Brian Cantor: Curriculum Vitae

Personal

Date of birth: 11 January 1948
Nationality: British
Status: widowed with 2 sons, born 1967 and 1971

Education

1958-64: Manchester Grammar School
1965-71: Christ's College, Cambridge: BA, MA, PhD

Employment

1972-81: Research Assistant then Lecturer, School of Engineering, Sussex University
1982: Scientist, General Electric Research Laboratories, Schenectady
1981-2002: Lecturer, Reader then Cookson Professor, Department of Materials, University of Oxford
1990-95: Director of the Oxford Centre for Advanced Materials and Composites
1995-2000: Head of the Department of Materials, University of Oxford
1998-2002: Academic Director, Begbroke Business and Science Park
2000-02: Head of the Division of Mathematical and Physical Sciences, University of Oxford
2002-2013: Vice-Chancellor, University of York
2013-present: Vice-Chancellor, University of Bradford

Fellowships

1976: Visiting Fellow, Northeastern University, Boston
1979-81: EPSRC Advanced Research Fellow, Sussex University
1980: British Council Visiting Fellow, Banaras Hindu University
1982: General Electric Industrial Fellow
1985-95: Senior Research Fellow, Jesus College, Oxford
1989: Fellow of the Institute of Materials
1993: Fellow of the Royal Microscopical Society
1995-2002: Professorial Fellow, St Catherine's College, Oxford
1998: Fellow of the Royal Academy of Engineering
1999: Fellow of the Institute of Physics

Consultancies

1979-81: Surtees Racing Cars
1986-94: Alcan
1995-2002: NASA
1983-2006: Institute of Physics Press
1988-present: Elsevier
1996-present: Rolls-Royce

Honours and Awards

1979: Chartered Engineer
1980: Member of the American Metallurgical Society
1993: Rosenhain Medal of the Institute of Materials
1996: Honorary Member of the Materials Research Society of India
1996: Honorary Professor of Northeastern University, Shenyang
1998: Ismanam Prize

1999: Member of the Academia Europaea
2000: Honorary Professor of Chinese National Institute of Metals
2002: Platinum Medal of the Institute of Metals
2006: ISI Most Cited Researcher
2008: Companion of the Chartered Management Institute
2010: Honorary Member of the Indian Institute of Materials
2012: York Lifetime Achievement Award
2013: Distinguished Visiting Professor, Indian Institute of Sciences, Bangalore
2013: CBE

Boards of Directors

1996-2002: Kobe Institute
1997-2002: General Board and Council, Oxford University
2000-2002: Isis Innovation
2002-2006: Shandy Trust
2002-present: Council, York University
2002-present: White Rose, Chair
2002-present: Worldwide Universities Network
2002-present: Yorkshire Universities
2002-present: Higher York, Chair
2004-2006: Amaethon Board, Chair
2004-2006: York Science Park Innovation Centre
2004-present: Future York & York Economic Partnership
2005-present: Science City York, Chair
2005-present: National Science Learning Centre, Chair
2005-2011: Yorkshire Science, Deputy Chair
2007-present: N8
2008-present: Centre for Low Carbon Futures, Chair
2009-present: Royal Academy of Engineering, Vice-President
2010-present: Leeds Local Economic Partnership
2010-present: Universities UK Employers Pension Forum, Chair
2013-present: National Media Museum Advisory Board

Advisory Panels

1984: DTI Materials Advisory Group
1985-97: Engineering and Materials, Oxford, Chair
1987-2000: Physical Sciences Faculty Board, Oxford
1990-93: Thermal Methods Group, Royal Society of Chemistry
1990-95: Glasstone Fellowship Committee
1995: EU Industrial Materials and Manufacturing (Brite-Euram)
1995: School of Physical Sciences Review, ANU, Canberra
1995 and 1999: NASA Shuttle Materials Programme
1995-present: EPSRC Materials College and Technology Panel
1996-2003: Defence and Aerospace Materials and Structures Foresight Panel
1997-2000: Research and Equipment Committee, Oxford, Chair
1998-2000: Management Committee, Said Business School
1998-2001: Academic Council, AWE Aldermaston
1998-2000: Luxfer Technology Advisory Board
1999-2003: Academic Council, Netherlands Institute of Metallurgical Research
1999-2002: Business Liaison Unit, Oxford University, Chair
1999: Materials Review, Bath University, Chair

2000: Royal Military College Shrivenham Review
2000: EPSRC IMMPETUS Programme Review, Sheffield University
2000-present: Materials, Processing and Structures Advisory Board, Rolls-Royce
2000-2003: International Advisory Board, CISC Spain
2001-2004: Faraday Advance
2001-2004: DTI Singapore-Britain Business Council
2002-present: Without Walls, York Local Strategic Partnership
2002-present: Universities UK
2002-present: UUK Business, Industry and Strategy Group
2002-present: UUK Research Policy Group
2003-present: National Centre for Early Music
2003-2010: York and North Yorkshire Investment Executive and Panel
2004-2006: Advisory Board for Magnetic Materials, Warsaw Polytechnic University
2006-2007: Sainsbury review of UK science and innovation
2007-present: IMDEA Materials Advisory Board, Madrid Polytechnic University
2007 and 2009: German Federal Government Excellence Initiative

Editorial Boards

1984-2003: International Journal of Non-Equilibrium Processing
1988-present: Progress in Materials Science, Chair since 1996
1992-2001: Modelling and Simulation in Materials Science and Engineering
1994-2000: Advanced Performance Materials
1994-2001: Journal of Materials Synthesis and Processing, European Editor
1995-2003: Korean Journal of Materials Engineering
1996-2003: Materials Research Bulletin of India
1996-2003: International Journal of Cast Metals Research, Chair till 2002
1997-2000: Nanostructured Materials
1998-2003: Brazilian Journal of Materials Science and Engineering
1999-2002: Metastable and Nanocrystalline Materials

Conference Organising Committees

1973: Modern Metallography
1978: Rapidly Quenched Metals
1982-present: Rapidly Quenched Materials, International Advisory Panel
1985 and 1998: Rapid Solidification, Chair
1992-2002: Microscopy of Composite Materials, Chair
1993-1997: Thermal Analysis of Advanced Materials, Chair
1995: Euromat, International Advisory Panel
1998-2005: Oxford Kobe Materials Seminars, Chair
1998-present: Nanocrystalline Materials (Ismanam), International Advisory Panel
1998: UK Materials Congress
2000: Nanocrystalline Materials (Ismanam), Chair
2002: Rapidly Quenched and Metastable Materials (RQ11), Chair

Teaching

Tutorials, laboratory supervision and examining in materials science and engineering at Cambridge, Sussex and Oxford Universities

Lectures in phase equilibria, chemical reactions, phase transformations, surfaces and interfaces, amorphous materials, steel technology, processing methods, and design and manufacture at Sussex and Oxford Universities

External examiner for Queen Mary BSc in Materials and Biomaterials, Cranfield MSc in Materials Engineering, and over 20 PhD students

Setting up and leading the £75m National Science Learning Centre, a collaboration between the Wellcome Trust and Leeds, Sheffield and York Universities

Setting up the Hull-York Medical School, York Management School, York Law School and York Department of Theatre, Film & TV

Advising Shanghai government on higher education, science and innovation policy

Research

Supervision of over 130 post-doctoral researchers, DPhil and other students

Research grants of almost £25m from agencies including the British Council, DTI, EPSRC, EU, JIF, JREI, KOSEF (Korea), MOD, ONR (US), Royal Society, Royal Academy of Engineering and the Wolfson Foundation

Research collaboration with companies including AEA Technology, Alcan, BAE, BP, Cookson, Federal-Mogul, Foseco, GE, GEC, Hyundai, Johnson-Matthey, Kawasaki, Lucas, Luxfer, Metal Castings, Osprey Metals, Qinetiq, Rolls-Royce, Sumitomo and Westland

Research collaboration with institutions including Barcelona University, BHU Banaras, Budapest Institute of Solid State Science, Chung Nam National University, DERA Farnborough, Ecole Centrale, Ecole Polytechnic Grenoble, Dortmund University, IISc Bangalore, Ionnina University, KIST Seoul, Madrid University, NEU Shenyang, Slovak Academy of Sciences, Swedish Institute of Metals, Torino University, Trinity College Dublin, Warsaw University, Yonsei University and Zhejiang University

Publication of 10 books, over 300 research papers, 3 patents, with over 4,000 citations and an h-index of 35

More than 100 invited talks at universities, companies, conferences and learned institutions in 15 countries

Setting up the Begbroke Business and Science Park, a £25m, 300 acre development for industry-linked academic materials research and related spin-out materials-based manufacturing companies

Setting up the Oxford Centre for Advanced Materials and Composites, the Oxford Business Liason Unit, the Oxford-Princeton Link and the Faraday Advance Partnership in Automotive Materials

Setting up York University research centres in neuroimaging, nanotechnology, immunology, liquid crystals, cancer epidemiology, NMR, complex systems, air pollution, child development, renaissance studies, heritage studies, health econometrics, education policy & practice, applied human rights

Leading the £750m, 250 acre York University campus extension at Heslington East

Leading Science City York, cited as an exemplar in the Lambert and Sainsbury reports, and designated one of the UK's Science Cities in 2005

Setting up the £54m Centre for Low Carbon Futures, a collaboration between Yorkshire Forward and Hull, Leeds, Sheffield and York Universities

Research Supervision

Post-Doctoral Research Fellows

1976: I. Shiota (Japan Govt)
1976: Y. Inokuti (Kawasaki Steel)
1978: S. Banerjee (Indian UGC)
1978: W. B. Nowak (Northeastern Univ)
1979: F. E. Luborsky (GE)
1979-80: J. J. Perkins (NRL)
1979-80: J. J. Rayment (SERC)
1979-81: M. Ahmadzadeh (SERC)
1980-81: D. Akhtar (SERC)
1981-83: D. G. MacCartney (EPSRC)
1983-84: C. Hayzelden (SERC)
1986: P. Donnadieu (French Govt)
1987-91: W. T. Kim (KOSEF, EPSRC)
1989-91: P. P. Maher (TCS)
1989-95: I. T. H. Chang (EPSRC)
1990-91: K. H. Oh (British Council)
1990-92: D. L. Zhang (Link)
1990-92: K. P. Mingard (TCS)
1990-93: S. M. Payne (EPSRC)
1991-93: E. J. Palmiere (OCAMAC)
1991-96: P. S. Grant (EPSRC)
1991-96: Z. X. Guo (EPSRC)
1991-96: J. Durodola (EPSRC)
1992: K. Ishii (Kawasaki Steel)
1992: W. B. Nowak (Northeastern Univ)
1992-96: K. A. Q. O'Reilly (OCAMAC)
1992-97: G. Durrant (Link)
1992-94: M. Gallerneault (NATO)
1992: T. Y. Cheng (Chinese Govt)
1993: C. P. Hong (Yonsei Univ)
1993-94: J. D. Lee (KOSEF)
1994-96: Z. Y. Fan (EPSRC)
1994-96: H. Habibi-Bajgurani (EPSRC)
1994: P. Svec (Royal Society, EU)
1995-96: Y. Shinohara (NIM Japan)
1995-96: A. Kursumovoc (Royal Society)
1995-00: P. Schumacher (EPSRC)
1995-01: P. J. Warren (Royal Society, EPSRC)
1996-97: M. Kobashi (Nagoya University)
1996-97: S. W. Kim (KOSEF)
1996: M. Yan (Chinese Govt)
1996-01: I. G. Palmer (EPSRC, DERA)
1997-00: I. C. Stone (EPSRC)
1997-00: C. M. Allen (EPSRC)
1997-00: T. Zhai (EPSRC)
1998-01: T. W. Kim (Rolls-Royce, EPSRC)
1999-01: B. C. Ko (British Council)
1999-01: K-H Baik (Rolls-Royce, EPSRC)
1999-01: L. D. Zhang (EPSRC)
1999-02: E. D. Manson-Whitton (TCS, Luxfer)
1999-02: B. Davis (Luxfer)
2000-03: C. Manson-Whitton (1851 Commission)
2001-02: F. Audebert (Argentine Govt)
2001-02: D. L. Zhang (NZ Govt)
2001-02: M. Tomut (EU TMR)
2001-02: F. Prima (EU TMR)
2001-02: D. Crespo (Barcelona University)

D Phil Students

1974-79: F. S. J. Jabczynski (SERC)
1975-79: J. J. Rayment (SERC)
1977-80: F. Duflos (French Govt)
1977-83: M. Kijek (SERC)
1979-83: C. Hayzelden (SERC)
1981-85: A. G. Gillen (Johnson-Matthey)
1981-85: T. C. Willis (Alcan)
1981-87: K. I. Moore (AEA Technology)
1984-87: B. P. Bewlay (SERC)
1984-89: A. R. Bhatti (SERC)
1985-89: N. Komatsubara (Sumitomo)
1985-89: B. A. Shollock (RAE)
1986-88: W. Gao (Chinese Govt)
1986-89: D. H. Kim (British Council)
1986-89: I. T. H. Chang (RSRE)
1987-90: D. L. Zhang (Chinese Govt)
1987-90: K. P. Mingard (SERC)
1987-91: P. S. Grant (Alcan)
1988-92: K. A. Q. O'Reilly (Alcan)
1989-92: M. H. Lee (KOSEF)
1989-94: A. P. Newbery (SDL)
1990-94: C. Ho (Foseco)
1991-95: H. G. Kang (Lucas)
1991-95: Y. Y. Zhao (British Council)
1991-95: J. H. Li (British Council)
1992-95: P. Karnezis (Ironmongers)
1992-95: R. P. Underhill (Rolls-Royce)

1993-97: C. M. Allen (Alcan)
1994-98: M. Gogebaken (Turkish Govt)
1994-98: F. Niu (British Council)
1994-98: M. Enayati (Iranian Govt)
1995-99: L. M. Carroll (Alcan)
1995-99: E. D. Manson-Whitton (Rolls-Royce)
1995-00: C. Hsu (Taiwanese Govt)
1995-01: M. J. Fuller (Lucas)
1996-00: D. S. Han (Hyundai)
1996-04: P. W. Simmons (T&N)
1996-01: I. A. DeArdo
1997-01: G. Sha (Alcan)
1999-04: C. Manson-Whitton (Luxfer)
1999-03: H. S. Kim
2000-04: K. B. Kim (Yonsei University)
2000-07: S. B. Park (British Council, KOSEF)
2001-06: M. Galliano (EU, SET)

1997: P. Virtanen (Finnish Govt)
1998: P. Poza (Spanish Govt)
1999-02: F. Cuevas (Spanish Govt)

Other Postgraduate Students

1975-76: S. J. Brett (SERC)
1975-76: S. J. Fairs (SERC)
1975-76: A. Vogel (Chilean Govt)
1981-82: C. K. Chase (part II)
1981-82: K. J. Hambling (part II)
1982-85: A. J. Hunt (GEC)
1982-85: A. J. B. Vincent (GE)
1983-84: M. A. Hughes (part II)
1985-86: E. A. Marsh (part II)
1986-87: J. J. Goodfellow (part II)
1986-87: K. P. Morrison (part II)
1987-89: P. R. Brennan (EPSRC)
1987-88: A. M. Dark (part II)
1990-91: S. N. King (part II)
1990-91: C. F. Man (EPSRC)
1991-92: A. M. Davies (part II)
1992-93: O. Balcers (Soros)
1993-94: R. Hambleton (part II)
1994: M. Harun (Malaysian Govt)
1994-95: J. X. Dong (Chinese Govt)
1994-95: S. M. Lee (British Council)
1994-96: E Gercekcioglou (Turkish Govt)
1994-95: P. J. Knight (part II)
1995-96: T. S. Kim (RASOM)
1995-96: H. Niu (British Council)
1995-96: P. Poza (Spanish Govt)
1995-96: A. Moody (part II)
1996-97: J. H. Lee (RASOM)
1996-98: F. Lavers (TCS)

Invited Talks (since 1991)

1991: *Manufacture of MMCs* Ecole de Mines, Paris
Squeeze casting of Al alloys and MMCs Cast Metals, Birmingham
Spray formed alloys Alcan Seminar, Broadway

1992: *Al alloys and MMCs* Korea-UK Symposium, Seoul
Spray formed Al alloys Chung Nam University, Taejon
Al alloys and MMCs Chong Ju University, Korea
Manufacture of MMCs MCM-I, Oxford
Heterogeneous nucleation of solidification Harvard University
Spray formed Al alloys General Electric, Schenectady
Spray formed Al alloys PFAM-I, San Francisco
Control of spray forming IRC, Birmingham
Heterogeneous nucleation of solidification Alcan Seminar, Broadway

1993: *Thermal analysis of advanced materials* TAC-I, Oxford
Adsorption model of heterogeneous nucleation NATO Workshop, Il Ciocco, Italy
Heat flow in spray forming RQ8, Sendai
Manufacture of aluminides Kyoto University
Crystallisation of amorphous alloys AMM-III, Topolcianky, Slovakia
MMCs EC Brite-Euram Workshop, Madrid Polytechnic University
Advanced solidification processing Chung Nam University, Taejon
Spray forming and squeeze casting Yonsei University, Seoul
Heterogeneous nucleation of solidification Technical University Berlin

1994: *Manufacture of MMCs* ANU, Canberra
Microstructure in advanced solidification processing ACEM-13, Brisbane
Squeeze cast Al alloys Queensland University, Brisbane
Advanced microstructures Indo-US Workshop, Bangalore
Control of microstructure ICPM-94, Bombay
Nucleation and grain refiners LSM Seminar, Sheffield
Manufacture of MMCs Royal Society, London

1995: *Manufacture of composites* Ecole de Mines, Paris
Spray formed Al alloys Allied Signal, New Jersey
Microstructure in advanced solidification processing Lehigh University, Bethlehem
Heterogeneous nucleation of solidification NIST, Washington DC
Squeeze cast Al alloys Lucas, Birmingham
Control of spray forming KIST, Seoul
Rapid solidification Yonsei University, Seoul
Control of spray forming Seoul National University
Nucleation of solidification Alcan Seminar, Middle Barton
Heterogeneous nucleation of solidification Pittsburgh University
Spray formed Al alloys Alcoa, Pennsylvania
Nanocrystalline materials TMS, Cleveland
Control of spray forming Case Western University
Heterogeneous nucleation Case Western University

Nucleation of aluminides MRS, Boston
Heterogeneous nucleation of solidification Naval Research Labs, Washington DC
Fundamentals of spray forming NML, Jamshedpur
Manufacture of MMCs DMRL, Hyderabad
Fundamentals of spray forming IISc, Bangalore

1996: *Microscopy of nanocrystalline materials* ACEM-14, Sydney
Materials processing and engineering design Cookson Inaugural Lecture, Oxford
Rapidly solidifed alloys Chung Nam University, Taejon
Spray formed alloys and MMCs KIST, Seoul
Spray formed alloys and MMCs Beijing University of Science and Technology
Spray formed alloys and MMCs Professorial Lecture, NEU Shenyang
Microstructure of advanced materials NIMR, Shenyang
Spray formed alloys and MMCs Brunel University
Nucleation of solidification RQ9, Bratislava
Nanocrystalline materials DG Workshop, Berlin
Manufacture of Ti MMCs TMS, Cincinnatti
Metastable precipitate morphology TMS, Cincinnatti
Materials processing and engineering design Rutherford Seminar, Harwell
Control of spray forming Birmingham University
Nanocomposites MRS, Boston

1997: *Spray forming* TMS, Orlando
Fundamentals of thermal spraying Sulzer-Metco, Breadsall Priory
Process modelling ASM International, Paris
Spray forming Washington State University
Squeeze casting Washington State University
Amorphous and nanocrystalline alloys Washington State University
Advanced processing of materials ISAEM-97, Toyohashi
MMCs JSEI-5, Tokyo
Nucleation of secondary phases MRS, Boston
Strategic materials developments Rolls-Royce, London
Materials processing and component design Isis Lecture, Oxford

1998: *Amorphous and nanocrystalline alloys* Loughborough University
Materials for the next millennium Oxford Innovation Seminar
Nanocrystalline alloys EC Workshop, Grenoble
Processing of advanced materials Tohoku University, Sendai
Materials processing and component design JIM, Matsuya
Nanocrystalline thin films ISMANAM, Woollongong

1999: *Squeeze cast aluminium alloys:* TMS, San Diego
Novel rapidly solidified materials: Oxford Metallurgical Society
Industrial applications of metastable materials: RQ10, Bangalore
Microstructure of spray cast alloys: ICSF-4, Baltimore
Interface engineering in nanocomposites: MRS, Boston
Begbroke Science Park: DTI, London
Nanocomposite thin films: DG Workshop, Berlin
Novel rapidly solidified materials: Welsh Metallurgical Society, Rhonnda

2000 *Begbroke Science Park:* Royal College of Physicians
Heterogeneous nucleation of solidification: University College London
Begbroke Science Park: Bank of England
Begbroke Science Park: Oxford Innovation Investors Network
Nanocrystalline metals: Nano 2000, Sendai
Advanced solidification processing: NIMR, Shenyang
Advanced materials processing: NEU, Shenyang
Advanced processing of nanomaterials: ICAMP-2000, Rotorua

2001 *Rapidly quenched nanocrystalline materials:* RISØ, Denmark
Novel nanocrystalline and amorphous alloys: ISMANAM, Ann Arbor
MMCs: JSEI-7, Tokyo
Heterogeneous nucleation: Royal Society
Nanocrystalline Al alloys: CENIM, Madrid
Metastable materials: Royal Institute of Technology, Stockholm
Nanocrystalline Al alloys: Royal Institute of Technology, Stockholm

2002 *Novel nanocrystalline and amorphous alloys:* TMS, San Diego
Semi-solid materials processing: TMS, San Diego
Novel nanocrystalline and amorphous alloys: National Metallurgical Lab, Jamshedpur
Spray forming: RQ11, Oxford
Science and Innovation: Yorkshire Philosophical Society, York

2003 *Higher education in the UK:* Zhejiang University, Hangzhou
Multicomponent alloys: Waterford Technical Institute, Waterford
Multicomponent alloys: ISMANAM, Brazil
Multicomponent alloys: Tohoku University, Sendai
Multicomponent alloys: Korean Institute of Materials, Kong-Ju

2004 *Multicomponent alloys:* National Institute of Metals, Shenyang
Advanced solidification and nanomaterials: National Institute of Metals, Shenyang
Advanced solidification and nanomaterials: Zhejiang University, Hangzhou
Multicomponent alloys: ISMANAM, Sendai
Science and Innovation: Yorkshire Universities Conference, Harrogate

2005 *Science and innovation:* Leeds Entrepeneurs, Leeds
Science and innovation: University Presidents Congress, Taipei
Squeeze casting and semi-solid forming: RQ13, Jeju Island, Korea

2006 *Science and innovation:* Singapore-Britain Business Council, York

2007 *Stable & metastable multicomponent alloys:* Jubilee Lecture, Indian Institute of Science, Bangalore
Developments in higher education: North Yorkshire Chamber of Commerce
Science and innovation: Nanjing University
Stable and metastable multicomponent alloys: Zhejiang University, Hangzhou
Advanced processing of materials: Materials Research Society, Bangalore

2009 *Science and innovation:* KAIST Symposium, Seoul
Universities in the modern world: Higher Education Symposium, Melbourne

2010 *Metastable materials:* Indian Institute of Materials, Bangalore
Advanced processing of materials: Waikato University
Advanced processing of materials: Nanjing University

2011 *International university collaboration:* UK-Indonesia HE Workshop, Jakarta
Developments in higher education: Worldwide Universities Congress, Shanghai
Recovering from natural disasters: Science and Technology Symposium, Kyoto
New materials: Science and Technology Symposium, Kyoto
New materials: RQ14, Salvador, Brazil

2012 *Science and innovation:* Worldwide Universities Congress, London
Innovation in higher education KAIST Symposium, Seoul
Energy materials Materials Research Society, Boston

2013 *Science & higher education in the 21st century:* Indian Institute of Science, Bangalore
Higher education in the UK: Indian Institute of Science, Bangalore

Grants and benefactions

Research grants

1975-78:	£15k from SERC to investigate hot working of eutectic alloys
1978-81:	£50k from US ONR to investigate rapidly solidified alloys (with R. W. Cahn)
1978-80:	£15k from SERC to investigate diffusion in amorphous alloys (GR/A83861)
1980-81:	£60k from SERC to purchase a STEM/ EDX system (GR/B29689, with R. W. Cahn and M. G. Scott)
1980-82:	£40k from SERC to purchase a DSC (GR/B38537, with R. W. Cahn and M. G. Scott)
1980-81:	£5k from SERC to investigate shape-memory alloys (GR/B22727, with R. W. Cahn)
1980-81:	£9k from Telcon Metals to investigate manufacture of magnetic amorphous alloys
1980-82:	£25k from SERC to investigate diffusion in amorphous alloys (GR/B48475, with R. W. Cahn)
1981-83:	£21k from SERC to investigate martensite nucleation (GR/B79868).
1981-83:	£19k from SERC to investigate eutectic interface structure (GR/B58795, with P. J. Goodhew)
1981-84:	£125k from SERC to investigate A15 superconductors (GR/B44965, with D. Dew-Hughes and H. Jones)
1981-85:	£17k from UK AEA to investigate nucleation during solidification
1983-87:	£40k from GE to investigate melt spun nickel alloys
1984-86:	£29K from SERC to investigate diffusion and flow in amorphous alloys (GR/C42675)
1984-86:	£4K from SERC to investigate rapidly solidified steels (GR/C74980, with C. Hayzelden)
1985-87:	£33k from SERC to investigate crystallisation of amorphous alloys (GR/D32000)
1985-88:	£58k from MOD to investigate rapidly solidified aluminium alloys
1986-88:	£24k from SERC to investigate oxidation of amorphous alloys (GR/D90536)
1988-90:	£126k from SERC and Alcan to investigate monitoring and control of rapid solidification (GR/E77497)
1988-92:	£202k from SERC, DTI and Alcan to investigate co-spray manufacture of Al alloys and composites. (GR/F12006, TCS with O. L. R. Jacobs)
1988-91:	£56k from SERC to investigate microstructure of superconductors (GR/E79972, with J. B. Pethica)
1989-91:	£297k from SERC and BP to install in-situ microanalytical 400K TEM (GR/E72089, with P. B. Hirsch, M. J. Goringe, E. D. Boyes, P. L. Gai, G. W. Groves and J. P. Jakubovics)
1989-92:	£54k from SERC to investigate oxidation of stainless steels (GR/F27253, with C. R. M. Grovenor)
1989-93:	£553k from SERC to investigate MMCs (GR/F87660, rolling grant with C. Ruiz and B. Derby)
1990-93:	£39k from SERC to investigate DSC of solidification (GR/F83709)
1990-91:	£150k from the Wolfson Foundation to refurbish labs for manufacturing advanced materials (together with B. Derby and J. D. Hunt)

1990-91: £87k from SERC and DRA Malvern to investigate laser processing of Ge-Sn thin films (GR/F83716, with P. J. Dobson)

1990-93: £385k from EU Brite/Euram to investigate high temperature MMCs (BREU-0075C, with Trinity College Dublin, Birmingham University, Madrid Polytechnic University and Ecole Centrale Paris, with B. Derby)

1991-92: £10k from KIST to review MMCs

1991-96: £400k from Alcan to set up OCAMAC (with P. B. Hirsch)

1991-93: £48k from SERC, DTI and Alcan to investigate co-spray manufacture of Al alloys and composites (GR/F12006, TCS with O. L. R. Jacobs)

1991-95: £1.7m from SERC/DTI Link, Cookson and Lucas to study locally reinforced Al MMC automotive components (GR/H49573, with B. Derby and C. Ruiz)

1992-96: £398k from SERC to investigate MMCs (GR/H33817 rolling grant with B. Derby and C. Ruiz)

1993-95: £250k from SERC to study laser fabrication of thin films (GR/J79515, with P. J. Dobson)

1993-95: £161k from SERC to study spray formed TiAl (GR/K00998, with P. S. Grant)

1994-96: £120k from SERC, DRA Farnborough and Westland to study spray formed Al-Li alloys (GR/J36853, with J. W. Martin)

1994-97: £94k from SERC to develop cyclic DSC studies of solidification (GR/J78365)

1994-96: £87k from EPSRC, DTI and Rolls-Royce to investigate plasma spray manufacture of CoNiCrAlY bond coats (GR/J98639, TCS with P. S. Grant)

1994-98: £477k from EPSRC, Rolls-Royce and DRA Farnborough to investigate MMCs (GR/J79515, rolling grant with B Derby and C Ruiz)

1994-96: £93k from EPSRC to study plasma sprayed Ti MMCs (GR/K21191, with P. S. Grant)

1994-96: £128k from EPSRC ROPA to study heterogeneous nucleation (GR/K36508)

1995-98: £196k from EU Copernicus to investigate nanocrystalline materials (COP753, with Dortmund University, Slovak Academy of Sciences, Warsaw Polytechnic University and Budapest Institute of Solid State Physics)

1995-98: £96k from KOSEF to investigate rapidly solidified melt spun and mechanically alloyed Al-RE-TM alloys and squeeze cast wrought Al alloys (with Chung Nam University)

1997-00: £24k from the British Council for joint research with IISc Bangalore on nanocrystalline alloys and MMCs

1997-00: £223k from EPSRC, British Aluminium and Westland to investigate fatigue cracks in Al-Li alloys (GR/L48669, with A. J. Wilkinson and J. W. Martin)

1997-00: £203k from EPSRC and Alcan to investigate intermetallic phases in Al alloys (GR/L37113, with K. A. Q. O'Reilly)

1998-00: £273k from HEFCE to refurbish metal, ceramic, polymer and biomaterial processing labs (with H E Assender, J T Czernuszka, P S Grant and K A Q O'Reilly)

1998-01: £192k from EPSRC to investigate amorphous and nanocrystalline materials (GR/M12971, with A. Cerezo)

1998-01: £473k from JREI to install a state of the art electron probe microanalyser for composition mapping of multicomponent metals, ceramics, biomaterials and minerals

1998-01: £521k from EPSRC, Rolls-Royce and DERA Farnborough to control the manufacture and deterioration in service of Ti MMCs (GR/M17211, with P Bowen, Birmingham University and C Ruiz)

1998-03: £250k from the Royal Academy of Engineering, AEA Technology and INSS (Japan) to set up research chair in microanalysis and structural integrity

1999-01: £250k from Luxfer to set up the Luxfer-Oxford Advanced Technology Centre at Begbroke to investigate the manufacture of Al alloys (with K. A. Q. O'Reilly)

1999-03: £1.5m from the EU TMR investigate the manufacture of metastable materials (with Barcelona, Ionnina and Torino Universities, Ecole Polytechnique Grenoble, Swedish Institute of Metals, Slovak Academy of Sciences, Warsaw Polytechnic University and Waterford Technical College, with P. J. Warren)

1999-03: £7.8m from JIF to set up an Institute for Industrial Materials and Manufacturing (with colleagues)

2000-03: £100k from DERA to set up the DERA-Oxford Materials Technology Centre at Begbroke for processing and characterisation of defence related materials

2000-03: £100k to set up the AEAT-Oxford Advanced Materials Centre at Begbroke for processing and characterisation of electronic and structural materials (with J. M. Titchmarsh)

2000-03: £1.9m from the EPSRC Special Equipment Initiative to install SEM, STM, laser, NMR and other analysis equipment throughout the physical sciences at Oxford (with colleagues)

2000-03: £625k from JREI and Luxfer to install custom-built direct-chill (DC) casting, squeeze casting and rheocasting facilities (with P. Gregson, Southampton University, M. Jolly, Birmingham University, G. Smith, Warwick University, K. A. Q. O'Reilly and P. Schumacher)

2000-05: £2.2m from EPSRC and DTI to set up a Faraday Partnership in Automotive and Aerospace Materials based at Begbroke (with Cranfield and Oxford Brookes' Universities, MIRA, Oxford Innovation and Heart of England BusinessLink, with P. S. Grant)

2001-03: £32k from British Embassy (Seoul) SET Programme for joint research with Chung Nam National University on nanocrystalline materials

2001-04: £2m from HEFCE SRIF Initiative to set up an Institute of Nanotechnology at Begbroke

2003-06: £1.2m from the Wolfson Foundation for the York Neuroimaging Centre

2003-06: £2m from JEOL, DTI and Yorkshire Forward for the York-JEOL Nanocentre

2008-13: £17m from Yorkshire Forward for the Yorkshire Centre for Low Carbon Futures

Benefactions and others (all with colleagues)

2000-04: £1.1m from the HEFCE and DTI HERO Initiative to set up a Business Liaison Unit at Oxford University to provide teaching, research and other services to SMEs in the Thames Valley/South Midlands regional industrial community

2001-04: £4m from HEFCE and DTI HEIF Initiative to set up the Begbroke Business Incubator and Technology Services Unit in nanotechnology, environmental technology, and aerospace and automotive studies (with Oxford Brookes, Centre for Hydrology and Ecology and Oxford Innovation)

2003-06: £12.5m from SRIF for 5 research centres in neuroimaging, epidemiology, nanofabrication, NMR and nuclear detectors

2003-06: £2.4m from HEIF to set the York Enterprise and Innovation Office

2003-13: £25m from the Wellcome Trust for the National Science Learning Centre

2005-20:	£1.1m from the Lyons Trust for postgraduate schoplarships in Music
2005-15:	£12m from HEFCE for the development of the Heslington East campus
2005-15:	£15m from Yorkshire Forward for the development of the Heslington East campus
2006-09:	£2.3m from HEIF for the York Enterprise and Innovation Office
2006-09:	£3.5m from the Holbeck Trust to set up new Departments of Theatre, Film and TV, and Law
2006-11:	£19m from the Bowland Trust to set up a new Institute of Effective Education
2006-12:	£1m from the Rausing Trust to set up a new Centre for Applied Human Rights
2007-47:	£66m from GE and Morley to develop the Heslington East campus
2008-13:	£18m from the DCSF for the Regional Science Learning Centres
2008-13:	£27m from the Wellcome Trust for the Enthuse project for CPD for Science Teachers
2009-12:	£6m from Yorkshire Forward to set up the Centre for Low Carbon Futures
2010-15:	£23m from the European Research & Development Fund to develop the Heslington East campus
2010-35:	£50m from the European Investment Bank for developing the University of York

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 11* 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, 2008)

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 *Encylopedia 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 1xxx 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-Al_3Ni and Al-Al_2Cu 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-Al_3Ni and Al-Al_2Cu 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-Al_3Ni, Al-Al_2Cu and Al-$AlAg_2$ 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-Al_3Ni and Al-Al_2Cu eutectics:* B. Cantor and G. A. Chadwick *Journal of Materials Science* **10**(1975)578
6. *Discussion of the growth crystallography in Al-Al_3Ni and Al-Al_2Cu 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-$AlAg_2$ 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-Al_3Ni and Al-Al_2Cu 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 $NiZr_2$ 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-Al_3Ni, chill cast Al-Al_2Cu and unidirectionally solidified Al-Al_3Ni 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 behavour of amorphous alloy $Fe_{40}Ni_{40}P_{14}B_6$*: W. Gao and B. Cantor *Acta Metallurgica* **36**(1988)167
48. *The oxidation behaviour of amorphous and crystalline $Fe_{78}Si_9B_{13}$*: 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 $Fe_{78}B_{13}Si_9$ 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 decompostion 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 $Fe_{40}Ni_{40}P_{14}B_6$, $Fe_{78}Si_9B_{13}$ and $Co_{58}Ni_{10}Fe_5Si_{11}B_{16}$*: 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 and Materialia* **39**(1991)1595
86. *Structure of the P phase in vapour quenched Al-Cr-Fe:* B. A. Shollock and B. Cantor *Scripta Metallurgica and Materialia* **25**(1991)2861
87. *Solidification behaviour of Pb droplets embedded in a Cu matrix:* W. T. Kim and B. Cantor *Acta Metallurgica and Materialia* **40**(1992)3339
88. *Electric arc spraying of Ni aluminide:* 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-TiB_2 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 α-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 TiB_2/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 and 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 and 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 Al_2Cu in Al-Cu eutectic liquid droplets embedded in an Al matrix:* W. T. Kim and B. Cantor *Acta Metallurgica and 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-SiO_2, 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 $Fe_{63}Cr_{18}Ti_4B_{15:}$* 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 $Fe_{78}B_{13}Si_9$*: 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 TiB_2/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/SiO_2 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 *Scipta 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 $Fe_{70}Cr_{20}B_{10}$ 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 $Fe_{40}Ni_{40}B_{20}$ 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 Ni_3Al 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 $Al_{85}Y_5Ni_{10}$ and $Al_{85}Y_{10}Ni_5$ alloys:* W. T. Kim, M. Gogebakan and B. Cantor *Materials Science and Engineering* **A226**(1997)178
151. *Crystallization behaviour of amorphous $Al_{85}Y_{11}Ni_4$ 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 1xxx 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 1xxx 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* K. B. Kim, P. J. Warren and B. Cantor *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 $Ni_{60}Nb_{20}Zr_{20}$ 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
191. *Enhanced thermal stability of the devitrified nanoscale icosahedral phase in novel multicomponent amorphous alloys* K. B. Kim, P. J. Warren, B. Cantor and J. Eckert *Journal of Materials Research* **21**(2006)823
192. *Characterization of Fe-rich intermetallic phases in a 6xxx series Al alloy: part I* G. Sha, K. O'Reilly and B. Cantor *Materials Forum* **519**(2006)1721
193. *Devitrification of nano-scale icosahedral phase in multicomponent alloys* K. B. Kim, P. J. Warren, B Cantor and J. Eckert *Materials Science and Engineering* **A449**(2007)983
194. *Structural relaxation and glass transition behavior of novel (Ti33Zr33Hf33)(50)(Ni50Cu50)(40)Al-10 alloy developed by equiatomic substitution* K. B. Kim, P. J. Warren and B. Cantor *Journal of Non-Crystalline Materials* **353**(2007)3338
195. *Microstructural evolution in semi-solid AA7034* H. S. Kim, I. C. Stone and B. Cantor *Journal of Materials Science* **43**(2008)1292
196. *Effect of Nb on nanoquasicrystalline Al-based alloys* M. Galano, F. Audebert, I. C. Stone and B. Cantor *Philosophical Magazine Letters* **88**(2008)269
197. *Nanoquasicrystalline Al-Fe-Cr-based alloys. Part I. Phase Transformations* M. Galano, F. Audebert, A. Garcia Escorial, I. C. Stone and B. Cantor *Acta Materialia* **57**(2009)5107
198. *Nanoquasicrystalline Al-Fe-Cr-based alloys. Part II. Mechanical properties* M. Galano, F. Audebert, A. Garcia Escorial, I. C. Stone and B. Cantor *Acta Materialia* **57**(2009)5120
199. *Nanoquasicrystalline Al-Fe-Cr-based alloys with high strength at elevated temperature* M. Galano, F. Audebert, A. G. Escorial, I. C. Stone and B. Cantor *Journal of Alloys and Compounds* **495**(2010)372

Other Papers

1. *The tensile deformation of Al-Al_3Ni and Al-Al_2Cu 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-Al_3Ni 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 in
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 $Fe_{78}B_{13}Si_9$*: 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 $Fe_{70}Cr_{18}Mo_2B_{18}$ 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 $YBa_2Cu_3O_{7-x}$ 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, Oberusch, 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 Ceramics 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 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%Al_2O_3 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-Bagjuirani, 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-SiO_2 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 $Al_{85}Ni_{15-x}Y_x$ (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 Al_3Zr 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 Al_2O_3 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 Al_3Ti and Al_3Zr:* 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 *Semi-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 $Ni_{60}Nb_{40}$ 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. *Rheocasting of aluminum alloys* S. B. Park, I. C. Stone and B. Cantor in *Solidification of Aluminium Alloys* ed M. G. Chu, D. A. Granger and Q. Y. Han (TMS Warrendale 2004)257

In press and in preparation

1. *Amorphization kinetics of $Ni_{60}Nb_{40}$ 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. *Squeeze casting and semi-solid deformation of Al alloys* B. Cantor *Materials Science and Engineering* in press
5. *Stable and metastable multicomponent alloys* B. Cantor *Journal of Metastable and Nanocrystalline Materials* in press
6. *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