

Summary of Linkage Projects Applications for Funding to Commence in 2006

New South Wales

The University of Newcastle

LP0668343 Dr SW Donne

Approved Project Title Titanium Electrochemistry in Minerals Processing

2006 : \$25,000

2007 : \$25,000

2008 : \$25,000

Primary RFCD 2501 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

APA(l) Award(s): 1

Partner Organisation(s)

BHP-Billiton

Administering Institution The University of Newcastle

Project Summary

Australia is one of the world's largest producers of titanium minerals for industrial and consumer products. This project aims to improve the efficiency of the Sulfate Process which is used to convert the titanium containing ore ilmenite into pure titanium dioxide pigment. The improvements expected include a decrease in the cost of production for the relevant industries, as well as a reduction in the volume of waste materials generated by the process.

LP0667665 A/Prof KP Galvin

Approved Project Title Enhanced Hydrodynamic Fractionation of Particles

2006 : \$31,650

2007 : \$171,176

2008 : \$115,750

Primary RFCD 2907 RESOURCES ENGINEERING

APA(l) Award(s): 1

Partner Organisation(s)

Australian Coal Research Limited

Rio Tinto Coal Australia

BHP Billiton Mitsubishi Alliance

Anglo Coal Australia Pty Ltd

ACIRL Pty Ltd

Xstrata Coal (NSW) Pty Ltd

Administering Institution The University of Newcastle

Project Summary

The coal industry, which is a major contributor to the Australian economy, urgently needs a new washability method following its decision to abandon the existing laboratory standard. The existing method relies on the use of heavy organic liquids which are known to be toxic to human health. The 'water-based' approach proposed in this study overcomes the problem of risk to human health, thus benefiting Australian workers, the immediate industry, and wider community. New separation technologies that could benefit the minerals industries and other key industries should follow. The project will also result in the education and training of two postgraduate students, and the advancement of two postdoctoral researchers in this area of industry.

Summary of Linkage Projects Applications for Funding to Commence in 2006

LP0667893 A/Prof B Moghtaderi; Prof AW Page; Ms CM Inglis

Approved Project Title **Smart Utilisation of Thermal Mass in Masonry Buildings**

2006 : \$77,000

2007 : \$77,000

2008 : \$77,000

Primary RFCD 2908 CIVIL ENGINEERING

APA(l) Award(s): 1

Partner Organisation(s)

Clay Brick & Paver Institute

Administering Institution The University of Newcastle

Project Summary

This study will help determine the effectiveness of a range of novel technologies for smart utilisation of thermal mass in masonry buildings. The ultimate goal is to improve the thermal performance of such constructions. The project focuses on the National Research Priority 3 because of the novel and advanced technological nature of the proposed research. The project has also a significant potential in contributing to the Federal Government's effort in the Research Priority 1 because achieving better thermal efficiency in buildings will undoubtedly help to minimise electricity usage leading to a reduction in CO2 emissions.