{0.5})\text{O}_3 - \text{Pb}(\text{Co}_{0.33}\text{Nb}_{0.67})\text{O}_3$  solid solutions, **Nagaraja T**, Shidaling Matteppanavar, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, Journal of Alloys and Compounds 869 (2021) 159312.
- Room temperature structural and dielectric studies of  $\text{Pb}(\text{Fe}_{0.585}\text{Nb}_{0.25}\text{W}_{0.165})\text{O}_3$  solid solution **Nagaraja T**, Sunanda T. Dadami, and Basavaraj Angadi, AIP Conference Proceedings 1953 (2018) 070013.
- Structural, vibrational and magnetic studies of  $\text{Pb}(\text{Fe}_{0.585}\text{Nb}_{0.25}\text{W}_{0.165})\text{O}_3$  multiferroic solid solution, **Nagaraja T**, Sunanda T Dadami, Shidaling Matteppanavar, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi AIP Conference Proceedings 1942 (2018) 140041.

- Synthesis and characterization of flexible films of PVDF/Pb(Fe<sub>0.585</sub>Nb<sub>0.25</sub>W<sub>0.165</sub>)O<sub>3</sub> polymer multiferroic composites, **Nagaraja T**, Sunanda T. Dadami, S. R. Manohara, Basavaraj Angadi, AIP Conference Proceedings 2142 (2019) 070023.
- Room temperature neutron diffraction, electron paramagnetic resonance and ferroelectric properties of relaxor ferroelectric Pb(Fe<sub>0.6</sub>Nb<sub>0.2</sub>W<sub>0.2</sub>)O<sub>3</sub>, Shidaling Matteppanavar, Jagadeesh Angadi V, **Nagaraja T**, Sudhindra Royaprol, Basavaraj Angadi. AIP Conference Proceedings (2019).

### **Patents:**

- 1. Organic led for photoelectric sensor.
- 2. Thermal management system of li-ion battery.

### **Details Of Research Papers Presented at International Conferences**

- The “International Conference on Advances in Basic Sciences (ICABS)” was held at GDC Memorial College, Bahal, Haryana from 07<sup>th</sup> to 09<sup>th</sup> February 2019.
- The “62<sup>nd</sup> DAE Solid State Physics Symposium”, sponsored by Board of research in Nuclear Physics (BRNS), Department of Atomic Energy (DAE), Govt of India, at BARC, Mumbai between 26<sup>th</sup> to 30<sup>th</sup> December 2017.
- The 2nd International Conference on Condensed Matter and Applied Physics (ICC) 2017, Organized by Govt. Engineering College, Bikaner during November 24-25, 2017.

### **TEACHING EXPERIENCE**

- Worked as a guest faculty (2021-2023) at the Department of Physics, Bangalore University.
- One year as a guest faculty at the Department of Post Graduate Studies in Physics, Davangere University, Davangere.

Teaching M.Sc. –Mathematical Physics, Statistical Mechanics, Laser Physics, Electronics. Work also involves setting up General Physics, optics, and advanced physics Laboratories and experiments at the M.Sc. level.

**Achievement:**

- Contribution of X-ray diffraction data (my PhD work) to Powder Diffraction File- Release 2023

**COMPUTER KNOWLEDGE**

- Basic Computer Skills
- MS Office, OS - Windows, Linux, LaTeX

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**DECLARATION:**

I hereby declare that the above-furnished information is true to the best of my knowledge and belief.

**Place:** Bengaluru

*Nagaraja T*  
**(Dr. Nagaraja T)**