

IMPERIAL COLLEGE LONDON

Department of Materials

PhD studentship in Development of aluminium oxide insulators for high voltage high vacuum applications

Supervisors: Professor Bill Lee, Professor Neil Alford and Dr Richard Eagleton at AWE

Duration: 36 months

Applications are invited for a three-year PhD studentship jointly funded by the Department of Materials and the Atomic Weapons Establishment (AWE). You should have a strong interest in working in an interdisciplinary environment, have a background in a relevant discipline (material science, engineering, or physics) and have an enquiring and rigorous approach to your work.

Aluminium oxide is used as a high voltage, kilovolt range insulator in ultra-high vacuum applications such as in high voltages switches and other high performance components. This project will seek to improve component performance through design enhancements such as the incorporation of complex surface features (grooves, ridges and steps) and through manufacturing improvements in surface treatments (coatings, ion implantation and the inclusion of dopants). Research could be carried out independently by the student with a focus on developing design and manufacturing improvements or in conjunction with AWE where the impact of these features on the high voltage behaviour of ceramic insulators will be examined.

You will have an upper second or higher first degree or equivalent in materials or related discipline. This three-year studentship will begin as soon as possible. Funding is available to UK citizens only. Studentships will cover tuition fees at the home/EU rate plus the standard maintenance stipend of £15,726 per annum. Applications will be processed as received.

How to apply:

The prospectus, entry requirements and application form (under 'how to apply') are available at: <http://www.imperial.ac.uk/pgprospectus>.

For questions regarding the admissions process, please contact Fiona Thomson (fiona.thomson@imperial.ac.uk). The prospectus, entry requirements and application form (under 'how to apply') are available at: <http://www.imperial.ac.uk/pgprospectus>

Formal applications can be completed online (only after informal enquiries): <http://www3.imperial.ac.uk/materials/research/phdopportunities> while information about the Department can be found at <http://www3.imperial.ac.uk/materials>.

Closing date: ~~30 April~~ ^{July} 2014

Committed to equality and valuing diversity. Imperial is also an Athena Silver SWAN Award winner, a Stonewall Diversity Champion and a Two Ticks Employer.