PhD Studentship

Dr Mark Senn

PhD project: Understanding Microscopic Mechanisms in Functional Materials

Supervisor: Dr Mark Senn

Funding availability: Up to two fully funded stipends with UK/EU fees for 4 years are available. Applicants that are not from the UK/EU are welcome to apply, but they will need to find additional funding for the full Band 2 Postgraduate Research fees (https://warwick.ac.uk/services/academicoffice/finance/fees/pgr/).

Project description:
The project will involve understanding why particular structures and chemistries give rise to specific physical properties. The successful candidate will gain experience in making novel ceramic materials and characterising their physical properties and crystal structures. A particular emphasis of the project will be on studying the crystal structures of the resulting materials using synchrotron X-ray diffraction and neutron diffraction techniques.

The Senn group enjoys regular access to world class central facilities such as the synchrotron Diamond Light Source, Oxfordshire, the European Synchrotron Radiation Facility, Grenoble, France, and the ISIS Neutron Spallation Source. At the University of Warwick, you will have access to state-of-the art, in house diffraction facilities and physical property measurement systems. You will join a team of 4 other PhD students who work in the broader area of crystallography, tackling problems involving understanding the fundamental mechanisms behind phenomena as varied as thermal expansion, ferroelectricity, magnetism, the photovoltaic effect and superconductivity. More details of the research conducted within the group can be found at www.senngroup.com.

Requirements:
Applicants should have an honours degree (at least II.1 or equivalent) in chemistry, physics, or material sciences.

How to apply:
Interested applicants should contact Dr Mark Senn (m.senn@warwick.ac.uk) with a CV at the earliest possible instance.