

7. Publications, 2006/2007

Publications, 2006

1. **M F Abbod, M Mahfouf, C M Sellars and D A Linkens** "An inverse hybrid modelling technique for predicting virtual microstructure in aluminium alloys", 9th ESAFORM Conf (2006) 51-54.
2. **M F Abbod, Q Zhu, D A Linkens, C M Sellars and M Mahfouf** "Hybrid models for aluminium alloy properties prediction", *C Eng Pract*, **14** (2006) 537-546.
3. **T B Adams, D C Sinclair and A R West** "Characterization of grain boundary impedances in fine- and coarse-grained $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramics", *Physical Review B*, **73** (2006) 094124-1 – 094124-9.
4. **T B Adams, D C Sinclair and A R West** "Decomposition reactions in $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramics", *J Am Ceram Soc*, **89**(9) (2006) 2833-2838.
5. **T B Adams, D C Sinclair and A R West** "Influence of processing conditions on the electrical properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramics", *J Am Ceram Soc*, **89**(10) (2006) 3129-3135.
6. **D A Allwood, T Schrefl, G Hrkac, I G Hughes and C S Adams** "Mobile atom traps using magnetic nanowires", *Appl Phys Lett*, **89** (2006) 014102-1 – 014102-3.
7. **D A Allwood, G Xiong and R P Cowburn** "Magnetic domain wall serial-in parallel-out shift register", *Appl Phys Lett*, **89** (2006) 102504-1 – 102504-3.
8. **D A Allwood, G Xiong and R P Cowburn** "Writing and erasing data in magnetic domain wall logic systems", *J Appl Phys*, **100** (2006) 123908-1 – 123908-9-6.
9. **E M Antipov, V A Dubinsky, A B Rebrov, Yu P Nekrasov, S A Gordeev and G Ungar** "Strain-induced mesophase and hard-elastic behaviour of biodegradable polyhydroxyalkanoates fibers", *Polymer*, **47** (2006) 5676-5690.
10. **D T Asquith, A L Yerokhin, J R Yates and A Matthews** "Effect of combined shot-peening and PEO treatment on fatigue life of 2024 A1 alloy", *Thin Solid Films*, **515** (2006) 1187-1191.
11. **D Atkinson, C C Faulkner, D A Allwood and R P Cowburn** "Domain-Wall Dynamics in Magnetic Logic Devices", in *Spin Dynamics in Confined Magnetic Structures III*, Eds B Hillebrands and A Thiaville, *Topics Appl Phys*, **101** (2006) 207-223.
12. **M Audronis, P J Kelly, A Leyland and A Matthews** "A TEM study of the structure of magnetron sputtered chromium diboride coatings", *J Phys Conf Series*, **26** (2006) 355-358.
13. **M Audronis, P J Kelly, A Leyland and A Matthews** "Microstructure of direct current and pulse magnetron sputtered Cr-B coatings", *Thin Solid Films*, **515** (2006) 1511-1516.
14. **G A Badini Confalonieri, H A Davies and M R J Gibbs** "Evolution of Barkhausen jumps in annealed amorphous wire having vanishing values of magnetostriction", *J Appl Phys*, **100** (2006) 043914-1 – 043914-5.
15. **Y Bai, N B Milestone and C Yang** "Sodium sulphate activated GGBS/PFA and its potential as a nuclear waste immobilisation matrix", *Mat Res Soc Sym Proc*, **932** (2006) 759-766.
16. **S Bance, T Schrefl, G Hrkac, D Suess, C Brownlie, S McVitie, J N Chapman and D A Allwood** "Transitions between vortex and transverse walls in NiFe nano-structures", *IEEE Trans Magn*, **40**(10) (2006) 2966-2968.
17. **S Bandyopadhyay-Ghosh, I M Reaney, A Johnson, I M Brook, K Hurrell-Gillingham and P V Hatton** "Castability and Biocompatibility of novel fluorocanase glass-ceramics", *Key Eng Mat Vols* **309-311** (2006) 293-296.
18. **M Bankhead, K Good, S L Owens and K P Travis** "Multi-scale simulation of soft material flow", *Proc PVP2006-ICPVT-11* (2006).
19. **J M Barandiaran, J Bezanilla, H A Davies and P Pawlik** "Magnetic properties of Fe-based bulk ferromagnetic glasses", *Sensors and Actuators A*, **129** (2006) 50-52.
20. **C Barnes, S Cota, J Deckers, V Efremenkov, W Heep, R Hesbol, R Ineichen, I Kallonen, J Kelly, R Kohout, V Kothandaramaswamy, A Larsson, X Liu, P McClelland, L Morton, M Ozhovan, J K Park, M Polkanov, R Rohlig, V Solovyev, K Vlasova and D Wise**, "Application of thermal technologies for processing of radioactive waste", *IAEA TECDOC-1527*, IAEA, Vienna (2006).
21. **G Battaglia and A J Ryan** "Effect of amphiphile size on the transformation from a lyotropic gel to a vesicular dispersion", *Macromolecules*, **39** (2006) 798-805.
22. **G Battaglia and A J Ryan** "Neuron-like tubular membranes made of diblock copolymer amphiphiles", *Angew. Chem Int Ed*, **45** (2006) 2052-2056.
23. **G Battaglia and A J Ryan** "Pathways of polymeric vesicle formation", *J Phys Chem B*, **110** (2006) 10272-10279.
24. **G Battaglia and A J Ryan** "Polymeric vesicle permeability: A facile chemical assay", *Langmuir*, **22** (2006) 4910-4913.
25. **O G Batyukhnova, S A Dmitriev, V V Agrinenko, M I Ojovan, J Sabol and V M Efremenkov** "Russian-IAEA Education Training Centre at Moscow SIA «Radon»: 8 years experience in educating personnel to manage radioactive wastes", *Proc WM'06 Conference*, 27th February–3rd March 2006, Tucson, Arizona, WM-6131, 8pp (2006).
26. **O G Batyukhnova, S A Dmitriev, Yu V Puzanov, I V Semenova and M I Ojovan** "Quantitative Assessment Personnel Training Efficiency in Management of Radioactive Waste", *Proc WM'06 Conference*, 27th February –3rd March 2006, Tucson, Arizona, WM-6152, 5pp (2006).
27. **S Behzadi and F R Jones** "Yielding Behaviour of a model epoxy resin matrix for fibre reinforced composites", *Proc ECCM12*, Biarritz, France, CD ROM, Ed. J Lamon and Torres-Marques, ESCM, 2006.
28. **I Betancourt and H A Davies** "Magnetic properties of B-rich nanocomposite $\alpha\text{-(Fe, Co)/(NdPr)}_2\text{Fe}_{14}\text{B}$ alloys", *Phys B*, **384** (2006) 286-289.
29. **I Betancourt and H A Davies** "Magnetic properties of B-rich nanocomposite $\text{Re}_y\text{TM}_{90-y-x}\text{Nb}_x\text{B}_{10}$ (RE = Nd, Nd + Pr, TM = Fe, Fe + Co; y = 8, 10, 12, x = 0, 2, 4) alloys", *J Iron and Steel Res*, **13**(1) (2006) 146-152.

30. **G Bhattacharya, S Zhang, M E Smith, D D Jayaseelan and W E Lee** "Mineralizing magnesium aluminate spinel formation with B_2O_3 ", *J Am Ceram Soc*, **89(10)** (2006) 3034-3042.
31. **G Bhattacharya, S Zhang, D D Jayaseelan and W E Lee** "Mineralizing spinel formation with boron-containing compounds", *Adv Sci Technol*, **45** (2006) 2254-2259.
32. **P A Bingham, S D Forder and R J Hand** "Mössbauer studies of phosphate glasses for the immobilisation of toxic and nuclear wastes", *Hyperfine Interact* (2006) Published online 26th October 2006.
33. **P A Bingham and R J Hand** "Vitrification of toxic wastes: a brief review", *Advances in Appl Ceramics*, **105(1)** (2006) 21-31.
34. **P A Bingham and R J Hand** "Recycling of incinerator ashes: potential energy-saving raw materials for the manufacture of glasses and ceramics or simply low-grade aggregate materials^P", *Proc 1st Intl Cong Ceramics*, Toronto, Canada, July 2006. CD-ROM proceedings.
35. **P A Bingham, R J Hand and S D Forder** "Doping of iron phosphate glasses with Al_2O_3 , SiO_2 or B_2O_3 for improved thermal stability", *Mat Res Bulletin*, **41** (2006) 1622-1630.
36. **P A Bingham, R J Hand, S D Forder, A Lavaysierre, F Deloffre, S H Kilcoyne and I Yasin** "Structure and properties of iron borophosphate glasses", *Phys Chem Glasses: Eur J Glass Sci Technol B*, **47(3)** (2006) 313-317.
37. **P A Bingham, R J Hand, S D Forder, A Lavaysierre, F Deloffre, S H Kilcoyne and I Yasin** "Preliminary studies of sulphate solubility and redox in $60P_2O_5$ - $40Fe_2O_3$ glasses", *Mat Lett*, **60** (2006) 844-847.
38. **P A Bingham, R J Hand and C R Scales** "Immobilization of simulated plutonium-contaminated material in phosphate glass: an initial scoping study", *Scientific Basis for Nuclear Waste Management XXIX*, *Mat Res Soc Symp Proc*, **932** (2006) 345-352.
39. **M S Bobji, C S Ramanujan, J B Pethica and B J Inkson** "A miniaturized TEM nanoindenter for studying material deformation in situ", *Meas Sci Technol*, **17** (2006) 1324-1329.
40. **C Braga and K P Travis** "Configurational constant pressure molecular dynamics", *J Chem Phys*, **124** (2006) 104102-1 – 104102-13.
41. **D J Brooks, R E Douthwaite, R Brydson, C Calvert, M G Measures and A Watson** "Synthesis of inorganic fullerene (MS_2 , $M = Zr, Hf$ and W) phases using H_2S and N_2/H_2 microwave-induced plasmas", *Nanotechnology*, **17** (2006) 1245-1250.
42. **M T Bryan, D Atkinson and D A Allwood** "Multimode switching induced by a transverse field in planar magnetic nanowires", *Appl Phys Lett*, **88** (2006) 032505-1 – 032505-3.
43. **N A Bullett, R A Talib, R D Short, S L McArthur and A G Shard** "Chemical and thermo-responsive characterisation of surfaces formed by plasma polymerisation of *N*-isopropyl acrylamide", *Surf Interface Anal*, **38** (2006) 1109-1116.
44. **A J Bullock, M C Higham and S MacNeil** "Use of human fibroblasts in the development of a xenobiotic-free culture and delivery system for human keratinocytes", *Tissue Engineering*, **12(2)** (2006) 245-255.
45. **M Cable** "Apsley Pellatt on Glass Making – Publications by Apsley Pellatt senior and Apsley Pellatt Junior 1807-1848", Ed M Cable, Society of Glass Technology 2006, ISBN-0-900682-54-X, pp XXIV + 274.
46. **D L Cairns, I M Reaney, N Otten, D Iddles and T Price** "Structural determination and microwave properties of $(x)Re(Co_{1/2}Ti_{1/2})O_3$ - $(1-x)CaTiO_3$ ($Re = La$ and Nd) solid solutions", *J Eur Ceram Soc*, **26** (2006) 875-882.
47. **C C Calvert, W M Rainforth, D C Sinclair and A R West** "Characterisation of grain boundaries in the $CaCu_3Ti_4O_{12}$ using HREM, EDS and EELS", *J Phys: Conf Series* **26** (2006) 65-68.
48. **C C Calvert, W M Rainforth, D C Sinclair and A R West** "EELS characterisation of bulk $CaCu_3Ti_4O_{12}$ ceramics", *Micron*, **37** (2006) 412-419.
49. **P R Cantwell, U J Gibson, D A Allwood and H A M MacLeod** "Optical coatings for improved contrast in longitudinal magneto-optic Kerr effect measurements", *J Appl Phys*, **100** (2006) 093910-1 – 093910-9.
50. **R Carter, J Sloan, A I Kirkland, R R Meyer, P J D Lindan, G Lin, M L H Green, A Vlandas, J L Hutchison and J H Harding** "Correlation of structural and electronic properties in a new low-dimensional form of mercury telluride", *Phys Rev Lett*, **95** (2006) 215501-1 – 215501-4.
51. **L Castaldi, M R J Gibbs and H A Davies** "Effect of target power and composition on RE-Fe-B thin films with Cu and Nb buffer and cap layers", *J Appl Phys*, **100** (2006) 093904-1 – 093904-7.
52. **M Chipara, O Publisi, R Skomski, F R Jones and B G Hsiao** "Degradation Processes in Nanostructured Materials" *MRS Proc*, Warrendale, USA MRS, 887, (2006).
53. **P Cizek, B P Wynne and W M Rainforth** "EBSD investigation of the effect of strain path changes on the microstructure and texture of duplex stainless steel during hot deformation", *J Phys: Conf Series* **26** (2006) 331-334.
54. **P Cizek, B P Wynne and W M Rainforth** "EBSD investigation of the microstructure and texture characteristics of hot deformed duplex stainless steel", *J Microscopy*, **222(2)** (2006) 85-96.
55. **N C Collier, N B Milestone, J Hill and I H Godfrey** "The disposal of radioactive ferric floc", *Waste Manage*, **26** (2006) 769-775.
56. **B S Das, A Shterenlikht, I C Howard and E J Palmiere** "A general method for coupling microstructural response with structural performance", *Proc R Soc A*, **462** (2006) 2085-2096.
57. **S Das, E J Palmiere and I C Howard** "A Probabilistic Approach to Model Interfacial Phenomena During Hot Flat Rolling of Steels", *JISI International*, **46** (2006) 560-566.
58. **H A Davies and M R J Gibbs** "Amorphous Alloys", Invited chapter in *Handbook of Magnetism and Advanced Magnetic Materials*, eds Helmut Kronmüller and Stuart Parkin (2006) 1861-1881.
59. **J Dean, M R J Gibbs and T Schrefl** "Finite-element analysis on cantilever beams coated with magnetostrictive material", *IEEE Trans on Magn*, **42(2)** (2006) 283-288.

60. **R Dittrich, J Fidler, D Suess, W Scholz, H Forster and T Schrefl** "Computational aspects of micromagnetics", *The Science of Hysteresis*, **2** (2006) 383-434.
61. **F Dorfbauer, T Schrefl, M Kirschner, G Hrkac, D Suess, O Ertl and J Fidler** "Nanostructure calculation of CoAg core-shell clusters", *J Appl Phys*, **99** (2006) 08G706-1 – 08G706-3.
62. **J D Dutson, D Litvinoc, M R J Gibbs, Y Inaba, H Muraoka and K O'Grady** "Magnetisation reversal in media with perpendicular anisotropy", *J Magn Magn Mat*, **304** (2006) 51-54.
63. **S Dyshlovenko, L Pawlowski, B Pateyron, I Smurov and J H Harding** "Modelling of plasma particle interactions and coating growth for plasma spraying of hydroxyapatite", *Surf Coat Tech*, **200** (2006) 3757-3769.
64. **O Ertl, G Hrkac, D Suess, M Kirschner, F Dorfbauer, J Fidler and T Schrefl** "Multiscale micromagnetic simulation of giant magnetoresistance read heads", *J Appl Phys*, **99** (2006) 08S303-1 – 08S303-3.
65. **P C Eves, S MacNeil and J W Haycock** " α -Melanocyte stimulating hormone, inflammation and human melanoma", *Peptides*, **27** (2006) 444-452.
66. **M Faraji, I Todd and H Jones** "The effect of casting variables on the structure of hypereutectic Al-Si alloys", *Mat Sci Forum*, **519/521** (2006) 1741-1746.
67. **M C Ferrarelli, T B Adams, A Feteira, D C Sinclair and A R West** "High intrinsic permittivity in $\text{Na}_{1/2}\text{Bi}_{1/2}\text{Cu}_3\text{Ti}_4\text{O}_{12}$ ", *Appl Phys Lett*, **89** (2006) 212904-1 – 212904-89.
68. **A Feteira, R Elsebrock, A Dias, R L Moreira, M T Lanagan and D C Sinclair** "Synthesis and characterisation of $\text{La}_{0.4}\text{Ba}_{0.6}\text{Ti}_{0.6}\text{RE}_{0.4}\text{O}_3$ (where RE=Y, Yb) ceramics", *J Euro Ceram Soc*, **26** (2006) 1947-1951.
69. **A Feteira, D C Sinclair and M T Lanagan** "Microstructural and electrical characterisation of $\text{La}_x\text{Ba}_{1-x}\text{Ti}_{1-x}\text{Y}_x\text{O}_3$ ($0 \leq x \leq 0.50$) ceramics", *Key Engineering Materials*, **317-318** (2006) 873-876.
70. **A Feteira, D C Sinclair and I M Reaney** "Synthesis and characterization of $\text{BaTi}_{1-x}\text{Ga}_x\text{O}_{3-\delta}$ ($0 \leq x \leq 0.15$) ceramics", *J Am Ceram Soc*, **89(7)** (2006) 2105-2113.
71. **J Fidler, T Schrefl, D Suess, O Ertl, M Kirschner and G Hrkac** "Full micromagnetics of recording on patterned media", *Phys B*, **372** (2006) 312-315.
72. **J P Foreman, D Porter, S Behzadi, K P Travis and F R Jones** "Thermodynamic and mechanical properties of amine-cured epoxy resins using Group Interaction Modelling", *J Mater Sci*, **41** (2006) 6631-6638.
73. **C L Freeman, F Claeysens, N L Allan and J H Harding** "Thin films of wurtzite materials – AIN vs AIP", *J Cryst Growth*, **294** (2006) 111-117.
74. **C L Freeman, F Claeysens, N L Allan and J H Harding** "Graphitic nanofilms as precursors to wurtzite films: Theory", *Phys Rev Lett*, **96** (2006) 066102-1 – 066102-4.
75. **M F Frolish, M Krzyzanowski, W M Rainforth and J H Beynon** "Oxide scale behaviour on aluminium and steel under hot working conditions", *J Mat Proc Technol*, **177(1-3)** (2006) 36-40.
76. **S Fuji, S P Armes, S Jeans, R Devonshire, S Warren, S L McArthur, M J Burchell, F Postberg and R Srama** "Synthesis and characterization of polypyrrole-coated sulfur-rich latex particles: New synthetic mimics for sulfur-based micrometeorites", *Chem Mater*, **18** (2006) 2758-2765.
77. **J T Elizalde Galindo, J A Matutes Aquino and H A Davies** "Nano-structured YCo_5 alloy with enhanced hard magnetic properties", *Int J Mat Prod Tech*, **27** (2006) 85-90.
78. **T Gemming, S Gemming and G Möbus** "HRTEM image calculations of ionic and hot materials based on first-principles and molecular-dynamics simulated structures", *DFTEM 2006 – bringing together two communities – Intl Conf Density Functional Theory and Transmission Electron Microscopy*, Ed J Luitz et al, Vienna, Austria, (2006) ISBN 3-902548-00-2, 41-44.
79. **J Geng, G Shao and P Tsakirooulos** "Study of three-phase equilibrium in the Nb-rich corner of the Nb-Si-Cr system", *Intermetallics*, **14** (2006) 832-837.
80. **J Geng, P Tsakirooulos and G Shao** "Oxidation of Nb-Si-Cr-Al in situ composites with Mo, Ti and Hf additions", *Mat Sci Eng A*, **441** (2006) 26-38.
81. **J Geng, P Tsakirooulos and G Shao** "The effects of Ti and Mo additions on the microstructure of Nb-silicide based in situ composites", *Intermetallics*, **14** (2006) 227-235.
82. **F G F Gibb** "Opinion – Retrievability – safeguard or dangerous illusion", *Geoscientist*, **16(1)** (2006) 14-16.
83. **F G F Gibb and C M B Henderson** "Chemistry of the Shiant Isles main sill, NW Scotland, and wider implications for the petrogenesis of mafic sills", *J Petrology*, **47(1)** (2006) 191-230.
84. **J-P Gorce and N B Milestone** "Probing the water phases and microstructure in a model cement blend matrix used for the encapsulation of intermediate level nuclear wastes", *Mat Res Soc Symp Proc*, **932** (2006) 767-774.
85. **R V S R K Gottumukkala, N G Gavalas, S Akhtar, R A Metcalfe, D J Gawkrödger, J W Haycock, P F Watson, A P Weetman and E H Kemp** "Function blocking autoantibodies to the melanin-concentrating hormone receptor in vitiligo patients", *Laboratory Investigation*, **86** (2006) 781-789.
86. **G W Greenwood and H Jones** "Analysis of diffusional creep in sheets with aligned needle-shaped grains", *Scripta Mat*, **54** (2006) 421-423.
87. **R J Hand** "Stresses and stress measurement in glass", in *Strength of glass: Basics and test procedures*, Verlag der Deutsche Glastechnischen Gelleschaft, Offenbach/Main ISBN 3-921089-47-6 (2006) 1-21.
88. **J H Harding and D M Duffy** "The challenge of biominerals to simulations", *J Mat Chem*, **16** (2006) 1105-1112.
89. **R Harrington, G C Miles and A R West** "Crystallography of Ni-doped $\text{Zn}_7\text{Sb}_2\text{O}_{12}$ and phase equilibria in the system $\text{ZnO-Sb}_2\text{O}_5\text{-NiO}$ ", *J Euro Ceram Soc*, **26** (2006) 2307-2311.
90. **C A Harrison, F Gossiel, C M Layton, A J Bullock, T Johnson, A Blumsohn and S MacNeil** "Use of an in vitro model of tissue-engineered skin to investigate the mechanism of skin graft contraction", *Tissue Engineering*, **12(11)** (2006) 3119-3133.

- 91. C A Harrison, M J Heaton, C M Layton and S MacNeil** "Use of an *in vitro* model of tissue-engineered human skin to study keratinocyte attachment and migration in the process of reepithelialization", *Wound Rep Reg*, **14** (2006) 203-209.
- 92. N J Harrison, H A Davies and I Todd** "*Nd₂Fe₁₄B*-based nanocomposite magnets with transition metal and carbon additions", *J Appl Phys*, **99** (2006) 08B504-1 – 08B504-3.
- 93. C A Hennon, R A Dawson, E Freeland, R D Short, D B Haddow, M Brotherston and S MacNeil** "Clinical experience using cultured epithelial autografts leads to an alternative methodology for transferring skin cells from laboratory to the patient", *Regen Med*, **1(6)** (2006) 1-13.
- 94. R P Hill, S MacNeil and J W Haycock** "Melanocyte stimulating hormone peptides inhibit TNF- α signalling in human dermal fibroblast cells", *Peptides*, **27** (2006) 421-430.
- 95. P Eh Hovsepian, D B Lewis, Q Luo, W-D Münz, P H Mayrhofer, C Mitterer, Z Zhou and W M Rainforth** "TiAlN based nanoscale multilayer coatings designed to adapt their tribological properties at elevated temperature", *Thin Solid Films*, **485** (2005) 160-168.
- 96. G Hrkac, M Kirschner, F Dorfbauer, D Suess, O Ertl, J Fidler and T Schrefl** "Influence of eddy currents on the effective damping parameter", *J Appl Phys*, **99** (2006) 08B902-1 – 08B902-3.
- 97. G Hrkac, T Schrefl and M Schabes** "A combined vector and scalar potential method for 3D magnetic fields and transient Eddy current effects in recording head coils", *Phys B*, **384** (2006) 253-255.
- 98. K J Huang, J T Chang, A Davison, K C Chen, J L He, C K Lin, A Matthews and A Leyland** "Thermal cyclic performance of NiAl/alumina-stabilized zirconia thermal barrier coatings deposited using a hybrid arc and magnetron sputtering system", *Surf Coat Technol*, **201** (2006) 3907-3905.
- 99. J M Huggett, D K McGarty, C C Galvert, A S Gale and C Kirk** "Serpentine-nontronite-vermiculite mixed-layer clay from the weches formation, Claiborne Group, Middle Eocene, Northeast Texas", *Clays and Clay Mat*, **54(1)** (2006) 101-115.
- 100. N C Hyatt and F Livens** "Comment: *Out of Sight, Out of Mind?*" *Chemistry World* (2006) 36.
- 101. N C Hyatt, M C Stennett, S G Fiddy, J S Wellings, S S Dutton, E R Maddrell, A J Connelly and W E Lee** "Synthesis and characterisation of transition metal substituted barium hollandite ceramics", *Mat Res Soc Symp*, **932** (2006) 583-591.
- 102. N C Hyatt, M C Stennett, E R Maddrell and W E Lee** "Single phase ceramic wasteforms for plutonium disposition", *Adv Sci Technol*, **45** (2006) 2004-2011.
- 103. B J Inkson, D Leclere, F Elfallagh and B Derby** "The effect of focused ion beam machining on residual stress and crack morphologies in alumina", *J Phys Conf Series*, **26** (2006) 219-222.
- 104. A C Johnson, F M Zhao, S A Hayes and F R Jones** "Influence of a matrix crack on stress transfer to an α -alumina fibre in epoxy resin using finite element analysis and photoelasticity", *Comp Sci and Technol*, **66** (2006) 2023-2029.
- 105. F R Jones, F M Zhao and E A Patterson** "Phase-stepping Photoelasticity for Quantifying the Interfacial Response in Fibre Composites at Fibre-Breaks", *Mat Sci Eng, A*, **412**, (2005) 83-87.
- 106. H Jones** "The correlation between solid solubility and its temperature dependence for solutes in aluminium", *J Mater Sci*, **41** (2006) 6069-6071.
- 107. K Kambakas and P Tsakirooulos** "Sedimentation casting of wear resistant metal matrix composites", *Mat Sci Eng A*, **435-436** (2006) 187-192.
- 108. L Kang, K W McIntyre, K M Gillooly, Y Yang, J W Haycock, S Roberts, A Khanna, T F Herpin, G Yu, X Wu, G C Morton, H Tuerdi, B Koplowitz, S G Walker, J Wardwell-Swanson, J E Macor, R M Lawrence and K E Carlson** "A Selective Small Molecule Agonist of the Melanocortin-1 Receptor Inhibits Lipopolysaccharide-induced Cytokine Accumulation and Leukocyte Infiltration in Mice", *Journal of Leucocyte Biology*, **80** (2006) 897-904.
- 109. P Kapranos and M Farnsworth** "Near net-shaping aerospace alloys by thixoforming", *World Foundry Congress* (2006) 8/1 – 8/8.
- 110. P Kapranos and M Farnsworth** "Semi-solid processing of aluminium alloys for aerospace applications", *TRANSFAC 06* Keynote Presentation.
- 111. P Kapranos** "New directions in semi-solid metal processing (SSMP)", Opening Plenary Lecture, 3rd Intl Conf in High Tech Di-Casting, Gravity, Low and High Pressure, Vicenza, Italy (2006).
- 112. O K Karlina, O A Nikolaev, V E Semenov, V A Chemeris, S A Dmitriev and M I Ojovan** "Conditioning method for spent sealed radioactive sources and unit for conditioning", Patent of Russia RU 2 273 069 C2, 7p, (2006).
- 113. E Katerinaki, J W Haycock, R Lalla, K Carlson, Y Yang, R P Hill, P C Lorigan and S MacNeil** "Sodium salicylate inhibits TNF- α induced NF- κ B activation, cell migration, invasion and ICAM-1 expression in human melanoma cells", *Melanoma Research*, **16** (2006) 11-22.
- 114. P Kazemian, S A M Mentink, C Rodenburg and C J Humphreys** "High resolution quantitative two-dimensional dopant mapping using energy-filtered secondary electron imaging", *J Appl Phys*, **100** (2006) 054901-1 – 054901-7.
- 115. P Kazemian, A C Twitchett, C J Humphreys and C Rodenburg** "Site-specific dopant profiling in a scanning electron microscope using focused ion beam prepared specimens", *Appl Phys Lett*, **88** (2006) 212110-1 – 212110-3.
- 116. J M Kelly, A J G Moir, K Carlson, Y Yang, S MacNeil and J W Haycock** "Immobilized α -melanocyte stimulating hormone 10-13 (GKPV) inhibits tumor necrosis factor- α stimulated Nf- κ B activity", *Peptides*, **27** (2006) 431-437.
- 117. S H Kim, K Chattopahyay, B J Inkson, G Möbus, W T Kim and D H Kim** "Spontaneous formation of the B2 phase from a decagonal quasicrystal under reduced constraint", *J Mater Sci*, **41** (2006) 6081-6086.
- 118. H Kinoshita, K Kuramoto, M Uno, S Yamanaka, H Mitamura and T Banba** "Mechanical Integrity of Yttria-Stabilized Zirconia doped with Np Oxide," *Proc Mater Res Soc Symp*, **932** (2006) 647-654.
- 119. H Kinoshita, C A Sharrad, I May and R G Lewin** "The effect of Uranium on the Corrosion of Stainless Steel in High Temperature Molten Salts in the Presence of Moisture," *Recent Advances in Actinide Science*, The Royal Society of Chemistry (2006) 134-136.

120. **H Kinoshita, M Uno, S Yamanaka, and W E Lee** "Molten Ceramic Solidification during Molten State Processing of HLW," *Proc Mater Res Soc Symp.* **932** (2006) 655-660.
121. **M Kirschner, T Schrefl, G Hrkac, F Dorfbauer, D Suess and J Fidler** "Relaxation times and cell size in nonzero-temperature micromagnetics", *Phys B*, **372** (2006) 277-281.
122. **S Kongtaweelert, D C Sinclair and S Panichphant** "Phase and morphology investigation of $Ba_xSr_{1-x}TiO_3$ ($x = 0.6, 0.7$ and 0.8) powders", *Current Appl Phys.* **6** (2006) 474-477.
123. **B Kowalski, C M Sellars and M Pietrzyk** "Identification of rheological parameters on the basis of plane strain compression tests on specimens of various initial dimensions", *Comp Mat Sci*, **35** (2006) 92-97.
124. **M Krzyzanowski and J H Beynon** "Modelling the behaviour of oxide scale in hot rolling", *ISIJ International*, **46(11)** (2006) 1533-1547.
125. **M Krzyzanowski, J H Beynon, R Kuziak and M Pietrzyk** "Development of technique for identification of phase transformation model parameters on the basis of measurement of dilatometric effect - direct problem", *ISIJ International*, **46(1)** (2006) 147-154.
126. **M Krzyzanowski, G Fedorciuk-Onisa, D C J Farrugia and J H Beynon** "Oxide scale behaviour and its influence on industrial hot rolling", 2nd Baosteel Biennial Academic Conf, Shanghai, China, Proc Eds Q Xie and L Xu, **Vol 1** (2006) 213-219.
127. **M Krzyzanowski, M F Frolish, W M Rainforth and J H Beynon** "Modelling of formation of stock surface and subsurface layers in breakdown rolling of aluminium alloy", *Computer Methods in Materials Science, Informatyka w Technologii Materialów*, **7(1)** (2006) 1-11.
128. **M Krzyzanowski, O G Rincon and J H Beynon** "Oxide scale failure during multipass hot rolling and scale related product defects", *Int. Symp. Plasticity and its Applications*, Halifax, Nova Scotia, Canada, Proc Eds, A.S. Khan and R. Kazmi, (2006) 46-48.
129. **J Lee, D Suess, T Schrefl, K H Oh and J Fidler** "Contribution of local incoherency on gilbert-damping", *IEEE Trans Magn.* **42(10)** (2006) 3210-3212.
130. **W E Lee, J Juoi, M I Ojovan and O.K. Karlina** "Processing ceramics for radioactive waste immobilisation", *Adv in Sci and Technol*, **45** (2006) 1986-1995.
131. **W E Lee, M I Ojovan, M C Stennett and N C Hyatt** "Immobilisation of radioactive waste in glasses, glass composite materials and ceramics", *Adv Appl Ceram.* **105** (2006) 3-12.
132. **M Leonowicz, W Woźniak, Y M Shulga, V E Muradyan, Z Liu, H A Davies, W Kaszuwara and J Grabski** "Processing and properties of magnetic nanoparticles encapsulated in carbon shells", *Mat Lett.* **60** (2006) 442-446.
133. **I Levin, M C Stennett, G C Miles, D I Woodward, A R West and I M Reaney** "Coupling between octahedral tilting and ferroelectric order in tetragonal tungsten bronze-structured dielectrics", *Appl Phys Lett.* **89** (2006) 122908-1 – 122908-3.
134. **A Leyland and A Matthews** "Optimisation of nanostructured tribological Coatings" in "Hard Nanostructured Coatings" (Chapter 12) J T M deHosson and A Cavaleiro (eds) Springer (2006) ISBN-10: 0-387-25642-3.
135. **M Li, A Feteira, D C Sinclair and A R West** "Influence of Mn doping on the semiconducting properties of $CaCu_3Ti_4O_{12}$ ceramics", *Appl Phys Lett.* **88** (2006) 232903-1 – 232903-3.
136. **Z Li, S Zhang and W E Lee** "Molten salt synthesis of $LaAlO_3$ powder", *EUCHEM Conf on Molten Salts and Ionic Liquids* (2006) 4-5.
137. **Y-P Liao, J Liu, Y Zheng, P V Wright, D C Apperley and A Pryke** "Organised or disorganised? Looking at polymer electrolytes from both points of view", in "Solid State Ionics, Advanced Materials for Emerging Technologies" (2006) 431-442. *Proc 10th Asian Conf. Solid-State Ionics*, Kandy, Sri Lanka.
138. **Z W Liu and H A Davies** "Sub-ambient magnetic properties of nanophase Nd/Pr-Fe-B based hard magnetic alloys", *J Alloys Comp.* **424** (2006) 255-261.
139. **Z W Liu and H A Davies** "Influence of Co substitution for Fe on the magnetic properties of nanocrystalline (Nd, Pr)-Fe-B based alloys", *J Phys D, Appl Phys.* **39** (2006) 2647-2653.
140. **Z Liu, F M Zhao and F R Jones** "Multiscale Interfacial Correlation of Single Fibre and High Vf Composites with a functional nanoscale of varying thickness", *Proc ECCM12*, Biarritz, France, CD ROM, Ed. J Lamon and Torres-Marques, ESCM, (2006).
141. **M Lopez-Pedrosa, B P Wynne and W M Rainforth** "An analysis of microband orientation in a commercial purity aluminium alloy subjected to forward and reverse torsion using electron backscatter diffraction (EBSD)", *J Microscopy.* **222(2)** (2006) 97-104.
142. **B Lotz, N Okui and G Ungar** "Special Issue honouring Professor David Bassett on the occasion of his retirement", *Editorial, Polymer* **47** (2006) 5431-5432.
143. **M S Loveday, G J Mahon, B Roebuck, A J Lacey, E J Palmiere, C M Sellars and M R van der Winden** "Measurement of flow stress in hot plane strain compression tests", *Mat High Temp.* **23(2)** (2006) 85-118.
144. **Q Luo, Z Zhou, W M Rainforth and P Eh Hovsepian** "TEM-EELS study of low-friction superlattice TiAlN/VN coating: the wear mechanisms", *Tribology Lett.* **24(2)** (2006) 171-178.
145. **J C Mansfield, C P Winlove, K Knapp and S J Matcher** "Imaging articular cartilage using second harmonic generation microscopy", *Proc SPIE* **6089**, 608910 (2006) .
146. **J C Mansfield, N Ugryumova, K M Knapp and S J Matcher** "The collagen structure of equine articular cartilage, characterized using polarization-sensitive optical coherence tomography and non-linear microscopy", *Proc SPIE* **6047**, 604715 (2006)
147. **E A Manykin, M I Ojovan and P P Poluektov** "Rydberg matter: properties and decay", *Proc SPIE* **6181**, 618105 (9p.) (2006).
148. **N Masó, H Beltrán, E Cordoncillo, A Arenas Flores, P Escribano, D C Sinclair and A R West** "Synthesis and electrical properties of Nb-doped $BaTiO_3$ ", *J Mater Chem.* **16** (2006) 3114-3119.
149. **N Masó, H Beltrán, E Cordoncillo, P Escribano and A R West** "Electrical properties of Fe-doped $BaTiO_3$ ", *J Mater Chem.* **16** (2006) 1626-1633.

150. **S L McArthur** "Applications of XPS in bioengineering", *Surf Interface Anal*, **38** (2006) 1380-1385.
151. **S D McLoughlin, R J Hand, N C Hyatt, W E Lee, I Notinger, D S McPhail and J Henderson** "The long term corrosion of glasses: analytical results after 32 years of burial at Ballidon", *Glass Technol: Eur J Glass Sci Technol A*, **47(3)** (2006) 59-67.
152. **S D McLoughlin, N C Hyatt and W E Lee** "Corrosion of archeological model glasses after 32 years of burial at Ballidon", *Mat Res Soc Symp Proc*, **932** (2006) 1065-1072.
153. **N A McTaggart, F G F Gibb, K P Travis, D Burley and K W Hesketh** "Modelling temperature distribution around very deep borehole disposals of HLW", *IHLRWM 2006, Las Vegas* (2006) 415-421.
154. **G C Miles and A R West** "Pyrochlore phases in the system $ZnO-Bi_2O_3-Sb_2O_5$: I. Stoichiometries and phase equilibria", *J Am Ceram Soc*, **89(3)** (2006) 1042-1046.
155. **N B Milestone** "Reactions in cement encapsulated nuclear wastes: need for toolbox of different cement types", *Adv Appl Ceram*, **104(6)** (2005) 1-8.
156. **N B Milestone, Y Bai, P R Borges, N C Collier, J-P Gorce, L E Gordon, A Setiadi, C A Utton and Q Zhou** "Reactions in cemented nuclear waste forms – the need for a toolbox of different cement types", *Scientific Basis for Nuclear Waste Management, MRS Symp Proc*, **932** (2006) 673-681.
157. **M Mirsaneh, I M Reaney, P F James and P V Hatton** "Effect of CaF_2 and CaO substituted for MgO on the phase evolution and mechanical properties of K-fluorrichterite glass ceramics", *J Am Ceram Soc*, **89(2)** (2006) 587-595.
158. **G Möbus, S Al-Bermani, X Xu, Z Saghi, Y Peng and R Gay** "3D reconstruction of nanostructures from incomplete data", *Proc 16th Int Microscopy Congress, Sapporo, Japan, 2* (2006) 949.
159. **M A Monclus, M A Baker, C Rebholz, V Stolojan, P N Gibson, A Leyland and A Matthews** "Nanostructural studies of PVD TiAlB coatings", *Surf Interface Anal*, **38** (2006) 731-735.
160. **N A Morley, M R J Gibbs, E Ahmad, I Will and Y B Xu** "MOKE hysteresis loop method of determining the anisotropy constants of ferromagnetic thin films: Fe on $GaAs(100)$ with overlayers of Au and Cr", *J Magn Magn Mat*, **300** (2006) 436-444.
161. **N A Morley, M R J Gibbs, E Ahmad, I G Will and Y B Xu** "Comparison between the in-plane anisotropies and magnetostriction constants of thin epitaxial Fe films grown on $GaAs$ and $Ga_{0.8}In_{0.2}As$ substrates, with Cr overlayers" *J Appl Phys*, **99** (2006) 08N508-1 – 08N508-3.
162. **N A Morley, M R J Gibbs, E Ahmad, I Will and Y B Xu** "Anisotropies and magnetostriction constants of epitaxial Co films on $GaAs(100)$ substrates", *J Phys Condens Mat*, **18** (2006) 8781-8789.
163. **N Moslemzadeh, G Beamson, P Tsakiroopoulos and J F Watts** "Investigation of intrinsic plasmon energy losses associated with the Fe 1s core level in metallic iron", *Surf Sci*, **600** (2006) 265-272.
164. **N Moslemzadeh, G Beamson, P Tsakiroopoulos, J F Watts, S R Haines and P Weightman** "The 1s XPS spectra of the 3d transition metals from scandium to cobalt", *J Elec Spect Related Phenomena*, **153** (2006) 129-133.
165. **N Moslemzadeh, G Beamson, P Tsakiroopoulos, J F Watts, S R Haines and P Weightman** "Electronic structure of Ti metal and TiO_2 powder studied by hard and soft ($Cu K\alpha_1$ and $Al K\alpha_1$) X-ray photoelectron and Auger spectroscopy", *J Elec Spect Related Phenomena*, **152** (2006) 148-151.
166. **N Moslemzadeh, G Beamson, S R Haines, P Tsakiroopoulos, J F Watts and P Weightman** "High-energy X-ray photoelectron spectroscopy with new monochromatised $Cu K\alpha_1$ X-rays: characteristics, capabilities and limitations", *Surf Interface Anal*, **38** (2006) 703-706.
167. **B W Muir, S L McArthur, H Thissen, G P Simon, H J Griesser and D G Castner** "Effects of oxygen plasma treatment on the surface of bisphenol A polycarbonate: a study using SIMS, principal component analysis, ellipsometry, XPS and AFM nanoindentation", *Surf Interface Anal*, **38** (2006) 1186-1197.
168. **M I Ojovan, A S Pankov and W E Lee** "The ion exchange phase in corrosion of nuclear waste glasses", *J Nucl Mater.*, **358** (2006) 57-68.
169. **M I Ojovan and W E Lee** "Topologically disordered systems at the glass transition", *J Phys: Condensed Matter*, **18** (2006) 11507-11520.
170. **M I Ojovan and W E Lee** "Role of Self-Irradiation in Corrosion of Nuclear Waste Glasses", *Proc WM'06 Conference, 27th February 27–3rd March 2006, Tucson, Arizona, WM-6239, 13p* (2006).
171. **M I Ojovan, W E Lee, A S Barinov, I V Startceva, D H Bacon, B P McGrail and J D Vienna** "Corrosion of low level vitrified radioactive waste in a loamy soil", *Glass Technol, Eur J Glass Sci. Technol A*, **47(2)** (2006) 48-55.
172. **M I Ojovan, W E Lee and R J Hand** "Role of ion exchange in the corrosion of nuclear waste glasses", In: *Scientific Basis for Nuclear Waste Management XXIX*, edited by P Van Isheghem (Mater Res Soc Symp Proc. **932**, Warrendale, PA, (2006) 393-400.
173. **M Z Omar, H V Atkinson, E J Palmiere, A A Howe and P Kapranos** "Viscosity – shear rate relationship during the thixoforming of HP9/4/30 steel", *Solid State Phenom*, **116-117** (2006) 677-680.
174. **M I Ojovan** "Topological characteristics of bonds in SiO_2 and GeO_2 oxide systems at glass-liquid transition", *J Exp Theor Phys*, **103(5)** (2006) 819-829.
175. **P Pawlick, K Pawlik, H A Davies, W Kaszuwara, J J Wyslocki, N Harrison and I Todd** "Directly quenched bulk nanocrystalline (Pr, Dy)-(Fe, Co)-B-Zr-Ti hard magnets", *J Alloys and Compounds*, **423** (2006) 99-101.
176. **P Pawlik, K Pawlik, H A Davies, J J Wyslocki, W Kaszuwara and M Leonowicz** "Glass forming abilities and magnetic properties of soft magnetic Fe-Co-Zr-W-B bulk glassy alloys", *J Magn Magn Mat*, **304** (2006) 3733-3735.
177. **Y Peng, X Xu, G Möbus, R Gay, T Cullis and B J Inkson** "Morphology of shape-controlled ultra-sharp tungsten tips", *Proc ICEM 16, 2* (2006) 862.

178. **V Percec, G Ungar and M Peterca** "Self-assembly in action", *Science*, **313** (2006) 55-56.
179. **A J Price, M R Wenman, P Chard-Tuckey and P Tsakiroopoulos** "Modelling fatigue crack growth in a residual stress field" Proc PVD-ICPVT-11, 2006 ASME Pressure Vessels and Piping Division Conference, 23rd-27th July 2006, Vancouver, Canada, paper ICPVP2006-93174, 1-6.
180. **A J Price, M R Wenman, P R Chard Tuckey, P Tsakiroopoulos, S E Jarman** "Fracture behaviour of ferritic steel under the action of combined mechanical and residual stress loading", Intl Conf IYNC 2006, Stockholm, Sweden - Olkiluoto, Finland, 18th-23rd June 2006, paper 146, 146.1-146.10.
181. **R Punn, A M Feteira, D C Sinclair and C Greaves** "Enhanced oxide ion conductivity in stabilized δ - Bi_2O_3 ", *J Am Chem Soc*, **128** (2006) 15386-15387.
182. **W M Rainforth and Z Zhou** "On the structure and oxidation mechanisms in nanoscale hard coatings", *J Phys: Conf Series* **26** (2006) 89-94.
183. **R Rawal, A Feteira, N C Hyatt, D C Sinclair, K Sarma and N McN Alford** "Microwave dielectric properties of hexagonal 12R- $\text{Ba}_3\text{LaNb}_3\text{O}_{12}$ ceramics", *J Am Ceram Soc*, **89(1)** (2006) 332-335.
184. **R Rawal, A Feteira, A Arenas Flores, N C Hyatt, A R West, D C Sinclair, K Sarma and N McN Alford** "Dielectric properties of the "Twinned" 8H-Hexagonal perovskite $\text{Ba}_3\text{Nb}_4\text{Ti}_3\text{O}_{24}$ ", *J Am Ceram Soc*, **89(1)** (2006) 336-339.
185. **I M Reaney and D Iddles** "Microwave dielectric ceramics for resonators and filters in mobile phone networks", *J Am Ceram Soc*, **89(7)** (2006) 2063-2072.
186. **C Rebolz, A Leyland, A Matthews, C Charitidis, S Logothetidis and D Schneider** "Correlation of elastic modulus, hardness and density for sputtered TiAlBN thin films", *Thin Solid Films*, **514** (2006) 81-86.
187. **C Rodenburg and W M Rainforth** "The influence of beam energy and oxidation on quantitative carbide analysis in the scanning electron microscope", *J Appl Phys*, **100** (2006) 114902-1 – 114902-6.
188. **R Sato, R Grössinger, H Bertorello, J M Broto, H A Davies, E Estevez-Rams, J Gonzalez, J Matutes, J P Sinnecker and V Sagredo** "High magnetic field facilities in Latin America", *J Phys Conf Series* **51** (2006) 627-630.
189. **T Schrefl, D Suess, G Hrkac, M Kirschner, O Ertl, R Dittrich and J Fidler** "Nanomagnetic simulations", in *Advanced Magnetic Nanostructures*, Eds: D J Sellmyer and R Skomski, ISBN-13: 978-0-387-23309-3, ISBN-10: 0-387-23309-1 (2006) 92-118.
190. **C M Sellars** "Metallurgical modelling of thermomechanical processing", *The Hatfield Memorial Lectures, Volume III*, Ed P Beeley, Woodhead Publishing Limited, Cambridge, England (2005) 143-164.
191. **A Setiadi, N B Milestone, J Hill and M Hayes** "Corrosion of aluminium and magnesium in BFS composite cements", *Advances in Applied Ceramics*, **105(4)** (2006) 191-196.
192. **J H Sharp** "48th Mellor Lecture: Surely we know all about cement – don't we?", *Adv Appl Ceram*, **105(4)** (2006) 162-174.
193. **C A Sharrad, I May, H Kinoshita, A I Bhatt, V A Volkovich, I B Polovov, J M Charnock and R G Lewin** "Spectroscopic Investigations of Uranium Species in Alkali Chloride Molten Salts," *Recent Advances in Actinide Science*, The Royal Society of Chemistry (2006) 794-796.
194. **M A Shcherbina and G Ungar** "Solution of the growth equation for asymmetric crystal faces", *Polymer*, **47** (2006) 5505-5512.
195. **G P Sheppard, J A Hriljac, E R Maddrell and N C Hyatt** "Silver zeolites: Iodide occlusion and conversion to sodalite – A potential ¹²⁹I Waste Form?" *Mat Res Soc Symp Proc*, **932** (2006) 775-782.
196. **A Skaropoulou, S Tsvilis, G Kakali, J H Sharp and R N Swamy** "Long term behaviour of Portland-limestone cement mortar exposed to magnesium sulfate attack", 6th Intl Symp on Cement and Concrete, China, (2006) 529-535.
197. **J Sloan, R Carter, R R Meyer, A Blandas, A I Kirklad, P J D Lindan, G Lin, J Harding and J L Hutchison** "Structural correlation of band-gap modifications induced in mercury telluride by dimensional constraint in single walled carbon nanotubes", *Phys Stat Sol (b)*, **243(13)** (2006) 3257-3262.
198. **I A Sobolev, S A Dmitriev, A S Barinov, G A Varlakova, Z I Golubeva, I V Startceva and M I Ojovan** "39-years Performance of Cemented Radioactive Waste in a Mound Type Repository", In: *Scientific Basis for Nuclear Waste Management XXIX*, edited by P. Van Isheghem (Mater Res Soc. Symp Proc **932**, Warrendale, PA, 2006) (2006) 721-726.
199. **K Solek, Z Mitura, R Kuziak and P Kapranos** "The use of ADINA software to simulate thixocasting processes", *Solid State Phenom*, **116-117** (2006) 626-629.
200. **E Solis-Ramos, H Jones and W M Rainforth** "Characterisation of microstructure and thermal stability of rapidly solidified Al-8.5Fe-1.3V-1.7Si alloy during prolonged exposure at 625°C", *Mat Sci Tech*, **22** (2006) 1369-1379.
201. **L M Spasova and M I Ojovan** "Acoustic emission detection of microcrack formation and development in cementitious wastefoms with immobilised Al", *J Hazard Mat*, **A138** (2006) 423-432.
202. **L M Spasova, M I Ojovan and G R Scales** "Acoustic emission monitoring of Al corrosion in cemented-based wastefoms", *Advanced Materials Research*, **13-14** (2006) 223-229.
203. **V Srivastava, H Jones and G W Greenwood** "The creep of thin beams under small bending moments", *Proc R Soc A*, **462** (2006) 2863-2875.
204. **M C Stennett, N C Hyatt, W E Lee and E R Maddrell** "Processing and characterisation of fluorite-related ceramic wastefoms for immobilisation of actinides", *Ceram. Trans.*, **176** (2006) 1-10.
205. **M C Stennett, N C Hyatt, E R Maddrell, F G F Gibb, G Möbus and W E Lee** "Micro-chemical and crystallographic characterisation of fluorite-based ceramic wastefoms", *Mat Res Soc Symp Proc*, **932** (2006) 623-631.
206. **C W Stokes, R van Noort and R J Hand** "Investigation of the chemical solubility of mixed-alkali fluorcanasite forming glasses", *J Non-Cryst Solids*, **352** (2006) 142-149.

- 207. C J Stringer, T R Shrout, C A Randall and I M Reaney** "Classification of transition temperature behavior in ferroelectric $PbTiO_3$ - $Bi(MeMe)O_3$ solid solutions", *J Appl Phys*, **99** (2006) 024106-1 – 024106-4.
- 208. D Suess, J Fidler, K Porath, T Schrefl and D Weller** "Micromagnetic study of pinning behavior in percolated media", *J Appl Phys*, **99** (2006) 08G905-1 – 08G905-3.
- 209. D Suess, K Porath, J Fidler and T Schrefl** "Lateral exchange spring media", *IEEE Trans on Magn*, **42(10)** (2006) 2357 – 2359.
- 210. D Suess, J Fidler and T Schrefl** "Micromagnetic simulation of magnetic materials", *Handbook of Magnetic Materials*, **16** (2006) 41-89.
- 211. T Sun, J Haycock and S MacNeil** "In situ image analysis of interactions between normal human keratinocytes and fibroblasts cultured in three-dimensional fibrin gels", *Biomater*, **27** (2006) 3459-3465.
- 212. T Sun, S Jackson, J W Haycock and S MacNeil** "Culture of skin cells in 3D rather than 2D improves their ability to survive exposure to cytotoxic agents", *J Biotech*, **122** (2005) 372-381.
- 213. J Sun, T Stirner, W E Hagston, A Leyland and A Matthews** "A simple transferable interatomic potential model for binary oxides applied to bulk α - Al_2O_3 and the (0001) α - Al_2O_3 surface", *J Cryst Growth*, **290** (2006) 235-240.
- 214. J Sun, T Stirner and A Matthews** "Calculation of native defect energies in α - Al_2O_3 and α - Cr_2O_3 using a modified Matsui potential", *Surf Coat Technol*, **201** (2006) 4201-4204.
- 215. J Sun, T Stirner and A Matthews** "Structure and surface energy of low-index surfaces of stoichiometric α - Al_2O_3 and α - Cr_2O_3 ", *Surf Coat Technol*, **201** (2006) 4205-4208.
- 216. D Thomas-Whittington, V Srivastava, G W Greenwood and H Jones** "Further results on creep behaviour of sand-cast Mg -2.8Nd-0.8Zn-0.5Zr-0.3Gd alloy at 0.56 to 0.61 T_m under stresses 40 to 90 MPa", *Z Metallkunde*, **97(2)** (2006) 156-158.
- 217. S M Torres, C J Lynsdale, R N Swamy and J H Sharp** "Microstructure of 5-year-old mortars containing limestone filler damaged by thaumasite", *Cem Con Res*, **36** (2006) 384-394.
- 218. K P Travis and C Braga** "Configurational temperature and pressure-molecular dynamics: review of current methodology and applications to the shear flow of a simple fluid", *Mol Phy*, **104(22-24)** (2006) 3735-3749.
- 219. K P Travis and D J Searles** "Effect of salvation and confinement on the trans-gauche isomerization reaction in n-butane", *J Chem Phys*, **125** (2006) 164501-1 – 164501-15.
- 220. C Tsotsos, K Kanakis, A Davison, M A Baker, A Matthews and A Leyland** "Mechanical and tribological properties of $CrTiCu(B,N)$ glassy-metal coatings deposited by reactive magnetron sputtering", *Surf Coat Technol*, **200** (2006) 4601-4611.
- 221. N Ugryumova, S V Gangnus and S J Matcher** "Variable-angle-of-incidence polarization-sensitive optical coherence tomography: its use to study the 3-D collagen structure of equine articular cartilage", *Proc SPIE* **6079**, 60792C (2006).
- 222. N Ugryumova and S J Matcher** "Innovative application of optical techniques to comprehensive study the etiology of osteoarthritis", *Proc SPIE* **6163**, 616308 (2006).
- 223. T C Ulbrich, D Makarov, G Hu, I L Guhr, D Suess, T Schrefl and M Albrecht** "Magnetization reversal in a novel gradient nanomaterial", *Phys Rev Lett*, **96** (2006) 077202-1 – 077202-4.
- 224. N Ugryumova, S V Gangnus and S J Matcher** "Three-dimensional optic axis determination using variable-incidence-angle polarization-optical coherence tomography", *Optics Letters*, **31(15)** (2006) 2305-2307.
- 225. J A Venables, L Giordano and J H Harding** "Nucleation and growth on defect sites: experiment-theory comparison for $Pd/MgO(001)$ ", *J Phys Condens Mat*, **18** (2006) S411-S427.
- 226. V A Volkovich, I May, C A Sharrad, H Kinoshita, I B Polovov, A I Bhatt, J M Charnock, T R Griffiths and R G Lewin** "Uranium Specification in Molten Salts from X-Ray Absorption and Electronic Absorption Spectroscopy Measurements," *Recent Advances in Actinide Science*, The Royal Society of Chemistry (2006) 485-490.
- 227. D Walker, T Sun, S MacNeil and R Smallwood** "Modeling the effect of exogenous calcium on keratinocyte and HaCat cell proliferation and differentiation using an agent-based computational paradigm", *Tissue Engineering*, **12(8)** (2006) 2301-2309.
- 228. J C Walker, H Jones and W M Rainforth** "Site specific SEM/FIB/TEM for analysis of lubricated sliding wear of aluminium alloy composites", *J Phys: Conf Series* **26** (2006) 327-330.
- 229. A R West** "Inorganic Functional Materials: Optimization of Properties by Structural and Compositional Control", *The Chemical Record*, **6** (2006) 206-216.
- 230. D I Woodward, P L Wise, W E Lee and I M Reaney** "Space group symmetry of $(Ca_xSr_{1-x})TiO_3$ determined using electron diffraction", *J Phys Condens Mater*, **18** (2006) 2401-2408.
- 231. A Wu, P M Vilarinho, S Srinivasan, A I Kingon, I M Reaney, D I Woodward, A R Ramos and E Alves** "Microstructural studies of PZT thick films on Cu foils", *Acta Mat*, **54** (2006) 3211-3220.
- 232. X Xu, S Saghi, Y Peng, R Gay, B J Inkson and G Möbus** "Electron tomography of tungsten tips by coherent and incoherent imaging modes of TEM/STEM", *Microsc Microanal*, **12(S2)** (2006) 648-649.
- 233. X Xu, S Saghi, Y Peng and G Möbus** 3D tomographic reconstruction of SPM probes and nanoparticles", *Int Conf Nanoscience and Technol*, (200) 1233. www.icnt2006.ch
- 234. G Yang, R J Hand and G Möbus** "ELNES linescan and tomography studies of glasses and glass nanocomposites", *Proc 16th Int Microscopy Congress*, Sapporo, Japan, **2** (2006) 1773.
- 235. G Yang, G Möbus and R J Hand** "Cerium and boron chemistry in doped borosilicate glasses examined by EELS", *Micron*, **37** (2006) 433-441.
- 236. G Yang, G Möbus and R J Hand** "EELS study of boron coordination in alkali borosilicate glasses under extensive electron irradiation", *Phys Chem Glasses: Eur J Glass Sci Technol B*, **47(4)** (2006) 507-512.

- 237. G Yang, G Möbus and R J Hand** "Fine structure EELS analysis of glasses and glass composites", *J Phys: Conf Series*, **26(1)** (2006) 73-76.
- 238. M Yu Lavrentiev, N L Allan, J H Harding, D J Harris and J A Purton** "Atomistic simulations of surface diffusion and segregation in ceramics", *Comput Mat Sci*, **36** (2006) 54-59.
- 239. K Zelenitsas and P Tsakiroopoulos** "Effect of Al, Cr and Ta additions on the oxidation behaviour of Nb-Ti-Si in situ composites at 800°C", *Mat Sci Eng A*, **416** (2006) 269-280.
- 240. K Zelenitsas and P Tsakiroopoulos** "Study of the role of Ta and Cr additions in the microstructure of Nb-Ti-Si-Al in situ composites", *Intermetallics*, **14** (2006) 639-659.
- 241. P Zeng, B J Inkson and W M Rainforth** "Characterisation of alumina hip-joint wear by FIB microscopy", *J Phys Conf Series*, **26** (2006) 343-346.
- 242. P Zeng, B J Inkson, W M Rainforth and T Stewart** "3D surface reconstruction and FIB microscopy of worn alumina on alumina ceramic hip prosthesis following in-vitro microseparation", *Proc ESA*, (2006).
- 243. X Zeng and G Ungar** "Inflation rules of square-triangle tilings: from approximants to dodecagonal liquid quasicrystals", *Philosophical Mag*, **86(6-8)** (2006) 1093-1103.
- 244. R Zhang, A Barnes, Y Wang, B Chambers and P V Wright** "Organo-metal diodes based on a nanoparticulate poly(3, 4-ethylenedioxythiophene) composite", *Adv Funct Mater*, **16** (2006) 1161-1165.
- 245. S Zhang** "Next generation carbon-containing refractory composites", *Adv Sci Technol*, **45** (2006) 2246-2253.
- 246. S Zhang, D D Jayaseelan, G Bhattacharya and W E Lee** "Molten salt synthesis of magnesium aluminate ($MgAl_2O_4$) spinel powder", *J Am Ceram Soc*, **99(5)** (2006) 1724-1726.
- 247. S Zhang, D D Jayaseelan, Z Li and W E Lee** "Molten salt synthesis of ceramic materials", *EUCHEM Conf on Molten Salts and Ionic Liquids* (2006) 49-50.
- 248. Y Zhang, Y Li, H Tan, G L Chen and H A Davies** "Glass forming ability criteria for La-Al-(Cu, Ni) alloys", *J Non-Cryst Solids*, **352** (2006) 5482-5486.
- 249. F M Zhao, S A Hayes, E A Patterson and F R Jones** "Phase-stepping photoelasticity for the measurement of interfacial shear stress in single fibre composites", *Composites: Part A*, **37** (2006) 216-221.
- 250. F M Zhao, S A Hayes, R J Young and F R Jones** "Photoelastic study of the stress transfer in single fibre composites", *Comp Interfaces*, **Vol 13, No 8-9** (2006) 757-772.
- 251. F M Zhao and F R Jones** "Photoelastic study of Stress Transfer in Single Fibre Composites", *Comp Interfaces*, **13** (2006) 757-772.
- 252. F M Zhao and F R Jones** "Identifying the effect of shear residual on stress transfer in single short fibre composites using photoelasticity", *Proc Intl Conf on Composites Testing and Model Identification*, Porto, Portugal, (2006) 21-22.
- 253. F M Zhao and F R Jones** "The Quantification of interfacial stress-transfer around fibre-breaks using phase-stepped photoelasticity", *Proc Intl Conf, ACUN 5* (2006).
- 254. F M Zhao, Z Liu and F R Jones** "Stress Transfer through nanoscale interphase in a fibre composite", *Proc ECCM12*, Biarritz, France, CD ROM, Ed. J Lamon and Torres-Marques, ESCM, 2006.
- 255. H Zheng, D I Woodward, L Gillie and I M Reaney** "Structure and microwave dielectric properties of $BaLa_4Ti_4O_{15}$ ", *J Phys Condens Mat*, (2006) 7051-7062.
- 256. Q Zhou, J Hill, E A Byars, J C Cripps, C J Lynsdale and J H Sharp** "The role of pH in thaumasite sulphate attack", *Cem Con Res*, **36** (2006) 160-170.
- 257. Q Zhou, N B Milestone and M Hayes** "An alternative to Portland Cement for waste encapsulation – The calcium sulfoaluminate cement system", *J Hazard Mat*, **136** (2006) 120-129.
- 258. Z Zhou, C C Calvert, W M Rainforth, Q Luo, L Chen and P Eh Hovsepian** "Investigating worn surfaces of nanoscale TiAlN/VN multilayer coating using FIB and TEM", *J Phys: Conf Series* **26** (2006) 95-98.
- 259. Z Zhou, W M Rainforth, U Falke, M Falke, A Bleloch and P Eh Hovsepian** "On the structure and composition of nanoscale TiAlN/VN multilayers", *Philosophical Magazine*, **87(2)** (2006) 1-12.

Publications, 2007

- 260. M F Abbod, C M Sellars, P Cizek, D A Linkens and M Mahfouf** "Modelling the flow behaviour, recrystallization, and crystallographic texture in hot-deformed Fe-30 wt Pct Ni Austenite", *Met Mat Trans A*, **38A** (2007) 2400-2409.
- 261. D A Allwood and T Schrefl** "Storing by numbers", *Materials World* (2007) 37-39.
- 262. D A Allwood, P R Seem, S Basu, P W Fry, U J Gibson and R P Cowburn** "Over 40% transverse Kerr effect from $Ni_{80}Fe_{20}$ ", *Appl Phys Lett*, **92** (2007) 072503-1 – 072503-3.
- 263. P S Anderson, S Guerin, B E Hayden, M A Khan, A J Bell, Y Han, M Pasha, K R Whittle and I M Reaney** "Synthesis of the ferroelectric solid solution, $Pb(Zr_{1-x}Ti_x)O_3$ on a single substrate using a modified molecular beam epitaxy technique", *Appl Phys Lett*, **90** (2007) 202907-1 – 202907-3.
- 264. M Y Anwar and H A Davies** "A comparative review of various PIM binder systems", *Adv in Powder Metal*, **4** (2007) 8-18.
- 265. M Y Anwar, M T Z Butt, H A Davies, P F Messer and B Ellis** "A study of partial water dissolution of a composite binder from injection molded powder compacts", *Adv in Powder Metal*, **4** (2007) 49-56.
- 266. D T Asquith, A L Yerokhin, J R Yates and A Matthews** "The effect of combined shot-peening and PEO treatment on the corrosion performance of 2024 Al alloy", *Thin Solid Films*, **516** (2007) 417-421.
- 267. Y Bai and N B Milestone** "Hydration products and microstructure of sodium aluminate activated fly ash", *Concrete Platform '07*, Belfast (2007) 435-444.
- 268. S Bandyopadhyay-Ghosh, I M Reaney, I M Brook, K Hurrell-Gillingham, A Johnson and P V Hatton** "In vitro biocompatibility of fluorocanite glass-ceramics for bone tissue repair", *J Biomed Mat Res, Part A* (Wiley InterScience) (2007) 175-183.

- 269. G Battaglia, S Tomas and A J Ryan** "Lamellarsomes: metastable polymeric multilamellar aggregates", *Soft Matter*, **3** (2007) 470-475.
- 270. G Batyukhnova and M I Ozhovan** "Education – Technology – Safety" (In Russian), *Environmental Safety*, **2** (2007) 26-33.
- 271. G Batyukhnova, S A Dmitriev, M I Ojovan, L Jovased, L Rozdyalovskaya and Z Drace** "Approach to training of personnel to manage radioactive wastes offered by Education Training Centre at Moscow SIA "Radon" under sponsorship of IAEA", Proc WM'07 Conference, 25th February – 1st March 2007, Tucson, Arizona (2007) WM-7099, 10pp.
- 272. A Bedolla-Jacuinde, R Correa, I Mejía, J G Quezada and W M Rainforth** "The effect of titanium on the wear behaviour of a 16%Cr white cast iron under pure sliding", *Wear*, **263** (2007) 808-820.
- 273. S Behzadi, P T Curtis and F R Jones** "Prediction of tensile failure strain of unidirectional fibre composites: Investigating the effect of matrix yielding", 16th Intl Conf Composite Materials, (2007).
- 274. H Beltrán, N Masó, E Cordoncillo and A R West** "Nanocomposite ceramics based on La-doped BaTi₂O₃ with high temperature-independent permittivity and low dielectric loss", *J Electroceram*, **18** (2007) 277-282.
- 275. G A Bergman, O K Karlina, V L Klimov and M I Ozhovan** "An upgrade of thermodynamic functions of zirconolite at high temperatures" (In Russian), *Atomic Energy*, **103** (2007) 332-333.
- 276. G A Bergman, O K Karlina, V L Klimov and M I Ozhovan** "Refinement of the thermodynamic functions of zirconolite at high temperatures", *Atomic Energy*, **103(5)** (2007) 914-916.
- 277. H K D H Bhadeshia and C M Sellars** "Changes to grain structures subjected to complex deformations", *Microalloying* (2007) 24-31.
- 278. G Bhattacharya, S Zhang, D D Jayaseelan and W E Lee** "Mineralizing effect of Li₂B₄O₇ and Na₂B₄O₇ on magnesium aluminate spinel formation", *J Am Ceram Soc*, **90(1)** (2007) 97-106.
- 279. P A Bingham, A J Connelly, R J Hand, N G Hyatt and P A Northrup** "Solubility and speciation of sulphur in glasses for waste immobilization", Proc 21st Intl Cong Glass, Strasbourg, France (2007) CD-ROM.
- 280. P A Bingham and R J Hand** "Addition of P₂O₅ to SiO₂-Al₂O₃-B₂O₃-MgO-CaO-Na₂O glass: a study of its effects on glass properties, structure and melting behaviour", *Glass Technol: Eur J Glass Sci Technol A*, **48(2)** (2007) 78-88.
- 281. P A Bingham, J M Parker, S M Searle and I Smith** "Local structure and medium range ordering of tetrahedrally coordinated Fe³⁺ ions in alkali-alkaline earth-silica glasses", *J Non-Cryst Solids*, **333** (2007) 2479-2494.
- 282. K Blackwood, C O Freeman, R McKean, P Farthing, J W Haycock, A J Ryan, I Brook and S MacNeil** "Development of biocompatible, biodegradable electrospun scaffolds for tissue engineering of human skin", *Tissue Engineering*, **13(7)** (2007) 1670.
- 283. C A Bridges, M Allix, M R Suchomel, X Kuang, I Sterianou, D C Sinclair and M J Rosseinsky** "A pure bismuth A site polar perovskite synthesized at ambient pressure", *Ferroelectric Materials, Angew Chem Int Ed*, **46** (2007) 8785-8789.
- 284. M T Bryan, T Schrefl and D A Allwood** "Symmetric and asymmetric domain wall diodes in magnetic nanowires", *Appl Phys Lett*, **91** (2007) 142502-1 – 142502-3.
- 285. A J Bullock, A T Barker, L Coulton and S MacNeil** "The effect of induced biphasic pulsed currents on re-epithelialization of a novel wound healing model", *Bioelectromagnetics*, **28(1)** (2007) 31-41.
- 286. I Cantón, U Sarwar, E H Kemp, A J Ryan, S MacNeil and J W Haycock** "Real-time detection of stress in 3D tissue-engineered constructs using NF-κB activation in transiently transfected human dermal fibroblast cells", *Tissue Engineering*, **13(5)** (2007) 1013-1024.
- 287. N Chuankrerkkul, H A Davies and P F Messer** "Application of PEG/PMMA binder for powder injection moulding of hardmetals", *Mat Sci Forum*, **561-565** (2007) 953-956.
- 288. A Curtis, J Morton, C Balafa, S MacNeil, D J Gawkrödger, N D Warren and G S Evans** "The effects of nickel and chromium on human keratinocytes: Differences in viability, cell associated metal and IL-1α release", *Toxicology in Vitro*, **21** (2007) 809-819.
- 289. L C Damonte, A F Pasquevich, L A Mendoza-Zélis, I A Figueroa Vargas, H A Davies and I Todd** "Structural and thermal properties of Cu-Hf-Ti ternary metallic glasses", *Physica B*, **298** (2007) 480-483.
- 290. S Das, M F Abbod, Q Zhu, E J Palmiere, I C Howard and D A Linkens** "A combined neuro fuzzy-cellular automata based material model for finite element of plane strain compression", *Comp Mat Sci*, **40** (2007) 366-375.
- 291. P A De Bank, Q Hou, R M Warner, I V Wood, B E Ali, S MacNeil, D A Kendall, B Kellam, K M Shakesheff and L D K Buttery** "Accelerated formation of multicellular 3-D structures by cell-to-cell cross-linking", *Biotech and Bioeng*, **97(6)** (2007) 1617-1625.
- 292. P Desai, P Shakya, T Kreozis, W P Gillin, N A Morley and M R J Gibbs** "Magnetoresistance and efficiency measurements of Alq₃-based OLEDs", *Phys Rev B*, **75** (2007) 094423-1 – 094423-5.
- 293. S A Dmitriev, A S Barinov, O G Batyukhnova, A S Volkov, M I Ojovan and T D Scherbatova** "Technological Bases of Radioactive Waste Management System" (In Russian) ISBN: 5-9900823-2-0 (987-5-9900823-2-8), GUP MosNPO "Radon", Moscow (2007) 376pp.
- 294. F Dorfbauer, R Evans, M Kirschner, O Chybykalo-Fesenko, R Chantrell and T Schrefl** "Effects of surface anisotropy on the energy barrier in cobalt-silver core-shell nanoparticles", *J Magn Magn Mat*, **316** (2007) e791-e794.
- 295. J T Elizalde Galindo, H A Davies and J A Matutes-Aquino** "Structural and magnetic properties of mechanically milled Y_{1-x}Pr_xCo₅ compounds [x=0, 0.1, 0.3, 0.5]", *Mat Character*, **58** (2007) 805-808.

296. **R Evans, F Dorfbauer, O Myrasov, O Chubykalo-Fesenko, T Schrefl and R Chantrell** "The effects of surface coating on the structural and magnetic properties of CoAg core-shell nanoparticles", *IEEE Trans Magn*, **43(6)** (2007) 3106-3108.
297. **P C Eves, N A Bullett, D Haddow, A J Beck, C Layton, L Way, A G Shard, D J Gawrodger and S MacNeil** "Simplifying the delivery of melanocytes and keratinocytes for the treatment of vitiligo using a chemically defined carrier dressing", *The Society for Investigative Dermatology* (2007) www.jidonline.org.
298. **K Fairfull-Smith (née Elson), P M J Redon, J W Haycock and N H Williams** "Monofunctionalised resorcinarenes", *Tetrahedron Lett*, **48** (2007) 1317-1319.
299. **Q Fan, S Zhang, P Holliman and D Worsley** "Nanocrystalline filmed γ -sensitized solar cells prepared using different TiO_2 materials", *Tech Digest of Intl PCSEC-17, Fukuoka, Japan* (2007) 1032-1033.
300. **A Feteira, D C Sinclair and M T Lanagan** "Structural and electrical characterization of $CeAlO_3$ ceramics", *J Appl Phys*, **101** (2007) 064110-1 – 064110-7.
301. **I A Figueroa, P A Carroll, H A Davies, H Jones and I Todd** "Preparation of Cu-based bulk metallic glasses by suction casting", *Proc 5th Decennial Intl Conf on Solidification Processing SP07*, ed H Jones (Dept Engineering Materials, University of Sheffield) (2007) 479-482.
302. **I A Figueroa, H A Davies and I Todd** "Formation of Cu-Hf-Ti bulk metallic glasses", *J Alloys Comp*, **434-435** (2007) 164-166.
303. **I A Figueroa, H A Davies, I Todd and K Yamada** "Formation and thermal stability of Cu-Hf-Ti-M glassy alloys", *Adv Eng Mat*, **9(6)** (2007) 1-4.
304. **I A Figueroa, R Rawal, P Stewart, P A Carroll, H A Davies, H Jones and I Todd** "Bulk glass formation and mechanical properties for Cu-Hf-Ti-M ($M = B, Y$) alloys", *J Non-Cryst Solids*, **353** (2007) 839-841.
305. **C L Freeman, J H Harding, D J Cooke, J A Elliott, J S Lardge and D M Duffy** "New forcefields for modelling biomineralization processes", *J Phys Chem C*, **111** (2007) 11943-11951.
306. **J Geng, P Tsakirooulos and G Shao** "A study of the effects of Hf and Sn additions on the microstructure of Nb_{55}/Nb_5Si_3 base in situ composites", *Intermetallics*, **15** (2007) 69-76.
307. **J Geng, P Tsakirooulos and G Shao** "A thermo-gravimetric and microstructural study of the oxidation of Nb_{55}/Nb_5Si_3 -based in situ composites with Sn addition", *Intermetallics*, **15** (2007) 270-281.
308. **J Geng and P Tsakirooulos** "A study of the microstructures and oxidation of Nb-Si-Cr-Al-Mo in situ composites alloyed with Ti, Hf and Sn", *Intermetallics*, **15** (2007) 382-395.
309. **M J Ghazali, W M Rainforth and H Jones** "The wear of wrought aluminium alloys under dry sliding conditions", *Tribology Intl*, **40** (2007) 160-169.
310. **F G F Gibb, N A McTaggart, K P Travis, D Burley and K W Hesketh** "High-density support matrices: Key to the deep borehole disposal of spent nuclear fuel", *J Nuclear Mat*, (2007). Available on line 29th September 2007.
311. **F G F Gibb, K J Taylor and B E Burakov** "The "granite encapsulation" route to the safe disposal of Pu and other actinides", *J Nuclear Mat*, (2007). Available on line 29th September 2007.
312. **M R J Gibbs** "Materials optimization for magnetic MEMS", *IEEE Trans Magn*, **43(6)** (2007) 2666-2671.
313. **M R J Gibbs** "Smart sensors", *Materials World* (2007) 31.
314. **U J Gibson, L F Holiday, D A Allwood, S Basu and P W Fry** "Enhanced longitudinal magneto-optic Kerr effect contrast in nanomagnetic structures", *IEEE Trans Magn*, **43(6)** (2007) 2740-2742.
315. **R L Goguel and N B Milestone** "Alkali release from aggregates: the answer to unexplained cracking due to ASR", *Concrete Platform '07, Belfast* (2007) 479-488.
316. **A Goncharov, T Schrefl, G Hrkac, J Dean, S Bance, D Suess, O Ertl, F Dorfbauer and J Fidler** "Recording simulations on graded media for area densities of up to 1 Tbit/in.²", *Appl Phys Lett*, **91** (2007) 222502-1 – 222502-3.
317. **R L Goodchild, P V Hatton, A J Ryan, D Norton, I M Reaney, C Migliaresi and D Maniglio** "Evaluation of chondrocyte response to electrospun polymer-ceramic composite scaffolds", *Tissue Engineering*, **13(7)** (2007) 1691.
318. **J-P Gorce and N B Milestone** "Probing the microstructure and water phases in composite cement blends", *Cem Con Res*, **37** (2007) 310-318.
319. **M R Green, W M Rainforth, M F Frolich and J H Beynon** "The effect of microstructure and composition on the rolling contact fatigue behaviour of cast bainitic steels", *Wear*, **263** (2007) 756-765.
320. **G W Greenwood** "Comparisons and contrasts in creep behaviour", *Mat Sci Eng A*, **463** (2007) 166-170.
321. **J S Hansen, P J Davis, K P Travis and B D Todd** "Parameterization of the nonlocal viscosity kernel for an atomic fluid", *Phys Rev E*, **76** (2007) 041121-1 – 041121-8.
322. **C A Harrison, R Bastan, M J Peirce, M R Munday and P T Peachell** "Role of calcineurin in the regulation of human lung mast cell and basophil function by cyclosporine and FK506", *British Journal of Pharmacology*, **150** (2007) 509-518.
323. **C A Harrison, C M Layton, Z Hau, A J Bullock, T S Johnson and S MacNeil** "Transglutaminase inhibitors induce hyperproliferation and parakeratosis in tissue-engineered skin", *Br J Dermatology*, **156(2)** (2007) 247-257.
324. **M T Harrison, C R Scales, P A Bingham and R J Hand** "Survey of potential glass compositions for the immobilisation of the UK's separated plutonium stocks", *Mater Res Soc Symp Proc*, **985** (2007) 0985-NN04-03.
325. **S A Hayes, F R Jones, K Marshiya and W Zhang** "A self-healing thermosetting composite material", *Composites Part A*, **38** (2007) 1116-1120.
326. **S A Hayes, W Zhang, M Branthwaite and F R Jones** "Self-healing of damage in fibre-reinforced polymer-matrix composites", *J R Soc Interface*, **4** (2007) 381-387.

- 327. C A Herton, C A Harrison, D J A Thornton and S MacNeil** "Enhancement of keratinocyte performance in the production of tissue-engineered skin using a low-calcium medium", *Wound Rep Reg*, **15** (2007) 718-726.
- 328. S Hinz, F R Jones and K Schulte** "Micromechanical modelling of shear deformation of a 90°-ply in Glare® at elevated temperatures", *Comp Mat Sci*, **39** (2007) 142-148.
- 329. S L Holley, A A Fryer, J W Haycock, S E W Grubb, R C Strange and P R Hoban** "Differential effects of glutathione S-transferase pi (GSTPI) haplotypes on cell proliferation and apoptosis", *Carcinogenesis*, **28(11)** (2007) 2268-2273.
- 330. S Hopkins, S Carter, L Swanson, S MacNeil and S Rimmer** "Temperature-dependent phagocytosis of highly branched poly (N-isopropyl acrylamide-co-1, 2 propandiol-3-methacrylate)s prepared by RAFT polymerization", *J Mater Chem*, **17** (2007) 4022-4027.
- 331. G Hrkac, S Bance, A Goncharov, T Schrefl and D Suess** "Thermal stability of bubble domains in ferromagnetic discs", *J Phys D: Appl Phys*, **40** (2007) 2695-2698.
- 332. A Huseynov, O G. Batyukhnova, M I Ojovan and J Rowat** "Upgrading the radioactive waste management infrastructure in Azerbaijan", *Proc WM'07 Conference*, 25th February – 1st March 2007, Tucson, Arizona (2007) WM-7198, 12pp.
- 333. N C Hyatt, S Morgan, M C Stennett, C R Scales and D Deegan** "Plasma vitrification of waste plutonium contaminated materials", *Materials Research Society Proceedings*, **985** (2007) 393-398.
- 334. N C Hyatt, C R Scales, N B Milestone, A W Banford and J W Roberts** "The Immobilisation Science Laboratory: an Academic – Industry Partnership in Nuclear Waste Immobilisation", *Proceedings of the International Technology, Education and Development Conference*, **15-120** (2007) 1-10.
- 335. B J Inkson, G Dehm and Y Peng** "Dynamical growth of Cu-Pt nanowires with a nanonecklace morphology", *Nanotechnology*, **18** (2007) 415601-1 – 415601-5.
- 336. D D Jayaseelan, W E Lee, D Amutharani, S Zhang, K Yoshida and H Kita** "In situ formation of silicon carbide nanofibers on cordierite substrates", *J Am Ceram Soc*, **90(5)** (2007) 1603-1603.
- 337. D D Jayaseelan, S Zhang, S Hashimoto and W E Lee** "Template formation of magnesium aluminate (MgAl₂O₄) spinel microplatelets in molten salt", *J Euro Ceram Soc*, **27** (2007) 4745-4749.
- 338. F R Jones** "Can we fix it?" *Materials World*, (2007) 26-27.
- 339. F R Jones** "The chemical aspects of fibre surfaces and composite interfaces and interphases, and their influence on the mechanical behaviour of interfaces", *Proc 28th Riso Intl Symp on Materials Science: Interface Design of Polymer Matrix Composites – Mechanics, Chemistry, Modelling and Manufacture*, Eds B F Sorensen, L P Mikkelsen, H Lilholt, S Goutianos, F S Abdul-Mahdi, Denmark (2007) 21-44.
- 340. H Jones** "An evaluation of measurements of solid/liquid interfacial energies in metallic alloy systems by the groove profile method", *Met Mat Trans A*, **38A** (2007) 1563-1569.
- 341. J M Juoi and M I Ojovan** "The effect of waste loading on the microstructure of glass composite waste form immobilising spent clinoptilolite", *Glass Technology*, **48** (2007) 124-129.
- 342. J M Juoi and M I Ojovan** "Characterisation and durability of glass composite waste forms immobilising spent clinoptilolite" *Proc. WM'07 Conference*, 25th February – 1st March 2007, Tucson, Arizona, (2007) WM-7051, 10pp.
- 343. P Kazemian, S A M Mentink, C Rodenburg and C J Humphreys** "Quantitative secondary electron energy filtering in a scanning electron microscope and its applications", *Ultramicroscopy*, **107** (2007) 140-150.
- 344. C C Khaw, C K Lee, Z Zainal, G C Miles and A R West** "Pyrochlore phase formation in the system Bi₂O₃-ZnO-Ta₂O₅", *J Am Ceram Soc*, **90(9)** (2007) 2900-2904.
- 345. M Krzyzanowski, J H Beynon, M F Frolish and S Glowe** "Modelling of oxide scale evolution in hot rolling and descaling", *Proc Intl Conf on Processing and Manufacturing of Advanced Materials, THERMEC 2006*, Vancouver, Canada, *Mat Sci Forum*, **539-543** (2007) 2461-2466.
- 346. M Kubota and B P Wynne** "Electron backscattering diffraction analysis of mechanically milled and spark plasma sintered pure aluminium", *Scripta Materialia*, **57** (2007) 719-722.
- 347. J Lee, D Suess, J Fidler, T Schrefl and K H Oh** "Micromagnetic study of recording on ion-irradiated granular-patterned media", *J Magn Magn Mat*, **319** (2007) 5-8.
- 348. J Lee, D Suess, T Schrefl, K Hwan Oh and J Fidler** "Magnetic characteristics of ferromagnetic nanotube", *J Magn Magn Mat*, **310** (2007) 2445-2447.
- 349. W E Lee, S E Arshad and P F James** "Importance of crystallization hierarchies in microstructural evolution of silicate glass-ceramics", *J Am Ceram Soc*, **90(3)** (2007) 727-737.
- 350. M Li, A Feteira, D C Sinclair and A R West** "Incipient ferroelectricity and microwave dielectric resonance properties of CaCu_{2.85}Mn_{0.15}Ti₄O₁₂ ceramics", *Appl Phys Lett*, **91** (2007) 132911-1 – 132911-3.
- 351. Z Li, W E Lee and S Zhang** "Low-temperature synthesis of CaZrO₃ powder from molten salts", *J Am Ceram Soc*, **90(2)** (2007) 364-368.
- 352. Z Li, S Zhang and W E Lee** "Molten salt synthesis of LaAlO₃ powder at low temperatures", *J Euro Ceram Soc*, **27** (2007) 3201-3205.
- 353. Z Li, S Zhang and W E Lee** "Molten salt synthesis of zinc aluminate powder", *J Euro Ceram Soc*, **27** (2007) 3407-3412.
- 354. Y-P Liao, J Liu and P V Wright** "Replies to comments contained in "Conductivity hysteresis in polymer electrolytes incorporating poly(tetrahydrofuran)" by O Akbulut, et al, *Electrochim Acta* **52** (2007) 1983", *Electrochimica Acta*, **52** (2007) 7173-7180.
- 355. F Liu, B Chen, U Baumeister, X Zeng, G Ungar and C Tschierske** "The triangular cylinder phase: A new mode of self-assembly in liquid-crystalline soft matter", *J Am Chem Soc*, **129** (2007) 9578-9579.
- 356. X Liu, F R Jones, J L Thomason and B J Rockens** "An XPS study of organosilane and sizing adsorption on E-Glass fibre surface", 16th Intl Conf Composite Materials, (2007).
- 357. Z W Liu and H A Davies** "Irreversible magnetic losses for melt-spun nanocrystalline Nd/Pr-(Dy)-Fe/Co-B ribbons", *J Phys D: Appl Phys*, **40** (2007) 315-319.

- 358. Z W Liu and H A Davies** "The practical limits for enhancing magnetic property combinations for bulk nanocrystalline NdFeB alloys through Pr, Co and Dy substitutions", *J Magn Magn Mat*, **313** (2007) 337-341.
- 359. Z Liu and F R Jones** "Optimising the interfacial response of the high V_f glass fibre composites using functional plasma polymer", 16th Intl Conf Composite Materials, (2007).
- 360. H Lomas, I Canton, S MacNeil, J Du, S P Armes, A J Ryan, A L Lewis and G Battaglia** "Biomimetic pH sensitive polymersomes for efficient DNA encapsulation and delivery", *Adv Mater*, **19** (2007) 4238-4243.
- 361. G R Lumpkin, M Pruneda, S Rios, K L Smith, K Trachenko, K R Whittle and N J Zaluzec** "Nature of the chemical bond and prediction of radiation tolerance in pyrochlore and defect fluorite compounds", *J Solid State Chem*, **180** (2007) 1512-1518.
- 362. I J Luxmore, I M Ross, A G Cullis, P W Fry, J Orr, P D Buckle and J H Jefferson** "Low temperature electrical characterisation of tungsten nano-wires fabricated by electron and ion beam induced chemical vapour deposition", *Thin Solid Films*, **515** (2007) 6791-6797.
- 363. S MacNeil** "Progress and opportunities for tissue-engineered skin", *Nature*, **445** (2007) 874-880.
- 364. S MacNeil** "Skin tissue engineering", Book Chapter in *Tissue Engineering using Ceramics and Polymers*, Woodhead Publishing (2007).
- 365. M Martínez-Palou, L Franco, J Puiggali and G Ungar** "Isothermal crystallization kinetics and spherulitic morphology of poly(4-hydroxybutyric acid-alt-glycolic acid)", *J Polymer Sci, Part B, Polymer Physics*, **45** (2007) 2640-2653.
- 366. A Matthews, S Franklin and K Holmberg** "Tribological coatings: contact mechanisms and selection", *J Phys D, Apply Phys*, **40** (2007) 5463-5475.
- 367. E E McCabe, I P Jones, D Zhang, N C Hyatt and C Greaves** "Crystal structure and electrical characterisation of Bi_2NbO_5F : an Aurivillius oxide fluoride", *J Mater Chem*, **17** (2007) 1193-1200.
- 368. K P Mingard, B Roebuck, E G Bennett, M Thomas, B P Wynne and E J Palmiere** "Grain size measurement by EBSD in complex hot deformed metal alloy microstructures", *J Microscopy*, **227(3)** (2007) 298-308.
- 369. L Miranda, K Boulahya, A Varela, J M González-Calbet, M Parras, M Hernando, M T Fernández-Díaz, A Feteira and D C Sinclair** "Structure-property relationships of the 10H hexagonal-type perovskite $BaMn_{0.4}Fe_{0.6}O_{2.73}$ ", *Chem Mater*, **19** (2007) 3425-3432.
- 370. M S Mirza and G M Sellars** "Modelling hot plane strain compression test Part 3 – Effect of asymmetric conditions", *Mat Sci Tech*, **23(5)** (2007) 567-576.
- 371. G Möbus and B J Inkson** "Nanoscale tomography in materials science", *Materials Today*, **10(12)** (2007) 18-25.
- 372. M Moustafa, A J Bullock, F M Creagh, S Heller, W Jeffcoate, F Game, C Amery, S Tesfaye, Z Ince, D B Haddow and S MacNeil** "Randomized, controlled, single-blind study on use of autologous keratinocytes on a transfer dressing to treat nonhealing diabetic ulcers", *Regen Med*, **2(6)** (2007) 887-902.
- 373. M Moser, P H Mayrhofer, I M Ross and W M Rainforth** "Microstructure and mechanical properties of sputtered intermetallic Al-Au coatings", *J Appl Phys*, **102** (2007) 023523-1 – 023523-6.
- 374. M Moser, P H Mayrhofer, I M Ross and W M Rainforth** "Thermal stability of sputtered intermetallic Al-Au coatings", *J Vac Sci Technol A*, **25(5)** (2007) 1402-1406.
- 375. A Mukhopadhyay, R L Higginson, I C Howard and G M Sellars** "Strain summation in finite element modelling of multipass hot rolling", *Mat Sci Technol*, **23** (2007) 29-37.
- 376. C Murray-Dunning, N Sane, R McKean, S MacNeil, A J Ryan and J W Haycock** "Use of aligned polymer microfibres for peripheral nerve repair", *Tissue Engineering*, **13(7)** (2007) 1774.
- 377. V Nagarajan, G M Sellars and E J Palmiere** "Strain-induced precipitation of Nb(Cn) in microalloyed austenite during multipass hot deformation", *Microalloying* (2007) 42-49.
- 378. S Neuville and A Matthews** "A perspective on the optimisation of hard carbon and related coating for engineering applications", *Thin Solid Films*, **515** (2007) 6619-6653.
- 379. M Notara, N A Bullett, P Despande, D B Haddow, S MacNeil and J T Daniels** "Plasma polymer coated surfaces for serum-free culture of limbal epithelium for ocular surface disease", *J Mater Sci, Mater Med*, **18** (2007) 329-338.
- 380. M Notara, D B Haddow, S MacNeil and JT Daniels** "A xenobiotic-free culture system for human limbal epithelial stem cells", *Regen Med*, **2(6)** (2007) 919-927.
- 381. M I Ojovan and W E Lee** "New Developments in Glassy Nuclear Wasteforms" ISBN: 1-60021-783-4, Nova Science Publishers, New York (2007) 131pp.
- 382. M I Ojovan and O G Batyukhnova** "Glasses for nuclear waste immobilisation", Proc WM'07 Conference, 25th February – 1st March 2007, Tucson, Arizona (2007) WM-7061, 15pp.
- 383. M I Ojovan, R J Hand and K P Travis** "Thermodynamics of viscous flow in glassy materials", Proc 21st Intl Cong Glass, Strasbourg, France, P2 (2007) CD-ROM, 5pp.
- 384. M I Ojovan, J M Juoi and W E Lee** "Glass Composite Materials for Nuclear Waste Immobilisation" Proc 21st Intl Cong Glass, Strasbourg, France, U37 (2007) CD-ROM, 5 pp.
- 385. M I Ojovan, K P Travis and R J Hand** "Thermodynamic parameters of bonds in glassy materials from viscosity-temperature relationships", *J Phys Condens Matter*, **19** (2007) 415107-1 – 415107-12.
- 386. Okhay, A Wu, P M Vilarinho, I M Reaney, A R L Ramos, E Alves, J Petzelt and J Pokorny** "Microstructural studies and electrical properties of Mg-doped $SrTiO_3$ thin films", *Acta Materialia*, **55** (2007) 4947-4954.
- 387. E V Parfenov, A L Yerokhin and A Matthews** "Frequency response studies for the plasma electrolytic oxidation process", *Surf Coat Technol*, **201** (2007) 8661-8670.
- 388. E V Parfenov, A L Yerokhin and A Matthews** "Impedance spectroscopy characterisation of PEO process and coatings on aluminium", *Thin Solid Films*, **516** (2007) 428-432.

- 389. A S. Pankov, O G Batyukhnova, M I Ojovan and W E Lee** "Simulation of Self-Irradiation of High-Sodium Content Nuclear Waste Glasses", In Scientific Basis for Nuclear Waste Management XXX, Edited by DS Dunn, C Poinssot, B Begg, Mater Res Soc Symp Proc, 985, Warrendale, PA (2007) 0985-NN11-01.
- 390. P Papadopoulos, M Priest and W M Rainforth** "Investigation of fundamental wear mechanisms at the piston ring and cylinder wall interface in internal combustion engines", Proc IMechE, 221(J) J Eng Tribology, Special Issue Paper, (2007) 333-343.
- 391. D Pasero, N Reeves, L J Gillie and A R West** "Variable oxygen stoichiometry in layered rock salt cathodes, $Li_x(Mn,Ni)O_2$, depending on synthesis conditions", J Power Sources, **174** (2007) 1078-1081.
- 392. U M Pasha, H Zheng, O P Thakur, A Feteira, K R Whittle, D C Sinclair and I M Reaney** "In situ raman spectroscopy of A-site doped barium titanate", Appl Phys Lett, **91** (2007) 062908-1 – 062908-3.
- 393. P Pawlik, K Pawlik, H A Davies, W Kaszuwara and J J Wyslocki** "The influence of heat treatment on the microstructure and magnetic properties of (Fe,Co)-Zr-(Pr,Dy)-B- nano-composite alloys", J Magn Magn Mat, **316** (2007) e124-e127.
- 394. P Pawlik, K Pawlik, H A Davies, J J Wyslocki, M Leonowicz and W Kaszuwara** "Microstructure and magnetic properties of the Fe-Co-Zr-Mo-W-B bulk glassy alloys", Proc AMT2007 Conf, Inynieria Materialowa, **157-158** (2007) 324-329.
- 395. Y Peng, T Cullis, G Möbus, X Xu and B Inkson** "Nanoscale characterization of CoPt/Pt multilayer nanowires", Nanotechnology, **18** (2007) 485704-1 – 485704-7.
- 396. M Perkins, S J Ebbens, S Hayes, G J Roberts, C E Madden, S Y Luk and N Patel** "Elastic modulus measurements from individual lactose particles using atomic force microscopy", Intl J Pharmaceutics, **332** (2007) 167-175.
- 397. N Pollock, G Fowler, L J Twyman and S L McArthur** "Synthesis and characterization of immobilised PAMAM dendrons", Chem Commun, (2007) 2482-2484.
- 398. D Poole, V Sharifi, J Swithenbank, B Argent and D Ardeit** "On-line detection of metal pollutant spikes in MSW incinerator flue gases prior to clean-up", Waste Management, **27** (2007) 519-532.
- 399. M Prehm, G Götz, P Bäuerle, F Liu, X Zeng, G Ungar and C Tschierske** "Complex liquid-crystalline superstructure of a π -conjugated oligothiophene", Agnew Chem Int Ed, **46** (2007) 7856-7859.
- 400. M Prehm, F Liu, U Baumeister, X Zeng, G Ungar and C Tschierske** "The giant-hexagon cylinder network – a liquid-crystalline organization formed by a T-shaped quarternary amphiphile", Angew Chem Ind Ed, **46** (2007) 7972-7975.
- 401. I M Reaney** "Octahedral tilting, domain structure and piezoelectricity in perovskites and related ceramics", J Electroceram, **19** (2007) 1-8.
- 402. C Rebholz, M A Monclus, M A Baker, P H Mayrhofer, P N Gibson, A Leyland and A Matthews** "Hard and superhard TiAlBN coatings deposited by twin electron-beam evaporation", Surf Coat Technol, **201** (2007) 6078-6083.
- 403. G C Reilly, S Radin, A T Chen and P Ducheyne** "Differential alkaline phosphatase responses of rat and human bone marrow derived mesenchymal stem cells 45S5 bioactive glass", Biomaterials, **28** (2007) 4091-4097.
- 404. S Rimmer, C Johnson, B Zhao, J Collier, L Gilmore, S Sabnis, P Wyman, C Sammon, N J Fullwood and S MacNeil** "Epithelialization of hydrogels achieved by amine functionalization and co-culture with stromal cells", Biomaterials, **29** (2007) 5319-5331.
- 405. C Rodenburgh and W M Rainforth** "A quantitative analysis of the influence of carbides size distributions on wear behaviour of high-speed steel in dry rolling/sliding contact", Acta Materialia, **55** (2007) 2443-2454.
- 406. Z Saghi, X Xu, Y Peng, B Inkson and G Möbus** "Three-dimensional chemical analysis of tungsten probes by energy dispersive X-ray nanotomography", Appl Phys Lett, **91** (2007) 251906-1 – 251906-3.
- 407. M Salim, G Mishra, G J S Fowler, B O'Sullivan, P C Wright and S L McArthur** "Non-fouling microfluidic chip produced by radio frequency tetraglyme plasma deposition", Lab Chip, **7** (2007) 523-525.
- 408. M Salim, B O'Sullivan, S L McArthur and P C Wright** "Characterization of fibrinogen adsorption onto glass microcapillary surfaces by ELISA", Lab Chip, **7** (2007) 64-70.
- 409. T Schrefl, G Hrkac, S Bance, D Suess, O Ertl and J Fidler** "Numerical Methods in Micromagnetics (Finite Element Method)", in Handbook of Magnetism and Advanced Magnetic Materials, H Kronmuller, S Parkin (eds), Vol 2: Micromagnetism. (John Wiley and Sons Inc, 2007).
- 410. M A Shcherbina, S Chvalun and G Ungar** "Effect of crystallization conditions on the habit of polymer single crystals: experiments and theory", Kristallografiya, **52** (2007) 723-737.
- 411. M A Shcherbina and G Ungar** "Asymmetric curvature of growth faces of polymer crystals", Macromolecules, **40** (2007) 402-405.
- 412. M A Shcherbina and G Ungar** "Analysis of crystal habits bounded by asymmetrically curved faces: polyethylene oligomers and poly(vinylidene fluoride)", Polymer, **48** (2007) 2087-2097.
- 413. A Skaropoulou, S Tsvivilis, G Kakali, J H Sharp and R N Swamy** "Thaumasite form of sulphate attack in limestone cement mortars: A study on long term efficiency of mineral admixtures", 12th Intl Conf on Chemistry of Cement, Montreal, Canada (2007) T4-04.1.
- 414. L E Smith, S Collins, Z Liu, S MacNeil, R Williams and S Rimmer** "Synthesis and properties of functional poly(vinylpyrrolidinone) hydrogels for drug delivery", NVP, (2007) 1-10.
- 415. L O Snizhko, A L Yerokhin, N L Gurevina, V A Patalakha and A Matthews** "Excessive oxygen evolution during plasma electrolytic oxidation of aluminium", Thin Solid Films, **516** (2007) 460-464.
- 416. K Sofocleous, S L Ogin, P Tsakiroopoulos, A D Crocombe and B H Le-Page**, "Controlled impact testing of shape memory alloy composites", Proc 12th European Conference on Composite Materials, ECCM12, Biarrits, France, Vol 1 (2007) Paper 426.

417. **P Sooksanen, I M Reaney and D C Sinclair** "Crystallization and dielectric properties of borate-based ferroelectric $PbTiO_3$ glass-ceramics", *J Electroceram*, **19** (2007) 221-228.
418. **P Sooksanen, I M Reaney and D C Sinclair** "Engineered sintering aids for PbO -based electroceramics", *J Electroceram*, **18** (2007) 77-85.
419. **L M Spasova and M I Ojovan** "Frequency Characteristics of Acoustic Emission Signals from Cementitious Wasteforms with Encapsulated Al", In *Scientific Basis for Nuclear Waste Management XXX*, Edited by DS Dunn, C Poinssot, B Begg. Mater Res Soc Symp Proc, 985, Warrendale, PA (2007) 0985-NN10-03.
420. **L M Spasova, M I Ojovan and C R Scales** "Acoustic emission technique applied for monitoring and inspection of cementitious structures encapsulating aluminium", *J Acoustic Emission*, **25** (2007) 51-68.
421. **S Sreekantan, A Fauzi Mohd Noor, Z Arifin Ahmad, R Othman, A R West, D C Sinclair** "Characterization of $Ba_{0.9}Sr_{0.1}TiO_3$ prepared by low temperature chloride aqueous synthesis", *J Mater Sci*, **42** (2007) 2492-2498.
422. **M C Stennett, N C Hyatt, and E R Maddrell** "An Evaluation of single phase ceramic wasteforms for plutonium immobilisation", *Materials Research Society Proceedings*, **985** (2007) 145-250.
423. **M C Stennett, I M Reaney, G C Miles and A R West** "Tungsten bronze-structured temperature-stable dielectrics", *J Am Ceram Soc*, **90(3)** (2007) 980-982.
424. **M C Stennett, I M Reaney, G C Miles, D I Woodward, A R West, C A Kirk and I Levin** "Dielectric and structural studies of $Ba_2MTi_2Nb_3O_{15}$ ($BMTNO_{15}$, $M=Bi^{3+}, La^{3+}, Nd^{3+}, Sm^{3+}, Gd^{3+}$) tetragonal tungsten bronze-structured ceramics", *J Appl Phys*, **101** (2007) 104114-1 – 104114-7.
425. **M S Stosich, B Bastian, N W Marion, P A Clark, G Reilly and J J Mao** "Vascularized adipose tissue grafts from human mesenchymal stem cells with bioactive cues and microchannel conduits", *Tissue Engineering*, **13(12)** (2007) 2881-2890.
426. **D Suess, S Eder, J Lee, R Dittrich, J Fidler, J W Harrell, T Schrefl, G Hrkac, M Schabes, N Supper and A Berger** "Reliability of Sharrocks equation for exchange spring bilayers", *Phys Rev B*, **75** (2007) 174430-1 – 174430-11.
427. **J Sun, T Stirner and A Matthews** "Molecular dynamics simulation of the (0001) $\alpha-Al_2O_3$ and $\alpha-Cr_2O_3$ surfaces", *Surf Science*, **601** (2007) 1358-1364.
428. **J Sun, T Stirner and A Matthews** "Structure and electronic properties calculation of ultrathin $\alpha-Al_2O_3$ films on (0001) $\alpha-Cr_2O_3$ templates", *Surface Science*, **601** (2007) 5050-5056.
429. **T Sun, P McMinn, S Coakley, M Holcombe, R Smallwood and S MacNeil** "An integrated systems biology approach to understanding the rules of keratinocyte colony formation", *J R Soc Interface*, **4** (2007) 1077-1092.
430. **T Sun, D Norton, R J McKean, J W Haycock, A J Ryan and S MacNeil** "Development of a 3D cell culture system for investigating cell interactions with electrospun fibers", *Biotech and Bioeng*, **9999** (2007) 1-11.
431. **T Sun, D Norton, A J Ryan, S MacNeil and J W Haycock** "Investigation of fibroblast and keratinocyte cell-scaffold interactions using a novel 3D cell culture system", *J Mater Sci: Mater Med*, **18** (2007) 321-328.
432. **Y Sun, J Collett, N J Fulwood, S MacNeil and S Rimmer** "Culture of dermal fibroblasts and protein adsorption on block copolymers of poly(butyl methacrylate-block-poly(2,3 propandiol-1-methacrylate-stat-ethandiol dimethacrylate))", *Biomaterials*, **28** (2007) 661-670.
433. **S L Tang, M R J Gibbs, H A Davies, S W Liu, S C Lane and N E Mateen** "An effective route for the fabrication of rare earth-iron-boron thin films having strong c-axis texture and excellent hard magnetic properties", *J Appl Phys*, **101** (2007) 013910-1 -013910-4.
434. **S L Tang, M R J Gibbs, H A Davies, Z W Liu, S C Lane, N E Mateen and Y W Du** "Fabrication of RE-Fe-B films with highly c-axis texture and excellent hard magnetic properties", *J Appl Phys*, **101** (2007) 09K501-1 – 09K501-3.
435. **M B Telli, S Trolier-McKinstry, D I Woodward, I M Reaney** "Chemical solution deposited silver tantalite niobate, $Ag_x(Ta_{0.5}Nb_{0.5})O_{3-y}$ thin films on (111)Pt/Ti/SiO₂/(100)Si substrates", *J Sol-Gel Sci Techn*, **42** (2007) 407-414.
436. **P Thakur, A Feteira, B Kondys and D C Sinclair** "Influence of attrition milling on the electrical properties of undoped-BaTiO₃", *J Euro Ceram Soc*, **27** (2007) 2577-2589.
437. **D Thompson and B C R Ewan** "A group additivity algorithm for polychlorinated dibenzofurans derived from selected DFT analyses", *J Phys Chem A*, **111** (2007) 5043-5047.
438. **A Tkach, P M Vilarinho, A L Kholkin, I M Reaney, J Pokorny and J Petzelt** "Mechanisms of the effect of dopants and $P(O_2)$ on the improper ferroelastic phase transition in SrTiO₃", *Chem Mater*, **19** (2007) 6471-6477.
439. **K P Travis, M Bankhead, K Good and S L Owens** "New parametrization method for dissipative particle dynamics", *J Chem Phys*, **127** (2007) 014109-1 – 014109-2.
440. **M D Uchic, L Holzer, B J Inkson, E L Principe and P Munroe** "Three-dimensional microstructural characterization using focused ion beam tomography", *MRS Bulletin*, **32** (2007) 408-416.
441. **N Vellios and P Tsakiroopoulos** "The role of Sn and Ti additions in the microstructure of Nb-18Si base alloys", *Intermetallics*, **15** (2007) 1518-1528.
442. **N Vellios and P Tsakiroopoulos** "The role of Fe and Ti additions in the microstructure of Nb-18Si-5Sn silicide-based alloys", *Intermetallics*, **15** (2007) 1529-1537.
443. **J C Walker, I M Ross, W M Rainforth and M Lieblich** "TEM characterisation of near surface deformation resulting from lubricated sliding wear of aluminium alloy and composites", *Wear*, **263** (2007) 707-718.
444. **K R Whittle, G R Lumpkin, F J Berry, G Oates, K L Smith, S Yudinsev and N J Zaluzec** "The structure and ordering of zirconium and hafnium containing garnets studied by electron channelling, neutron diffraction and Mössbauer spectroscopy", *J Solid State Chem*, **180** (2007) 785-791.
445. **X Xu, Y Peng, Z Saghi, R Gay, B J Inkson and G Möbus** "3D reconstruction of SPM probes by electron tomography", *J Phys: Conf Series*, **61** (2007) 810-814.

- 446. X Xu, Z Saghi, R Gay and G Möbus** "Reconstruction of 3D morphology of polyhedral nanoparticles", *Nanotechnology*, **18** (2007) 225501-1 – 225501-8.
- 447. X Xu, Z Saghi, G Yang, Y Peng, B Inkson, R Gay and G Möbus** "Electron tomography of SPM probes, nanoparticles and precipitates", *Mater Res Soc Symp Proc*, **982** KK02-04 (2007).
- 448. G Yang, Z Saghi, X Xu, R Hand and G Möbus** "EELS spectrum imaging and tomography studies of simulated nuclear waste glasses", *Mater Res Soc Symp Proc*, **985** 0985-NN06-01 (2007).
- 449. A L Yerokhin** "Preface", *Surf Coat Technol*, **201** (2007) 8659-8660.
- 450. M Zandi, N V Russell, R G J Edyvean, R J Hand and P Ward** "Interpretation of standard leaching test BS En 12457-2: is your sample hazardous or inert?" *J Environ Monit*, **9** (2007) 1426-1429.
- 451. X Zeng, Y Liu and M Impérator-Clerc** "Hexagonal close packing of non-ionic surfactant micelles in water", *J Phys Chem B*, **111** (2007) 5174-5179.
- 452. X B Zeng, F Xie and G Ungar** "Semicrystalline and superlattice structures in an asymmetrically methyl-branched long-chain alkane", *Macromolecules*, **40** (2007) 5750-5758.
- 453. L Zhang, O Prakash Thakur, A Feteira, G M Keith, A G Mould, D C Sinclair and A R West** "Comment on the use of calcium as a dopant in X8R BaTiO₃-based ceramics", *Appl Phys Lett*, **90** (2007) 142914-1 – 142914-3.
- 454. S Zhang** "Next generation carbon-containing refractory composites", *Ind Ceram*, **27(1)** (2007) 15-20.
- 455. S Zhang, W Chen, Z Wang and X Wang** "Low temperature synthesis of magnesium aluminate spinel powders in molten salts", *Proc 10th Intl Conf and Exhib Euro Ceram Soc*, (2007) CD-ROM.
- 456. S Zhang, W Chen, Z Wang and X Wang** "Molten salt synthesis of refractory-grade magnesium aluminate spinel powders at low temperatures", *J Tech Assoc Refract, Japan*, **27(3)** (2007) 175-179.
- 457. Z Zhang, G R Lumpkin, C J Howard, K S Knight, K R Whittle and K Osaka** "Structures and phase diagram for the system CaTiO₃-La_{2/3}TiO₃", *J Solid State Chem*, **180** (2007) 1083-1092.
- 458. F M Zhao and F R Jones** "Influence of matrix cracks on stress transfer between glass fibres and epoxy resin using photoelasticity", *16th Intl Conf Composite Materials*, (2007).
- 459. F M Zhao and F R Jones** "Thermal loading of short fibre composites and the induction of residual shear stresses", *Composites Part A*, **38** (2007) 2374-2381.
- 460. F M Zhao, Z Liu and F R Jones** "Photoelastic determination of interfacial shear stresses in model composites", *Key Engineering Materials*, **334-335** (2007) 289-292.
- 461. H Zheng, I M Reaney, D Muir, T Price and D M Iddles** "Effect of glass additions on the sintering and microwave properties of composite dielectric ceramics based on BaO-Ln₂O₃-TiO₂ (Ln = Nd, La)", *J Euro Ceram Soc*, **27** (2007) 4479-4487.
- 462. Z Zhou, W M Rainforth, C Rodenburg, N C Hyatt, D B Lewis and P E Hovsepian** "Oxidation behavior and mechanisms of TiAlN/VN coatings", *Met Mat Trans A*, **38A** (2007) 2464-2478.
- 463. Z Zhou, W M Rainforth, C C Tan, P Zeng, J J Ojeda, M E Romero-Gonzalez, P Eh Hovsepian** "The role of the tribofilm and roll-like debris in the wear of nanoscale nitride PVD coatings", *Wear*, **263** (2007) 1328-1334.