Summary of Linkage Infrastructure, Equipment and Facilities Proposals

Victoria

RMIT University

LE0989615 A/Prof J Du Plessis; Prof P Mulvaney; Prof DG McCulloch; A/Prof A Mitchell; Dr AS Holland; Dr K Kalantar-zadeh; Prof SK Bhargava; Dr V Bansal; Prof PJ Coloe; Prof RA Shanks; Prof AB Holmes; A/Prof JE Sader

Approved Project Title **Melbourne Platform for Surface Characterisation of Structured Materials**

2009 : $ 300,000

Primary RFCD 2918 INTERDISCIPLINARY ENGINEERING

Partner Organisations & Collaborating Organisations

RMIT University
The University of Melbourne

Administering Organisation RMIT University

Project Summary

The Australian economy is gradually expanding its manufacturing base through the development of the nanotechnology and biotechnology sectors. This will lead to production of a more diverse range of elaborately transformed goods. A key contributor to these export opportunities will be the nanotechnology sector since at the present time no country has a real nanotechnology based economy and there are many niche markets available for smaller countries such as Australia. This proposal helps to build quality control and characterisation infrastructure that will facilitate prototyping and design of nanoscale devices and sensors for next generation manufacturing.

LE0989726 A/Prof A Mitchell; Dr K Kalantar-zadeh; Dr AS Holland; Dr JG Partridge; Mr G Kostovski; Dr TG Nguyen; Dr PR Stoddart; Prof BJ Eggleton; Dr C Monat; Dr C Grillet; Dr C Karnutsch; Dr G Rosengarten; Dr DN Neshev

Approved Project Title **Nanophotonic and Microfluidic Integration Facility: a Platform for Optofluidics**

2009 : $ 250,000

Primary RFCD 2918 INTERDISCIPLINARY ENGINEERING

Partner Organisations & Collaborating Organisations

RMIT University
Swinburne University of Technology
The University of Sydney
The University of New South Wales
The Australian National University

Administering Organisation RMIT University

Project Summary

Emerging 'lab on a chip' technology promises to provide low-cost, mass produced platforms for monitoring and processing of environmental and biological samples (eg. water quality and early cancer detection). These essentially fluidic platforms will require integrated photonic components to provide the vast array of optical interrogation options that are used in all modern laboratories. The proposed facility will enable Australian researchers to effectively integrate nano-photonic structures with engineered micro-fluidics into a single optofluidic chip. This will bring researchers in photonics and microfluidics together and will provide platforms supporting support biomedical and environmental and even fundamental physics projects.