GRANTS

Australian Academy of Science

Scientific Visits to Europe

Buckman Stephen Prof *Antimatter Applications in Biology and Medicine* 15/05/2011 - 30/05/2011 \$4,880.00

Australian Institute of Nuclear Science and Engineering (AINSE)

Research Project

Craig Vincent Prof - Notley Shannon Dr - Nelson Andrew Determining crystal structure of surfaces prepared using ALD 1/01/2011 - 31/12/2011 \$4,860.00

Australian Learning and Teaching Council

Competitive Grants Program

Higgins Denise Ms - Howitt Susan A/Prof - Wilson Anna Dr - Roberts Pamela Ms - Ross Pauline - Akerlind Gerlese - Gill Betty *Teaching Research- Evaluation and Assessment Strategies for Undergraduate Research Experiences (TREASURE)* 30/09/2011 - 3/10/2013 \$182,000.00

Australian National University (ANU)

Discovery Translation Fund

Ganguly Rana - Howard John Prof - Borg Gerard Dr - Hammond Thomas Dr BushLAN - Distributed Wireless Broadband 21/11/2011 - 24/12/2012 \$24,320.00

Notley Shannon Dr Development and evaluation of an in-vitro nematode permeability assay to discover new classes of anti-nematode drugs 14/11/2011 - 17/12/2012 \$66,210.00

Industry Linkage Pilot Project Fund

Lobov Sergey Dr *Targeted nano particles for cancer imaging and treatment* 20/10/2011 - 20/10/2012 \$3,000.00

Borg Gerard Dr *Decentralised distributed wireless networks* 17/10/2011 - 17/10/2012 \$3,000.00

Contribution from Central Funds

Charles Christine Prof - Butcher Harvey Prof - Boswell Roderick Prof - Perren M - Lappas Viaos - Clark Andrew *The Australian Plasma Thruster Project (Round 4) HDLT* 1/08/2011 - 30/06/2013 \$3,589,672.00 Jagadish Chennupati Prof - Martyniuk Mariusz - Kostylev Mikhail - Wang Jia - Liu Yinong - Konstantinov Konstantin - Woodward Robert - Jeffery Roger - Dell John Marcel

National Facility for Biased Target Deposition of Alloyed Nanolayers (externally led by University of Western Australia) 1/01/2011 - 31/12/2011

\$16,862.00

Jagadish Chennupati Prof - Elliman Robert Prof - Wong-Leung Yin-Yin (Jennifer) Dr - MacDonald Daniel Dr - Williams James Prof

State-of-the-art Hall effect system for detailed electrical characterisation in semiconductors 1/02/2011 - 31/01/2012 \$333,333.00

Lam Ping Koy Prof - James Matthew Prof - Buchler Benjamin Dr - Symul Thomas Dr - Sellars Matthew Dr - Simmons Michelle Yvonne *ARC Centre of Excellence for Quantum Computation and Communication Technology (QC2T) (externally led by University of New South Wales)* 1/01/2011 - 31/12/2015 \$7,521,500.00

Luther-Davies Barry Prof - Neshev Dragomir Prof - Kivshar Yuri Prof - Madden Steve Dr ARC Centre of Excellence for ultrahigh bandwidth devices for optical systems (CUDOS) (externally led by University of Sydney) 1/01/2011 - 31/12/2011 \$8,599,500.00

Luther-Davies Barry Prof - Madden Steve Dr - Mitchell Arnan - Alameh Kamal - Moss David J - Monat Christelle - de Sterke C Martijn - Eggleton Benjamin J - Pelusi Mark - Withford Michael - Frisken Steven - Lowery Arthur J *100 Gbit to 1 Terabit per second optical communication test-bed facility (externally led by University of Sydney)* 1/01/2011 - 31/12/2011 \$12,500.00

McClelland David Prof - Slagmolen Bram Dr - Shaddock Daniel Dr - Blair David Gerald - Munch Jesper - Zhao Chunnong - Ju Li *Equipment and Instrumentation for Breaking the Quantum Measurement Barrier (externally led by University of Western Australia)* 1/01/2011 - 31/12/2011 \$168,062.00

Tan Hoe Hark Prof - Fu Lan Dr - Kane Deborah - Withford Michael - Herberstein Marie - Faraone Lorenzo - Keating Adrian - Dawes Judith Margaret - Carman Robert John - Antoszewski Jarek *Optical Profiler with D-MEMS Capability (externally led by Macquarie University)* 1/01/2011 - 31/12/2011 \$11,785.00

Contribution from College of Physical & Mathematical Sciences

Charles Christine Prof - Butcher Harvey Prof - Boswell Roderick Prof - Perren M - Lappas Viaos - Clark Andrew *The Australian Plasma Thruster Project (Round 4) HDLT* 1/08/2011 - 30/06/2013 \$3,589,672.00

Lam Ping Koy Prof - James Matthew Prof - Buchler Benjamin Dr - Symul Thomas Dr - Sellars Matthew Dr - Simmons Michelle Yvonne *ARC Centre of Excellence for Quantum Computation and Communication Technology (QC2T) (externally led by University of New South Wales)* 1/01/2011 - 31/12/2015 \$7,521,500.00

Luther-Davies Barry Prof - Neshev Dragomir Prof - Kivshar Yuri Prof - Madden Steve Dr

ARC Centre of Excellence for ultrahigh bandwidth devices for optical systems (CUDOS) (externally led by University of Sydney) 1/01/2011 - 31/12/2011 \$8,599,500.00

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ARC Centre of Excellence for Quantum Computation and Communication Technology (QC2T) (externally led by University of New South Wales) 1/01/2011 - 31/12/2015

\$7,521,500.00

Contribution from Research School of Physics & Engineering

Charles Christine Prof - Butcher Harvey Prof - Boswell Roderick Prof - Perren M - Lappas Viaos - Clark Andrew *The Australian Plasma Thruster Project (Round 4) HDLT* 1/08/2011 - 30/06/2013 \$3,589,672.00

Lam Ping Koy Prof - James Matthew Prof - Buchler Benjamin Dr - Symul Thomas Dr - Sellars Matthew Dr - Simmons Michelle Yvonne *ARC Centre of Excellence for Quantum Computation and Communication Technology (QC2T) (externally led by University of New South Wales*) 1/01/2011 - 31/12/2015 \$7,521,500.00

Luther-Davies Barry Prof - Neshev Dragomir Prof - Kivshar Yuri Prof - Madden Steve Dr *ARC Centre of Excellence for ultrahigh bandwidth devices for optical systems (CUDOS) (externally led by University of Sydney)* 1/01/2011 - 31/12/2011 \$8,599,500.00

Australian Nuclear Science & Technology Organisation (ANSTO)

Access to Major Research Facilities Program

Hole Matthew Dr Scoping TAE excitation using NBI 1/08/2011 - 2/08/2011 \$1,800.00

Lane Gregory Dr - Smith Michael Mr *Pure and applied nuclear structure research with radioactive ion beams at CARIBU - Attendance at International Workshop* 1/08/2011 - 2/08/2011 \$3,175.00

Howard John Prof *Imaging Motional Stark Effect for internal current measurements* 18/07/2011 - 29/07/2011 \$1,800.00

Hinde David Prof - Evers Maurits Dr - Dasgupta Mahananda Dr *Towards understanding the transition from transfer to energy dissipation in reactions of 32S and 40Ca with 208Pb* 20/06/2011 - 29/06/2011 \$12,000.00

Australian Research Council (ARC)

Centre of Excellence

Lam Ping Koy Prof - James Matthew Prof - Buchler Benjamin Dr - Symul Thomas Dr - Sellars Matthew Dr - Simmons Michelle Yvonne *ARC Centre of Excellence for Quantum Computation and Communication Technology (QC2T) (externally led by University of New South Wales)* 1/01/2011 - 31/12/2015 \$7,521,500.00

Luther-Davies Barry Prof - Neshev Dragomir Prof - Kivshar Yuri Prof - Madden Steve Dr *ARC Centre of Excellence for ultrahigh bandwidth devices for optical systems (CUDOS) (externally led by University of Sydney)* 1/01/2011 - 31/12/2011 \$8,599,500.00

2011 Discovery: Project Grant

Akhmediev Nail Prof - Ankiewicz Adrian Dr - Taki Majid *Rogue waves in oceans and optical fibers* 1/01/2011 - 31/12/2013 \$390,000.00

Baldwin Kenneth Prof - Orr Brian J - Warrington Richard B - Eyler Edward Using high-resolution lasers to test quantum electrodynamics 1/01/2011 - 31/12/2013 \$240,000.00

Craig Vincent Prof - Senden Timothy Prof - Notley Shannon Dr Using light to move molecules - a novel approach to exploring intermolecular forces 1/01/2011 - 31/12/2013 \$365,000.00

Dasgupta Mahananda Dr - Hagino Kouichi - Tostevin Jeffrey Allan From coherent to dissipative dynamics in complex quantum systems: Emerging new ideas from precision measurements of nuclear collisions 4/04/2011 - 3/04/2014 \$450,000.00

Hinde David Prof - Schmidt Karl-Heinz - Liang Junjien Felix Researching the super heavy elements: a quantitative understanding through integrating new reaction time measurements with theoretical models 1/01/2011 - 31/12/2013 \$490,000.00

Hole Matthew Dr *Emergence and control of self-organisation in fusion plasmas: through ITER and beyond* 1/01/2011 - 31/12/2013 \$255,000.00

Hyde Stephen Prof - Mortensen Kell *Theory and synthesis of self-assembled polyfunctional supramolecular fibres and associated soft materials* 1/01/2011 - 31/12/2013 \$445,000.00

Izdebskaya Yana Dr *All-optical reconfigurable interconnects in nematic liquid crystals* 1/04/2011 - 31/03/2014 \$355,000.00

Kingston Andrew Dr - Varslot Trond Dr - Sheppard Adrian Dr

Dynamic tomography: high resolution 4 dimensional process tomography 1/01/2011 - 31/12/2013 \$246,000.00

Parsons Drew Dr - Ninham Barry Prof *Hofmeister at Work. Implementation of a paradigm shift in Physical Chemistry* 1/01/2011 - 31/12/2013 \$378,000.00

Powell David Dr - Shadrivov Ilya Dr - Engheta Nader *Functional metamaterials based on chiral structures* 1/01/2011 - 31/12/2013 \$475,000.00

Robins Nicholas Dr - Close John Prof - Rasel Ernst - Ertmer Wolfgang *Precision inertial sensing with cold atoms* 1/01/2011 - 31/12/2013 \$340,000.00

Robins Vanessa Dr - Sheppard Adrian Dr Foundations and advanced algorithms for topological image processing 1/01/2011 - 31/12/2013 \$255,000.00

Rode Andrei V Prof - Krolikowski Wieslaw Prof - Padgett Miles Nanometrology of laser-trapped airborne particles 1/01/2011 - 31/12/2013 \$510,000.00

Ruffell Simon Dr - Williams James Prof - Cohen M - Louie Steven - Zettl Alex Narrow band gap silicon: understanding and exploiting this new silicon phase 1/01/2011 - 31/12/2013 \$420,000.00

Shaddock Daniel Dr - Miller John Mr - Adhikari Rana - Hild Stefan Enhancing the science reach of second generation interferometric gravitational wave detectors through innovative mirror design and control 1/01/2011 - 31/12/2012 \$295,000.00

Shats Michael Dr - Punzmann Horst Dr - Falkovich Gregory *Extreme wave events on the water surface* 1/01/2011 - 31/12/2013 \$330,000.00

Tan Hoe Hark Prof *III-V semiconductor nanowire solar cells* 1/01/2011 - 31/12/2013 \$556,000.00

Wang Rongping Dr - Russo Salvy P - Jain Himanshu - Ngai Kia Understanding and optimizing the microstructure of Ge-As-Se glasses for superior device performance 1/01/2011 - 31/12/2013 \$210,000.00

2011 Discovery: Project Grant - externally led

Bouwknegt Pier (Peter) Prof - Varghese Mathai Supersymmetric Quantum Field Theory Topology and Duality (externally led by University of Adelaide) 1/01/2011 - 31/12/2013 \$185,000.00

2010 Future Fellowships

Buchler Benjamin Dr *Memory and light for integrated quantum systems* 7/03/2011 - 6/03/2014 \$577,884.00

Corr Cormac Dr *The plasma boundary: A major challenge for fusion science and material technology for ITER and beyond* 1/01/2011 - 31/12/2014 \$680,552.00

Lane Gregory Dr *New directions for nuclear structure research in Australia* 26/05/2011 - 25/05/2015 \$706,552.00

Notley Shannon Dr *Tuning adhesion through polymer chain entanglement* 1/08/2011 - 31/07/2015 \$783,126.00

Shaddock Daniel Dr Laser Interferometry for Space Science 20/01/2011 - 19/01/2015 \$706,552.00

Sheppard Adrian Dr *Testing theories of two-phase flow in porous media through experiment imaging and modelling* 1/01/2011 - 31/12/2014 \$773,072.00

Sukhorukov Andrey Dr *Functional nonlinear nanophotonics* 31/05/2011 - 30/05/2015 \$580,429.00

Truscott Andrew Dr *Observing Einstein-Podolsky-Rosen entanglement with ultracold atomic gases* 6/01/2011 - 5/01/2015 \$692,552.00

2011 Future Fellowships

Choi Duk-Yong Dr *A silicon-compatible light source on a silicon-on-insulator platform* 16/12/2011 - 15/12/2015 \$714,528.00

2011 Linkage: Infrastructure Equipment Facilities

Jagadish Chennupati Prof - Elliman Robert Prof - Wong-Leung Yin-Yin (Jennifer) Dr - MacDonald Daniel Dr - Williams James Prof *State-of-the-art Hall effect system for detailed electrical characterisation in semiconductors* 1/02/2011 - 31/01/2012 \$333,333.00

2011 Linkage: Infrastructure Equipment Facilities led by an External Institution

Jagadish Chennupati Prof - Martyniuk Mariusz - Kostylev Mikhail - Wang Jia - Liu Yinong - Konstantinov Konstantin -Woodward Robert - Jeffery Roger - Dell John Marcel *National Facility for Biased Target Deposition of Alloyed Nanolayers (externally led by University of Western Australia)* 1/01/2011 - 31/12/2011 \$16,862.00

Luther-Davies Barry Prof - Madden Steve Dr - Mitchell Arnan - Alameh Kamal - Moss David J - Monat Christelle - de Sterke C Martijn - Eggleton Benjamin J - Pelusi Mark - Withford Michael - Frisken Steven - Lowery Arthur J *100 Gbit to 1 Terabit per second optical communication test-bed facility (externally led by University of Sydney)* 1/01/2011 - 31/12/2011 \$12,500.00

McClelland David Prof - Slagmolen Bram Dr - Shaddock Daniel Dr - Blair David Gerald - Munch Jesper - Zhao Chunnong - Ju Li *Equipment and Instrumentation for Breaking the Quantum Measurement Barrier (externally led by University of Western Australia)* 1/01/2011 - 31/12/2011 \$168,062.00

Tan Hoe Hark Prof - Fu Lan Dr - Kane Deborah - Withford Michael - Herberstein Marie - Faraone Lorenzo - Keating Adrian - Dawes Judith Margaret - Carman Robert John - Antoszewski Jarek *Optical Profiler with D-MEMS Capability (externally led by Macquarie University)* 1/01/2011 - 31/12/2011 \$11,785.00

2011 Linkage: Projects led by an External Institution

Baldwin Kenneth Prof - McClelland David Prof - Luiten Andre Nicholas *Creating a National Time and Frequency Network for Australia (externally led by Uni of Western Australia)* 24/06/2011 - 24/06/2014 \$30,000.00

Catchpole Kylie Dr - Rode Andrei V Prof - Gan Xiaosong - Zhang Chao - Alameh Kamal - Lewis Roger - Peng Gang Ding - Juodkazis Saulius - Thoni Carola - McPherdan Ross - McPhail Dennis - Gu Min - Day Daniel - Jia Baohua *3D nano-photonic fabrication facility based on super-resolution techniques* 31/05/2011 - 31/05/2012 \$0

Super Science Fellowship

Fifield L Keith Prof - De Deckker Patrick Prof - Ellwood Michael Dr - Fallon Stewart Dr *Novel Dating Methods for Marine Sediments of Relevance to Determining Past Climate Changes* 4/04/2011 - 31/12/2013 \$556,800.00

Jagadish Chennupati Prof - Kivshar Yuri Prof Nanofabrication of Metamaterials for Next Generation Optical Devices 1/07/2011 - 30/06/2014 \$835,200.00

Australian Synchrotron Company Ltd

Access to Synchrotron Facilities

Bierschenk Thomas Mr - Ridgway Mark C Prof - Decoster Stefan Mr - Salama Hazar Dr *Study of the local structural configuration of ion implanted copper impurities in germanium* 3/09/2011 - 6/09/2011 \$815.00

Decoster Stefan Mr - Bierschenk Thomas Mr - Ridgway Mark C Prof - Salama Hazar Dr Lattice location study of implanted manganese in dilute magnetic semiconductor materials 1/09/2011 - 3/09/2011 \$1.115.00

Kluth Patrick Dr *Swift heavy ion induced track formation and porosity in crystalline and amorphous semiconductors* 30/08/2011 - 2/09/2011 \$1,115.00

Ridgway Mark C Prof *Australian Synchrotron Beamtime Application - Anisotropic vibrational properties in semiconductors-IV* 28/07/2011 - 31/07/2011 \$1,415.00

Ridgway Mark C Prof - Salama Hazar Dr *Structural and vibrational properties of metal nanoparticles in silicon notraide* 12/11/2011 - 16/11/2011 \$7,565.00

Rodriguez Matias Dr - Bierschenk Thomas Mr Integral SAXS study of the swift heavy ion induced structural modifications in Cu30Zr35Ti35 amorphous metal 24/11/2011 - 27/11/2011 \$815.00

Rodriguez Matias Dr *Swift heavy ion induced structural modifications in polymers AS112/SAXS3851* 2/09/2011 - 3/09/2011 \$1,115.00

Grants Program

Afra Boshra Ms - Kluth Patrick Dr Annealing kinetics of ion tracks in apatite 22/11/2011 - 24/11/2011 \$815.00

Decoster Stefan Mr - Ridgway Mark C Prof - Bierschenk Thomas Mr Lattice location study of implanted manganese in dilute magnetic semiconductor 17/02/2011 - 2/06/2011 \$1,415.00

Ridgway Mark C Prof - Bierschenk Thomas Mr - Decoster Stefan Mr Impurity clustering in electronic and photonic materials -II 1/04/2011 - 4/04/2011 \$1,415.00

Rodriguez Matias Dr - Kluth Patrick Dr - Afra Boshra Ms *Study of the influence of ion tracks in the recrystallization process of amorphous metals using simultaneous SAXS and WAXS* 24/03/2011 - 27/03/2011 \$1,415.00

BP Exploration Operating Company Ltd

Consultancy

Senden Timothy Prof *Combined Micro CT System - BP Instrument Sale* 6/12/2011 - 5/12/2013 \$350,000.00

Commonwealth Department of Defence Defence Science and Technology Organisation (DSTO)

Research Agreement

Close John Prof - Robins Nicholas Dr - Altin Paul Dr *State of the Art Gravimeter: Thermal Atom Source **CONFIDENTIAL PROJECT*** 30/05/2011 - 30/06/2012 \$992,520.00

Dept of Industry Innovation Climate Change Science Research and Tertiary Education (DIICCSRTE)

Australian Space Research Program Stream B: Space Science & Innovation Project Grants

Charles Christine Prof - Butcher Harvey Prof - Boswell Roderick Prof - Perren M - Lappas Viaos - Clark Andrew *The Australian Plasma Thruster Project (Round 4) HDLT* 1/08/2011 - 30/06/2013 \$3,589,672.00

Education Investment Fund

Jagadish Chennupati Prof *Australian National Fabrication Facility EIF -ACT Node Project (externally led by ANFFL)* 8/06/2011 - 30/06/2013 \$5,230,000.00

National Enabling Technologies Strategy

Jagadish Chennupati Prof *ANU Australian Research Council Nanotechnology Network (ARCNN) - 2010-2013* 1/04/2011 - 31/07/2013 \$600,000.00

Volkswagen Stiftung

Grant

Akhmediev Nail Prof - Hoffman Norbert - Pelinovsky E - Peinke Joachim *Extreme Ocean Gravity waves: Analysis and prediction on the basis of breather solutions of nonlinear evolution equations* 1/02/2011 - 3/02/2014 \$316,514.03