

## **Appendix – Grants and Contracts**

### ***Australian Academy of Science***

#### **Travel Grant to the USA**

Dr D. Neshev

*Nonlinear Propagation of Light in Two-dimensional Photonic Lattices*

2004 \$ 8,600

Dr T. Alexander

*Travel Grant for Young Australian Researchers*

2004 \$ 6,000

#### **Travel Grant to Japan**

Dr A. Sukhorukov

*Research Visit to Japan*

2004 \$ 7,000

Dr A. Rode

*Femtosecond Laser-induced 3DMicrostructuring of Transparent Dielectrics*

2004 \$ 1,800

### ***Australian Academy of Technological Sciences and Engineering***

#### **Innovation Access Program – International S&T**

Professor J.D. Love

*14<sup>th</sup> International Workshop on Optical Waveguide Theory & Numerical Modelling (OWTNM)*

2004 – 2005 \$ 38,830

### ***AusIndustry***

#### **Innovation Access Program**

Professor J.S. Williams

*Establishment of the Australian Materials Technology Network*

2003 – 2006 \$2,683,520

***ACT Knowledge Fund Grants***

Dr Y. Chen and Professor J.S. Williams

*Purification of Carbon and Boron Nitride Nanotubes*

2004

\$ 30,000

Mr D. Ramdutt and Professor R.W. Boswell

*Nanotiter Plate for Novel Cell Arrays*

2004

\$ 34,000

***Australian-German Joint Research Co-operation Scheme***

Professor B. Luther-Davies

*Highly Oriented Nanostructures of Nonlinear Optical Materials for Applications in Polarized Light Emitting Diodes and Optical Devices*

July 2002 – July 2004

\$ 16,400

Professor S. Hyde

*Signatures of Spatial Morphology in Ordered and Disordered Media*

July 2002 – July 2004

\$ 17,100

***Australian Nuclear Science & Technology Organisation***

***Access to Major Research Facilities Program***

Professor G.D. Dracoulis

*Competition between Octupole and Multi-Particle Excitation in Po-212 and At-213*

2004

\$ 12,000

Dr A.E. Stuchbery

*Excited State Configurations in <sup>38</sup>S and <sup>40</sup>S through Transient Field g-Factor Measurements on Fast Fragments*

2004

\$ 12,000

## ***Australian Research Council (ARC) Grants and Awards***

### **ARC Australian Postgraduate Awards (Industry)**

Dr S. Huntington (University of Melbourne), Professor J.D. Love, Dr A. Carter (Nufern Inc) and Mr P. Pace (APAI Award)

December 2001 – November 2004	\$ 86,598
Nufern contribution	\$ 15,000

### **ARC Australian Research Fellowship**

Dr A.G. Truscott and Dr J.J. Hope

*How Does a Bose Einstein Condensate Develop Phase?*

2003 – 2007	\$ 415,000
-------------	------------

### **ARC Australian Senior Research Fellowship**

Dr D.R.M. Williams

*Deformation and Dynamics of Single Polymer Chains*

2003 – 2004	\$ 179,032
-------------	------------

### **ARC Centre for Excellence**

Dr K.G.H. Baldwin and Dr A.G. Truscott

*Australian Centre for Quantum-Atom-Optics (ACQAO)*

2003 – 2008 (ANU Total)	(\$10,950,000)
-------------------------	----------------

*RSPHysSE Project: Metastable BEC*

2003 – 2008 (RSPSE Share)	\$1,353,000
---------------------------	-------------

Professor Y. Kivshar

*ARC Centre of Excellence for Quantum-Atom Optics (ACQAO)*

2003 – 2008 (ANU Total)	(\$10,950,000)
-------------------------	----------------

*RSPHysSE Project: Optical Lattices*

2003 – 2008 (RSPSE Share)	\$ 719,000
---------------------------	------------

Professor Y.S. Kivshar, Dr W. Krolikowski and Professor B. Luther-Davies

*Centre for Ultrahighband Devices for Optical Systems (CUDOS)*

2003 – 2007 (ANU Total)	(\$11,513,850)
-------------------------	----------------

2003 – 2007 (RSPSE Share) \$2,967,000

University of Queensland

Dr Y. Chen (ANU Participant)

*Australian Centre for Functional Nanomaterials*

2003 – 2007 (Total \$6,380,544)

2003 – 2007 (ANU Share) \$ 452,256

### **ARC Discovery Project Grants**

Professor N.N. Akhmediev

*Multi-soliton Complexes*

2003 – 2005 \$ 245,000

Dr T. Aste and Dr T.J. Senden.

*Granular Materials in 3D: Structural, Mechanical and Dynamic Properties from the Grain-scale and Beyond*

2004 – 2006 \$ 294,000

Professor V.V. Bazhanov and Professor R.J. Baxter

*Solvable Models on Regular and Random Lattices in Statistical Mechanics and Field Theory*

2002 – 2004 \$ 318,000

Dr B.D. Blackwell and Dr M. Hegland

*High-performance Computational Data-mining Techniques for Feature Detection in Complex Time Series from Large-scale, Networked Plasma Experiments*

2004 – 2006 \$ 195,000

Professor S.J. Buckman

*Electron Collision Studies with Laser-cooled Metastable Helium-recoil Atom Spectroscopy*

2003 – 2005 \$ 265,000

Professor S.J. Buckman and Dr J. Lower

*A Microscope for Molecular Reactions*

2003 – 2005 \$ 245,000

Dr M. Buda

*Asymmetric InP-based Structures for High Power Laser Diodes at 1400-1500 nm for Pumping Optical Amplifiers Used in Communication Systems*

2003 – 2006 \$ 165,000

Dr Y. Chen and Professor L.T. Chadderton

*Formation Mechanism and Controlled Growth of Carbon Nanotubes*

2004 – 2006 \$ 260,000

Dr S.-H. Chung

*Theoretical Studies on the KcsA Potassium Channel and L-type Calcium Channels*

2002 – 2004 \$ 231,000

Professor R.L. Dewar and Dr R. Ball

*Studies of Turbulence and Coherent Structures in Quasi Two-dimensional Plasmas and Fluids*

2003 – 2007 \$ 605,000

Professor R.L. Dewar and Dr S. Hudson

*Existence and Stability of a Model for Three Dimensional Toroidal Plasma Equilibria*

2004 – 2006 \$ 255,000

Professor G.D. Dracoulis, Dr A.P. Byrne, Dr T. Kibédi, Dr R.A. Bark, Professor P.M. Walker and Dr J. Gerl

*Isomers as Probes of Nuclear Structure and Sources of Energetic Protons*

2003 – 2005 \$ 402,000

Professor G.D. Dracoulis, Dr G.J. Lane and Dr T. Kibédi

*Characterising Nuclei Far from Stability*

2004 – 2006 \$ 240,000

Professor R.G. Elliman and Dr J. Valenta

*Novel Silicon-based Photonic Device*  
2003 – 2005 \$ 255,000

Dr S.T. Gibson and Professor B.R. Lewis  
*Reaction Transition States of Halide-cluster Complexes via Velocity-map Imaging of Photoelectrons*  
2004 – 2006 \$ 300,000

Professor J.H. Harris, Dr B.D. Blackwell, Dr J. Howard and Dr M.G. Shats  
*Localised Instabilities in Magnetically Confined Plasmas Heated by Radio Waves*  
2003 – 2005 \$ 162,000

Dr D.J. Hinde, Dr M. Dasgupta and Dr K. Hagino  
*Dynamics of Nuclear Fusion: Evolution through a Complex Multi-Dimensional Landscape*  
2003 – 2005 \$ 575,000

Professor C. Jagadish  
*Fabrication and Monolithic Integration of II-V Semiconductor Photonic Devices using Impurity Free Interdiffusion*  
2003 – 2006 \$ 510,000

Professor C. Jagadish and Dr H.H. Tan  
*Selective Area Growth of Semiconductor Quantum Dots for Optoelectronic Applications*  
2004 – 2006 \$ 260,000

Dr A.S. Kheifets and Professor Dr J. Ullrich  
*Two-electron Atomic Photoionization in Superstrong Electromagnetic Field*  
2004 – 2006 \$ 225,000

Dr M.A. Knackstedt, Professor E. Seeman, Dr A.P. Roberts and Dr C.H. Arns  
*Assessing Bone Quality and Health: Experimental Imaging, Structural Characterisation, and Mechanical Modelling of Bone in 3D*  
2004 – 2006 \$ 425,000

Professor W. Krolikowski and Dr O. Bang	
<i>Solitons and Localized Structures in Nonlocal Nonlinear Media</i>	
2004 – 2007	\$ 255,000
Professor J.D. Love	
<i>Miniaturised Adiabatic Light Processing Devices</i>	
2004 – 2006	\$ 220,000
Dr J. Lower	
<i>Dynamic Correlations and Coherence Effects in Two-electron Emission Processes</i>	
2003 – 2006	\$ 380,000
Professor B. Luther-Davies and Dr R. Jarvis	
<i>Integrated Magneto-optic Waveguide Materials and Devices</i>	
2004 – 2006	\$ 400,000
Professor N. Manson and Dr M.J. Sellars	
<i>Storage of Nonclassical Light in a Solid</i>	
2003 – 2005	\$ 265,000
Dr C.R. Morton	
<i>Development of Advanced Detection Systems for Accelerator Mass Spectrometry</i>	
2004 – 2006	\$ 200,000
Professor B. Ninham	
<i>Ionic Dispersion Forces in Physical Chemistry: Implications for pH, Electrochemistry, Nanoparticle Formation and Organic Synthesis</i>	
2003 – 2005	\$ 270,000
Dr M. Petravac and Professor J.S. Williams	
<i>Nanocavities and Nanoparticles in Silicon-base Materials Tailored by Ion Bombardment</i>	
2003 – 2005	\$ 350,000

Dr M.C. Ridgway and Dr H. Bernas

*Nanocavities in Si: Structural Evolution and Metal Gettering*

2002 – 2004 \$ 183,000

Dr M.C. Ridgway, Dr A.P. Byrne and Dr K.M. Yu

*Atomic-scale Identification of Amorphisation and Relaxation Processes in Compound Semiconductors*

2003 – 2005 \$ 285,000

Dr M. Sellars

*Development of a Quantum Computer Based on Solid State Optical Impurity Sites*

2003 – 2005 \$ 130,000

Dr J.P. Sullivan

*Experiments with Antimatter: Investigating Positron Interactions with Atoms, Molecules and Materials*

2004 – 2008 \$ 500,000

Dr M. Vos, Professor E. Weigold and Dr A.S. Kheifets

*Electron Momentum Spectroscopy of Correlated Nanoscale Structures*

2003 – 2005 \$ 295,000

Dr D.R.M. Williams, Dr E.M. Sevick and Professor B.W. Ninham

*Salt, Sugar and Sequence: The Effect of Molecular Forces on Polymer Conformation*

2004 – 2006 \$ 480,000

Dr A.N. Wilson

*Superdeformed Nuclei and Their Decay: Challenging Nuclear Models and Probing Quantum Tunnelling*

2004 – 2006 \$ 140,000

Professor J. Chappell and Dr T. Esat (administered by RSES)

*Millennial-scale Instability of Sea Level and the Climate System: New Analysis of Coral Terraces in Papua New Guinea*

2003 – 2005 (\$ 295,000)

Professor J. Chappell, Dr M. Honda, Dr D. Fabel and Dr L.K. Fifield (administered by RSES)

*Production and Transport of Soil and Sediments, Determined by Cosmogenic Radionuclides and Noble Gases*

2003 – 2005 (\$ 295,000)

University of Melbourne

Professor N. Fletcher (ANU Participant)

*Acoustics of the Didjeridu*

2002 – 2004 (\$ 253,000)

University of New South Wales

Dr M.A. Knackstedt (ANU Participant)

*Structures and Properties of Tissue Engineering Matrices for Cartilage and Bone: Imaging, Visualising and Modelling Tissue/Scaffold Constructs in 3D*

(Total \$ 312,000)

2003 – 2005 (ANU share) \$ 211,000

University of Queensland

Professor V.V. Bazhanov, and Professor R.J. Baxter (ANU Participants)

*Algebraic Structures in Mathematical Physics and their Applications*

(Total \$ 457,836)

2002 – 2004 (ANU share) \$ 92,000

University of Sydney

Professor A. Snyder (ANU Participant)

*The Physics of Network Computation: Mathematical Modelling of the Nonconscious*

2002 – 2004 (\$ 203,000)

### **ARC Discovery Project Grants and Australian Research Fellowships**

Dr V. Craig

*Surface Adsorption, Repulsion and Attraction: A New Experimental Approach to Surface Forces*

2002 – 2006 \$ 573,782

Dr G.J. Lane

*Structure of Exotic Neutron-Rich Nuclei Populated using Novel Reaction Mechanisms*

2003 – 2007 \$ 566,605

Dr D. Neshev and Dr A. Sukhorukov

*Light Control in Nonlinear Periodic Structures*

2004 – 2009 \$ 755,000

Dr T.J. Senden

*Dynamic Force Microscopy of Small Molecular Assemblies*

2002 – 2006 \$ 391,782

**ARC Discovery Project Grants and Australian Postdoctoral Fellowships**

Dr J. Bradby

*Mechanical Deformation of Layered Semiconductor Structures*

2003 – 2005 \$ 234,000

Dr Y. Chen and Ms Y.J. Chen (APD Fellowship)

*Boron Nitride Nanotube Synthesis and Applications*

2004 – 2006 \$ 410,000

Dr V. Craig, A/Professor S. Biggs and Dr C. Neto (APD Fellowship)

*Nanorheology: Hydrodynamic Slip in Newtonian Fluids*

2003 – 2006 \$ 291,000

Professor R.G. Elliman, Dr E. Krausz, Dr T.D.M. Weijers (APD Fellowship) and A/Professor S. Choi

*The Physical and Optical Properties of Self-Assembled Si Nanocrystals*

2003 – 2005 \$ 318,035

Dr L. Fu

*Growth and Intermixing of Quantum Dots for Multi Wavelength Infrared Photodetectors*  
2003- 2005 \$ 255,000

Dr C.J. Glover

*Applying Advanced Synchrotron Radiation Based Techniques to Determine the Connection between the Geometric and Electronic Structure of Semiconductor Nanocrystals*

2003 – 2005 \$ 249,500

Dr S. Kluth

*Ion Implantation Induced Diffusion and Defect Evolution in Si Nanostructures*

2003 – 2005 \$ 242,700

### **ARC Discovery Project Grant and Australian Professorial Fellowship**

Professor M.T. Batchelor

*The Mathematics and Physics of Interacting Systems*

2003 – 2007 \$1,122,000

### **ARC Discovery Project Grants and QEII Fellowships**

Professor S.T. Hyde, Dr T. Aste and Dr T. Di Matteo (QEII Fellowship)

*The Architecture of Networks: Characterisation and Visualisation of Complex Systems as Fluctuating Networks*

2003 – 2007 \$ 687,275

Dr S. Ohnishi

*Friction and Capillary Forces*

2003 – 2008 \$ 548,000

Dr J. Wong-Leung (QEII Fellowship) and Professor B.G. Svensson

*Ion Implantation Processing in Silicon Carbide for Microelectronic Applications*

2002 – 2006 \$ 619,411

Dr W. Xu

*Generation of Coherent-hypersound from Semi-conductor Systems*

(Transferred from University of Wollongong	Total \$ 354,160)
2002 – 2005 (ANU share)	\$ 249,628

### **ARC Federation Fellowship**

Professor S. Hyde

*Self-assembly and Complexity: Networks and Patterns from Materials to Markets*

2004 – 2009	\$1,519,710
-------------	-------------

Professor C. Jagadish

*Ordered Semiconductor Nanostructures for Electronics and Photonics Applications*

2004 – 2009	\$1,519,710
-------------	-------------

Professor Y. Kivshar

*Nonlinear Photonics and All-optical Technologies*

October 2002 – November 2007	\$1,448,515
------------------------------	-------------

Professor B. Luther-Davies

*Creation of a Novel Photonic and Nanostructured Materials by Ablation of Solids with Ultra Fast Lasers*

2002 – 2007	\$1,481,765
-------------	-------------

### **ARC Linkage – Infrastructure Equipment & Facilities (LEIF)**

Professor S.J. Buckman, Professor J.S. Williams, Professor R.P. McEachran, Dr J.P. Sullivan, Dr M.J. Brunger, Professor P.J. Teubner, Dr A. Hill, Dr P. Meakin, A/Professor B. Lohmann, A/Professor E.M. Gray and Dr J. Mitroy

*National Positron Beamline Facility*

2004	\$ 512,573
------	------------

Professor G.D. Dracoulis, Professor A.P. Byrne, Professor R.G. Elliman, A/Professor J. O'Connor, Dr K.S. Butcher and Dr H. Timmers

*National Heavy Ion Accelerator*

2004	\$ 508,374
------	------------

Professor C. Jagadish, Professor J.S. Williams, Professor B. Luther-Davies, Dr T.J. Senden, Professor L. Faraone, Professor M. Gal, Dr M.A. Stevens-Kalceff, A/Professor B.F. Usher and A/Professor M.R. Phillips

*High Performance Optical and Electronic Coatings Facility*

2004 \$ 535,452

University of Sydney

Professor R. Elliman (ANU Participant)

*Advanced Spectroscopy for Nano-characterisation of Materials Chemistry and Properties*

2004 (\$ 347,886)

University of Sydney

Professor J. Harris, Dr J. Howard, Dr B. Blackwell, Professor R. Boswell, Dr C. Charles and Dr M. Shats (ANU Participants)

*Interactive Network for Plasma and Surface Analysis*

(Total \$ 726,000)

2004 (ANU Share) \$ 157,389

University of Western Australia

Professor E. Weigold and Dr M. Vos (ANU Participants)

*National Facility for Electron Spin Correlations and Spintronics*

(Total \$ 590,309)

2004 (ANU Share) \$ 188,241

University of Sydney

Professor B. Luther-Davies (ANU Participant)

*Raman Photonic Device Facility*

2004 (\$ 298,052)

University of Sydney

Dr M. Ridgway (ANU Participant)

*Fluorescence Detector for the Australian National Beamline Facility*

2004 (\$ 503,000)

University of Technology, Sydney

Dr H.H. Tan (ANU Participant)

*Electron Beam Induced Deposition and Ablation Nanofabrication Facility*

2004 (\$ 184,163)

**ARC Linkage International Award**

Dr R. Ball, Professor R.L. Dewar and Dr Waelbroeck

*Low-order Dynamical Models for Non-linear Fluid Behaviour in Quasi Two-dimensional Plasmas*

2003 – 2005 \$ 9,000

Prof. M.T. Batchelor, Dr A. Kuniba and Dr M. Takahashi

*Physical Properties of Exactly Solved Quantum Spin Systems*

2004 – 2007 \$ 56,000

Professor S.J. Buckman

Jointly with Flinders University

*Environmental and Technological Applications of Electron-driven Processes*

(Total \$ 33,000)

2003 – 2005 (ANU Share) \$ 16,500

Dr W. Xu

*Optoelectronic Properties of Los-dimensional Semiconductor Systems and Semiconductor Nanostructures under Terahertz Free Electron Laser Radiation*

2003 – 2004 \$ 28,800

**ARC Linkage International Fellowship**

Professor V.V. Bazhanov

*Low-dimensional Quantum Systems*

2004 \$ 72,000

Professor E. Weigold, Professor S.J. Buckman and Dr M. Lange

*Investigating Near-threshold Atomic and Molecular Collision Processes with Multiparameter Detection Techniques*

2003 – 2004 \$ 77,649

### **ARC Linkage Projects**

Dr G.G. Borg, Professor J.H. Harris and Dr H.M Jones

*VHF Wireless Technologies for Last-mile Internet Access in Regional Australia*

2003 – 2006 \$ 138,198

Professor R. Boswell

*Development of Inert Gas Ion Beams for Fabrication of Nanostructures*

2003 – 2006 \$ 300,000

Partner contribution, FEI Corp, USA

2003 – 2006 \$ 220,000

Professor B. Luther-Davies, Dr V.Z. Kolev and Dr Y. Gao

*Laser Guide Star using a High Power Synchronously Pumped Optical Parametric Oscillators*

2004 – 2007 \$ 330,000

Dr S. Ohnishi

*Correlation between Surface Force and Morphology of Self-assembled Monolayer*

2004 – 2006 \$ 39,900

University of Sydney

Professor A. Snyder (ANU Participant)

*What Makes a Corporate Champion?*

2002 – 2004 (\$ 210,000)

### **ARC Postdoctoral Research Fellowship**

Dr S.J. Cavanagh

*Photodissociation Dynamics of Diatomic Sulphur, S<sub>2</sub>, and its Role in Environmentally Friendly Energy Efficient Lamps*

May 2001 – April 2004 \$ 195,261

Dr P.N.K. Deenapanray

*Defect Engineering of Quantum Well Interdiffusion for Optoelectronic Device Applications*

July 2001 – June 2004

\$ 168,702

Dr E. Ostrovkaya

*Nonlinear Atom Optics of Bose-Einstein Condensates in Optical Lattices*

2003 – 2005

\$ 193,035

### **ARC QEII Research Fellowship**

Dr H.H. Tan

*Growth, Characterisation and Fabrication of GaInNAs Lasers*

May 2001 – May 2006

\$ 357,590

### **ARC Research Networks**

Dr R.L. Dewar (Convenor), Dr T. Aste and 48 other scientists

*Complex Open Systems Network (COSNet)*

2004 – 2009

\$1,500,000

Dr C. Kepert (Convenor, University of Sydney), Dr T. Aste and 48 other scientists

*Molecular and Materials Structure Network*

2004 – 2009

(\$1,500,000)

Dr C. McFarlane (Convenor, University of NSW), Dr M.A. Knackstedt and 48 other scientists

*ARC Research Network for Tissue Engineering*

2004 – 2009

(\$1,500,000)

### **ARC Special Research Initiatives – Research Networks Seed Funding**

Dr K. Baldwin

*Network for Optical and Quantum Science and Technology*

2004

\$ 30,000

Professor R.L. Dewar

*Energetically Open Systems Research Network Study*  
2003 – 2004 \$ 10,000

Professor C. Jagadish  
*Australian Semiconductor Nanotechnology Network*  
2003 – 2004 \$ 10,000

Professor J.S. Williams  
*Innovative Materials Production, Processing and Analysis Network*  
2003 – 2004 \$ 30,000

**ARC Strategic Partnerships with Industry, Research and Training Scheme (SPIRT)**  
Professor J.H. Harris, Dr G.G. Borg, Dr N.M. Martin\*, Dr D. Thorncraft and Mr L. Lungu  
**CEA Technologies and Neolite Neon**  
*The Application of Plasma Antennas to Communications and Radar*  
2000 – 2003, extended to 2004 \$ 63,240

***Australian Synchrotron Research Program***

Mr B. Johannessen  
*Internship to Visit Advanced Photon Source at Argonne National Laboratories, USA*  
2004 \$ 20,000

Dr P. Kluth  
*Defect Evolution in Ion Implanted Si Nanostructures: TEM sample Preparation using Focused Ion Beam (FIB) Milling*  
2004 \$ 2,850

Dr P. Kluth  
*SAXS/ASAXS Analysis of Size and Shape of Metal and Semiconductor Nanocrystals Generated and Modified by Ion Implantation*  
2004 \$ 6,940

Dr P. Kluth

*Structural Characterization of Ion Irradiated Metallic Nanocrystals in Silica using EXAFS*  
2004 \$ 4,370

Dr M. Ridgway  
*Amorphous Compound Semiconductors – Formation and Relaxation*  
2004 \$ 13,510

***BASF A.G.***

Dr M.A. Knackstedt  
*Fluid Penetration into Paper*  
2004 – 2005 \$ 220,000

***BHP Billiton Petroleum***

Professor W.V. Pinczewski and Dr M.A. Knackstedt  
*Digital Core Analysis*  
2003 – 2005 \$ 150,000

***Business ACT Knowledge Fund, ACT Government***

Professor J.D. Love  
*Biophotonics Development*  
2003 – 2004 \$ 75,000

Dr T. Senden  
*A Clinical Screening Device Based on a Novel Nanoparticle*  
2004 \$ 47,620

***Commonwealth Scientific Industrial Research Organisation***

Dr R. Ball  
*Consultancy: Cross Disciplinary Bridges in Complex Systems Science*  
2003 – 2005 \$ 18,000

***Defence Advanced Research Project Agency, USA***

**Texas A & M University**

Professor N. B. Manson, Professor M.S. Scully and Dr P. Hemmer

*Spin-based Lattice-gas Quantum Computers in Solids using Optical Addressing*

2001 – 2004

US \$ 240,000

***Defence Science and Technology Organisation***

Dr M. Sellars

*Solid State Quantum Computing*

June 2003 – June 2004

\$ 147,000

Dr M. Sellars

*Solid State Quantum Computing*

June 2004 – June 2005

\$ 167,000

**Materials Research Laboratory**

Professor C. Jagadish

*Research in Novel Opto-electronic Device Fabrication*

2003 – 2004

\$ 44,000

Dr H.H. Tan, Dr L. Fu and Professor C. Jagadish

*Optoelectronic Device Processing*

2004

\$ 100,000

***Department of Defence***

**Defence Signals Directorate**

Professor N.B. Manson and Dr M. Sellars

*Quantum Computing and Quantum Cryptography Research*

2004

\$ 49,000

***Department of Education Science and Training***

**Innovation Access Programs**

Professor J. Harris and Dr M. Shats

*Cross Platform Studies of Fusion Plasma Confinement in Tokamaks and Stellarators*

June 2003 – April 2004

\$ 50,600

Dr J. Howard

*Studies of High Temperature Edge Plasma Confinement Physics using New Hyperspectral Imaging Systems*

2004 – 2006

\$ 173,690

Professor B.R. Lewis

*Fourteenth International Conference on Vacuum Ultraviolet Physics*

2003 – 2005

\$ 55,000

***Department of Industry, Tourism and Resources***

**Australian Photonics Cooperative Research Centre**

Professor J.D. Love and Dr A. Ankiewicz

*Modelling & Design of Light Processing Devices*

May 1999 – April 2005

\$ 700,000

**CRC for Functional Communication Surfaces**

Dr M.A. Knackstedt, Dr T. Senden, Dr V. Craig, Mr R. Roberts and Dr V. Yaminsky

Program 1: *Fundamental Surface Measurements and Liquid Penetration Sciences*

July 2001 – June 2008

\$2,864,000

Program 6: *Education, Scholarship*

July 2001 – June 2008

\$ 525,000

***Department of Industry, Science and Resources***

Professor J. Harris *et al.*

*National Plasma Fusion Research Facility*

April 1997 – May 2005

\$8,700,000

Dr C. Charles and Professor R.W. Boswell

*Collaboration with CRC for Satellite Systems and AUSPACE – Development of Plasma Thruster for Tests at ESA*

2004 – 2005 \$ 300,000

***Edith and Joy London Foundation***

Dr T.J. Senden

*Grant to Host Materials and Complexity II*

November 2004 \$ 6,000

***European Projects***

Dr P. Richmond (Chair), Dr T. Aste, Dr T. Di Matteo and more than 100 scientist from 14 European Countries

*European Union COST – P10*

2003 – 2007 \$9,500,000

***Feoder-Lynen Humboldt Fellowship***

Dr P. Kluth

2003 – 2005 \$ 130,000

***Major Equipment Committee (MEC), ANU***

Professor S.J. Buckman, Dr J. Sullivan, Professor J.S. Williams and Professor R.P. McEachran

*National Positron Beamline Facility*

2004 \$ 100,000

Professor G.D. Dracoulis, Professor A.P. Byrne, Professor R.G. Elliman, A/Professor J. O'Connor and Dr K.S. Butcher and Dr H. Timmers

*National Heavy Ion Accelerator*

2004 \$ 100,000

Dr S. Gibson

*Next Generation Particle Imaging Detector for High Resolution Photoelectron Spectroscopy*

2004 \$ 140,427

Professor C. Jagadish, Professor J.S. Williams, Professor B. Luther-Davies, Dr T.J. Senden, Professor L. Faraone, Professor M. Gal, Dr M.A. Stevens-Kalceff, A/Professor B.F. Usher and A/Professor M.R. Phillips

*High Performance Optical and Electronic Coatings Facility*

2004 \$ 250,000

Mr K. Lonsdale

*Provide a High Performance Electronic Instrument Library*

2004 \$ 149,800

Dr A. Samoc

*High Performance UV-visible Near Infrared Spectrophotometer for Testing of Photonic Materials and Structures*

2004 \$ 133,328

Dr H.H. Tan

*Sub-micron Holography Mask Aligner for Planar Photonics and Nano Structure Applications*

2004 \$ 437,300

MEC Contribution to Externally-led LEIF – University of Sydney

Professor R. Elliman (ANU Participant)

*Advanced Spectroscopy for Nano-characterisation of Materials Chemistry and Properties*

2004 \$ 10,000

MEC Contribution to Externally-led LEIF – University of Sydney

Professor J.H. Harris, Dr J. Howard, Dr B.D. Blackwell, Professor R.W. Boswell, Dr C. Charles and Dr M.G. Shats (ANU Participants)

*Interactive Network for Plasma Surface Analysis*

2004 \$ 72,000

MEC Contribution to Externally-led LIEF – University of Western Australia

Professor E. Weigold and Dr M. Vos (ANU Participants)

National Facility for Electron Spin Correlations and Spintronics  
2004 \$ 73,000

***McKinsey and Company***

Professor A. Snyder

*What Makes a Corporate Champion?*

2002 – 2004 \$ 60,000

***National Health & Medical Research Council Grant***

Dr S.-H. Chung

*Investigation of Biological Ion Channels: Theoretical Formulation, Computer Simulation and Experimental Verification*

2002 – 2004 \$ 620,000

***National Projects***

**Italian Ministry of Education Research and Technology Project**

Dr R.N. Mantegna, Dr M. Marsili, Dr M. Bernaschi, Dr E. Scalas, Dr G.M. Gallo, Dr M. Gallegati,  
Dr V. Marinari, Dr G. Susinno, Dr T. Aste and Dr T. Di Matteo

*High-frequency Dynamics of Financial Markets*

2003 – 2006 \$3,150,000

***Petroleum Development of Oman***

Professor W.V. Pinczewski and Dr M.A. Knackstedt

*Evaluation of Yibal Field Core*

2004 \$ 90,000

***Redfern Polymer Optics***

Professor B. Luther-Davies *et al*

*Industry Funded PhD Scholarship*

October 2001 – September 2004 \$ 90,000

Professor B. Luther-Davies, Professor W. Krolikowski, Ms R.M. Krolikowska, Mr J. Bottega, Mr I. McRae and Mr C. Macleod

*Polymer Waveguides & Integrated Optics*

May 2002 – June 2004

\$ 108,000

***The Asian Office of Aerospace Research and Development***

**Conference Support**

Professor J.D. Love

*OSA Topical meeting on Bragg Grating, Poling & Photosensitivity (BGPP)/Australian Conference on Optical Fibre Technology (ACOFT)*

2004

\$ 7,500

***The Ian Potter Foundation International Travel Grant***

**Centre for Resource and Environmental Studies**

Dr F.P. Mills

*Climate Variability and Surface Ultraviolet Radiation*

June to September 2004

\$ 1,875

***US Army Research Office – East***

*Travel Grant for Scientific Visit to Professor Mark Saffman at University of Wisconsin, Madison, USA*

Professor W. Krolikowski

\$.....4,200

***Victorian Department of Innovation, Industry & Regional Development***

**Australian Synchrotron**

Professor B.R. Lewis

*Fourteenth International Conference on Vacuum Ultraviolet Physics*

2003 – 2005

\$ 22,000

***Woodside Petroleum***

Professor W.V. Pinczewski and Dr M.A. Knackstedt

*NW Shelf Core Analysis*

2004

\$ 100,000

***Sale of Equipment Designed and Built In-house***

Mr A. Hyde and Dr A. Stewart

*Mk4 Surface Force Apparatus and Friction Apparatus*

Purchased by Sanpany Instruments, Taiwan, R.O.C.

\$ 115,000