

AINSE Postgraduate Research Awards

**Postgraduate Research Scholars Awarded 2016**

| <b>Name</b>                | <b>UNI</b> | <b>Title</b>  |
|----------------------------|------------|---|
| Mohammad Alim              | UWS        | TiO <sub>2</sub> -based semiconductors for solar energy conversion, including Ta-doped TiO <sub>2</sub>                                 |
| Martin Ankor               | ADE        | Calibration of advanced hydrologic and isotopic palaeoclimate models with lake monitoring.  |
| Stuart Burns               | NSW        | Exploring magnetoelectric coupling in ferroics; neutron scattering experiments probing the magnetic phases of BiFeO <sub>3</sub>        |
| Grace Causer               | WOL        | Functional magnetic Interface phenomena in nano-architectures studied by polarised neutron reflectometry                                |
| Gael Cazes                 | WOL        | Landscape evolution of the Kimberley region and rock art dating using cosmogenic <sup>10</sup> Be and <sup>26</sup> Al                  |
| Lachlan Chartier           | WOL        | Charge collection characterisation of new laterally depleting 3D microdosimeters  |
| Michael Evans              | QLD        | A late Quaternary climate and environmental reconstruction from sub-tropical Queensland   |
| Rubeca Fancy               | UNE        | Radiocarbon age of dissolved organic carbon under contrasting land uses in NSW Australia  |
| Nastaran Faraji Ouch Hesar | NSW        | Skymion system in a chiral multiferroelectric thin film of Cu <sub>2</sub> OSeO <sub>3</sub>  |
| Damien Finch               | MEL        | Radiocarbon dating of Kimberley rock art  |
| Melanie Fuller             | FLI        | A breath of fresh air for Cystic Fibrosis   |
| Francesca Gissi            | WOL        | Unravelling the complex relationship of the coral holobiont and its responses to metal contaminants                                     |
| Sharon Gray                | ANU        | Interactions between meteoric, surface and ground water in fractured rock: Upper Murrumbidgee catchment.                                |
| Meiling Han                | MON        | Deciphering the mechanisms of antibacterial activity and resistance of polymyxins in Gram-negative bacteria                             |
| James Hooper               | WOL        | Quantifying anthropogenic impacts on dust flux and its interaction with recipient ecosystems  |
| Ben Humphreys              | NCT        | Confinement effects on the stimulus response of polymer brushes   |
| Wenwen Huo                 | MEL        | Using atmospheric and plant-based sampling of C-14 to constrain local and regional fossil fuel emissions                                |
| Geoffrey Lerner            | AKL        | Developing a spatio-temporal model for mass flow hazards at stratovolcanoes, Mt. Taranaki, New Zealand                                  |
| Emma Livingstone           | QLD        | Structural investigation of the Munc18:SNARE protein complexes required for neurotransmission and blood glucose control                 |
| James Maina                | DEA        | Inorganic nanoparticles/metal organic frameworks hybrid membrane reactors for simultaneous separation and conversion of CO <sub>2</sub> |
| Michela Mariani            | MEL        | Using nuclear techniques to reconstruct fire-driven environmental changes in Western Tasmania   |

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|---------------------------|-----|---|
| Thomas McCoy              | MON | Controlling interfacial properties and dispersion of graphene analogues   |
| Kaitlyn O'Mara            | GRI | Investigating transfer and accumulation of trace metals up the food chain; using radiotracers to observe the uptake of contaminants in prawns and fish from seawater and dietary ingestion. |
| Rebecca Parker            | OTA | Sea ice extent and diatom primary production in the Ross Sea, Antarctica: the response to post-glacial warming  |
| Madjid Sarvghad Moghaddam | QUT | In situ characterization of microstructural evolution during thermal cycling of materials at elevated temperatures by neutron diffraction   |
| James Sippo               | SCU | Using C-14 to resolve mangrove carbon cycling   |
| Valentina Vanghi          | NCT | Neutron tomography and scattering in speleothems: the influence of porosity and texture on the accuracy of palaeoclimate interpretations  |
| Lorraine Watson-Fox       | QLD | Using ITRAX XRF, multi-dimensional isotope analysis and silica microfossils to study the palaeoecology of sclerophyll sites in the Atherton Tablelands, northeastern Australia.             |
| Siu Wai Wong              | MON | Novel fluorinated radioligands of the tyrosine kinase, MERTK, for imaging and diagnosis in multiple sclerosis   |
| Long Zhang                | WOL | Electrostatic effects on chemical reactivity; oriented double layer effects on chemical bonding kinetics and thermodynamic  |
| Bo Zhang                  | MON | Synthesis, radiolabelling and bio-conjugation studies of [ <sup>18</sup> F]ethenesulfonyl fluoride (ESF) - a new innovative tool for radiopharmaceutical development                        |