

PhD Studentship for 2015

“Surface functionalisation of advanced fibres for polymer composite applications”

Nuenz Ltd, an advanced material manufacturing company, and the NZ Product Accelerator are offering a PhD studentship in Chemistry to study the dispersion and bonding of advanced fibres in polymers and their effect on the physical properties of the fibre-polymer composites, together with developing commercial applications of these composite materials. The research will involve the design, fabrication, characterisation and testing of fibre-polymer composites with the aim of developing a fundamental understanding of the factors that control and enhance polymer-fibre bonding. It will then address the application of the science and technology to the commercial development of such new polymer-fibre composite materials. The characterisation and test methods will include electronmicroscopy, FT-IR and photoelectron spectroscopy, as well as mechanical testing.

The studentship will be for 3 years and will provide a living allowance, NZ PhD tuition fees and approved research costs during this time.

The PhD candidate should have completed a MSc or a BSc (Honours) degree in chemistry, with first class honours or equivalent, and with a focus on materials science and preferably experience in polymer chemistry and the above instrumental analyses methods. The candidate must also meet the requirements for admission to a PhD programme in Chemistry at Victoria University of Wellington, New Zealand. The PhD studentship is being funded by a Callaghan Innovation R&D Fellowship Grant and the student must satisfy the criteria of the Grant.

The candidate will be based primarily at Nuenz Ltd, in Gracefield, Lower Hutt., New Zealand and will also spend time at the School of Chemical and Physical Sciences, Victoria University of Wellington and at the University of Auckland. Also, it is likely some work will be carried out at GNS Science, Gracefield, Lower Hutt. The PhD research programme will be supervised by Professor Jim Johnston, School of Chemical and Physical Sciences, Victoria University of Wellington and Dr Troy Dougherty, Principal Scientist, Nuenz Ltd, Lower Hutt, with contributions from Dr John Kennedy, GNS Science, Lower Hutt.

Expressions of interest and requests for further information should be directed to Professor. Jim Johnston (Jim.Johnston@vuw.ac.nz) or Dr. Troy Dougherty (troy@nuenz.co.nz).

