



Achieving switchable magnetism in framework materials

PhD Scholarship: A/Prof Stride & Dr. Mole

Never Stand Still

Faculty of Science

School of Chemistry

Scholarship name

Switchable magnetism scholarship

Scholarship Description

Magnetic materials composed of molecular units have great potential to address both technological needs such as high-density data storage and fundamental studies of magnetism. Indeed, over the last 10-15 years, the study of magnetism has moved increasingly from the domain of strictly inorganic materials (e.g. simple halides or oxides of transition metals) to more exotic molecule-based systems promising ever greater control over both the magnetic exchange interactions and material properties.

The aim of this project is to deliver crystalline materials displaying host:guest modulation of the bulk magnetic properties. We will focus on magnetic materials consisting of molecular units in polymeric coordination complexes, the only materials able to provide the dramatic flexibility and control of both the lattice topologies and magnetic dimensionalities that are required for this work. Much of the sample characterisation work will be performed using the suite of neutron instruments available at the Bragg Institute, providing access to state of the art, world-leading instrumentation and techniques.

Study	Materials chemistry
Subject:	
Web Address:	http://www.chem.unsw.edu.au/research/groups/stride/
Provided By:	UNSW & Bragg Institute, ANSTO
Level:	Post Graduate, PhD

Availability

This scholarship is offered once only to one person. Open for applications from November 1, 2011 until July 1, 2012. Candidates holding an APA/UPA or who hold, or who are expecting to obtain an Honours 1 result, or candidates who may be deemed to be Honours 1 equivalent (H1E) are particularly encouraged to apply.

Scholarship value

\$7,000pa – for applicants who will concurrently hold an APA or equivalent scholarship

\$23,728pa (APA-equivalent rate) – for applicants who will not concurrently hold an APA (or equivalent) scholarship. This scholarship will be offered at the discretion of the Bragg Institute.

Research Information

The successful candidate will be co-supervised by A/Prof. John Stride (UNSW) and Dr. Richard Mole (ANSTO) and will be expected to spend >70% of the research time at the Bragg Institute, ANSTO.

Eligibility

Candidates holding Honours 1 equivalent qualification(s) in chemistry or physics, or a related subject are particularly encouraged to apply.

Application Details

To apply for this scholarship you must apply direct A/Prof. Stride

Main Contact

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