

PhD Scholarship opportunity

THE IMPACT OF A-SITE DOPANT ON THE ELECTROMECHANICAL PROPERTIES OF RELAXOR-PT MATERIAL SYSTEM

UOW is offering PhD Scholarships on relaxor-PT ferroelectric materials, understanding the relationship between the dopant related microstructure and macroscopic properties, including material design, fabrication and structure/property characterizations. This project will be supervised by *NSW Premier's Prize for Excellence in Mathematics, Earth Sciences, Chemistry or Physics 2021* winner [Professor Shujun Zhang](#), a Fellow of the American Ceramic Society and the Institute of Electrical and Electronics Engineers, and a 2021 Clarivate Highly-Cited Researcher.

Relaxor ferroelectric single crystals and textured ceramics

Ferroelectric materials are at the heart of numerous electronic devices, such as ultrasonic transducers, piezoelectric sensors and energy harvesting, to name a few. Today, relaxor ferroelectric materials continue to be an exciting research area that promises even further discoveries. The project specifically seeks to build knowledge to material design, fabrication, microstructure and property characterizations of relaxor-PT based ferroelectric materials.

The project will be supervised by Prof. Shujun Zhang in the [Institute for Superconducting and Electronic Materials](#) (ISEM), [Australian Institute for Innovative Materials](#) (AIIM), [University of Wollongong](#), and Prof. Xiaozhou Liao in the School of Aerospace, Mechanical, and Mechatronic Engineering, The University of Sydney, and Assistant Professor Zibin Chen in the department of Industrial and Systems Engineering, The Hong Kong Polytechnic University. The PhD scholars will be supported through the active research programs and have the opportunity to interact with other researchers in ISEM, AIIM/UOW, UNSW, University of Sydney.

Scholarship Value

The successful candidate will receive a stipend of **\$29,000 pa (tax free)** for the duration of the award. The duration of the award shall be **for 3.5 years**.

Entry Requirements

To be eligible for this scholarship the applicant must:

- have completed a Bachelor/Master's degree in Material Science, Solid State Chemistry Science, Physics Sciences, or a related discipline with First-Class Honours, or be regarded by UOW as having an equivalent level of attainment
- be able to commence full-time higher degree by research by May 2022



Application Close

- Closing date: 30th March 2022

Application process

Applicants wishing to be considered for this scholarship should submit to Professor Shujun Zhang:

- a letter of application outlining your thematic interest in relation to ferroelectric materials, relevant experience and expertise in materials (maximum 2 pages)
- a CV with relevant academic transcripts
- a one-page summary of the proposed project

Upon successful outcome of application, the applicant will need to proceed with [a full Higher Degree Research \(HDR\) admission application](#) through the University of Wollongong.

Contact details

For all questions about the project and scholarship opportunity, and to apply for this scholarship contact Professor Shujun Zhang – shujun@uow.edu.au.

For any questions relating to the University of Wollongong Higher-Degree Research application process and Future Student matters, contact UOW Future Students - futurestudents@uow.edu.au / +61 2 4221 3218

