

PhD Studentship

Dr Mark Senn

PhD project: Understanding the Microscopic Mechanisms in Functional Materials

Supervisor: Dr Mark Senn

Deadline: 31st January 2016

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 characterizing their physical properties and crystal structures. A particular emphasis of the project will be on understanding the microscopic atomic displacements associated with the properties of piezoelectricity, ferroelectricity and magnetoelectricity. In situ and ex situ diffraction experiments will be conducted at synchrotron and neutron facilities by the student to support this work. The insight gained will allow for the design of improved functional materials for use in the electronics industry.

Requirements:

The studentship provides 3.5 years of funding for UK/EU students, starting October 2017. Applicants should have or be about to receive an honours degree (at least II.1 or equivalent) in Chemistry, Physics or Material Science. Practical experience in the field of ceramic synthesis, crystallography and/or physical property characterization is desirable, and an interest in learning about all of these is essential.

How to apply:

Please direct informal enquiries and requests for further information to Dr Mark Senn (m.senn@warwick.ac.uk) in the first instance. More details of the research conducted within the group can be found at www.senngroup.com.

Details on the formal application procedure can be found at <http://www.go.warwick.ac.uk/pgapply>

Interviews will take place at the end of February 2017.