R. PRINCE SELVARAJ

Researcher

Madurai 8428398275 princeselva54@gmail.com www.linkedin.com/in/princeselvaraj-phy
https://www.researchgate.net/profile/Prince-Selvaraj-r/research

Executive Summary

A 3rd PhD student in Physics with research expertise in the synthesis of rare-earth (Dy^{3+}, Eu^{3+} and Sm^{3+}) doped Borophospho-silicate glasses for optical and radiation shielding. Looking for a research assignment post after I complete my PhD in 2028. I am experienced in materials characterisation techniques, spectroscopic data analysis, scientific instrumentation and research software. So far, I have published two articles in a peer-reviewed journal, attended and presented work at multiple national and international conferences. Passionate about contributing to innovative research through strong experimental, analytical and problem-solving skills while collaborating effectively in multidisciplinary research environments.

Skills

- **Materials Characterisation:** Hands-on experience with XRD, FTIR, UV–Vis Absorption and Photoluminescence (PL) spectroscopy.
- **Data Analysis:** Interpretation and analysis of XRD, FTIR, Raman, UV–Vis, PL, luminescence decay lifetime, XPS, SEM and TEM data.
- **Scientific Software Tools:** Origin, CasaXPS, Spectra Manager, X'Pert HighScore Plus, ATEX, ChemDraw, ImageJ and CIE 1931 chromaticity tools.
- **Programming:** Basic knowledge of Python (Proficiency: 2/5)

Achievements

During PhD:

- Published **two peer-reviewed research papers** in international journals, so far:
    1. Materials Today Communications (2025)
    2. International Journal of Applied Glass Science (2026)
- Presented **seven research papers** at **five international** and **two national** conferences in the fields of materials science, photonics and radiation shielding.
- Participated in **five technical workshops** (four national and one international) on advanced materials characterisation and scientific instrumentation.

During M.Sc.:

- Completed a **one-week training program** at Raman Research Institute, gained **practical experience in radio telescope design, operation and data analysis.**

Education

- **PhD** in Physics (Pursuing), **The Gandhigram Rural Institute** – Deemed to be University, February 2023 – Present.
- **M.Sc. in Physics**, **The American College**, affiliated with Madurai Kamaraj University, June 2021 – April 2023. CGPA: 6.7/10 (62.6%)
- **B.Sc. in Physics**, **The American College**, affiliated with Madurai Kamaraj University, June 2018 – April 2021. CGPA: 7.0/10 (65.1%)

Languages Known

- **Tamil:** Native proficiency
- **English:** Professional working proficiency