

Wednesday 1st July 2009

0900-0910	Welcome and Opening Remarks: Jian-Feng Nie and Chris Berndt		
0910-0920	Official Opening:		
0920-0950	Plenary Lecture “Nanostructure Processing of Advanced Biomaterials”, Jackie Ying , Institute of Bioengineering and Nanotechnology, Singapore		
0950-1020	Keynote Lecture “Atom Probe Tomography Characterisation of Solute Clustering in 6111 Al Alloy”, Simon Ringer , The University of Sydney, Australia		
1020-1100	MORNING TEA		
	SESSION A1: Nanomaterials – I	SESSION B1: Surface Engineering	SESSION C1: Ceramics – I
Chairperson	Lianzhou Wang	Mingxing Zhang	Robert O'Donnell
1100-1115	A Convenient in-Situ Chloride-Generated Approach to Various One-Dimensional Nanostructures <i>Leshu Yu, Zheng Hu, Yongxiang Li</i> School of Chemistry and Chemical Engineering, Nanjing University, China	A Novel Method of Producing AlN Films on Al Metal Substrates <i>D. Kent, G.B. Schaffer, John Drennan, T.B. Sercombe</i> The University of Queensland, Australia	Disposition of Cs, Sr, Ba, Li and K in Chlorapatite (Ca ₁₀ (PO ₄) ₆ Cl ₂) and Sodalite Eric Vance ANSTO, Australia
1115-1130	Photocatalytic Activity of Manganese-Doped ZnO Nanocrystalline Particles <i>Takuya Tsuzuki, Zoe Smith, Andrew Parker, Xungai Wang</i> Deakin University, Australia	Nitrocarburizing of a SAE 1010 Steel Automotive Component <i>Chunyan Nan, Randy J. Bowers, Derek Northwood, Xichen Sun</i> University of Windsor, Canada	“Pseudophases” in Non-Stoichiometric Praseodymium Oxide Jeffrey Sellar Monash University, Australia
1130-1145	New Near-Net Shaping Techniques for Aqueous Nanoceramic Processing <i>Carolina Tallon, George V. Franks</i> The University of Melbourne, Australia	Heat Treatment of Cold Spray Coatings to Form Intermetallic Layers Kevin Spencer , M.-X. Zhang The University of Queensland, Australia	The Performance of Conventionally Processed Lead Indium Niobate –Lead Titanate Ceramics under High Field Peter Bryant Thales Australia Naval Division, Australia
1145-1200	On the Nano-Filler Percolation Network In Polymer Nanocomposites Chunsheng Lu Curtin University of Technology, Australia	Cold Spray of Magnetic and Magnetostrictive Materials Peter King , Saden H. Zahiri, Mahnaz Jahedi. CSIRO, Australia	An Investigation of the Solid Solubility between Aluminium Oxynitride and Magnesium Aluminate Spinels <i>N. Rigopoulos, Robert O'Donnell, A. Oh, T. Bastow, M.B. Trigg</i> CSIRO, Australia
1200-1215	Prediction of Pd ₂ Ni Surface-Sandwich Ordering at the Nanoscale <i>Alexander Evteev, Elena Levchenko, Irina Belova and Graeme Murch</i> The University of Newcastle, Australia	Formation of Anatase on the Surface of Cold Sprayed Titanium by Anodising Chull Oh , S. Gulizia, M. Jahedi, C. Tang, S. Zahiri CSIRO, Australia	The Carbothermal Reduction of Zircon to Zirconia and Silicon Carbide for Ceramics and Refractories <i>N. Rigopoulos, A. Oh, M. Yousuff, Robert O'Donnell, M.B. Trigg</i> CSIRO, Australia
1215-1230	New Anatase-Type Solid Solution/Silica Composite Nanoparticles Masanori Hirano , M. Kozawa Aichi Institute of Technology, Japan	The Calculation of Capacity Usage Ratio During the Laser Cladding Process Zhijie Liang , Ping Zhang, Lin Ma National Key Laboratory for Remanufacturing, China	Transition Thresholds in Ge _x As _y Se _{1-x-y} Glasses Rongping Wang , A. Smith, B. Luther-Davies Australian National University, Australia
1230-1245	Investigation of Therapeutic Effects of Nano Chitosan Additive to Dental Materials for Prevention of Secondary Caries <i>Ali Dadgarmehr, Mohamed Makha, Colin L Raston, Mark Bush, Tony Phan, Nick Boyd</i> Centre for Strategic Nano-Fabrication, Australia	The Analysis of Stress and Strain Field of the Laser Cladding Process on The Ring Circular Orbit Huoying Zhao , Zhijie Liang, Ping Zhang National Key Laboratory for Remanufacturing, China	Surface Morphology of Low Thermal Expansion Coefficient (TEC) Glaze for Anorthite-Based Ceramics Doll Said Ngah , Jaafar Abdullah, Nurul Izza. M. Shopee No 1. Pers Dato' Menteri, Seksyen, Malaysia
1245-1300	Low Temperature Synthesis of Soft Ferrite Nanocrystallites Ahmad Fauzi Mohd Noor , A.A. Thant, S. Srimala, P. Kaung, M. Itoh University Sains Malaysia, Malaysia	Quantitative Analysis on the Interaction Between Corrosion and Wear of NiCrBSiMo Laser Cladding Coating Lei Sun , Zhijie Liang, Jinping Yuan National Key Laboratory for Remanufacturing, China	Gelcasting of Porous Ceramics Saidin Karim , A.N. A.Raof. SIRIM Berhad, Malaysia
1300-1400	LUNCH		
	SESSION A2: Nanomaterials – II	SESSION B2: Fiber, Concrete and PVC	SESSION C2: Ceramics – II
Chairperson	Andrew Rider	TBD	Jeffrey Sellar
1400-1415	Role of Amorphous Phase on Grain Growth on Two-Phase Nc-Tin/A-(C,Cn _x) Nanocomposite Films <i>Y.H. Lu, X.J. Hu, Y.G. Shen</i> City University of Hong Kong, China	Effects of Fiber Treatment and Fiber Coating on Mechanical and Dynamic Mechanical Properties of Palm Fiber/Poly(lactic Acid) Composites Nasrul Hatta , Makoto Nakazuru, Nagata Kenji, Kiyohisa Takahashi University of Tun Hussein Onn Malaysia, Malaysia	Investigation into Laser Drilling of Alumina Ceramics Using Three-Dimensional Model Ching-Yen Ho Hwa Hsia Institute of Technology
1415-1430	Design of Functional Nanostructured Material for Efficient Photocatalytic Solar-Energy Applications Lianzhou Wang , GQ Max Lu The University of Queensland, Australia	Novel Natural Wool/Cellulose Acetate Blends Regenerated from an Ionic Liquid Green Solvent <i>Nishar Hameed, Qipeng Guo</i> Deakin University, Australia	Sintering Behavior of Mullite Ceramics with Spinel Addition and Their Microstructural Change with Sintering Temperature Katsumi Yoshida , Toyohiko Yano, Hideki Hyuga and Hideki Kita Research Laboratory for Nuclear Reactors, Tokyo Institute of Technology, Japan

1430-1445	Atomic Layer Deposition of Nitrogen-Doped Titanium Dioxide Films Using Titanium Chloride and Ammonia Water as The Precursors Hsyi-En Cheng , Meng-Rong Lee, Yu-Hung Hsieh, Ching-Ming Hsu Southern Taiwan University	Metal Binding Properties of Silk Powder, Radhika Naik , Rangam Rajkhowa, M.S. Dharmaparakash, Sabrina Hureau, Lijing Wang, Xungai Wang, Suzanne V. Smith Australian Nuclear Science and Technology Organisation, Australia	Sol-gel Chemistry for Designing Materials: Tailoring the Structure and Properties of Titania Based Materials Inna Karatchevtseva , Guilhem Arrachart, David Cassidy and Gerry Triani ANSTO, Australia
1445-1500	Nanoparticles of Zinc Oxide Doped with Tin as Anti-Reflecting Coating for Silicon Solar Cell Huda Abdullah , M.N. Norazia, N.P. Ariyanto, A.A. Khadum, S. Shaari, C.F. Dee University Kebangsaan Malaysia, Malaysia	Role of nanoporosity on metal binding properties of wool powders, Radhika Naik , Guiqing Wen, M.S. Dharmaparakash, Sabrina Hureau, Akira Uedono, Peter G. Cookson and Suzanne V. Smith Australian Nuclear Science and Technology Organisation, Australia	Sol-gel Synthesis and Antibacterial Assessment of Silver Doped TiO ₂ M. Harikishore, R. Srinivasan, A. Chandra Bose, N.Thajuddin, Mubarak Ali Davood Basha, N. Rameshbabu National Institute of Technology Tiruchirappalli, India
1500-1515	2DEG Mobility and Parallel Conduction Study of MHEMT Structure by an Etching Process Samsiah Ahmad , Nasrul Hakim Ghazali, Hariyadi Soetedjo, Idris Sabtu, Mohamed Razman Yahya and Abdul Fatah Awang Mat TMRND, Malaysia	Accelerated Weathering Effects on C-PVC Piping Materials in Malaysia – A Preliminary Study M.J. Ghazali, Hain Yau Cheong UKM, Malaysia	Effects of Parameters on the Temperature History in Laser-Assisted Machining of Mullite Ching-Yen Ho , Mao-Yu Wen, Shih-Yu Lin Hwa Hsia Institute of Technology
1515-1530	High Internal Phase Emulsion: A Novel Route to Synthesis of Highly Porous Poly (2-Hydroxyethyl Methacrylate) in Monolithic and Beaded Form at Ambient Temperature Ganesh Ingavle , Timothy Ponrathnam and S. Ponrathnam Polymer Science & Engineering Division, India		Microstructure and Thermal Diffusivity of Al ₂ O ₃ -SiO ₂ -Based Tape System at Varied Sintering Temperature Rosidah Alias , A. Ibrahim, S.M. Shapee, Z. Ambak, Z.M. Yusoff and M.R. Saad TM Research & Development, Malaysia
1530-1530	AFTERNOON TEA		
	SESSION A3: Nanomaterials – III	SESSION B3: Soldering and Welding	SESSION C3: Modeling and Simulation
Chairperson	Jodie Bradby	Kaz Nogita	TBD
15300-1545	Examination of the Epoxy Adhesion between Carbon Nanotubes and Quartz and Ceramic Substrates Andrew Rider , E. Yeo, N. Brack, P. Pigram DSTO, Australia	Grain Boundary Evolution in Sm– and Nd–Sialons during Post-Sintering Heat Treatment Andrew Carman , Elena Pereloma, Yi-Bing Cheng University of Wollongong, Australia	First Principles Calculations of Stacking Faults for Titanium Andrew Smith Monash University, Australia
1545-1600	The Fabrication of TiO ₂ Nanotubes and Their Applications Yongxiang Li , Zheng Hu Shanghai Institute of Ceramics, Chinese Academy of Sciences, China	Ball Impact Behavior of Sn-Cu (-Ni) lead-free solder Joints Hideaki Tsukamoto , T. Nishimurab, S. Suenagab, S. D. McDonalda, J. Reada, K. Nogita The University of Queensland, Australia	Analysis of Errors for Equivalent Crack Size (ECS) Modelling of Fatigue Initiated from Pitting Corrosion Chris Loader , Dr Bruce Crawford Defence Science and Technology Organisation, Australia
1615-1630	Crystallography of Self-Assembled DySi ₂ Nanowires on a Si Substrate Dong Qiu , Ming-Xing Zhang, Patrick M. Kelly The University of Queensland, Australia	Initial Stages of High-Temperature Oxidation Using the Gleeble Thermal-Mechanical Simulator Matthew Franklin , M. Reid, R. DeJong, R. Dippenaar, J. Norrish, F.Barbaro. University of Wollongong, Australia	Simulation and Optimization Experiment Researches of the Residual Stress Distribution of Heavy Rail with Multi-Roll Lin Chen , Zhong-liang Tian, Jian-guo Wang, Hui-ping Ren, Ping-yi Wang, Zhang-zhong Wu, Jian-guo Liu Inner Mongolia Science & Technology University, China
1630-1645	Dynamically Adjustable Nanopores for Single Particle Detection, Measurement, Analysis and Control Linda Groenewegen Izon Science Ltd, New Zealand	The Influence of Ni Additions on the Solidification of Pb-free Solder Sn-0.7%Cu Tina Ventura , C.M. Gourlay, K. Nogita, M. Rappaz, A. K. Dahle The University of Queensland, Australia	Modelling of Quenching Process and Residual Stresses In Rail Wheels Siva Naidoo Lingamanaik Monash University, Australia
1645-1700	Fabrication of Silver Nano-structures Using Porous Anodic Aluminium Oxide Templates Jing-Hua Fang, Paul Spizzirri and Steven Prawer University of Melbourne, Australia	Sn-Rich Phase Coarsening During Isothermal Annealing for AS-Soldered Sn-Ag-Cu Solder Norainiza Saud , A. Jalar National University of Malaysia, Malaysia	Thermo-mechanical Coupled FEM Simulation of Hot Stamping of 22MnB5 High Strength Steel Sheets Hongsheng Liu , Z.W. Xing, Y. Song, J. Bao, Y.Y Yang Harbin Institute of Technology, China
1700-1715	Synthesis and Characterization of Boron/Boron Oxide Nanorods De Ming Zhu , Erich Kisi The University of Newcastle, Australia	Diffusion of Chromium, Carbon and Nickel in Ferrous Based Kiln Cast Composite Alloys Paul Huggett , R. Wuhrer, B. Ben-Nissan University of Technology Sydney, Australia	The Effect of Specimen Size on the Compressive Strength of Open Cell Brittle Ceramics Greg Heness , N Booth, B. Ben-Nissan University of Technology Sydney, Australia
1720-1800		Buffet Dinner	
1800-2100	Materials-related Research Centre Forum – Program to be advised (drinks will be provided)		

Forum Speakers:

Professor Gordon Wallace, Director, ARC Centre of Excellence for Electromaterials Science
Professor Max Lu, Director, ARC Centre of Excellence for Functional Nanomaterials
Dr Abid Khan, Director, Melbourne Centre for Nanofabrication
Professor Shi-Xue Dou, Director, Institute for Superconducting and Electronic Materials
Dr Raj Rajakumar, Director, CSIRO Light Metals Flagship
Professor Barry Muddle, Director, ARC Centre of Excellence for Design in Light Metals
Dr George Collins, CEO, CAST CRC
Dr Mark Trigg, CEO, Advanced Manufacturing CRC
Dr Murray Scott, CEO, CRC for Advanced Composite Structures
Dr Mark Hodge, CEO, Defence Materials Technology Centre
Professor Peter Hodgson, Director, Institute for Technology Research and Innovation
Dr Lyndon Edwards, Head, Institute of Materials Engineering, ANSTO
Professor David StJohn, Director, Centre for Advanced Materials Processing and Manufacturing

Thursday 2nd July 2009

SESSION 4			
Chairperson			
0920-9050	Plenary Lecture "Modelling of Deformation Mechanism and Microstructure Evolution in Superalloys", Yunzhi Wang , The Ohio State University, USA		
0950-1020	Keynote Lecture "Advanced Fibrous Materials - Application and Functionalisation", Xungai Wang , Deakin University, Australia		
1020-1040	Invited Lecture "ARC-Related Matters", Ian Mackinnon , Australian Research Council, Australia		
1040-1100	MORNING TEA		
	SESSION A5: Biomaterials – I	SESSION B5: Light Alloys – I	SESSION C5: Material Characterization – I
Chairperson	Qing Li	Nick Birbilis	Han Huang
1100-1115	Drug Delivery: Characterisation of Minerals Incorporated into Liposomes for Biomedical Applications Kanthe Lewis, Richard Wuhrer, Besim Ben-Nissan, S. Valenzuela, K. Moran University of Technology Sydney, Australia	Grain Refinement in Magnesium Alloys Mingxing Zhang, D. Qiu, H.-M. Fu, J.A. Taylor, P.M. Kelly The University of Queensland, Australia	Direct, Time-Resolved <i>In-Situ</i> Observation of Dynamic Recrystallization and Related Phenomena in The Bulk of Zirconium Alloy Klaus-Dieter Liss, Ulf Garbe, Thomas Schambron, Jonathan Almer, HuiJun Li, Kun Yan, Rian Dippenaar ANSTO, Australia
1115-1130	Highly Interconnected Porous Polyurethane (PU) Scaffolds for the Growth of an Endothelial Layer for Cardiovascular Applications Simon Xigeng Miao, DongChoon Sin, and Gang Liu Queensland University of Technology, Australia	Microstructure Refinement of AZ31 Magnesium Alloy – Effects of Sr Addition and Melt Holding Time Renju Cheng, Z.W. Liu, F.S. Pan, M.B. Yang, A.T. Tang, S.P. Ringer The University of Sydney, Australia	Time Resolved In-Situ Scanning Electron Microscopy Strain Mapping by Feature Tracking Daniel Haley, Tim Petersen, Geoff Barton, Simon Ringer The Sydney University, Australia
1130-1145	Magnesium Alloys as Degradable Metallic Biomaterials Hao Wang, Zhiming Shi, Ke Yang University of Southern Queensland, Australia	Understanding Rheology and Solidification of Al and Mg Alloys Bastian Meylan, C.M. Gourlay, A.K. Dahle The University of Queensland	The Early Stages of Ageing in the Ni-Based Superalloy, Inconel 718 Talukder Alam, Mahesh Chaturvedi, Simon P. Ringer, Julie Cairney The University of Sydney, Australia
1145-1200	Transient Modeling of Thermal Processing for Ceramic Prostheses Zhongpu Zhang, Qing Li, Wei Li, Michael Swain The University of Sydney, Australia	Refinement of Eutectic Silicon in Hypoeutectic Al-Si Alloys using Calcium Addition Younghee Cho, Arne Dahle The University of Queensland, Australia	Overcoming Challenges Associated with the Atom Probe Investigation of Heterogeneous Materials such as Steels and Thin Films. Peter Johann Felfer The University of Sydney, Australia
1200-1215	The Effect of Implant-supported All Ceramic Cantilever Bridge on Bone Remodelling Chaiy Rungsiyakull, Pimduen Rungsiyakull, Qing Li, Wei Li, Michael Swain The University of Sydney, Australia	Solute Clustering during T6 and T614 Ageing in Al-Cu-Mg Ross Marceau, G. Sha, R.N. Lumley, S.P. Ringer The University of Sydney, Australia	TEM Observation of Manganese Sulphide Dissolution after Carbon Extraction Replica Samples Preparation Xiaofeng Xu, Z. Chen, Rian Dippenaar University of Wollongong, Australia
1215-1230	Resorption of Dental Bones due to Occlusal Overload on the Ceramic Crown of Dental Implant: Daniel Lin, Qing Li, Wei Li and Michael Swain The University of Sydney, Australia	Characterisation of Precipitates in Mg-Y-Ag-Zn alloys by High-Angle Annular Dark-Filed Scanning Transmission Electron Microscopy and 3D Atom Probe Yuman Zhu, K. Ohishi, K. Hono, A.J. Morton, J.F. Nie Monash University, Australia	Characterisation of Cu-In-Se (CIS) Thin Films Prepared by RF Magnetron Sputtering Machine S. Habibi, H. Abdullah, A. Lennie, S.A. Halim, K.P. Lim, Z.A. Talib University Kebangsaan Malaysia, Malaysia
1230-1245	Mathematical Modeling and Simulation of Biodegradation Yuhang Chen, Shiwei Zhou, Richard Appleyard, Wei Li, Qing Li The University of Sydney, Australia	Effects of Multiple Ageing Treatments on Precipitate Distributions and Fracture Toughness in Mg-Y-Nd Alloys Zhou Xu, J.F. Nie Monash University, Australia	Production and Characterisation of Vacuum Cast Composite Alloys T. Lucey, P.G. Huggett, R. Wuhrer, W. Yeung University of Technology Sydney, Australia
1245-1300	Phase Stability of Partially Stabilized Y ₂ O ₃ -Zirconia/Biphase Calcium Phosphate (ZrO ₂ /Bcp) Biocomposite Ahmad Fauzi Mohd Noor, Firmandika Harda, Aditianto Ramelan, Kunio Ishikawa University Sains Malaysia, Malaysia	Precipitation in Magnesium Alloys for Ductility and Strength Nigel Ross, Matthew Barnett, Aiden Beer Deakin University, Australia	Investigation of Metallic Structures with Negative Coefficient of Expansion: A Review Mehdi Soodi, Milan Brandt, Syed Masood Swinburne University of Technology, Australia
1300-1400	LUNCH		
	SESSION A6: Biomaterials – II and Functional Materials – I	SESSION B6: Light Alloys – II	SESSION C6: Material Characterization – II
Chairperson	Simon Miao and Greg Heness	Cheng Yan	TBD
1400-1415	Mechanical Properties of Nano-hydroxyapatite Coated Coralline Biomaterials Besim Ben-Nissan, Li-Hong He, Joshua Chou, Michael V. Swain, Gregory Heness University of Technology Sydney, Australia	Microstructure and Properties of Mg-0.3Zn-0.32Zr Alloy Hao Wang, Z.L. Ning, W.Z. Liang, F.Y. Cao, J.F. Sun University of Southern Queensland, Australia	Fracture Characteristics and Deformation Mechanism of Cemented Tungsten Carbides under Nanoindentation and Nanoscratch Han Huang, Rudy Irwan The University of Queensland, Australia
1415-1430	Template and Sol-gel Chemistry Synthesis of Hydroxyapatite Structures William Andrew McMaster, Rachel Anne Caruso The University of Melbourne, Australia	Tensile Deformation Behavior of a Mg-0.8at.%Gd Alloy Xi-Ya Fang, D.Q. Yi, J.F. Nie Monash University, Australia	Effect of Oxygen and Hydrogen Concentration on Nanoindentation-Induced Phase Transformations in Amorphous Silicon Simon Ruffell, J. Vedi, J.E. Bradby, J.S. Williams Australian National University, Australia

1430-1445	Electrical Conductivity, Structural Parameter and Surface Area of Various Activated Carbon From Biomass Material Rozan Mohamad Yunus , N. Hashim, M. Deraman, A. Mohd. Ramli Telekom Malaysia Research Sdn. Bhd. Malaysia	Deformation behavior of Cryo-rolled 2024 Al alloy S. Malekjani , P. D. Hodgson, I. Sabirov, T.B. Hilditch Deakin University, Australia	Electrical Characterization and Room-Temperature Doping of Nanoindentation-Induced Phases in Silicon Simon Ruffell , K. Sears, J.E. Bradby, J.S. Williams, A.P. Knight* Australian National University, Australia; *McMaster University, Canada
1445-1500	Evolutionary Structural Optimization for Electromagnetic Metamaterials Shiwei Zhou , Qing Li The University of Sydney, Australia	Age Hardening Behaviour of Mg-Zn-Co Alloys with Microalloying Additions Jie Geng , J.F. Nie Monash University, Australia	Nanoindentation Characterization of Intermetallic Compounds Formed at the Sn-Cu(-Ni) Solder/ Cu Substrate Interface Hideaki Tsukamoto , Z. Dong, H. Huang, T. Nishimura, K. Nogita The University of Queensland, Australia
1500-1515	TBC	Compressive Behaviour of Nanocrystalline Mg-Al Alloy Hui Diao , Cheng Yan, John Bell Queensland University of Technology, Australia	Surface and Tip Enhanced Raman Spectroscopy: Nano-Tools for the Characterisation of Surfaces Paul Spizzirri , J. H. Fang, A. Cimmino The University of Melbourne, Australia
1515-1530	Effect of Aging Conditions on the Electrical Conductivity and Mechanical Properties of Ti-added Cu-Ni-Si Alloy Kwangjun Euh , Seung Zeon Han, Sangshik Kim Dept. of Advanced Metallic Materials, Korea Institute of Materials Science, Korea	Grain Size Effects on Alloy Corrosion Kevin Ralston , Nick Birbilis Monash University, Australia	
1530-1600	AFTERNOON TEA		
	SESSION A7: Functional Materials – II	SESSION B7: Light Alloys – III	SESSION C7: Composite and Geopolymer
Chairperson	Hao Wang	Klaus-Dieter Liss	Qipeng Guo
1600-1615	The Holy Grail of Carbon Combustion – The Direct Carbon Fuel Cell Technology S.P.S. Badwal , S. Giddey CSIRO Energy Technology, Australia	Severe Plastic Deformation Induced Grain Growth and Elemental Segregation in Metallic Materials Yanbo Wang, Song Ni, Xiaozhou Liao The University of Sydney, Australia	Internal Resistance Heating for Homogeneous Curing of Adhesively Bonded Repairs Chun Wang, Andrew Rider , Jinan Cao DSTO, Australia
1615-1630	Surface Engineered Silica for Water Treatment Peter Majewsk University of South Australia, Australia	The effect of Exposure to High Temperatures on the Fatigue Life of Cold Expanded Holes in 7050-T7451 Aluminium Alloy Qianchu Liu , P. Baburamani, C. Loader Defence Science and Technology Organisation, Australia	SiC Composites Through Infiltration of Carbon Preforms. Robert O'Donnell , A. Oh, M. Yousuff and N. Rigopoulos CSIRO, Australia
1630-1645	The Influence of Microstructure on Hydrogen Sorption Properties of Cast Mg-Ni Alloys Younghee Cho , Arne K. Dahle The University of Queensland, Australia	Bulk Pure Mg Consolidated and Deformed through Multi-Passes Using Back Pressure Equal Channel Angular Pressing Xiaolin Wu , J. Li, W. Xu, K. Xia The University of Melbourne, Australia	Characterisation of Diamond Composites for Tooling Jim Boland , X.S. Li CSIRO Exploration and Mining, Australia
1645-1700	Synthesis and Surface Functionalization of Hierarchically Porous Metal Oxide Membranes Glenna Drisko , Maryline Chee Kimling, Lu Cao, Rachel A. Caruso The University of Melbourne, Australia	Factors Influencing the Formation of Streaking Defects on Anodized Aluminium Extrusions Hanliang Zhu , Xinquan Zhang, Malcolm J. Couper, Arne K. Dahle The University of Queensland, Australia	Immobilisation of Cobalt in Metakaolinite-based Geopolymers Dan Perera , Lou Vance, David Cassidy, Zaynab Aly, Joel Davis and Mark Blackford ANSTO, Australia
1700-1715	Synthesis of Cuprous Oxide Thin Films With Different Grain Size And their Absorption Characteristic Dewi Suriyani Halin , I.A. Talib, A.R. Daud, M.A.A. Hamid National University of Malaysia, Malaysia	Lattice Strain and Texture Evolution during Deformation Twinning in Magnesium Kun Yan , Matthew Robert Barnett, Klaus-Dieter Liss, Rian Dippenaar The Bragg Institute, ANSTO, Australia	Geopolymers for Controlled Released Applications. Suzanne V Smith , Dan Brew, Sabrina Hureau, Alex Fuchs, Dan Perera Australian Nuclear Science and Technology Organization, Australia
1715-1730	The Properties of Cu-In-Se (CIS) Thin Films by RF Magnetron Sputtering Machine S. Habibi, H. Abdullah , A. Lennie, S. A. Halim, Z.A. Talib University Kebangsaan Malaysia, Malaysia	Effect of Grain Size on Deformation Twinning in Commercial Purity Titanium Alireza Ghaderi , M.R. Barnett Deakin University, Australia	The Role of Al ₂ O ₃ , SiO ₂ and Na ₂ O on the Amorphous → Crystalline Phase Transformation in Geopolymer Systems Pre De Silvg , Kwesi Sagoe-Crenstil Australian Catholic University, Australia
1900-2100	CONFERENCE DINNER		

Friday 3rd July 2009

SESSION 8:			
Chairperson			
0915-0945	Keynote Lecture "Role of Catalysts in the Growth of Epitaxial Nanowires and Nanowire Heterostructures", Jin Zou , The University of Queensland, Australia		
0945-1015	Keynote Lecture "Development of Electrodes for All-Solid-State Microbatteries", Li Lu , The National University of Singapore		
1015-1030	MORNING TEA		
	SESSION A9: Functional Materials – III	SESSION B9: Light Alloys – IV	SESSION C9: Steels
Chairperson	Peter Majewsk	Xiaozhou Liao	TBD
1030-1045	Small Footprint Aluminosilicate Matrix – Refractory Hybrid Materials Damian Fullston , <i>Kwesi Sagoe-Crentsil</i> CSIRO Materials Science & Engineering, Australia	Effect of Inoculants on Microstructure and Hot-rolling Behavior of Mg-Al Base Alloys Young Min Kim , <i>Ling Wang, Bong Sun You</i> Korea Institute of Materials Science, Korea	Phase Relationships in Experimental Duplex Stainless Steels Containing 5 to 7% Mn Michael Cortie , <i>S. Nanab</i> University of Technology Sydney, Australia
1045-1100	Submicron-sized Mesoporous Titania Beads for Dye-sensitized Solar Cell Applications Dehong Chen , <i>Fuzhi Huang, Yi-Bing Cheng, Rachel A. Caruso</i> The University of Melbourne, Australia	High Strength Ti-Based Ti/TiN Nanostructured Composites Synthesized Using Back Pressure Equal Channel Angular Pressing Wei Xu , <i>X. Wu, K. Xia</i> The University of Melbourne, Australia	The Evolution of Hot Deformation and Recrystallization in Low Carbon, Low Manganese, Titanium added Steels Ali Dehghan-Manshadi , <i>Rian Dippenaar</i> University of Wollongong, Australia
1100-1115	Materials Design for Ultra-lean Porous Burners Catharine Tierney , <i>S. Wood, A. T. Harris</i> , The University of Sydney, Australia	Novel Grain Boundary Solute Architecture in a Nanostructured Ultra High Strength 7075 Aluminium Alloy Peter Liddicoat , <i>Simon P Ringer</i> The University of Sydney, Australia	The Role of Niobium Additions on Microstructure – Property Relationships in CASTRIP® Steels Yuxuan Kelvin Xie The University of Sydney, Australia
1115-1130	Aging Phenomena in the Au _{2-x} Cu _{1+x} Al Shape Memory Compound Vijay Bhatia , <i>C. Kealley, M.J. Prior, F.C. Levey, M.B. Cortie</i> , University of Technology Sydney, Australia	Multiphase Ultrafine and Nanostructured Ti-Al by Ball Milling and Equal Channel Angular Consolidation. Edward Wen Chiek Lui , <i>W. Xu, X. Wu, K. Xia</i> The University of Melbourne, Australia	Nanoscale Characterisation of Nb-Microalloyed Castrip® Steels Lan Yao , <i>J.M. Cairney, and S.P. Ringer</i> The University of Sydney, Australia
1130-1145	Multiobjective Successive Response Surface Method for Crashworthiness Design of Foam Filled Thin-wall Structures Guangyong Sun , <i>Guangyao Li, Qing Li</i> The University of Sydney, Australia	Influence of Direct Extrusion on Microstructure and Mechanical Properties of As-cast AZ91D Magnesium Alloy Baohong Zhang , <i>Zhimin Zhang</i> North University of China, China	Bake Hardening Behaviour in Intercritically Annealed C-Mn-Si Transformation-Induced Plasticity Steel Laichang Zhang , <i>I.B. Timokhina, A. La Fontaine, S.P. Ringer, P.D. Hodgson, E.V. Pereloma</i> University of Wollongong, Australia
1145-1200	Mn Behaviour in Diluted Magnetic Semiconductors <i>Y. Wang</i> , Jin Zou The University of Queensland, Australia	Thixotropic Compression Deformation Behavior of SiCp/AZ61 Magnesium Matrix Composites Hong Yan Nanchang University, China	Developments in Automated Inclusion Analysis for the Steels Industry Mark Reid , <i>R. Dippenaar, T. Drake</i> University of Wollongong, Australia
1200-1215	Preparation and Magnetic Properties of Porous MnZnFe ₂ O ₄ from Wood Template Chee Kiong Sia , <i>D.Muto, N. Adachi, T. Ota</i> University Tun Hussein Onn, Malaysia	The Effect Of Thermal Aging On Wear Behaviour of Al–12Si-4Mg Alloy Containing Cerium Abu Seman Anasyida , <i>A.R. Daud, M.J. Ghazali</i> University Kebangsaan Malaysia, Malaysia	A Major Challenge for the Steel Strip Production Industry Salar Niknafs University of Wollongong, Australia
1215-1230	Preparation and Characterization of Activated Carbon, Binding Material and Water Retention Additive Mixture for Grounding Enhancement Material Nabihah Hashim , <i>R. Mohamad Yunus, M. Deraman, A. Mohd Ramli</i> TM Research & Development Sdn Bhd, Malaysia	Friction Stir Welding Characterization of Double-welded Al-7075 Joints <i>Meysam Mirazizi</i> , A.H. Kokabi Sharif university of technology, Iran	Investigation of Hot Stamping of Quenchable Boron Steel Sheet Metal for Shaped Part by Experiments Zhongwen Xing , <i>H.S. Liu, J. Bao, B.Y. Soing</i> Harbin Institute of Technology, China
1230-1400	LUNCH & CONFERENCE CLOSE		

Poster Presentations:

A Method for Introducing Precrack on CT Specimens Made of Brittle Materials, Kenichi Tamura, Shingo Nakamura, **Shintaro Tamura**, **Atsushi Hashimoto**, College of Engineering, Nihon University, Japan
 Al-C Nanocomposites Processed by Severe Plastic Deformation, **Shouqie Goussous**, *W. Xu, K. Xia*, The University of Melbourne, Australia
 Applications of Nanotechnology in Oil and Gas Industry, **A. Esmaeili**, *M. Dehghani*, Petroleum Production Engineers, Iran
 Detection of Amorphous Silica in Air-Oxidized Ti₃SiC₂ at 500 -1200°C by NMR and SIMS, *W. K. Pang*, **I.M. Low**, *J. V. Hanna*, Curtin University, Australia
 Diffraction Study of Thermal Dissociation of Ti₃AlC₂ in Vacuum, *W.K. Pang*, **I.M. Low**, *B.H. O'Connor, A.J. Studer, Z.M. Sun*, Curtin University, Australia
 Effects of Vacuum Annealing on the Ti₃SiC₂/TiC/TiSi₂ Ceramic Composites, **Wei Kong Pang**, *I.M. Low, B.H. O'Connor, A.J. Studer, J.P. Palmquist*, Curtin University of Technology, Australia
 Evaluating Mullitization of Iranian Andalusite in Mullite - Corundum Refractories, **Rahim Vafspour**, Sharif University of Technology / Spinel Sanat Engineering Consultancy Co., Iran
 Material Behavior and Formability of Magnesium Az31 Sheet Alloy under Warm Hydroforming Conditions, **Sasawat Mahabunphachai**, *Muammer Koç*, VCU, United States of America
 Modeling the Strength of Friction Stir Welded Aluminum Alloys Using SLW Method, *M. Mirazizi, A. Shafiei M, A.H. Kokabi*, Sharif University of Technology, Iran
 Monte Carlo Simulation of the Formation and Shrinkage of Hollow Binary Alloy Nanospheres, **Alexander Evteev**, *Elena Levchenko, Irina Belova, Graeme Murch*, The University of Newcastle, Australia
 Stability of the Grain Structure in 7075-O Aluminum Alloy Friction Stir Welds during Solution Treatment, **Meysam Mirazizi**, *A.H. Kokabi*, Sharif University of Technology, Iran
 Structural, Electronic and Elastic Properties of Some B2 Intermetallic Compounds from First Principle Calculation, **A.Sekkal**, *A.Benzair, G.Merad, H.Aourag*
 Study on the New Economic Method of Insulating Ceramic Machining by Transient Micro-detonation of Electrode Arc Striking, **X.L. Tian**, *J.F. Yang, C. Liu*, National Key Laboratory for Equipment Remanufacturing, Academy of Armored Forces Engineering, China
 The Properties of Cu-In-Se (Cis) Thin Films by RF Magnetron Sputtering Machine, **S. Habibi**, *H. Abdullah, A. Lennie, S. A. Halim, Z.A. Talib*, Universiti Kebangsaan and Universiti Putra Malaysia, Malaysia
 Thixotropic Compression Deformation Behavior of SiCp/AZ61 Magnesium Matrix Composites, **Hong Yan**, School of Mechanical-Electrical Engineering, Nanchang University, China
 Wastewater De-colorization from Textile Dyes by Aluminum Silicate Meta-Ceramics, **Y. Enriquez Mendez**, Universidad Autónoma del Estado de Morelos, Mexico