

Brian Cantor – List of Publications

Books

- 1 *Rapidly Quenched Metals III* ed B. Cantor (Metals Society, London, 1978)
- 2 *A Tribute to J W Christian* ed B. Cantor and P. B. Hirsch (Pergamon, Oxford, 1992)
- 3 *Microscopy of Composite Materials I* ed P. S. Grant and B. Cantor, special issue of *Journal of Microscopy* **169**(1993)
- 4 *Thermal Analysis of Advanced Materials* ed B. Cantor, K. A. Q. O'Reilly and J. Hider, special issue of *Journal of Thermal Analysis* **42**(1994)
- 5 *Microscopy of Composite Materials II* ed P. S. Grant and B. Cantor, special issue of *Journal of Microscopy* **177**(1995)
- 6 *Microscopy of Composite Materials III* ed P. S. Grant and B. Cantor, special issue of *Journal of Microscopy* **185**(1997)
- 7 *Stability of Microstructure in Metals and Alloys* R. D. Doherty, J. W. Martin and B. Cantor (CUP, Cambridge, 1997)
- 8 *Metastable, Mechanically Alloyed and Nanocrystalline Materials* ed P. Schumacher, P. J. Warren and B. Cantor, special issue of *Journal of Metastable and Nanocrystalline Materials* **10**(2001)
- 9 *Microscopy of Composite Materials V* ed I. Stone and B. Cantor, special issue of *Journal of Microscopy* **201**(2001)
- 10 *Aerospace Materials* ed B. Cantor, H. E. Assender and P. S. Grant (IOP Press, Bristol, 2001)
- 11 *Solidification and Casting* ed B. Cantor and K. A. Q. O'Reilly (IOP Press, Bristol, 2002)
- 12 *Metal and Ceramic Composites* ed B. Cantor, F. P. E. Dunne and I. Stone (IOP Press, Bristol, 2003)
- 13 *Rapidly Quenched Materials II* ed B. Cantor, K. A. Q. O'Reilly, P. Schumacher and P. Warren (Elsevier, Amsterdam, 2004)
- 14 *Nanocrystalline Alloys* ed B. Cantor (IOP Press, Bristol, 2004 and Taylor and Francis, London, 2007)
- 15 *Automotive Materials* ed B. Cantor, P. S. Grant and C. Johnson (Taylor and Francis, London) in press

Patents

1. *The manufacture of bearing alloys by melt spinning*: K. I. Moore, B. Cantor and E. A. Feest GB2182876A (1984)
2. *Arc spraying to form alloys*: A. P. Newbery, B. Cantor, R. M. Jordan and A. R. E. Singer 9119641.0 (1991)
3. *Method of and apparatus for the fabrication of continuous fibre reinforced composite structures*: P. S. Grant, B. Cantor and Z. Y. Fan 9524486.9 (1995)

Chapters in books and review articles

1. *Atomic diffusion in amorphous alloys*: B. Cantor and R. W. Cahn in *Amorphous Metallic Alloys* ed F. E. Luborsky (Butterworths, London, 1983) p487
2. *Eutectic solidification*: B. Cantor in *Encyclopedia of Materials Science & Engineering* ed M. B. Bever (Pergamon, Oxford, 1986) p1582
3. *Nucleation from the melt*: B. Cantor in *Encyclopedia of Materials Science & Engineering* ed M. B. Bever (Pergamon, Oxford, 1986) p3260
4. *Fundamentals of rapid solidification*: B. Cantor in *Science & Technology of the Undercooled Melt* ed P. R. Sahm, H. Jones and C. M. Adam (Martinus Nijhoff, Dordrecht, 1986) p3
5. *Atomic migration in amorphous alloys*: B. Cantor in *Amorphous Metals & Semiconductors* ed R. I. Jaffee and P. Haasen (Pergamon, Oxford, 1986) p108
6. *Oxidation of some amorphous alloys*: W. Gao and B. Cantor in *Current Topics on Non Crystalline Solids* ed M. D. Baro and N. Clavaguera (World Scientific, Singapore, 1986) p353
7. *Modelling of spray forming*: P. S. Grant and B. Cantor *Cast Metals* **4**(1991)140
8. *Development of microstructure in advanced solidification processing*: B. Cantor *Micron* **25**(1994)651
9. *The nucleation of solidification in liquid droplets embedded in a solid matrix*: B. Cantor and K. A. Q. O'Reilly *Current Opinion in Solid State and Materials Science* **2**(1997)318
10. *Modern design meets materials science*: B. Cantor *Materials World* **5**(1997)386

11. *Development of microstructure in spray formed alloys*: B. Cantor, K. H. Baik and P. S. Grant *Progress in Materials Science* **42**(1997)373
12. *Intermetallic phase selection in lxxx Al alloys* C. M. Allen, K. A. Q. O'Reilly, B. Cantor and P. V. Evans *Progress in Materials Science* **43**(1998)89
13. *Heterogeneous nucleation and adsorption* B. Cantor *Philosophical Transactions of the Royal Society of London* **361**(2003)409
14. *Stable and metastable multicomponent alloys* B. Cantor *Annales de Chimie Science des Materiaux* **32**(2007)

Papers in refereed journals

1. *Tensile fracture behaviour of aligned Al-Al₃Ni and Al-Al₂Cu eutectics at various temperatures*: B. Cantor, G. J. May and G. A. Chadwick *Journal of Materials Science* **8**(1973)830
2. *The growth crystallography of directionally solidified Al-Al₃Ni and Al-Al₂Cu eutectics*: B. Cantor and G. A. Chadwick *Journal of Crystal Growth* **23**(1974)12
3. *Eutectic crystallography by X-ray texture diffractometry*: B. Cantor and G. A. Chadwick *Journal of Crystal Growth* **30**(1975)109
4. *Crystallography of Al-Al₃Ni, Al-Al₂Cu and Al-AlAg₂ eutectics during nucleation and the early stages of growth*: B. Cantor and G. A. Chadwick *Journal of Crystal Growth* **30**(1975)101
5. *Tensile deformation of directionally solidified Al-Al₃Ni and Al-Al₂Cu eutectics*: B. Cantor and G. A. Chadwick *Journal of Materials Science* **10**(1975)578
6. *Discussion of the growth crystallography in Al-Al₃Ni and Al-Al₂Cu eutectics*: B. Cantor and G. A. Chadwick *Journal of Crystal Growth* **30**(1975)140
7. *Metastable alloy phases by co-sputtering*: B. Cantor and R. W. Cahn *Acta Metallurgica* **24**(1976)845
8. *Precipitation of equilibrium phases in vapour-quenched Al-Ni, Al-Cu and Al-Fe alloys*: B. Cantor and R. W. Cahn *Journal of Materials Science* **11**(1976)1066
9. *Vapour-quenched Ag-Cu alloys*: B. Cantor and R. W. Cahn *Scripta Metallurgica* **10**(1976) 381.
10. *Splat-quenched Fe-Ni alloys*: Y. Inokuti and B. Cantor *Scripta Metallurgica* **10**(1976)655
11. *Thermal stability of eutectic and off-eutectic Ag-Cu, Cd-Zn and Al-AlAg₂ alloys*: B. Cantor and G. A. Chadwick *Journal of Crystal Growth* **36**(1976)232
12. *Interface stability of spherical particles solidifying from a stirred melt* : A. Vogel and B. Cantor *Journal of Crystal Growth* **37**(1977)309
13. *The formation of martensite in splat-quenched Fe-Mn and Fe-Ni-C alloys*: Y. Inokuti and B. Cantor *Journal of Materials Science* **12**(1977)946
14. *Viscous behaviour of undercooled melts*: P. Ramachandrarao, B. Cantor and R. W. Cahn *Journal of Non-Crystalline Solids* **24**(1977)109
15. *Dendritic solidification and fluid flow*: B. Cantor and A. Vogel *Journal of Crystal Growth* **41**(1977)109
16. *Free volume theories of the glass transition and the special case of metallic glasses*: P. Ramachandrarao, B. Cantor and R. W. Cahn *Journal of Materials Science* **12**(1977)2488
17. *Mechanical properties of glass surfaces coated with tin oxide*: B. Cantor and W. E. Swindlehurst *Glass Technology* **19**(1978)14
18. *The splat-quenching of high speed tool steels*: J. J. Rayment and B. Cantor *Metal Science* **12**(1978)156
23. *Further analysis of dendritic growth data for succinonitrile*: R. D. Doherty, B. Cantor and S. J. M. Fairs *Metallurgical Transactions* **9A**(1978)621
19. *Heterogeneous nucleation in solidifying alloys*: B. Cantor and R. D. Doherty *Acta Metallurgica* **27**(1979)33
20. *Superplasticity in splat-quenched Pb-Sn eutectic*: R. Cheese and B. Cantor *Materials Science and Engineering* **45**(1980)83
21. *Epoxy resin-metallic glass composites*: W. M. S. B. W. Kadir, C. Hayzelden and B. Cantor *Journal of Materials Science* **15**(1980)2663
22. *Melt-spining of crystalline alloys*: S. J. B. Charter, D. R. Mooney, R. Cheese and B. Cantor *Journal of Materials Science* **15**(1980)2658
23. *Diffusion in amorphous alloys*: M. M. Kijek, M. Ahmadzadeh, B. Cantor and R. W. Cahn *Scripta Metallurgica* **14**(1980)1337
24. *The microstructure of rapidly solidified iron-tungsten-carbon alloys*: J. J. Rayment and B. Cantor *Metallurgical Transactions* **12A**(1981)1557
25. *Interstitial diffusion in DRP metallic glasses*: M. Ahmadzadeh and B. Cantor *Journal of Non-crystalline Solids* **43**(1981)189

26. *Grain boundary structures in rapidly solidified Cu-Zn-Al alloys*: J. Perkins, J. J. Rayment, B. Cantor and R. W. Cahn *Scripta Metallurgica* **15**(1981)771
27. *The solidification and mechanical properties of chill-cast Al-Al₃Ni and Al-Al₂Cu eutectic alloys*: F. S. J. Jabczynski and B. Cantor *Journal of Materials Science* **16**(1981)2269
28. *Microstructure and kinetics of martensite transformations in splat-quenched Fe and Fe-Ni alloys - I pure Fe*: F. Duflos and B. Cantor *Acta Metallurgica* **30**(1982)323
29. *Microstructure and kinetics of martensite transformations in splat-quenched Fe and Fe-Ni alloys - II Fe-Ni alloys*: Y. Inokuti and B. Cantor *Acta Metallurgica* **30**(1982)343
30. *Diffusion rates of metals in a NiZr₂ metallic glass*: D. Akhtar, B. Cantor and R. W. Cahn *Scripta Metallurgica* **16**(1982)417
31. *Measurements of diffusion rates of Au in metal-metal and metal-metalloid glasses*: D. Akhtar, B. Cantor and R. W. Cahn *Acta Metallurgica* **30**(1982)1571
32. *The effect of hot rolling on chill cast Al, Al-2wt%Ni and Al-4wt%Ni alloys*: F. S. J. Jabczynski and B. Cantor *Journal of Materials Science* **17**(1982)1187
33. *Rapid solidification microstructures in austenitic Fe-Ni alloys*: C. Hayzelden, J. J. Rayment and B. Cantor *Acta Metallurgica* **31**(1982)379
34. *Diffusion in metallic glasses*: D. Akhtar, B. Cantor and R. W. Cahn *Bulletin of Materials Science* **7**(1985)3
35. *The massive transformation in melt spun Fe-Ni alloys*: C. Hayzelden and B. Cantor *International Journal of Rapid Solidification* **1**(1984/5)237
36. *Photocalorimetric cooling rate measurements on a Ni-5wt%Al alloy rapidly solidified by melt spinning*: A. G. Gillen and B. Cantor *Acta Metallurgica* **33**(1985)1813
37. *Field ion microscope atom probe studies of metallic glasses*: A. R. Bhatti, B. Cantor, D. S. Joag and G. D. W. Smith *Philosophical Magazine* **B52**(1985)L63
38. *The martensite transformation in Fe-Ni-C alloys*: C. Hayzelden and B. Cantor *Acta Metallurgica* **34**(1986)233
39. *Nuclear reaction methods to measure boron diffusion in metallic glasses*: M. M. Kijek, D. W. Palmer and B. Cantor *Acta Metallurgica* **34**(1986)1455
40. *Cooling rates in melt spun 316L stainless steel*: B. P. Bewlay and B. Cantor *International Journal of Rapid Solidification* **2**(1986)107
41. *The effect of hot rolling on chill cast Al-Al₃Ni, chill cast Al-Al₂Cu and unidirectionally solidified Al-Al₃Ni eutectic alloys*: F. S. Jardine and B. Cantor *Metallurgical Transactions* **17A**(1986)1985
42. *Cooling rate measurements on pure iron rapidly solidified by piston quenching*: F. Duflos and B. Cantor *Journal of Materials Science* **22**(1987)119
43. *Cooling rates and microstructure in planar flow cast Ni-20wt%Al*: A. J. B. Vincent, B. P. Bewlay, B. Cantor, R. J. Zabala, R. P. LaForce, S. C. Huang and L. A. Johnson *Journal of Materials Science Letters* **6**(1987)121
44. *Microstructures and mechanical properties of HIP consolidated 18%Ni maraging steel*: N. Komatsubara, C. Hayzelden and B. Cantor *Powder Metallurgy* **30**(1987)119
45. *In situ transmission electron microscope measurements of solid Al-solid Pb and solid Al-liquid Pb surface energy anisotropy in rapidly solidified Al-5wt%Pb*: K. I. Moore, K. Chatopadhyay and B. Cantor *Proceedings of the Royal Society London* **A414**(1987)499
46. *Sodium/lithium and sodium/lead interdiffusion in fluoride glasses*: E. A. Marsh, B. Cantor, S. J. Wilson and M. G. Scott *Advanced Ceramic Materials* **3**(1988)207
47. *The oxidation behaviour of amorphous alloy Fe₄₀Ni₄₀P₁₄B₆*: W. Gao and B. Cantor *Acta Metallurgica* **36**(1988)167
48. *The oxidation behaviour of amorphous and crystalline Fe₇₈Si₉B₁₃*: W. Gao and B. Cantor *Acta Metallurgica* **36**(1988)2293
49. *Investigation of a rapidly solidified Al-Cr alloy using field ion microscopy/atom probe analysis and high resolution electron microscopy*: B. A. Shollock, A. Cerezo, E. D. Boyes, B. Cantor and G. D. W. Smith *Materials Science and Engineering* **98**(1988)197
50. *Viscous flow in amorphous Fe₇₈B₁₃Si₉ alloy*: A. R. Bhatti and B. Cantor *Materials Science and Engineering* **97**(1988)479
51. *The oxidation behaviour of some cobalt based amorphous alloys*: A. M. Dark, W. Gao and B. Cantor *Materials Science and Engineering* **99**(1988)533
52. *Structure and decomposition behaviour of rapidly solidified Al-Cu-Li-Mg-Zr alloys*: D. H. Kim, H. I. Lee and B. Cantor *Journal of Materials Science* **23**(1988)1695
53. *Effect of surface oxidation on the crystallisation process in amorphous Fe₄₀Ni₄₀P₁₄B₆, Fe₇₈Si₉B₁₃ and Co₅₈Ni₁₀Fe₅Si₁₁B₁₆*: W. Gao and B. Cantor *Journal of Materials Science Letters* **8**(1989)399

54. *Oxidation behaviour of amorphous and crystalline $Co_{58}Ni_{20}Fe_5Si_{11}B_{16}$* : W. Gao and B. Cantor *International Journal of Rapid Solidification* **4**(1989)153
55. *Gas velocity measurements from a close coupled spray deposition atomiser*: B. P. Bewlay and B. Cantor *Materials Science and Engineering* **A118**(1989)207
56. *The effects of controlled crystallisation and oxidation on the magnetic properties of $Fe_{40}Ni_{40}B_{20}$, $Fe_{78}Si_9B_{13}$ and $Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$ metallic glasses*: S. M. Sheard, W. Gao, M. R. J. Gibbs and B. Cantor *Journal of Magnetism and Magnetic Materials* **78**(1989)347
57. *The oxidation of amorphous $Fe_{40}Ni_{40}B_{20}$* : W. Gao and B. Cantor *Scripta Metallurgica* **23**(1989)649
58. *The monitoring of deposit surface temperatures during spray forming by infra red thermal imaging*: P. S. Grant, W. T. Kim, B. P. Bewlay and B. Cantor *Scripta Metallurgica* **23**(1989)1651
59. *Growth morphology of the icosahedral phase in rapidly solidified $Al_{5at\%Mn}$* : D. H. Kim and B. Cantor *Scripta Metallurgica* **23**(1989)1859
60. *The effect of heat treatment and surface treatment on the crystallisation behaviour of amorphous $Fe_{40}Ni_{40}B_{20}$* : W. Gao and B. Cantor *Acta Metallurgica* **37**(1989)3409
61. *Heterogeneous nucleation of In particles embedded in an Al matrix*: D. L. Zhang and B. Cantor *Philosophical Magazine* **A62**(1990)557
62. *A study of the formation of quasicrystals in rapidly solidified Al-Li alloys*: D. H. Kim, H. I. Lee and B. Cantor *Journal of Korean Institute of Metals* **28**(1990)762
63. *Infrared thermal imaging measurement of deposit surface temperatures during spray deposition*: P. S. Grant and B. Cantor *Powder Metallurgy* **33**(1990)144
64. *Modelling of spray deposition: measurements of particle size, gas velocity, particle velocity and spray temperature in gas atomized sprays*: B. P. Bewlay and B. Cantor *Metallurgical Transactions* **21B**(1990)899
65. *Effect of Mg on the heterogeneous nucleation of Cd solidification by Al*: D. L. Zhang and B. Cantor *Materials Science and Engineering* **A128**(1990)209
66. *Manufacture of amorphous Ge-Sn alloys*: I. T. H. Chang, B. Cantor and A. G. Cullis *Journal of Non-Crystalline Solids* **117/118**(1990)263
67. *Solidification of Pb particles embedded in Al*: K. I. Moore, D. L. Zhang and B. Cantor *Acta Metallurgica and Materialia* **38**(1990)1327
68. *Effect of Si on the heterogeneous nucleation of Pb solidification by Al*: D. L. Zhang and B. Cantor *Scripta Metallurgica and Materialia* **24**(1990)751
69. *An in-situ electron microscope investigation of the icosahedral-to-decagonal quasicrystalline transformation in $Al_{20at\%Mn}$* : D. H. Kim, K. Chattopadhyay and B. Cantor *Philosophical Magazine* **A62**(1990)157
70. *Effect of Ge on the heterogeneous nucleation of Pb solidification by Al*: D. L. Zhang and B. Cantor *Journal of Crystal Growth* **104**(1990)583
71. *Deviation from icosahedral symmetry in rapidly solidified $Al_6Cu(Li, Mg)_3$ icosahedral phase*: D. H. Kim, J. L. Hutchison and B. Cantor *Philosophical Magazine* **A61**(1990)167
72. *The variation of grain size with cooling rate during melt spinning*: W. T. Kim and B. Cantor *Scripta Metallurgica and Materialia* **24**(1990)633
73. *Microstructure of rapidly solidified eutectic and hypereutectic Al-Cu alloys*: W. T. Kim, B. Cantor and T. H. Kim *International Journal of Rapid Solidification* **5**(1990)251
74. *Heterogeneous nucleation of solidification of Cd particles embedded in an Al matrix*: D. L. Zhang, K. Chattopadhyay and B. Cantor *Journal of Materials Science* **26**(1991)1531
75. *Microstructure-cooling rate correlations in melt spun alloys*: B. Cantor, W. T. Kim, B. P. Bewlay and A. G. Gillen *Journal of Materials Science* **26**(1991)1266
76. *Transmission electron microscopy observations of the fcc to hcp martensite transformation in Co-Ni alloys*: C. Hayzelden, K. Chattopadhyay, J. C. Barry and B. Cantor *Philosophical Magazine* **A63**(1991)461
77. *A computer model for trajectories and thermal profiles of atomized droplets in spray forming*: P. S. Grant, B. Cantor, S. Rogers and L. Katgerman *Cast Metals* **3**(1991)227
78. *Quasicrystalline and related crystalline phases in a rapidly solidified 2024-2Li aluminium alloy*: D. H. Kim, K. Chattopadhyay and B. Cantor *Acta Metallurgica and Materialia* **39**(1991)859
79. *Heat treatment of a melt spun $Fe_{70}Cr_{18}Mo_2B_{10}$ alloy*: W. T. Kim, K. Clay, C. Small and B. Cantor *Journal of Non-Crystalline Solids* **127**(1991)273
80. *Solidification of Sn droplets embedded in an Al matrix*: W. T. Kim and B. Cantor *Journal of Materials Science* **26**(1991)2868
81. *The relationship between thermal history and microstructure in spray deposited Sn-Pb alloys*: B. P. Bewlay and B. Cantor *Journal of Materials Research* **6**(1991)1433

82. *Microstructure of rapidly solidified Al-based immiscible alloys*: W. T. Kim, D. L. Zhang and B. Cantor *Materials Science and Engineering* **A134**(1991)1133
83. *Spray forming of Al-Cu alloys*: P. S. Grant, W. T. Kim and B. Cantor *Materials Science and Engineering* **A134**(1991)111
84. *Nucleation of solidification in liquid droplets*: W. T. Kim, D. L. Zhang and B. Cantor *Metallurgical Transactions* **22A**(1991)2487
85. *Melting behaviour of In and Pb particles embedded in an Al matrix*: D. L. Zhang and B. Cantor *Acta Metallurgica et Materialia* **39**(1991)1595
86. *Structure of the P phase in vapour quenched Al-Cr-Fe*: B. A. Shollock and B. Cantor *Scripta Metallurgica et Materialia* **25**(1991)2861
87. *Solidification behaviour of Pb droplets embedded in a Cu matrix*: W. T. Kim and B. Cantor *Acta Metallurgica et Materialia* **40**(1992)3339
88. *Electric arc spraying of Ni aluminate*: A. P. Newbery, B. Cantor, R. M. Jordan and A. R. E. Singer *Scripta Metallurgica et Materialia* **27**(1992)915
89. *Improvement of ductility of NiAl at room temperature and manufacture of NiAl-TiB₂ composites by melt spinning*: T. Y. Cheng and B. Cantor *Materials Science and Engineering* **A153**(1992)696
90. *Orientation relationship between the icosahedral phase and the Al matrix in rapidly solidified Al-Cu-Li-Mg*: D. H. Kim and B. Cantor *International Journal of Rapid Solidification* **7**(1992)67
91. *Effect of Ge on the heterogeneous nucleation of Cd solidification by Al*: C. R. Ho and B. Cantor *Philosophical Magazine* **A166**(1992)141
92. *The effect of dopants on the heterogeneous nucleation of solidification of Cd and Pb particles embedded in an Al matrix*: D. L. Zhang and B. Cantor *Acta Metallurgica et Materialia* **40**(1992)2951
93. *TEM characterisation of melt spun Al-3Ti-1B and Al-5Ti-1B alloys*: W. T. Kim, B. Cantor, W. D. Griffith and M. R. Jolly *International Journal of Rapid Solidification* **7**(1992)245
94. *Heterogeneous nucleation of Pb particles embedded in a Zn matrix*: R. Goswami, K. Chattopadhyay, W. T. Kim and B. Cantor *Metallurgical Transactions* **23A**(1992)3207
95. *Optical properties of evaporated small silver particles*: M. H. Lee, P. J. Dobson and B. Cantor *This Solid Films* **219**(1992)199
96. *Comparison of interfaces in Ti composites reinforced with uncoated and TiB₂/C-coated SiC fibres*: Z. X. Guo, B. Derby and B. Cantor *Journal of Microscopy* **169**(1993)279
97. *The microstructure of spray formed Ti-6Al-4V/SiC_f metal matrix composites*: Y. Y. Zhao, P. S. Grant and B. Cantor *Journal of Microscopy* **169**(1993)263
98. *The microstructures of locally reinforced squeeze cast Al alloy metal matrix composites*: H. G. Kang, D. L. Zhang and B. Cantor *Journal of Microscopy* **169**(1993)239
99. *Nucleation of solidification in Al-transition metal alloys*: K. A. Q. O'Reilly, B. Cantor and P. G. Enright *Scripta Metallurgica et Materialia* **28**(1993)173
100. *Heterogeneous nucleation of solidification of Si by solid Al in hypoeutectic Al-Si alloys*: D. L. Zhang and B. Cantor *Metallurgical Transactions* **24A**(1993)1195
101. *Modelling of droplet dynamic and thermal histories during spray forming. Part I: Individual droplet behaviour*: P. S. Grant, B. Cantor and L. Katgerman *Acta Metallurgica et Materialia* **41**(1993)3097
102. *Modelling of droplet dynamic and thermal histories during spray forming. Part II: Effect of process parameters*: P. S. Grant, B. Cantor and L. Katgerman *Acta Metallurgica et Materialia* **41**(1993)3109
103. *The microstructures of Al alloy metal matrix composites manufactured by squeeze casting*: D. L. Zhang, C. Brindley and B. Cantor *Journal of Materials Science* **28**(1993)2267
104. *Microstructure of pulsed laser irradiated Sn and Ge-50at%Sn thin films on Ge single crystal substrate*: I. T. H. Chang and B. Cantor *Thin Solid Films* **230**(1993)167
105. *Microstructural characterization of reactions in Al/Zr thin film couples*: K. P. Mingard and B. Cantor *Journal of Materials Research* **8**(1993)274
106. *Optimising microstructure in spray formed and squeeze cast MMCs*: B. Cantor *Journal of Microscopy* **169**(1993)97
107. *Microstructure of spray formed Al alloy 2618*: R. P. Underhill, P. S. Grant and B. Cantor *Materials and Design* **14**(1993)45
108. *Fabrication of Ti/SiC_f metal matrix composites by vacuum plasma spraying*: Y. Y. Zhao, P. S. Grant and B. Cantor *Journal de Physique IV C7* **3**(1993)1685
109. *Heterogeneous nucleation of solidification of Si in Al-Si*: C. R. Ho and B. Cantor *Materials Science and Engineering* **A173**(1993)37
110. *Heterogeneous nucleation of Al₂Cu in Al-Cu eutectic liquid droplets embedded in an Al matrix*: W. T. Kim and B. Cantor *Acta Metallurgica et Materialia* **42**(1994)3045

111. *An adsorption model of the heterogeneous nucleation of solidification*: W. T. Kim and B. Cantor *Acta Metallurgica and Materialia* **42**(1994)3115
112. *Structure and decomposition behaviour of rapidly solidified Al-Fe alloys*: D. H. Kim and B. Cantor *Journal of Materials Science* **29**(1994)2884
113. *Microstructural characterisation of nanocomposite thin films of Ag-SiO₂, Ag-ZnO and Ag-Si*: M. H. Lee, I. T. H. Chang, P. J. Dobson and B. Cantor *Materials Science and Engineering* **A179/180**(1994)545
114. *Heat treatment of rapidly solidified Fe₆₃Cr₁₈Ti₄B₁₅*: I. T. H. Chang, K. Ishii and B. Cantor *Materials Science and Engineering* **A179/180**(1994)416
115. *Melting behaviour of Cd particles embedded in an Al matrix*: D. L. Zhang, J. L. Hutchison and B. Cantor *Journal of Materials Science* **29**(1994)2147
116. *Heat flow in spray formed Al-4Cu*: P. S. Grant, P. P. Maher and B. Cantor *Materials Science and Engineering* **A179/180**(1994)72
117. *Embedded droplet measurements and an adsorption model of the heterogeneous nucleation of solidification*: B. Cantor *Materials Science and Engineering* **A178**(1994)225
118. *Quasicrystalline and related crystalline phases in rapidly solidified Al-Fe alloys*: D. H. Kim and B. Cantor *Philosophical Magazine* **A69**(1994)45
119. *Crystallisation of amorphous Fe₇₈B₁₃Si₉*: A. R. Bhatti and B. Cantor *Journal of Materials Science* **29**(1994)816
120. *Structure and decomposition behaviour of Mg-Li-Al alloys*: D. H. Kim, Y. S. Han, H. I. Lee and B. Cantor *Scripta Metallurgica and Materialia* **31**(1994)819
121. *Differential scanning calorimetry and the advanced solidification processing of metals and alloys*: B. Cantor *Journal of Thermal Analysis* **42**(1994)647
122. *Interface microstructures in Ti based composites using TiB₂/C coated and uncoated SiC_f after short term thermal exposure*: J. H. Li, Z. X. Guo, P. S. Grant, M. L. Jenkins, B. Derby and B. Cantor *Composites* **25**(1994)887
123. *Heat treatment of rapidly solidified FeCrZrB alloys*: I. T. H. Chang, K. Ishii and B. Cantor *Journal of Thermal Analysis* **42**(1994)667
124. *A numerical heat flow model for squeeze casting Al alloys and Al alloy/SiCp composites*: D. L. Zhang and B. Cantor *Modelling and Simulation in Materials Science and Engineering* **3**(1995)121
125. *Solidification behaviour of Al particles embedded in a Zr aluminide matrix*: K. A. Q. O'Reilly and B. Cantor *Acta Metallurgica and Materialia* **43**(1995)405
126. *Modelling of droplet dynamic and thermal histories during spray forming: III analysis of spray solid fraction*: P. S. Grant and B. Cantor *Acta Metallurgica and Materialia* **43**(1995)913
127. *Spray forming of Al/SiC metal matrix composites*: P. S. Grant, I. T. H. Chang and B. Cantor *Journal of Microscopy* **177**(1995)337
128. *Fabrication of Si/SiO₂ nanocomposite thin films*: I. T. H. Chang, B. Cantor, P. A. Leigh and P. J. Dobson *Nanostructured Materials* **6**(1995)835
129. *Eutectic channelling in a squeeze cast Al-4.5wt%Cu alloy*: M. Gallerneault, G. Durrant and B. Cantor *Scripta Metallurgica et Materialia* **32**(1995)1553
130. *Grain growth in spray formed Ni superalloys*: R. P. Underhill, P. S. Grant, D. J. Bryant and B. Cantor *Journal of Materials Synthesis and Processing* **3**(1995)3
131. *Heterogeneous nucleation of Si solidification in Al-Si and Al-Si-P alloys*: C. R. Ho and B. Cantor *Acta Metallurgica et Materialia* **43**(1995)3231
132. *Modification of hypereutectic Al-Si alloys*: C. R. Ho and B. Cantor *Journal of Materials Science* **30**(1995)1912
133. *Temperature, composition and microstructure variations during pulsed laser irradiation of a deposited film on a substrate*: I. T. H. Chang and B. Cantor *Acta Metallurgica et Materialia* **43**(1995)4411
134. *The effect of added Mo on the crystallisation behaviour of rapidly solidified Fe₇₀Cr₂₀B₁₀ alloys*: I. T. H. Chang, O. Balcers and B. Cantor *International Journal of Rapid Solidification* **9**(1995)63
135. *Transmission electron microscope study of Ti/SiC_f composites fabricated by vacuum plasma spraying and vacuum hot pressing*: J. H. Li, P. S. Grant, M. L. Jenkins and B. Cantor *Philosophical Magazine* **A72**(1995)707
136. *Mechanical properties and microstructure of twin roll cast Al-7Si/SiCp MMCs*: P. A. Karnezis, G. Durrant, B. Cantor and E. J. Palmiere *Materials Science and Technology* **11**(1995)741
137. *Anelastic crossover and creep recovery spectra in Fe₄₀Ni₄₀B₂₀ metallic glass*: A. Kursumovic and B. Cantor *Scripta Metallurgica and Materialia* **34**(1996)1655
138. *Squeeze cast aluminium reinforced with mild steel inserts*: G. Durrant, M. Gallerneault and B. Cantor *Journal of Materials Science* **31**(1996)589

139. *NiAl deposits manufactured by electric arc spraying of Ni-Al cored wire*: A. P. Newbery, B. Cantor, R. M. Jordan and A. R. E. Singer *Journal of Materials Synthesis and Processing* **4**(1996)1
140. *The effects of fibre coating, matrix composition and processing conditions on interfacial microstructures in vacuum plasma sprayed vacuum hot pressed Ti Alloy/SiC_f composites*: J. H. Li, M. L. Jenkins and B. Cantor *Key Engineering Materials* **116-117**(1996)87
141. *Electric arc spray forming of an Ni₃Al based alloy*: A. P. Newbery, R. M. Jordan, A. R. E. Singer and B. Cantor *Scripta Metallurgica et Materialia* **35**(1996)47
142. *Squeeze casting and melt infiltration of locally reinforced fibre MMCs*: H. G. Kang, M. Lee, P. R. G. Anderson and B. Cantor *Journal of Materials Science* **31**(1996)589
143. *Cyclic differential scanning calorimetry and the melting and solidification of pure metals*: K. A. Q. O'Reilly and B. Cantor *Proceedings of the Royal Society of London* **A452**(1996)2141
144. *The squeeze casting of hypoeutectic binary Al-Cu*: M. Gallerneault, G. Durrant and B. Cantor *Metallurgical and Materials Transactions* **27A**(1996)4121
145. *Effect of Cl on microstructure and mechanical properties of in-situ Ti/TiB MMCs produced by a blended elemental powder metallurgy method*: Z. Fan, H. J. Niu, B. Cantor, A. P. Miodownik and T. Saito *Journal of Microscopy* **185**(1997)157
146. *Hydrogen incorporation in Ti based MMCs fabricated by vacuum plasma spraying and vacuum hot pressing*: J. H. Li, P. S. Grant, M. L. Jenkins and B. Cantor *Journal of Microscopy* **185**(1997)132
147. *The kinetics and mechanism of interfacial reaction in Sigma fibre reinforced Ti MMCs*: Z. Fan, Z. X. Guo and B. Cantor *Composites* **28A**(1997)131
148. *Manufacture of hoop reinforced Ti MMC rings by a spray/wind process*: Z. Fan, P. S. Grant and B. Cantor *Key Engineering Materials* **127-131**(1997)335
149. *Heterogeneous nucleation of solidification of equilibrium and metastable phases in melt spun Al-Fe-Si alloys*: C. M. Allen, K. A. Q. O'Reilly, B. Cantor and P. V. Evans *Materials Science and Engineering* **A226**(1997)784
150. *Heat treatment of amorphous Al₈₅Y₅Ni₁₀ and Al₈₅Y₁₀Ni₅ alloys*: W. T. Kim, M. Gogebakan and B. Cantor *Materials Science and Engineering* **A226**(1997)178
151. *Crystallization behaviour of amorphous Al₈₅Y₁₁Ni₄ alloy*: M. Gogebakan, P. J. Warren and B. Cantor *Materials Science and Engineering* **A226**(1997)168
152. *The influence of substrate temperature, substrate material and heat treatment on the microstructure of Ag/Si nanocomposite films prepared by rf co-sputtering*: F. Niu, I. T. H. Chang, P. J. Dobson and B. Cantor *Materials Science and Engineering* **A226**(1997)161
153. *Impurity effects on heterogeneous nucleation*: B. Cantor *Materials Science and Engineering* **A226**(1997)151
154. *Microstructure and mechanical properties of in situ Ti/TiB MMCs produced by a blended elemental powder metallurgy method*: Z. Fan, H. J. Niu, A. P. Miodownik, T. Saito and B. Cantor *Key Engineering Materials* **127**(1997)423
155. *Modelling of droplet behaviour during spray forming using Fluent*: R. P. Underhill, P. S. Grant, B. Cantor and D. J. Bryant *International Journal of Non-Equilibrium Processing* **10**(1997)201
156. *Effect of process parameters on planar flow cast Al-Cu ribbons* S. M. Lee, K. A. Q. O'Reilly, C. P. Hong and B. Cantor *International Journal of Cast Metals Research* **10**(1998)181
157. *Microstructure and tensile properties of squeeze cast SiC particulate reinforced Al-7Si alloy*: P. A. Karnezis, G. Durrant and B. Cantor *Materials Science and Technology* **14**(1998)97
158. *Direct measurement of sprayform temperatures and the effect of liquid fraction on microstructure*: K. P. Mingard, P. W. Alexander, S. J. Langridge, G. A. Tomlinson and B. Cantor *Acta Materialia* **46**(1998)3511
159. *Modelling of droplet behaviour during spray forming using FLUENT* R.P. Underhill, P.S. Grant, B. Cantor and D. J. Bryant *International Journal of Non-Equilibrium Processing* **10**(1998)201
160. *The microstructure of direct squeeze cast and gravity die cast 7050 wrought Al alloy* S-W Kim, G. Durrant and B. Cantor *Journal of Materials Synthesis and Processing* **6**(1998)75
161. *High resolution studies of metallic nanocomposite materials* P. J. Warren, D. J. Larson, C. Weston, A. Cerezo, A. K. Petford-Long, G. D. W. Smith and B. Cantor *Nanostructured Materials* **12**(1999)697
162. *Mechanical properties of partially crystallized aluminium based amorphous alloys* H. S. Kim, P. J. Warren, B. Cantor and H. I. Lee *Nanostructured Materials* **11**(1999)241
163. *The effect of die geometry on the microstructure of indirect squeeze cast and gravity die cast 7050 wrought Al alloy* S-W Kim, G. Durrant, J. H. Lee and B. Cantor *Journal of Materials Science* **34**(1999)1873

164. *The effect of Sr and Fe additions on the microstructure and mechanical properties of direct squeeze cast Al-7Si-0.3Mg alloy* J. X. Dong, P. A. Karnezis, G. Durrant and B. Cantor *Materials Transactions A30*(1999)1341
165. *Calorimetric control of aluminium casting quality* C. M. Allen, K. A. Q. O'Reilly, B. Cantor and P. V. Evans *Journal of Thermal Analysis and Calorimetry* **57**(1999)391
166. *The effect of vanadium and grain refiner additions on the nucleation of secondary phases in lxxx Al alloys* C. M. Allen, K. A. Q. O'Reilly, P. V. Evans and B. Cantor *Acta Materialia* **47** (1999)4387
167. *Macro-segregation in aluminium alloy sprayformed billets* K. P. Mingard, B. Cantor, I. G. Palmer, I. R. Hughes, P.W. Alexander, T. C. Willis and J. White *Acta Materialia* **48**(2000)2435
168. *The microstructure of as-melt spun Al-7%Si-0.3%Mg alloy and its variation in continuous heat treatment* M. Yan, W. Z. Zhu and B. Cantor *Materials Science and Engineering* **283**(2000)77
169. *Modelling and experimental analysis of vacuum plasma spraying. Part I: prediction of initial plasma properties at plasma gun exit* Y. Y. Zhao, P. S. Grant and B. Cantor *Modelling and Simulation in Materials Science and Engineering* **8**(2000)497
170. *Modelling and experimental analysis of vacuum plasma spraying. Part II: prediction of temperatures and velocities of plasma gases and Ti particles in a plasma jet* Y. Y. Zhao, P. S. Grant and B. Cantor *Modelling and Simulation in Materials Science and Engineering* **8**(2000)515
171. *Growth related metastable phase selection in a 6xxx series wrought Al alloy* G. Sha, K. A. Q. O'Reilly, B. Cantor, J. Worth and R. Hamerton *Materials Science and Engineering A304*(2001)612
172. *Non equilibrium reactions in 6xxx series Al alloys* C. Hsu, K. A. Q. O'Reilly, B. Cantor and R. Hamerton *Materials Science and Engineering A304*(2001)119
173. *Effect of semisolid microstructure on solidified content in lxxx Al alloys* C. M. Allen, K. A. Q. O'Reilly and B. Cantor *Acta Materialia* **49**(2001)1549
174. *Applications of nanocomposites* B. Cantor, C. M. Allen, R. Dunin-Burkowski, M. H. Green, J. L. Hutchison, K. A. Q. O'Reilly, A. K. Petford-Long, P. Schumacher, J. Sloan and P. J. Warren *Scripta Materialia* **44**(2001)2055
175. *Effect of gap distance on the cooling behaviour and the microstructure of indirect squeeze cast and gravity die cast 5083 wrought Al alloy* J. H. Lee, H. S. Kim, C. W. Won and B. Cantor *Materials Science and Engineering A338*(2002)182
176. *Isothermal grain coarsening of spray formed alloys in the semi-solid state* E. D. Manson-Whitton, I. C. Stone, J. R. Jones, P. S. Grant and B. Cantor *Acta Materialia* **50**(2002)2517
177. *Quasi-peritectic solidification in a 6xxx series Al alloy* G. Sha, K. A. Q. O'Reilly and B. Cantor *Acta Materialia* **51**(2003)1883
178. *Criterion for microstructural transition in spray deposition processes* K. H. Baik, P. S. Grant and B. Cantor *Acta Materialia* **52**(2003)199
179. *Crystallization behaviour in a new multicomponent TiZrHfNiCuAl metallic glass developed by the equiatomic substitution technique* K. B. Kim, Y. Zhang, P. J. Warren and B. Cantor *Philosophical Magazine* **83**(2003)2371
180. *Microstructural development in equiatomic multicomponent alloys* B. Cantor, I. T. H. Chang, P. Knight and A. J. B. Vincent *Materials Science and Engineering* **375-377**(2004)213
181. *Glass forming ability of novel multicomponent (TiZrHf)-(NiCu)-Al alloys developed by equiatomic substitution* *Materials Science and Engineering* **375-377**(2004)317
182. *In-situ resistometric investigation of phase transformations in rapidly solidified Al-based alloys containing dispersed nanoparticles* F. Prima, M. Tomut, I. Stone, B. Cantor, D. Janickovic, G. Vlasak and P. Svec *Materials Science and Engineering* **375-377**(2004)772
183. *Amorphization of Ni₆₀Nb₂₀Zr₂₀ by mechanical alloying* M. H. Enayati, P. Schumacher and B. Cantor *Materials Science and Engineering* **375-377**(2004)812
184. *Structural characterisation and stability of new nanoquasicrystalline Al-based alloys* M. Galano, F. Audebert, B. Cantor and I. Stone *Materials Science and Engineering* **375-377**(2004)1206
185. *Microstructure evolution of high strength AlFeVTi nanoquasicrystalline alloys at elevated temperature* M. Tomut, F. Prima, G. Huenen, G. Vaughan, A. R. Yavari, P. Svec, I. C. Stone and B. Cantor *Materials Science and Engineering* **375-377**(2004)1239
186. *Dynamic densification of metal matrix-coated fibre composites: modelling and processing* H. X. Peng, F. P. E. Dunne, P. S. Grant and B. Cantor *Acta Materialia* **53**(2005)617
187. *Crystallization behaviour of novel (TiZrHf)_{100-x}(NiCu)_x alloys with x=48 to 55* K. B. Kim, P. J. Warren, B. Cantor and J. Eckert *Journal of Metastable and Nanocrystalline Materials* **24-25**(2005)657
188. *Novel multicomponent alloys* B. Cantor, F. Audebert, M. Galano, K. B. Kim, I. C. Stone and P. J. Warren *Journal of Metastable and Nanocrystalline Materials* **24-25**(2005)1

189. *Structural evolution of a nanoscale icosahedral phase in novel multicomponent amorphous alloys* K. B. Kim, P. J. Warren, B. Cantor and J. Eckert *Philosophical Magazine* **86**(2006)281
190. *Hybrid magnetic/semiconductor spintronic materials and devices* Y. B. Xu, E. Ahmed, J. S. Claydon, Y. X. Lu, S. S. A. Hassan, I. G. Will and B. Cantor *Journal of Magnetism and Magnetic Materials* **304**(2006)69

Other Papers

1. *The tensile deformation of Al-Al₃Ni and Al-Al₂Cu eutectics*: B. Cantor and G. A. Chadwick in *Practical Metallic Composites* (Institution of Metallurgists, London 1974) pD35
2. *Metastable alloy phases by getter-sputtering*: B. Cantor and R. W. Cahn in *Rapidly Quenched Metals II* ed N. J. Grant and B. C. Giessen (MIT Press, Cambridge, 1976) vol.1 p59
3. *Crystallization of amorphous alloys prepared by electroless deposition*: W. G. Clements and B. Cantor in *Rapidly Quenched Metals II* ed N. J. Grant and B. C. Giessen (MIT Press, Cambridge, 1976) vol.1 p267
4. *Crystallographic fatigue crack growth in Al-4%Cu aged to contain GP zones*: S. J. Brett, B. Cantor and R. D. Doherty in *Fracture 1977* ed D. M. R. Taplin (University of Waterloo Press, Waterloo 1977) vol.2 p719
5. *Splat-quenched tungsten steels*: J. J. Rayment and B. Cantor in *Rapidly Quenched Metals III* ed B. Cantor (Metals Society, London 1978) vol 1 p85
6. *Martensite in splat-quenched iron and iron-nickel*: F. Duflos and B. Cantor in *Rapidly Quenched Metals III* ed B. Cantor (Metals Society, London 1978) vol 1 p110
7. *Stir-cast microstructure and slow crack growth*: A. Vogel, R. D. Doherty and B. Cantor in *Solidification and Casting of Metals* ed B. B. Argent (Metals Society, London 1978) p518
8. *The effect of hot rolling on Al-Ni eutectic alloys*: F. S. J. Jabczynski and B. Cantor in *Conference on In-Situ Composites III* ed J. L. Walter, M. F. Gigliotti, B. F. Oliver and H. Bibring (Ginn Custom Publishing, Mass, USA 1979) p303.
9. *Martensite morphology in rapidly solidified pure iron*: Y. Inokuti, F. Duflos and B. Cantor in *Phase Transformations* (Chameleon Press, London 1979) vol 2 pIV-17
10. *Growth kinetics of plate-shaped precipitates in aluminium alloys*: R. D. Doherty and B. Cantor in *Phase Transformations* (Chameleon Press, London 1979) vol 2 pII-7
11. *Martensite morphology in rapidly solidified iron alloys*: Y. Inokuti and B. Cantor in *ICOMAT-79* ed W. S. Owen (MIT Press, Cambridge, 1979) p46
12. *Martensite transformation in splat-quenched zirconium alloys*: S. Banerjee and B. Cantor in *ICOMAT-79* ed W. S. Owen (MIT Press, Cambridge, 1979) p195
13. *Martensite in splat-quenched alloys*: B. Cantor in *Amorphous Metallic Materials* ed P. Duhaj and P. Mrafko (Veda Press, Bratislava, 1980) p83
14. *The rapid quenching of steels*: J. J. Rayment and B. Cantor in *Rapid Solidification Processing - Principles and Technologies II* ed R. Mehrabian, B. H. Kear and M. Cohen (Claitors, Baton Rouge, 1980) p165
15. *Diffusion of B in amorphous Ni-Nb*: M. M. Kijek, M. Ahmadzadeh and B. Cantor in *International Conference on Amorphous Metals* ed G. Hargitai, I. Baconyi and T. Kemeny (Budapest 1980)
16. *Rapid solidification of steels*: B. Cantor in *Rapidly Solidified Amorphous and Crystalline Alloys* ed B. H. Kear, B. C. Giessen and M. Cohen (North Holland, New York, 1982) p317
17. *A simple model for describing thermodynamic properties of metallic glasses and supercooled liquids in terms of the configuration of dense random packed structures*: B. Cantor and P. Ramachandrarao in *Rapidly Quenched Metals IV* ed T. Masumoto and K. Suzuki (Japan Institute of Metals, Sendai, 1982) vol 1, p291
18. *Diffusion rates in metal-metal glasses measured by ion-accelerator techniques*: M. M. Kijek, D. Akhtar, B. Cantor and R. W. Cahn in *Rapidly Quenched Metals IV* ed T. Masumoto and K. Suzuki (Japan Institute of Metals, Sendai, 1982) vol 1, p573
19. *A Monte Carlo investigation of interstitial jumps in the diffusion of small atoms in dense random packed metallic glasses*: M. Ahmadzadeh and B. Cantor in *Rapidly Quenched Metals IV* ed T. Masumoto and K. Suzuki (Japan Institute of Metals, Sendai, 1982) vol 1, p591
20. *The as-quenched microstructures of rapidly solidified Fe-25%Ni*: J. J. Rayment, O. Ashiru and B. Cantor in *Solid-Solid Phase Transformations* ed H. I. Aaronson, D. E. Laughlin, R. F. Sekerka and C. M. Wayman (AIME, Warrendale, 1982)

21. *Melt spinning of some iron based alloys*: C. Hayzelden and B. Cantor in *Solid-Solid Phase Transformations* ed H. I. Aaronson, D. E. Laughlin, R. F. Sekerka and C. M. Wayman (AIME, Warrendale, 1982) p1397
22. *Martensitic transformations in rapidly solidified Cu-Zn-Al shape memory alloys*: J. Perkins, J. J. Rayment and B. Cantor in *Solid-Solid Phase Transformations* ed H. I. Aaronson, D. E. Laughlin, R. F. Sekerka and C. M. Wayman (AIME, Warrendale, 1982) p1481
23. *Computer modelling of ledge growth kinetics*: R. D. Doherty and B. Cantor in *Solid-Solid Phase Transformations* ed H. I. Aaronson, D. E. Laughlin, R. F. Sekerka and C. M. Wayman (AIME, Warrendale, 1982) p547
24. *Interfacial microstructures in directionally solidified Al-Al₃Ni eutectic*: K. M. Knowles, P. J. Goodhew and B. Cantor in *Electron Microscopy and Analysis* ed P. Doig (Institute of Physics, London, 1983) p331
25. *Melt spinning of a commercial aluminium alloy*: T. C. Willis and B. Cantor in *Rapidly Solidified Metastable Materials* ed B. H. Kear and B. C. Giessen (North Holland, New York, 1984) p131
26. *Diffusion in amorphous alloys*: B. Cantor in *Rapidly Quenched Metals V* ed S. Steeb and H. Warlimont (North Holland, Amsterdam, 1985) p595
27. *Heat treatment and deformation of a melt spun aluminium alloy*: T. C. Willis and B. Cantor in *Rapidly Quenched Metals V* ed S. Steeb and H. Warlimont (North Holland, Amsterdam, 1985) p927
28. *Martensite transformation in melt spun Co-Ni alloys*: J. M. Higgins, C. Hayzelden and B. Cantor
29. *The spray deposition of a stainless steel*: B. P. Bewlay and B. Cantor in *Rapidly Solidified Materials* ed P. W. Lee and R. S. Carbonara (ASM, Metals Park, 1985) p15
30. *Silicon diffusion in Ta-Ir amorphous alloys*: A. J. Hunt, B. Cantor and M. M. Kijek in *Rapidly Solidified Materials* ed P. W. Lee and R. S. Carbonara (ASM, Metals Park, 1985) p169
31. *Atomic migration in amorphous alloys*: B. Cantor in *Amorphous Metals & Semiconductors* ed R. I. Jaffee and P. Haasen (Pergamon, Oxford, 1986) p108
32. *High resolution electron microscope study of amorphous and partially crystalline Fe₇₈B₁₃Si₉*: A. R. Bhatti, J. C. Barry and B. Cantor *Materials Research Society Symposium Proceedings* **58**(1986)99
33. *Microstructure of rapidly solidified hypermonotectic Al-Pb alloys*: K. I. Moore and B. Cantor in *Solidification Processing* ed J. Beech and H. Jones (Institute of Metals, London, 1988) p515
34. *Heat treatment and mechanical properties of metallic glasses*: M. A. Hughes, A. R. Bhatti, W. Gao and B. Cantor *Materials Forum* **11**(1988)21
35. *Spray forming of alloys and composites*: P. S. Grant, P. P. Maher and B. Cantor in *Advanced Engineering Materials* ed D. M. R. Taplin and D. Taylor (Parsons Press, Dublin, 1989) p153
36. *In-situ particulate composites manufactured by hot extrusion of a melt spun amorphous Fe₇₀Cr₁₈Mo₂B₁₈ alloy*: W. T. Kim, B. Cantor, K. Clay and C. Small, in *Fundamental Relationships between Microstructure and Mechanical Properties of Metal Matrix Composites* ed P. K. Liaw and M. N. Gungor (AIME, Warrendale, 1990) p89
37. *Metastable Ge-Sn alloy layers prepared by pulsed laser melting*: I. T. H. Chang, B. Cantor and A. G. Cullis *Materials Research Society Symposium Proceedings* **157**(1990)407
38. *Formation and decomposition of the icosahedral phase in Al-10wt%Mn*: D. H. Kim and B. Cantor in *Quasicrystals and Incommensurate Structures in Condensed Matter* ed M. J. Yacaman, D. Romeu, V. Castano and A. Gomez (World Scientific, Singapore, 1990) p273
39. *Relationship of microstructures in YBa₂Cu₃O_{7-x} with growth conditions and superconducting properties*: K. P. Mingard, L. T. Romano, C. R. M. Grovenor and B. Cantor in *Thin Film Superconductors* ed R. D. McConnell and R. Noufi (Plenum, New York, 1990) p369
40. *The oxidation behaviour of amorphous alloys*: W. Gao and B. Cantor in *Amorphous Metallic Materials II* ed P. Duhaj, P. Mrafko and P. Svec (TransTech, Zurich, 1990) p39
41. *Manufacture of spray formed Al based alloys and composites*: P. P. Maher, P. S. Grant, B. Cantor and L. Katgerman in *Spray Forming* ed R. G. Brooks and J. V. Wood (Osprey, Neath, 1991) p3.15
42. *Heat flow and microstructure in spray formed Al alloys and composites*: P. P. Maher, B. Cantor and L. Katgerman in *Advanced Al and Mg alloys* ed T. Khan and G. Effenberg (ASM, Metals Park, 1991) p659
43. *Nucleation of solidification in Al-Zr alloys*: K. A. Q. O'Reilly, B. Cantor and P. G. Enright in *Advanced Al and Mg Alloys* ed T. Khan and G. Effenberg (ASM, Metals Park, 1991) p385
44. *Melt spun Al bearing alloys*: D. L. Zhang, W. T. Kim and B. Cantor in *Advanced Al and Mg Alloys* ed T. Khan and G. Effenberg (ASM, Metals Park, 1991) p409
45. *TEM characterisation of 2618/SiCp composites*: D. L. Zhang and B. Cantor in *Euromat 1991* ed T. W. Clyne and P. J. Withers (Institute of Materials, London, 1992) vol **2** p197
46. *Spray formed Al-Cr alloys*: K. Holder, P. P. Maher, B. Cantor and J. White in *Euromat 1991* ed T. W. Clyne and P. J. Withers (Institute of Materials, London, 1992) vol **1** p316

47. *A study of the formation of quasicrystals in rapidly solidified Al-Li alloys*: D. H. Kim, H. I. Lee and B. Cantor in *Al-Li Alloys* ed M. Peters and P. J. Winkler (DGM, Oberus, 1992) vol 1 p51
48. *The effect of adding Ti and Zr on the crystallization behaviour of amorphous Fe-Cr-B alloys*: K. Ishii and B. Cantor in *Trends in Non Crystalline Solids* ed A. Conde, C. F. Conde and M. Millar (World Scientific, Singapore, 1992) p161
49. *Matrix and particulate fracture during the deformation of a metal matrix composite*: E. J. Palmiere and B. Cantor in *Advanced Composites 93* ed T. Chandra and A. K. Dhingra (TMS, Warrendale, 1993) 1251
50. *Interfaces and the nucleation of solidification*: D. L. Zhang, W. T. Kim and B. Cantor in *Interfaces: Structure and Properties* ed S. Ranganathan, C. S. Pande, B. B. Rath and D. Smith (Vedams, Delhi, 1993) paper 16
51. *Microstructure and thermal conditions during spray forming of Al-4%Cu*: P. S. Grant and B. Cantor in *Advanced Synthesis of Engineered Structural Materials* ed J. J. Moore, E. J. Lavernia and F. H. Froes (ASM, Ohio, 1993) p263
52. *Crystallization of some amorphous alloys*: M. A. Hughes, K. Ishii, W. T. Kim, A. R. Bhatti and B. Cantor in *Amorphous Metallic Materials III* ed P. Duhaj, P. Mrafko and P. Svec (TransTech, Zurich, 1993) p25
53. *Grain growth in spray formed Al alloys*: P. S. Grant, R. P. Underhill, W. T. Kim, K. P. Mingard and B. Cantor *Second International Conference on Spray Forming* ed J. V. Wood (Woodhead, Cambridge, 1993) p45
54. *Spray formed TiAl*: K. A. Q. O'Reilly and B. Cantor in *Intermetallic Compounds for High Temperature Structural Applications* ed M. Yamaguchi and H. Fukutomi (Japan SAMPE, Tokyo, 1993) p1576
55. *Control of interfacial reactions in Ti-based composites reinforced with SiC fibres*: J. H. Li, M. L. Jenkins and B. Cantor in *Control of Interfaces in Metal and Ceramic Composites* (TMS, Warrendale, 1993) p357
56. *Control of interfacial reactions in Ti based composites reinforced with SiC fibres*: J. H. Li, M. L. Jenkins and B. Cantor in *Control of Interfaces in Metal and Ceramic Composites* ed R. Y. Lin and S. G. Fishman (TMS, Warrendale, 1994) p357
57. *Local MMC reinforcement of squeeze cast aluminium alloys for automotive applications*: G. Durrant, C. W. Lawrence, M. Gallerneault, J. F. Durodola, B. Cantor and B. Derby in *ICCE-1* ed D Hiu (New Orleans, 1994) p701
58. *Spray processing of Ti metal matrix composites*: P. S. Grant, Y. Y. Zhao, J. H. Li, M. L. Jenkins and B. Cantor in *Science and Technology of Rapid Solidification Processing* ed M. A. Otooni (Kluwer, Amsterdam, 1995) p109
59. *Effect of plasma power on vacuum plasma sprayed coatings*: P. S. Grant, R. Hambleton, Y. Y. Zhao, K. A. Q. O'Reilly and B. Cantor in *Surface Modification Technologies VIII* ed T. S. Sudarshan and M. Jeandin (Institute of Materials, London, 1995) p783
60. *The mechanical behaviour of SiC fibres in a Ti matrix during fabrication by vacuum plasma spraying and vacuum hot pressing*: Y. Y. Zhao, P. S. Grant and B. Cantor in *Recent Advances in Titanium Metal Matrix Composites* ed F. H. Froes and J. Storer (TMS, Warrendale, 1995) p55
61. *Ion microprobe studies of reactions in squeeze cast Al alloy matrix composites*: K. K. Soni, H. G. Kang, P. S. Grant, B. Cantor, A. G. Adriaens, K. L. Gavrilov, R. Mogilovsky, R. Levi-Setti, M. W. Tseng and D. B. Williams *Journal of Microscopy* **177**(1995)414
62. *The manufacture of Ti/SiC_f metal matrix composites by a new spray/wind process*: Z. Fan, P. S. Grant and B. Cantor in *ICCE/3* (New Orleans, 1995) p321
63. *Microstructural characterization of Ag/ZnO nanocomposite thin films*: M. H. Lee, P. J. Dobson and B. Cantor in *Fabrication and Characterization of Advanced Materials* ed S. W. Kim and S. J. Park (International Union of Materials Research Societies, Seoul, 1995) vol 2 p651
64. *Squeeze casting and melt infiltration of locally reinforced Al-4.5%Cu/20vol%Al₂O₃ discontinuous fibre MMC ingots*: H. G. Kang, H. I. Lee, P. R. G. Anderson and B. Cantor in *Processing and Fabrication of Advanced Materials IV* ed T. S. Srivatsan and J. J. Moore (TMS, Warrendale, 1996) p509
65. *Nanostructured silver particles embedded in a silica matrix*: M. H. Lee, P. J. Dobson and B. Cantor *Materials Research Society Symposium Proceedings* **400**(1996)95
66. *Nucleation of phases in Al-Fe-Si alloys*: C. M. Allen, K. A. Q. O'Reilly, B. Cantor and P. V. Evans *Materials Science Forum* **217-222**(1996)679
67. *Spray/wind manufacture of hoop reinforced Ti-MMC rings*: Z. Fan, P. S. Grant and B. Cantor in *ECCM-7* (Woodhead, London, 1996) vol 1 p413
68. *TEM studies of precipitation in high Zr spray formed Al-Li-Zr*: H. R. Habibi-Baguirani, J. W. Martin and B. Cantor *Materials Science Forum* **217-222**(1996)871

69. *Solidification behaviour of Al particles embedded in a Ni aluminide matrix*: K. A. Q. O'Reilly, W. T. Kim and B. Cantor *Materials Research Society Symposium Proceedings* **398**(1996)27
70. *The effect of processing on the microstructure and tensile properties of A356/SiC_p MMCs*: P. A. Karnezis, G. Durrant and B. Cantor *Materials Science Forum* **217-222**(1996)341
71. *Manufacture and characterization of nanocomposite thin films of Si-SiO₂ and Ag-Si*: I. T. H. Chang, F. Niu, D. Slimovici, C. Wildig, P. A. Leigh, P. J. Dobson and B. Cantor *Materials Science Forum* **225-227**(1996)175
72. *Rapidly solidified Al₈₅Ni_{15-x}Y_x (x=5,8,10) alloys*: I. T. H. Chang, P. Svec, M. Gögebakan and B. Cantor *Materials Science Forum* **225-227**(1996)335
73. *Development of microstructure in advanced solidification processing*: B. Cantor in *Advances in Physical Metallurgy*" ed S. Banerjee and R. V. Ramanujan (Gordon & Breach, Amsterdam, 1996) p6
74. *Control of segregation in squeeze cast Al-4.5Cu binary alloy*: G. Durrant, M. Gallerneault and B. Cantor *Materials Science Forum* **242**(1997)77
75. *Precipitation of Al₃Zr precipitates in a spray formed Al-Li-Cu-Mg-Zr alloy (UL30)*: H. R. Habibi-Bajguirani, I. G. Palmer, J. W. Martin and B. Cantor in *ICSF-3* ed J. V. Wood (Osprey, Neath, 1997) p297
76. *Mechanical alloying of Ni-Nb alloys*: M. H. Enayati, I. T. H. Chang, P. Schumacher and B. Cantor *Materials Science Forum* **235**(1997)85
77. *Interface properties of aluminium locally reinforced with Al₂O₃ short fibres*: M. J. Fuller, G. Durrant, B. Cantor, M. J. Hughes and P. R. G. Anderson in *Materials, Functionality and Design* ed L. A. J. L. Sarton and H. B. Zeedijk (FEMS, Zwijndrecht, 1997) vol **1** p269
78. *Rapid steady state solidification of Al alloys*: L. Carroll, K. A. Q. O'Reilly, B. Cantor and P. V. Evans in *Solidification Processing* ed J. Beech and H. Jones (SRP, Exeter, 1997) p546
79. *Effect of cooling rate on solidification behaviour in melt spun model 6xxx series Al alloys*: C. Hsu, K. A. Q. O'Reilly, B. Cantor and P. V. Evans in *Solidification Processing* ed J. Beech and H. Jones (SRP, Exeter, 1997) p536
80. *Heterogeneous nucleation studies of entrained droplets in Al₃Ti and Al₃Zr*: P. Schumacher, K. A. Q. O'Reilly and B. Cantor in *Solidification Processing* ed J. Beech and H. Jones (SRP, Exeter, 1997) p281
81. *Spray cast Al-Li alloys*: I. G. Palmer, J. W. Martin and B. Cantor in *Processing and Modelling of Advanced Materials* (ASM International, Paris, 1997) p185
82. *Material microstructures manufactured by advanced solidification processing*: B. Cantor in *Designing, Processing and Properties of Advanced Engineering Materials* ed T. Kobayashi, M. Umemoto and M. Morinaga (Japan Society for Promotion of Science, Toyohashi, 1998) p85
83. *Electron beam surface processing to study phase selection in 3xxx series Al alloys*: L. Carroll, K. A. Q. O'Reilly, B. Cantor and P. V. Evans in *Third Pacific Rim International Conference on Advanced Materials and Processing* (TMS, Warrendale, 1998) vol **1** p1117
84. *Solid/liquid coarsening behaviour of spray formed IN718* E. D. Manson-Whitton, I. C. Stone, P. S. Grant and B. Cantor in *Solidification 1998* ed S. P. Marsh, J. A. Dantzig, R. Trivedi, W. Hofmeister, M. G. Chu, E. G. Lavernia and J. H. Chun (TMS, Warrendale, 1998) p415
85. *A calorimetric evaluation of the role of impurities in the nucleation of secondary phases in 1xxx alloys C*. M. Allen, K. A. Q. O'Reilly, P. V. Evans and B. Cantor in *Phase Transformations and Systems Driven Far From Equilibrium* ed E. Ma, M. Atzmon, P. Belton and R. Trivedi (MRS, Warrendale, 1998) **481** p3
86. *Semi-solid deformation of 2014 alloys* D. S. Han, G. Durrant and B. Cantor in *Seme-Solid Processing of Alloys and Composites* ed A. K. Bhasin, J. J. Moore, K. P. Young and S. Midson (Colorado School of Mines Press, Golden, 1998) p43
87. *Nanocrystalline materials manufactured by advanced solidification processing methods* B. Cantor *Materials Science Forum* **307**(1999)143
88. *Amorphization kinetics of Ni₆₀Nb₄₀ during mechanical alloying* P. Schumacher, M. H. Enayati, and B. Cantor *Materials Science Forum* **307**(1999) in press
89. *A calorimetric evaluation of the role of impurities in the nucleation of secondary phases in 1xxx Al alloys* C. M. Allen, K. A. Q. O'Reilly, P. V. Evans and B. Cantor *Materials Research Society Proceedings* **481**(1999)3
90. *Effect of grain refiner on intermetallic phase formation in directional solidification of 6xxx series wrought Al alloys* G. Sha, K. A. Q. O'Reilly, B. Cantor, R. Hamerton and J. Worth in "Aluminium Alloys: Their Physical and Mechanical Properties" **3**(2000)253
91. *Microstructure development during rapid solidification* B. Cantor in *Science of Metastable and Nanocrystalline Alloys: Structure, Processing and Modelling* eds A. R. Dineson, M. Eldrup, D. J. Jenson, S. Linderoth, T. B. Pederson, N. H. Pryds, A. S. Pederson and J. A. Wert (Riso, Roskilde 2001) p 483

92. *Novel multicomponent alloys* B. Cantor, K. B. Kim and P. J. Warren *Materials Science Forum* **386-388**(2002)27
93. *Characterization of Fe-rich intermetallic phases in a 6xxx series Al alloy* G. Sha, K. O'Reilly and B. Cantor in *Aluminium Alloys 2006* Part I p519 and part II p1721

In press and in preparation

1. *Amorphization kinetics of Ni₆₀Nb₄₀ during mechanical alloying* P. Schumacher, M. H. Enayati and B. Cantor submitted to *Journal of Materials Science*
2. *Rapidly solidified phases and transformation of plasma sprayed TiAl alloy* Y. Shinohara, P. S. Grant and B. Cantor in preparation
3. *Microstructural evolution in spray formed IN718* E. D. Manson-Whitton, I. C. Stone, P. S. Grant and B. Cantor in preparation
4. *Microstructural evolution in semi-solid AA7034 Al alloy* H. S. Kim, I. C. Stone and B. Cantor submitted to *Journal of Materials Science*
5. *Squeeze casting and semi-solid deformation of Al alloys* B. Cantor *Materials Science and Engineering* in press
6. *Stable and metastable multicomponent alloys* B. Cantor *Journal of Metastable and Nanocrystalline Materials* in press
7. *Quasicrystal decomposition in nanoquasicrystalline Al-based alloys* M. Galano, F. Audebert, B. Cantor and I. C. Stone *Journal of Metastable and Nanocrystalline Materials* in press