South Australia

The Flinders University of South Australia

LE0989068 Dr GG Andersson; Prof HJ Griesser; Dr GF Metha; Prof GG Warr; A/Prof R Singh; A/Prof WM Skinner; Dr JS Quinton; Dr Z Liu

Approved Project Title **Equipment for Metastable Induced Electron Spectroscopy: surface analysis with excellent surface sensitivity.**

2009 : $ 637,120

Primary RFCD 2501 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Partner Organisations & Collaborating Organisations

The Flinders University of South Australia
University of South Australia
The University of Adelaide
The University of Sydney
Monash University

Administering Organisation The Flinders University of South Australia

Project Summary

One of the major research strengths of Australia is surface science as it is important for both fundamental and industry related research. In many cases it is crucial to investigate the outermost layer of a material or mineral. Metastable Induced Electron Spectroscopy is an ideal technique as it is sensitive exclusively to the outermost layer of a broad range of samples. The information gained is not accessible by any other method. The proposed equipment will be the first of this type in Australia and will complement existing surface science facilities. The project will enhance Australia's position in surface science internationally and a large number of projects will benefit from access to the equipment.

LE0989062 A/Prof JM Hacker; A/Prof J Beringer; A/Prof JP Walker; A/Prof MM Lewis; A/Prof MJ Lynch; Dr LB Hutley; Dr PJ Baker; Dr E Daly; Prof ID Bishop; Dr MJ Stewardson; Dr PR Fearns; Dr S Maier

Approved Project Title **Airborne hyper-spectral scanning for advanced monitoring and assessment of vegetation and water properties**

2009 : $ 450,000

Primary RFCD 3008 ENVIRONMENTAL SCIENCES

Partner Organisations & Collaborating Organisations

The Flinders University of South Australia
Monash University
The University of Melbourne
Curtin University of Technology
The University of Adelaide
Charles Darwin University

Administering Organisation The Flinders University of South Australia

Project Summary

The proposed infrastructure will give Australian researchers the most advanced capabilities available world-wide in airborne remote sensing of the environment. By combining hyper-spectral scanning, with full wave-form resolving Light Detection and Ranging (LIDAR), microwave scanning and sythetic aperture RADAR, flown simultaneously on the most cost-efficient and technologically advanced research aircraft, it will be possible to assess and monitor a wide range of parameters not accessible to airborne methods before.