Since 2002, hundreds of papers, publications and reports have been delivered. However the most recent lists are shown as below:

2008:

Journal Article, Referred and Book Charters

1. M. I. Jones, R. Etzion, J. Metson, Y. Zhou, H Hyuga, Y. Yoshizawa and K. Hirao. Corrosion behavior of reaction bonded Si_3N_4–SiC and SiAlON–SiC composites in simulated aluminum smelting conditions. Journal of the Ceramic Society of Japan 116 [6] 712-716 (2008)
2. J. Lee, D. Bhattacharyya, A. J. Easteal and J B Metson. Properties of nano-ZnO/poly vinyl alcohol/polyethylene oxide composite thin films. Current Applied Physics. 8(1), p.42-47 (2008).
3. Zoran D. Zujovic, Ronny Etzion and James B. Metson, Solid-State NMR Characterization of Silicon Nitride Bonded Silicon Carbide Refractories, Ind. Eng. Chem. Res., 2008, 47 (24), pp 9913–9918
4. Cooksey, M., Taylor, M.P., Chen, JJJ; Resistance due to Gas Bubbles in Aluminium Reduction Cells, JOM, 60, (2), (2008), pp. 51-57.
5. Y.D. He, H.F. Fu, X. G. Li and W. Gao, "Microstructure and Properties of Mechanical Attrition Enhanced Electroless Ni-P Plating on Magnesium Alloy", Scripta Materialia 58, (2008) 504-508
6. Zhaohui Ning, Yedong He, Wei Gao, "Mechanical Attrition Enhanced Ni Electroplating", Surface Coatings & Technology, 202 (2008) 2139-2146
7. Z. Zhan, Y. He, D. Wang and W. Gao, "Aluminide Coatings on Fe-13Cr Steel at Low Temperature and its Ooxidation Resistance", Oxidation of Metals, Vol. 68, No5/6, 2007, 243-253
8. Y-D. He, Z-W. Li and W. Gao, "Transition between external and internal oxidation of alloys", Ed. Wei Gao and Z. Wei Li, "Development on High Temperature Oxidation and Protection of Materials", CRC/IOM/ Woodhead Publisher, Cambridge UK, 2008, 48-72
9. Wei Gao and Zhengwei Li, Chapter 1 – High Temperature Corrosion and Protection of Materials, Ed. Wei Gao and Zhengwei Li, "Development on High Temperature Oxidation and Protection of Materials", CRC/IOM/Woodhead Publisher, Cambridge UK, 2008, 15-18
10. Zhengwei Li and Wei Gao, "Oxidation of Metal Matrix Composites", Ed. Wei Gao and Zhengwei Li, "Development on High Temperature Oxidation and Protection of Materials", CRC/IOM/Woodhead Publisher, Cambridge UK, 2008, 390-425
11. 232. Y. He, Z. Ning and W. Gao, "High Temperature Corrosion Problems in the Petrochemical Industry", Ed. Wei Gao and Zhengwei Li, "Development on High Temperature Oxidation and Protection of Materials", CRC/IOM/Woodhead Publisher, Cambridge UK, 2008, 458-479

Referred Conference Proceedings

1. Perander L., Klett C., Wijayaratne H., Hyland M., Stroeder M. and Metson J. "Impact of Calciner Technologies on Smelter grade Alumina Microstructure and Properties". 8th International Alumina Quality Workshop, September, Darwin, Australia p. 103 – 108 (2008)
2. R. Etzion, J.B. Metson and N. Depree. "Wear Mechanism Study of Silicon Nitride Bonded Silicon Carbide Refractory Materials". TMS-Light Metals. p. 955-959, (2008). New Orleans/LA, USA.
3. Perander, L.M., Z.D. Zujovic, M.M. Hyland, M.E. Smith, L.A. O'Dell, and J.B. Metson. "Short- and Long-range Order in Smelter Grade Alumina – Development of Nano- and Microstructures during the Calcination of Bayer Gibbsite." TMS Light Metals. p. 29-35, (2008). New Orleans/LA, USA.
4. X.C.Shen, M.M. Hyland and B.J. Welch, "Top Heat Loss in Hall-Heroult Cells" TMS Light Metals, 501-504 New Orleans, March 2008
5. Stam, M.A., Taylor, M.P., and Chen, J.J.J., "Common Behaviour and Abnormalities in Aluminium Reduction Cells", TMS Light Metals, p. 309-314 (2008)
6. Aini Abd Majid, N., Young, B., Taylor, M.P., and Chen, J.J.J., "PCA-based Process Monitoring and Fault Diagnosis for Aluminium Processing", International Conference on Mechanical & Manufacturing Engineering (ICME2008), 221-23 May, 2008, Johore Bahru, Malaysia, IE_ID_0025
7. Hughes, A.J. 5 , Titchener, M.R. 3 , Young, B.R., Taylor, M.P. 3 , Chen, J.J.J. 3 , "Validation of Algorithmic Entropy Techniques for Application in Chemical Process Control", Foundations of Computer-Aided Process Operations Conference (FOCAPO), Boston, USA, June 2008
8. Majid, N.A.A., Young, B.R., Taylor, M.P., Chen, J.J.J., "Real-time Process Monitoring and Fault Diagnosis for Aluminium Processing by Principal Component Analysis", Foundations of Computer-Aided Process Operations Conference (FOCAPO), Boston, USA, June 2008

9. Majid, N.A.A., Young, B.R., Taylor, M.P., Chen, J.J.J., “Detecting Problems in Aluminium Processing based on Data Recognition”, The Asia-Oceania Top University League on Engineering (AOTULE), Auckland, November 2008
10. 191. (Invited) Y. He and W. Gao, “Novel Sol-Gel Methods for Ceramic-Oxide Coatings”, Proc. Advanced Materials, Development and Performance (AMDP) 08, Beijing, p.170
11. 11. 184. Yang Zhao, Qudong Wang and Wei Gao, “Microstructure and Mechanical Properties of Mg-Y-Sm-Zr-Zn Alloys”, Advanced Materials, Development and Performance (AMDP) 08, Beijing, p.43
12. 12. 183. Hongmei Liu, Yungui Chen and Wei Gao, “Microstructure Evolution of Mg-5Sn Alloys”, ”, Advanced Materials, Development and Performance (AMDP)08, Beijing, p. 40
13. 13. 182. Weiwei Chen, Yedong He and Wei Gao, “High temperature oxidation behaviours of Mg-RE) alloys”, ”, Advanced Materials, Development and Performance (AMDP) 08, Beijing, p.42
14. 14. 181. Balan Zhu, Zhan Chen and Wei Gao, “Wetting of Grain Boundaries in AZ91 Cast Alloy”, ”, Advanced Materials, Development and Performance (AMDP) 08, Beijing, p41
15. 15. 180. Wei Gao and Z. Liu, Invited Talk, “Novel Coating Technology for Mg Alloys”, Proceedings of International Workshop on Advanced Mg Alloys and Their Applications, Shanghai, China, p.89 – 93
16. 16. Bester, J., “Readyness of NZ Manufacturers of Metal Components for R&D Tax Credit Benefits”, New Zealand Metals Conference, Auckland, November 2008
17. 17. Nguyen, C., Bester J., Metson J. “Phase-Oriented Surface Segregation in Aluminium Casting Alloy”. New Zealand Metals Industry Conference 2008. Auckland, New Zealand.

2007:

Journal Articles, refereed

1. M. P. Taylor and J.J.J. Chen, “Advances in Process Control for Aluminium Smelters”, Journal of Materials and Manufacturing Processes, 22, pp947-957, 2007
2. Dariusz Kacprzak, Marcus Gustafsson, Mark Taylor, "Finite Element Analysis of a 200kA Aluminium Reduction Cell", Journal of Applied Electromagnetics edited by Japanese Society of Applied Electromagnetics and Mechanics, Vol. 15, Supplement (2007), S155-S158.
3. N.J. Zhou, Y.Q. Xue, J.J.J. Chen and M.P. Taylor, “Numerical Simulation of Electrolyte Two-phase Flow Induced by Anodic Bubbles in an Aluminum Reduction Cell”, Chemical Product and Process Modeling: Vol. 2 : Iss. 2, Article 11, 2007. (http://www.bepress.com/cppm/vol2/iss2/11)
4. A.J. Hughes, M.R. Titchener, J.J.J. Chen and M.P. Taylor, “ Pseudoresistance entropy as an approach to diagnostics and control in aluminium production” Asia-Pacific Journal of Chemical Engineering, Published online in Wiley Interscience (www.interscience.wiley.com) , DOI:10.1002/apj065 (ISSN '1932-2143')
5. M.P. Taylor, J.J.J. Chen, “Advances in Process Control for Aluminium Smelters”, Materials and Manufacturing Processes, 22, 947-957, 2007(Taylor & Francis. ISBN 1042-6914)
6. G.Tandon, M.P. Taylor, J.J.J. Chen, “A case study of variation in aluminium smelting cell thermal state, with control implications”, Metallurgical and Materials Transactions, Vol. 38B, 707-712, August 2007. (DOI: 10.1007/s11663-007-9074-x)
7. Sankar Namboothiri, Mark P. Taylor, John J.J. Chen, Margaret M Hyland and Mark Cooksey, “Aluminium production options with a focus on the use of a hydrogen anode: a review, Asia-Pacific Journal of Chemical Engineering 2 (5) 442-447, Published online in Wiley Interscience 2007 (www.interscience.wiley.com), DOI:10.1002/apj079 (ISSN '1932-2143')
8. 2007 Mark P Taylor “Anode Cover Material – Science, Practice and Future Needs”
9. L Perander, Z Zucic, T. Groutso,, M. Hyland, , M Smith, L. O’Dell and J. Metson, “ Characterisation of Metallurgical grade aluminas and their precursors by 27Al NMR and XRD.” Canadian Journal of Chemistry 85 (10) 889-897
10. Perander, L.M., Z.D. Zujovic, T. Groutso, M.M. Hyland, M.E. Smith, L.A. Odell, and J.B. Metson, “Characterization of metallurgical-grade aluminas and their precursors by 27Al NMR and XRD.” Canadian Journal of Chemistry, 2007. 85(10): p. 889-897
11. J. Lee, D. Bhattacharyya, A. J. Easteal and J B Metson. Properties of nano-ZnO/poly vinyl alcohol/polyethylene oxide composite thin films. Current Applied Physics.8(1), p.42-47 (2008).
12. M. W. Allen, S. M. Durbin and J. B. Metson. Silver oxide Schottky contacts on n-type ZnO. Applied Physics Letters 91, 053512. (2007)
13. G. I.N. Waterhouse, J. B. Metson, and G.A. Bowmaker. Synthesis, Vibrational Spectra and Thermal Stability of Ag3O4 and Related Ag7O8X Salts (X= NO3-, ClO4-, HSO4). Polyhedron. 26, (13), p. 3310-3322 (2007).

14. J. Kim, K.C. Wong, P.C. Wong, S.A. Kulinich, J.B. Metson and K.A.R. Mitchell. Characterization of AZ91 magnesium alloy and organosilane adsorption on its surface. Applied Surface Science 253, 4197-4207 (2007).
15. S. Verdier, J. B. Metson and H. M. Dunlop. Static SIMS studies of the oxides and hydroxides of aluminium. J. Mass Spectrom. 2007; 42: 11–19.
16. J.Lee, J. Metson, P.J.Evans, R.Kinsey and D. Bhattacharyya. Implanted ZnO Thin Films: Microstructure, Electrical and Electronic Properties. Applied Surface Science. 253, p.4317-4321 (2007).
17. Wei Zhang, James Metson, and Chuong Luu Nguyen, Sen Chen, "Surface Characterization of an Extruded Al Alloy",Advanced Material Research,Vol.29-30,67-70

Refereed Conference Proceedings

1. Dariusz Kacprzak, MarcusGustafsson, Mark Taylor, "A Finite Element Supported Design Methodology of an Aluminium Reduction Cell", ISEF 2007 - XIII International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering
2. Gustafsson M, Kacprzak D, Taylor M, "Analysis of the formation of magnetic forces in the metal pad", Light Metal 2007, 323-325.
3. Yashuang. S. Gao, M. Gustafsson, M. P. Taylor and J. J. J. Chen, "The control ellipse as a decision making support tool to control temperature and aluminium fluoride in aluminium reduction", 9th Australasian Aluminium Smelting Technology Conference.Nov. 2007
4. Marco A. Stam, Mark P. Taylor, John J.J. Chen, Sikke van Dellen, "Operational And Control Improvements in Reduction Lines at Aluminium Delfzijl" Light Metals 2007, 243-247.E
5. Robert J. Wallace, Mark P. Taylor, J.J.J. Chen, Mohammed M. Farid, "Efficient Operations of Compressed Air Jets for Sidewall Cooling", Light Metals 2007, 445-450
6. G. Tandon, M.P. Taylor, and J.J.J. Chen, "A Case Study of Variation in Aluminium Smelting Cell Thermal State with Control Implications, ASM International 2007 The Minerals, Metals & Materials Society.
7. Sankar Namboothiri, M. P. Taylor, J. J.J. Chen, M. H. Hyland and Mark Cooksey, "Aluminium production process options with a focus on the application of hydrogen diffusion anode", Light Metals 2007, pp. 379-384.
8. M.P. Taylor, J.J.J. Chen, M.J. Hautus, "Operational control decision making in smelters", 9th Australasian Aluminium Smelting Technology Conference and Workshop, 4-9 November 2007.(ISBN 978 0 7334 2556 1)
9. Sankar Namboothiri, M. P. Taylor, J. J.J. Chen, M. M. Hyland and Mark Cooksey, "Aluminium production process options with a focus on the application of hydrogen diffusion anode." Accepted TMS Conference 2007.
10. S.S. Premathilaka, M.M. Hyland, X.D. Chen, L.R. Watkins, and B. Bansal, "Interaction of whey protein with modified stainless steel surfaces." Heat Exchanger Fouling and Cleaning Conference VII, Toumar Portugal, 4-7 July 2007.
11. J.B. Metson, L.M. Perander and M.M. Hyland, Metallurgical Aluminas – Where to From Here?", 9th Australasian Aluminium Smelting Technology Conference and Workshops, Terrigal NSW Australia, 4-9 November 2007, 489-497.
12. P. Patel, F. Hiltmann and M. Hyland, "Graphitized and Graphitic Cathode Material Quality and Its Relationship with Electrochemical Wear in Aluminium Reduction Cells." 9th Australasian Aluminium Smelting Technology Conference and Workshops, Terrigal NSW Australia, 4-9 November 2007, 359-385.
13. M.W.Allen, P.Miller, J.B.Metson, R.J.Reeves, M.M.Alkaisi and S.M.Durbin. Schottky Contact Behaviour as a Function of Metal and ZnO Polarity. Mater. Res. Symp. Proc. 957, p.149-154. (2007)
14. Wei Zhang, Chuong Luu Nguyen and James Metson, "Profile effects on the Surface Segregation of Mg on an Al Extrusion", poster for ECASIA 07, Brussels, Belgium, September

2006:

Paper Delivered

1. Dariusz Kacprzak, Marek Ziolkowski, Marcus Gustafsson, and Mark Taylor "Magnetic Field Profile of an Aluminum Reduction Cell and Lorentz Force Formation" 12th International IGTE Symposium 2006, Graz University of Technology, Austria, 17-20 September, 2006.
2. Dariusz Kacprzak, Marcus Gustafsson and Mark Taylor "Finite Element Analysis of a 200kA Aluminium Reduction Cell" Asia-Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM'06 Conference), University of Technology, Sydney, NSW, Australia, 20-21 July, 2006.

3. D. Kacprzak, M. J. Gustafsson, M. P. Taylor, “A Finite Element Method Approach to the Design Process of an Aluminium Reduction Cell” IEEE International Magnetics Conference, San Diego, California, USA, 8-12 May, 2006. Full paper: IEEE Transactions on Magnetics
4. Dariusz Kacprzak, Marcus Gustafsson, Liren Li and Mark Taylor, “Numerical Analysis of the Collector Bar Current Distribution of a Reduction Cell”, TMS'06 Conference paper, San Antonio, Texas, USA, 12-16 March, 2006. Full paper: Light Metals 2006

Journal Articles, Referred

1. M. Glucina and M Hyland “Laboratory-scale performance of a binary CuAl alloy as an anode for aluminium electrowinning”. Corrosion Science.48, 2457-2469, 2006.
2. W. Trompetter, M. Hyland, D. McGrouther, P. Munroe and A. Markwitz, “Effect of the substrate hardness on particle morphology in high velocity thermal spray coatings.” Journal of Thermal Spray Technology, 15 (4), 663 – 669, 2006.
3. S. Premathilaka, M. Hyland, X.D. Chen and B. Bansal, “A study of the effects of surface chemistry on the initial fouling mechanisms of dairy fouling.” Food and Bioproducts Processing Journal 84 (C4), 265-273, 2006.
4. B. Withy, M. Hyland and B. James, “Pretreatment effects on the surface chemistry and morphology of aluminium.” International Journal of Modern Physics B 20 (25-27), 3611-3616, 2006.
5. Dariusz Kacprzak, Marcus Gustafsson and Mark Taylor “Finite Element Analysis of a 200kA Aluminium Reduction Cell”. Accepted for publication in Journal of Applied Electromagnetics edited by Japanese Society of Applied Electromagnetics and Mechanics
6. Yao, Mingming; He, Yedong; Zhang, Wei; Gao, Wei,”Oxidation resistance of micro-laminated (ZrO_2-Y_2O_3)/(Al_2O_3-Y_2O_3) coatings on Fe-Cr alloys”, High Temperature Materials and Processes, v 25, n 3, 2006, p 167-174
7. Zhang, Jixin, Zhang, Wei; Li, Jiuqing, “Inhibitor and the corroding behavior for a magnesium alloy in an ethylene glycol solution system”, Journal of University of Science and Technology Beijing, v 28, n 3, March, 2006, p 263-268
8. Zhang, Jixin , Zhang, Wei; Li, Jiuqing; Ma, Zheng; Zeng, Guizhi, “Galvanic corrosion of magnesium alloys in atmospheric environment”, Journal of University of Science and Technology Beijing, v 28, n 5, May, 2006, p 454-460
9. P. Veyssière, Y.L. Chiu, M. Niewczas, "Dislocation micromechanisms under single slip conditions", Zeitschrift fuer Metallkunde, V97, Issue 3, March 2006, Pages 189-199, 2006.
10. Y.L. Chiu, P. Penhoud, P. “Veyssière, Portevin-Le Chatilier instability in $L1_0$-TiAl single crystal”, Journal of Modern Physics B, 20, 4189, 2006.
11. P. C. Wo, A. H. W. Ngan and Y. L. Chiu, “TEM measurement of nanoindentation plastic zones in Ni_3Al”, Scripta Materialia 55, 557-560, 2006.
12. Y.L. Chiu, N. Baluc, R. Schaublin, “Nanostructured tungsten-iron alloy prepared by electrodeposition”, Journal of Modern Physics B, 20, 4195, 2006.

Conference Proceedings

1. G. Tandon, M.P. Taylor & J.J.J. Chen, “A case study of variation in aluminium smelting cell thermal state, with control implications”
2. A.J. Hughes, M.R. Titchener, M.P. Taylor and J.J.J. Chen, “Observing aluminium reduction cell behavior through pseudo resistance Entropy: A novel approach to diagnostics and controls, proceeding in CHEMECA06-The 34th Australasian Conference of Chemical Engineering , 17th -20th, September, 2006, Auckland, New Zealand.
3. W. Trompetter, A. Markwitz, M. Hyland, D. McGrouther, 2006. “The effect of the substrate hardness on particle morphology in high velocity thermal spray coatings.” Accepted, International Thermal Spray Conference 2006.
4. B. Withy, M. Hyland and B. James, “Wetting and spreading of PEEK splats on aluminium.” Accepted, International Thermal Spray Conference 2006.
5. P. Patel, M.M. Hyland and F. Hiltmann, “Influence of Internal Structure on Behaviour during Electrolysis Part III: Wear Behaviour in graphitic materials.” Light Metals 2006, Edited by Travis Galloway , Proceedings of the 135th The Metals Minerals and Materials Society Annual Meeting, March 12-16, 2006, San Antonio, 633-638.
6. J. Metson, T. Groutso, M. Hyland and S. Powell, “Evolution of microstructure and properties of SGA with calcinations of Bayer gibbsite.” Light Metals 2006, Edited by Travis Galloway, Proceedings of the 135th The Metals Minerals and Materials Society Annual Meeting, March 12-16, 2006, San Antonio, 89-93.
7. S. Madshus, T. Foosnaes, M. Hyland, J. Krane and H.A. Øye, “Composition and intermolecular reactivity of binder pitches and their influence on structure of carbonized pitch cokes.” Light

Metals 2006, Edited by Travis Galloway , Proceedings of the 135th The Metals Minerals and Materials Society Annual Meeting, March 12-16, 2006, San Antonio, 541-546.

8. S. Premathilaka, M. Hyland, X.D. Chen and B. Bansal, “An XPS Study of Deposit-Surface Interactions on Si-doped DLC during Dairy Fouling” CHEMECA 2006.
9. P.Patel, M. Hyland & F. Hiltmann (2006), “Influence of Internal Cathode Structure on Behaviour During Electrolysis. Part III: Wear of Graphitic Materials”, Light Metals 2006, TMS Annual Meeting Proceedings
10. C. L. Nguyen, W. Zhang and J. B. Metson, “Surface segregation of LM6 casting alloy investigated by XPS and SIMS”, Proceedings of the 4th International Symposium on Aluminium Surface Science and Technology (ASST’06), May 2006, Beaune, France.
11. Perander Linus, H. Samarasekara, M. Hyland, J. Metson, “ESEM and Image Analysis - A Tool for Morphological Characterisation of Smelter Grade Alumina and Gibbsite”, Proceedings of the NZIC 2006 Volume II, pp 193-194, Rotorua 2006
12. Wei Zhang, James Metson, and Chuong Luu Nguyen, Sen Chen, “Surface Characterization of an Extruded Al Alloy “`proceeding of 4th International Conference of Advanced Materials and Processing, December, 2006, Waikato University, New Zealand
13. Wei Zhang, Wei Gao, James Metson, Jiuqing Li, Yinshun Wu, “Formation of Ce-Containing Conversion Films on an Al Alloy”, , proceeding of CHEMECA 2006, September, 2006, Auckland, New Zealand
14. S.Namboothiri, M. P. Taylor, J. J. J Chen, M. Hyland &M. Cooksey, “A Review of the Process Options for Aluminium Production with a Focus on the Development of a Hydrogen Anode”, published in CHEMECA06-The 34th Australasian Conference of Chemical Engineering , 17th - 20th, September, 2006, Auckland, New Zealand.ISBN:0-86869-110-0.
15. R. Schaeublin, Y.L. Chiu, “Effect of He on irradiation-induced hardening of Fe: a simulation point of view”, E-MRS 2006 Spring meeting, May 29 - June 2, 2006 Acropolis Congress Center, Nice, France
16. Y.L. Chiu and R. Schaublin, “Synthesis and Plastic deformation of a nanocrystalline-amorphous iron-tungsten alloy”, 8th International Conference on Nanostructured Materials, p28-29, Indian Institute of Science, Bangalore, India, August 20-25, (2006).
17. V. So, Y. L. Chiu, Z. W. Li, W. Gao, “Morphology and mechanical properties of titanium-based coatings on AZ91”, CHEMECA conference proceedings, 125 (1-5), Auckland, September 17-20, 2006.
18. J. H.-H. Hung, Y. L. Chiu, T. Zhu, W. Gao, “In-situ ESEM study of partial melting and precipitation process of AZ91D magnesium alloy”, CHEMECA conference proceedings, 238 (1-6), Auckland, September 17-20, 2006.
19. Y.L. Chiu, V. So, W. Gao, “Ti-based nanostructure coating on Mg alloys”, The 5th Asian-Australasian Conference on Composite Materials (ACCM-5), University of Hong Kong Science and Technology. , November 27-30, 2006.

2005:

Papers Delivered

1. M Hyland and P Patel, "Electrolytic Carbide Wear of Cathodes" CARBOMAT Symposium, SINTEF/NTNU, Trondheim, Norway, Sept 17, 2005
2. M. Hyland and J Metson, "Applications of Synchrotron Radiation in Aluminium Reduction Technology" Canadian Chemistry Conference, Bancroft Symposium, Saskatoon, Canada, May 30, 2005.
3. M. Hyland, "Environmental Control: Fluoride Emissions", REGAL Annual Meeting, Laval University, Quebec City, Canada, May 27, 2005.
4. M. Hyland and M Taylor, "Potroom Dust Survey", Aluminium and Alumina Health & Hygiene Workshop, Gladstone, Queensland, May 16, 2005.

Journal Articles, refereed

1. Crystal. J of Applied Physics, 97(4), 1 (2005).Evan W Andrews , Mark P Taylor, Greg L Johnson, Ian Coad, The Impact of Anode Cover Control and Anode Assembly Design on Reduction Cell Performance – Part 2, TMS Light Metals, pp. (2005). Delivered by M.P. Taylor.
2. Mark P Taylor and John JJ Chen, Advances in Process Control for Aluminium Smelters, APPA05 (2005),Bahrain
3. John JJ Chen and Mark P Taylor, Fluid Mechanics in a Metallurgical Reactor with particular reference to the Aluminium Reduction Cell, APPA05 (2005), Bahrain
4. Taylor M.P., Chen J.J.J. Manufacturing Control for Aluminium Smelters. APT Aluminium – Process & Product Technology, Vol. 2, Issue 1, 44-52. (ISSN 1745-0330)

5. Chen J.J.J., Taylor M.P. Control of Temperature and Aluminium Fluoride in Aluminium Reduction. Aluminium, Intl. Journal of Industry, Research and Applications, Vo. 81, (7/8), 678-682, 2005. (ISSN0002-6689).
6. Gadd, M.D., Taylor, M.P., Welch, B.J., Heat Transfer and the Effect of Additives in Cryolitic Melts, Metallurgical and Materials Transactions B, in press
7. M. Glucina and M Hyland "Laboratory-scale performance of a binary CuAl alloy as an anode for aluminium electrowinning. In Press, Corrosion Science. Accepted October 2005.
8. F. Budde, B.J. Ruck, A. Koo, S. Granville, H.J.Trodahl, A. Bittar, G.V. Williams, M.J. Ariza, B. Bonnet, D.J.Jones, J.B. Metson, S. Rubanov, P. Munroe, P. Stabilization of amorphous GaN by oxygen. Journal of Applied Physics 98(6), p. (2005).
9. J.B.Metson. Seeing Things in a New Light: Synchrotron Science and the Australian Synchrotron Project. Chemistry in New Zealand. 69(4), p. 2-9 (2005).
10. T. Moriga, M. Mikawa Y. Sakakibara, Y. Misaki, K. Murai, I. Nakabayashi, K. Tominaga and J.B. Metson. Effects of introduction of argon on structural and transparent conducting properties of $ZnO–In_2O_3$ thin films prepared by pulsed laser deposition. Thin Solid Films. 486, (1-2), p.53-57, (2005).
11. J. Lee, W. Gao, Z. Li, M. Hodgson, J. Metson, H. Gong and U. Pal. Sputtered deposited nanocrystalline ZnO films: A correlation between electrical, optical and microstructural properties. Applied Physics A. 80**,** p 1641-1646 (2005).
12. S. Verdier, S. Delalande, N. Van der Laak, J. Metson and F. Dalard. Monochromatised X-ray Photoelectron Spectrometry of the AM60 magnesium Alloy after Treatments in Fluoride based Ti and Zr Solutions. Surface and Interface Analysis. 37, p.509-516 (2005).
13. J.B. Metson, B.J.Ruck, U.D.Lanke, F.Budde, *H.J.Trodahl and A.Bittar. Characterisation of Amorphous GaN Films. Applied Surface Science 244, Issues 1-4, p. 264-268, (2005).
14. G.Xiong, K.B.Ucer, R.T.Williams, J.Lee, D.Bhattacharyya, J. Metson and P. Evans. Donor-Acceptor Pair Luminescence of Nitrogen Implanted ZnO single

Refereed Conference Proceedings

1. Evan W Andrews , Mark P Taylor, Greg L Johnson, Ian Coad, The Impact of Anode Cover Control and Anode Assembly Design on Reduction Cell Performance – Part 2, TMS Light Metals, pp. (2005). Delivered by M.P. Taylor.
2. Chen J.J.J. & Nilmani M. An analysis of impeller performance based on an air-water model Light Metals, pp. 911-914, 2005.
3. Taylor M.P., Chen J.J.J. (Invited Keynote Paper) Advances in Process Control for Aluminium Smelter. 2nd APPA 2005, International Conference on Advances in Production and Processing of Aluminium, 5-7 December 2005, Bahrain.
4. Chen J.J.J., Taylor M.P. (Invited Keynote Paper). Fluid mechanics in a metallurgical reactor with particular reference to the aluminium reduction cell. 2nd APPA 2005, International Conference on Advances in Production and Processing of Aluminium, 5-7 December 2005, Bahrain
5. S iew E.F., Ireland-Hay T., Theobald-Stephens G., Chen J.J.J. & Taylor M.P. A study of the fundamentals of pothole formation. Light Metals, pp. 763-769, 2005.
6. M. Hyland and M.P. Taylor, "Origins and Effects of Potroom Dust', Light Metals 2005, Edited by Halvor Kvande TMS (The Minerals, Metals & Materials Society), 141-145, 2005
7. J Metson, M.M. Hyland and T. Groutso, "Alumina Phase Distribution, Structural Hydroxyl and Performance of Smelter Grade Aluminas in the Reduction Cell." Light Metals 2005, Edited by Halvor Kvande TMS (The Minerals, Metals & Materials Society), 127-131, 2005
8. M. Glucina and M. Hyland, "Laboratory Scale Testing of Aluminium Bronze as an Inert Anode for Aluminium Electrolysis", Light Metals 2005, Edited by Halvor Kvande TMS (The Minerals, Metals & Materials Society), 523-528, 2005
9. Hiltmann, P. Patel and M. Hyland, "Influence of Internal Structure on Behaviour During Electrolysis Part I: Properties of Graphitic and Graphitised Material.", Light Metals 2005, Edited by Halvor Kvande TMS (The Minerals, Metals & Materials Society), 751-765, 2005
10. P. Patel and M. Hyland, F. Hiltmann, "Influence of Internal Structure on Behaviour During Electrolysis Part II: Porosity and Wear Mechanisms in Graphitised Cathode Material." Light Metals 2005, Edited by Halvor Kvande TMS (The Minerals, Metals & Materials Society), 756-762, 2005
11. T. Moriga, T. Sakamoto, S. Takashi, R. Saki, K. Murai, I. Nakabayashi, J.B. Metson, Physica Scripta, T (0281-1847); Volume: T115; p. 312-313 (2005)
12. J. Lee, J. Metson, P. Evans, and D. Bhattacharyya. Effects of implantation on microstructure and properties of ZnO thin films. International SAMPE Symposium and Exhibition (2005), 50 (New Horizons for Materials and Processing Technologies), p.2255-2262. (2005).
13. J. B. Metson, M. M. Hyland and T. Groutso. Alumina Phase Distribution, Structural Hydroxyl And Performance Of Smelter Grade Aluminas In The Reduction Cell. Light Metals 2005 Edited by Halvor Kvande. The Minerals, Metals & Materials Society, p.127-131, (2005).

14. J. Lee, W. Gao, Z. Li, M. Hodgson, A. Asadov and J. Metson Microstructure And Properties Of Annealed Zinc Oxide Thin Films Deposited By Magnetron Sputtering. Acta Metall. Sin.(English Letters) Volume: 18 (3). p.177-183, 2005 ISSN: 1006-7191

2004:

Papers Delivered

1. Mark P Taylor, Greg L Johnson, Evan W Andrews, Barry J Welch, "The Impact of Anode Cover Control and Anode Assembly Design on Reduction Cell Performance", TMS Light Metals, pp. (2004). Delivered by M.P. Taylor.
2. M. Hyland, E. Patterson and B.J. Welch, "Alumina Structural Hydroxyl as a Continuous Source of HF." Proceeding of the 133rd Annual TMS Meeting, Charlotte, North Carolina March 2004. Edited by A.T. Tabereaux, 361-366 (2004). TMS Light Metals Award
3. J.B. Metson, T. Ashida, and M. Hyland, "New Approaches to Phase Analysis of Smelter Grade Aluminas." Light Metals 2004, Proceeding of the 133rd Annual TMS Meeting, Charlotte, North Carolina March 2004. Edited by A.T. Tabereaux, 93-96 (2004).
4. S. Madshus, T. Foosnæes, M. Hyland and H.A. Øye, "Hydrogen Transfer During Carbonization of Binder Pitches." , Proceeding of the 133rd Annual TMS Meeting, Charlotte, North Carolina March 2004., Edited by A.T. Tabereaux, 503-508 (2004).
5. M.P. Taylor and M. Hyland, "Dust in Potrooms: Effects and Origins." 8th Australasian Smelting Technology Conference, October 4-9, 2004, Yeppoon, Queensland.
6. P. Patel, M. Hyland and F. Hiltman, "Influence of Porosity and Grain Orientation on Cathode Properties and Wear." 8th Australasian Smelting Technology Conference, October 4-9, 2004, Yeppoon, Queensland.
7. J.B. Metson, *B.J.Ruck, U.D.Lanke, F.Budde, *H.J.Trodahl and +A.Bittar "Charactersation of Amorphous GaN Films". 12th International Conference on Solid Films and Surfaces. Hamamatsu, Japan, June 2004. Invited Lecture.
8. M. Hyland, "Potroom Dust: Character and Causes." Australian Aluminium Council Health Panel Meeting, March 24, 2004. Invited Lecture
9. M. Hyland, "The generation of HF in electrolysis cells." 10th Chinese Aluminium Smelting Conference, Jiaozuo, China, Sept 19 -21, 2004. Invited Lecture
10. M. Hyland, "Cathode wear by electrolytic carbide formation." 10th Chinese Aluminium Smelting Conference, Jiaozuo, China, Sept 19 -21, 2004. Invited Lecture.
11. Chen J.J.J., "Inclusion Removal and Bubble Patterns in a Melt Treatment Unit with an Impeller and Gas Injection". Proc. 2nd Intl. Conf. ALCASTEK 2004, 20-23 January, 2004, pp. 70-78, Mumbai, India (Invited Keynote Paper). Delivered by John Chen.
12. J.J.J. Chen & M.P. Taylor, "Bubble Driven Flow and Current Efficiency" (Invited Keynote Presentation), 2nd International Symposium on Metallurgy and Materials of non-Ferrous Metals, 9-12 September 2004, Shenyang, CHINA. Delivered by John Chen.
13. M.P. Taylor & J.J.J. Chen, "Development of Smelting Technology and Process Control". (Invited Keynote Presentation), 2nd International Symposium on Metallurgy and Materials of non-Ferrous Metals, 9-12 September 2004, Shenyang, CHINA. Delivered by John Chen.
14. Mark P Taylor, "Anode Cover and Metal Purity", 8AASTC, 2004
15. M.P. Taylor, B.J. Welch, "Improved Energy Management for Smelters", 8AASTC, 2004. Delivered by M.P. Taylor
16. M.P. Taylor[1], J. Metson[1], W. Gao[1], W.G.Ferguson[1], I. Paine[1], T. Neitzert[2], B. Gabbitas[2], D. Zhang[2], Z.W. Chen[3] , "Transforming Light Metals: A research programme for the Light Alloy Manufacturing Association (LAM-NZ)", New Zealand Metals Conference, Christchurch (2004). Delivered by M.P. Taylor.

Journal Articles, refereed

1. Gadd, M.D., Taylor, M.P., Welch, B.J., Heat transfer and the effect of additives in cryolitic melts, Metallurgical and Materials Transactions B, (2004).
2. S. Hay, J. Metson and M.M. Hyland, "Sulfur speciation in aluminium smelting anodes." Industrial and Engineering Chemistry Research. 43(7); 1690-1700 (2004).
3. S. Verdier, N. van der Laak, J. Metson, S.Delalande, F. Dalard, "The surface reactivity of a magnesium-aluminium alloy in acidic fluoride solutions studied by electrochemical techniques and XPS." Applied Surface Science 235 (4) (2004) 513-524.
4. B.J.Ruck, A.Koo, U.D.Lanke, F.Budde, H.J.Trodahl, G.V.M.Williams, A.Bittar, J.B.Metson, E.Nodwell and T.Tiedje. "Filled and Empty States of Disordered GaN Studied by X-ray Absorption and Emission". Journal of Applied Physics, 96(6), 3571-3573.(2004)
5. F.Budde, B.J.Ruck, A.Koo, S.Granville, H.J.Trodahl, A.Bittar, G.V.M.Williams, M.J.Ariza, B.Bonnet, D.J.Jones, J.B.Metson, S.Rubanov and P. Munroe. "Stabilization of Amorphous GaN by Oxygen". Condensed Matter (2004), 1-10.

6. B.J.Ruck, A. Koo, U.D.Lanke, F. Budde, S. Granville, H.J.Trodahl, A. Bittar, J.B.Metson V.J. Kennedy, A. Markwitz. "Quantitative study of molecular N_2 trapped in disordered GaN:O films". Phys Rev B. 70, 235202 (2004)
7. S.J. Hay, J.B. Metson, M. M. Hyland. " Sulfur Speciation in Aluminium Smelting Anodes". Industrial and Engineering Chemical Research, 43(7) 1690-1700 (2004).
8. G. I.N. Waterhouse, G.A.Bowmaker, and J.B. Metson. "Mechanism and Active Site for the Partial Oxidation of Methanol to Formaldehyde over an Electrolytic Silver Catalyst". Applied Catalysis A. 265. p. 85-101 (2004).
9. S S. Verdier, N. van der Laak, J. Metson, S.Delalande, F. Dalard. "The Reactivity of a Magnesium-Aluminium Alloy in Acidic Fluoride Solutions Studied by Electrochemical Techniques and XPS". Applied Surface Science. 235 p.513-524 (2004).
10. J.B. Metson, S.J.Hay, H.J.Trodahl, B.Ruck and Y. Hu. "The Use Of The X-Ray Absorption Near Edge Spectrum In Materials Characterisation". Current Applied Physics.4,(2-4), p.233-236 (2004).
11. J. Lee, Z. Li, M. Hodgson, J. Metson, A. Asadov and W. Gao. "Structural, Electrical And Transparent Properties of ZnO Thin Films Prepared by Magnetron Sputtering". Current Applied Physics. 4,(2-4), p.398-402 (2004).
12. G. I.N. Waterhouse, G.A.Bowmaker, and J.B. Metson. "Influence of Catalyst Morphology on the Performance of Electrolytic Silver Catalysts for the Partial Oxidation of Methanol to Formaldehyde". Applied Catalysis A. 266 (2004) 257-273.

Refereed Conference Proceedings

1. M. Hyland, E. Patterson and B.J. Welch, "Alumina Structural Hydroxyl as a Continuous Source of HF." , Proceeding of the 133rd Annual TMS Meeting, Charlotte, North Carolina March 2004., Edited by A.T. Tabereaux, 361-366 (2004).
2. T.Ashida, J.B.Metson and M.M.Hyland. "New Approaches to Phase Analysis of Smelter Grade Aluminas". Light Metals 2004, Proceeding of the 133rd Annual TMS Meeting, Charlotte, North Carolina March 2004., Edited by A.T. Tabereaux, 93-96 (2004).
3. S. Madshus, T. Foosnæes, M. Hyland and H.A. Øye, "Hydrogen Transfer During Carbonization of Binder Pitches." , Proceeding of the 133rd Annual TMS Meeting, Charlotte, North Carolina March 2004., Edited by A.T. Tabereaux, 503-508 (2004).
4. M.P. Taylor and M. Hyland, "Dust in Potrooms: Effects and Origins." 8th Australasian Smelting Technology Conference, October 4-9, 2004, Yeppoon, Queensland.
5. P. Patel, M. Hyland and F. Hiltman, "Influence of Porosity and Grain Orientation on Cathode Properties and Wear." 8th Australasian Smelting Technology Conference, October 4-9, 2004, Yeppoon, Queensland.
6. J. B. Metson, and M. M. Hyland . "Alumina Properties and Their Impact on Emissions from the Aluminium Reduction Cell." 8th Australasian Aluminium Smelting Technology Conference and Workshop. Yepoon, Australia, October 2004.
7. S. Delalande, N. van der Laak, S. Verdier, J. Metson, F. Dalard, "Study by monochromatized X-Ray Photoelectron Spectrometry of the influence of concentration, pH and time on the de-oxygenation and fluorinization of the Magnesium alloy AM 60 in fluoride solutions", in Congrès International de l'Institut des Traitements de Surface de Franche-Comté, Besançon, France, 22-24 April 2003.