

C. BARRY CARTER: GROUP PUBLICATIONS

January 17th, 2016

ISI h=39; ~6,400 cites; Google Scholar h=42; i10=183; ~12,570 cites
(4,744 to the TEM book; 483 to the Ceramic Materials book)

20 Most Highly Cited Publications (on WoS)

1. Leschkie, K.S., Divakar, R., Basu, J., Enache-Pommer, E., Boercker J.E, Carter, C.B., Kortshagen, U.R., Norris, D.J. and Aydil, E.S., 2007, *Nano Letters* **7**(6), 1793–1798, ‘*Photosensitization of ZnO Nanowires with CdSe Quantum Dots for photovoltaic Devices*’. (**658** citations)
2. Colbert, T.D., Zhang, J., McClure, S.M., Nikolaev, P., Chen, Z., Hafner, J.H., Owens, D.W., Kotula, P.G., Carter, C.B., Weaver, J.H., Rinzler, A.G. and Smalley, E.R., 1994, *Science* **266**, 1218–1222. ‘*Growth and Sintering of Fullerene Nanotubes*.’ (**249** citations)
3. Gerberich, W.W., Mook, W.M., Perrey, C.R., Carter, C.B., Baskes, M., Mukherjee, R., Gidwani, A., Heberlein, J., McMurry, P., and Girshick, S., 2003, *Journal of Mechanics and Physics of Solids* **51**, 979–992. ‘*Superhard Silicon Nanospheres*.’ (**141** citations)
4. Carter, C.B. and Ray, I.L.F., 1977, *Philosophical Magazine* **35**(1), 189–200. ‘*On the Stacking-Fault Energies of Copper Alloys*’. (**128** citations; cited 36 of the past 39 years thru 2015)
5. Carter, C.B. and Holmes, S.M., 1977, *Philosophical Magazine* **35**(5), 1161–1172. ‘*The Stacking-Fault Energy of Nickel*’. (**125** citations; cited 36 of the past 38 years thru 2015)
6. Tietz, L.A., Carter, C.B, Lathrop, D.K., Russek, S.E., Buhrman, R.A. and Michael, J.R., 1989, *Journal of Materials Research* **4**(5), 1072–1081. ‘*Crystallography of YBa₂Cu₃O_{6+x} Thin Film-Substrate Interfaces*’. (**115** citations)
7. Norton, M.G., Tietz, L.A., Summerfelt, S.R. and Carter, C.B., 1989, *Appl. Phys. Lett.* **55**(22), 2348–2350. ‘*Observation of the Early Stages of Growth of Superconducting Thin Films by Transmission Electron Microscopy*.’ (**82** citations)
8. Yan, H., Blanford, C.F., Lytle, J.C., Carter, C.B., Smyrl, W.H. and Stein, A., 2001, *Chem. Mater.* **13**, 4314-4321, 'Influence of Processing Conditions on Structures of 3D Ordered Macroporous Metals Prepared by Colloidal Crystal Templating.' (**80** citations)
9. Heffelfinger, J.R. and Carter, C.B., 1997, *Surf. Sci.* **389** 188-200 'Mechanisms of Surface Faceting and Coarsening.' (**76** citations)
10. Föll, H. and Carter, C.B., 1979, *Philos. Mag.* **40**(4) 497-510. ‘*Direct TEM Determination of Intrinsic and Extrinsic Stacking-Fault Energies*’ (**72** citations)
11. Heffelfinger, J.R., Bench, M.W. and Carter, C.B., 1997, *Surf. Sci.* **370**, L168-L172. 'Steps and the Structure of the (0001) α -Alumina Surface.' (**71** citations)
12. Norton, M.G., Summerfelt, S.R. and Carter, C.B., 1990, *Appl. Phys. Lett.* **56**(22), 2246–2248. ‘*Surface Preparation for the Heteroepitactic Growth of Ceramic Thin Films*.’ (**71** citations)
13. Morrissey, K.J. and Carter, C.B., 1984, *J. Am. Ceram. Soc.* **67**(4), 292–301. ‘*Faceted Grain Boundaries in Al₂O₃*.’ (**70** citations)
14. Heffelfinger, J.R., Bench, M.W. and Carter, C.B., 1995, *Surf. Sci.* **343**, L1161-L1166. 'On the Faceting of Ceramic Surfaces.' (**65** citations)
15. Norton, M.G., Kotula, P.G. and Carter, C.B., 1991, *J. Appl. Phys.* **70**(5), 2871-2873. 'Oriented Aluminum Nitride Thin Films Deposited by Pulsed-Laser Ablation.' (**64** citations)

16. Norton, M.G. and Carter, C.B., 1991, *J. Cryst. Growth* **110**, 641-651. 'The Nucleation and Heteroepitaxial Growth of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films on MgO .' (64 citations)
17. Ralston, J., Wicks, G.W., Eastman, L.F., De Cooman, B.C. and Carter, C.B., 1986, *J. Appl. Phys.* **59**(1), 120-123. 'Defect Structure and Intermixing of Ion-Implanted $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ Superlattices.' (62 citations)
18. Pi, X.D., Liptak, R.W., Nowak, J.D., Wells, N.P., Carter, C.B., 2008, *Nanotechnology* **19**, 245603 'Air-stable full-visible-spectrum emission from silicon nanocrystals synthesized by an all-gas-phase plasma approach'. (60 citations)
19. Carter, C.B. and Schmalzried, H., 1985, *Philos. Mag.* **A52**(2), 207-224. 'The Growth of Spinel into Al_2O_3 .' (58 citations)
20. Bapat, A., Anderson, C., Perrey, C.R., Carter, C.B., Campbell, S.A., and Kortshagen, U., 2004, *Plasma Phys. Control. Fusion* **46**, B97-B109, 'Plasma Synthesis of Single Crystal Silicon Nanoparticles for Novel Electronic Device Applications.' (57 citations)

Books

- B3 Carter CB and Williams DB Eds (2016) *Transmission Electron Microscopy: Diffraction, Imaging, and Spectrometry* Springer, Heidelberg. Publishing May 2016 in full color and with ~500 questions.
- B2 Carter CB and Norton MG (2013) *Ceramic Materials: Science & Engineering* (2nd Ed, Springer, NY). (Full color, revisions, updating, extended questions and an extra Chapter.)
- B1 Williams DB and Carter CB (2009) *Transmission Electron Microscopy: A Textbook for Materials Science* (2nd Ed, Springer, NY), updated with color and ~800 questions.

Proceedings

- M6 Schuh, C.A., Kumar, M., Carter, C.B. and Randle, V., 2004, *Interfacial Engineering for Optimized Properties III*, Mater. Res. Soc. Symp. Proc. **819**.
- M5 Alexander, K.B., Carter, C.B., Grimes, R.W., Pan, X., and Wood, T.E., 2003 *Structure-Property Relationships of Oxide Surfaces and Interfaces II*, Mater. Res. Soc. Symp. Proc. **751**.
- M4 Carter, C.B., Pan, X., Sickafus, K., Tuller, H.L. and Wood, T.E., 2001 *Structure-Property Relationships of Oxide Surfaces and Interfaces*, Mater. Res. Soc. Symp. Proc. **654**.
- M3 Carter, C.B. and Hall, E.L., Nutt, S. and Briant, C.L., 1999, *Interfacial Engineering for Optimized Properties II*, Mater. Res. Soc. Symp. Proc. **586**.
- M2 Thomas, G., Carter, C.B., De Hosson, J.Th.M., Gerberich, W.W., Gronsky, R., Humphreys, C.L., Nix, W.D., Rühle, M., Seidman, D.N. and Williams, D.B., 1999, *Materials Science and Mechanics of Interfaces*, 25-30 Oct. 1998, *Acta Mater.* **47**(15-16).
- M1 Briant, C.L., Carter, C.B. and Hall, E.L., 1997, *Interfacial Engineering for Optimized Properties*, Mater. Res. Soc. Symp. Proc. **458**.

Book Chapters

- A3 Farrer, J.K., Carter, C.B. and Michael, J., 2000 (Fall) in *Electron Backscatter Diffraction in Materials Science*, 1st Ed., Eds A.J. Schwartz, M. Kumar and B.L. Adams (Plenum, New York) 299-318 'EBSD of Ceramic Materials'.
- A2 Norton, M.G. and Carter, C.B., 1994, in *Interfaces in High-Tc Superconducting Systems*, Eds S.L. Shinde and D.A. Rudman (Springer-Verlag, New York) 1-27, 'Observations on the Growth of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films by Transmission Electron Microscopy.'
- A1 Norton, M.G. and Carter, C.B., 1992, in *Atomic-Level Properties of Interface Materials*, Eds D. Wolf and S. Yip (Chapman and Hall, London) 151-189, 'Grain and Interphase Boundaries in Ceramics and Ceramic Composites.'

Journal articles

- J308 Winterstein JP, Sezen M, Rečnik A, Carter CB (2016) *J Mater Sci* **51**(1) 144–157 'Electron microscopy observations of the spinel-forming reaction using MgO nanocubes on Al_2O_3 substrates

- J307 Janish, M.T., Mackay, D.T., Liu, Y., Jungjohann, K.L., Carter, C.B. and Norton, M.G. (2016) *J Mater Sci* **51**(1) 589–602. ‘Lithiation of Tin Nanoneedles Investigated by in-situ TEM’.
- J306 Li Z, Tan X, Li Peng, Kalisvaart W, Janish M, Mook W, Lubner EJ, Jungjohann KL, Carter CB, Mitlin D (2015) *Nano Lett* **15**, 6339-6348 ‘Coupling in-situ TEM and ex-situ Analysis to Understand Heterogeneous Sodiation of Antimony’.
- J305 Janish, M.T. and Carter, C.B., (2015) *Scripta Mater* **107**, 22–25 ‘In-Situ TEM Observations of the Lithiation of Molybdenum Disulfide’.
- J304 Janish MT, Kotula PG, Boyce LB, Carter CB (2015) *J Mater Sci* **50**, 3706-3715 ‘Observations of fcc and hcp tantalum’.
- J303 Janish MT, Mook WM, Carter CB, (2015) *Scripta Mater* **96**, 21-24 ‘Nucleation of face-centered cubic Ta when heating thin films’.
- J302 Roller, J., Renner, J., Yu, H., Capuano, C., Kwak, T., Wang, Y., Carter, C.B., Ayers, K., Mustain, W.E. and Maric, R. (2014) *J Power Sources* **271**, 366-376. Flame-based processing as a practical approach for manufacturing hydrogen evolution electrodes
- J301 Zhang, H., Suresh, A., Carter, C.B. and Wilhite, B.A. (2014) *Solid State Ionics* **266** (2014) 58–67. ‘Materials Synthesis, Electrochemical Characterization and Oxygen Permeation Properties of Fe-Doped BaZrO₃’.
- J300 Roller, J., Yu, H., Vukmirovic, M.B., Bliznakov, S., Kotula, P.G., Carter, C.B., Adzic, R.R. and Maric, R. (2014) *Electrochimica Acta* **138**, 341-352. ‘Flame-Based Synthesis of Core-Shell Structures Using Pd-Ru and Pd Cores’.
- J299 Winterstein, J.P., Carter, C.B. (2014) *J Eur Ceram Soc* **34**, 3007–3018. ‘Electron-beam damage and point defects near grain boundaries in cerium oxide’.
- J298 Mikael, P.E., Amini, A.R., Basu, J., Arellano-Jimenez, M.J., Laurencin, C.T., Sanders, M.M., Carter, C.B. and Nukavarapu, S.P. (2014), *Biomedical Materials* **9**(3) 035001-1-13. ‘Functionalized Carbon Nanotube Reinforced Scaffolds for Bone Regenerative Engineering: Fabrication, *in vitro* and *in vivo* Evaluation’.
- J297 Mackay D, Janish MT, Sahaym U, Kotula PG, Jungjohann KL, Carter CB, Norton MG, (2014) *J Mater Sci* **49**, 1476-1483 ‘Template-free Electrochemical Synthesis of Tin Nanostructures’.
- J296 Basu, J., Katoch, R., Garg, A and Carter, C.B., 2013, *Microsc. Res. Techn.* **76**(12), 1304-1309 ‘Microstructure and Interfacial Chemistry of Pure and La-doped BiFeO₃ Thin Films’.
- J295 Roller, J.M., Arellano-Jiménez, M.J., Yu, H., Jain, R., Carter, C.B. and Maric, R., 2013, *Electrochimica Acta* **107**, 632–655. ‘Catalyst nanoscale assembly from the vapor phase on corrosion resistant supports’.
- J294 Roller, J.M., Arellano-Jiménez, M.J., Jain, R., Yu, H., Carter, C.B. and Maric, R., 2013, *J. Electrochem. Soc.* **160**(6) F716-730. ‘Oxygen evolution during water electrolysis from thin films using bimetallic oxides of Ir-Pt and Ru-Pt’.
- J293 Liu, G., Arellano-Jiménez, J.M., Carter, C.B. and Agrios, A., 2013, *J. Nanopart. Res.* **15**(6)1744, 1-13. ‘Preparation of functionalized platinum nanoparticles: A comparison of different methods and reagents’.
- J292 Riesterer, J.L. and Carter, C.B., 2011 *J. Mater. Sci.* **46**, 4397-4406 'Changes in dewetting behavior of SiO₂ films on TiO₂ substrates due to film thickness and crucible choice'.
- J291 Basu, J., Suresh, A, Wilhite, B.A. and Carter, C.B, 2011 *J. Eur. Ceram. Soc.* **31**, 1421–1429 'Microstructural evolution of cobalt-doped barium cerate-zirconate at elevated temperatures under moist reducing conditions'.
- J290 Bhowmick, S., Xue, Y., Winterstein, J. and Carter, C.B., 2011 *Sol. St. Ionics* **187**, 68–77 'Influence of Alumina Impurities on Microstructure of LSM-CeO₂ Composites'.
- J289 Basu, J., Divakar, R., Winterstein, J. and Carter, C.B., 2010, *Appl Surf Sci* **256**(12) 3772-7 'Low-temperature and ambient-pressure synthesis and shape evolution of nanocrystalline pure, La-doped and Gd-doped CeO₂'.
- J288 Bhowmick, S., Basu, J., Xue, Y. and Carter, C.B., 2010 *J Am. Ceram. Soc.* **93** (12) 4041-6 'Hydrothermal Synthesis of Nanocrystalline Barium Cerate using Hexamethylenetetramine'.

- J287 Altay, A., Carter, C.B., Rulis, P., Ching, W.-Y., Arslan, I. and Gülgün, M.A., 2010, *J. Solid State Chem.* **183**(8), 1776-1784. 'Characterizing CA₂ and CA₆ using ELNES'.
- J286 Suresh, A., Basu, J., Carter, C.B., Sammes, N. and Wilhite, B.A., 2010, *J Mater Sci* **45**, 3215-3227 'Synthesis of cobalt-doped barium cerate-zirconate and its evaluation for hydrogen production and electrochemical characterization'.
- J285 Nowak, J.D. and Carter, C.B., 2009, *J. Mater. Sci.* **44**, 2408–2418. Forming contacts and grain boundaries between MgO nanoparticles
- J284 Jia, W., Wang, Y., Basu, J., Strout, T., Carter, C.B., Gokirmak, A. and Lei, Y., 2009, *J. Phys. Chem. C* **113**(45) 19525-30. 'Nanoengineered Transparent, Free-Standing, Conductive Nanofibrous Membranes'.
- J283 Altay, A., Carter, C.B., Arslan, I. and Gülgün, M.A., 2009, *Philos. Mag.* **89**(7) 605-621 Crystallization of CaAl₄O₇ and CaAl₁₂O₁₉ powders'.
- J282 Basu, J., Carter, C.B., Divakar, R., Mukherjee, B. and Ravishankar, N., 2009, *Appl. Phys. Lett.* **94**(17) 171114-1-3 'Nanopatterning by solid-state dewetting on reconstructed ceramic surfaces'.
- J281 Altay, A., C. B. Carter, C.B., Gülgün, M.A., 2009, *J Mater Sci* **44**, 84-92 'Reaction of CaAl₄O₇ with (0001)-oriented α -Al₂O₃'.
- J280 Blanford, C.F., Carter, C.B. and Stein, A., 2008, *J. Mater. Sci.* **43**, 3539-3552 'In situ high-temperature electron microscopy of 3DOM cobalt, iron oxide, and nickel'.
- J279 Basu, J., Carter, C.B., Divakar, R., Shenoy, V.B. and Ravishankar, N., 2008, *Appl. Phys. Lett.* **93**(13) 133104-1-3 'Modified electron-beam-induced deposition of metal nanostructure arrays using a parallel electron beam'.
- J278 Basu, J., Divakar, R., Nowak, J., Hofmann, S., Colli, A., Franciosi, A. and Carter, C.B., 2008, *J. Appl. Phys.* **104**, 064302-1-8 'Structure and growth mechanism of ZnSe nanowires'.
- J277 Pi, X.D., Liptak, R.W., Nowak, J.D., Wells, N.P., Carter, C.B., 2008, *Nanotechnology* **19**, 245603 'Air-stable full-visible-spectrum emission from silicon nanocrystals synthesized by an all-gas-phase plasma approach'.
- J276 Gerberich, W.W., Mook, W.M., Carter, C.B. and Ballarini, R. 2007, *Int J Fract* **148**, 109-114 'A crack extension force correlation for hard materials'.
- J275 Mook, W.M., Nowak, J.D., Perrey, C.R., Carter, C.B., Mukherjee, R., Girshick, S.L., McMurry P.H. and Gerberich W.W. 2007, *Phys. Rev. B* **75**, 214112-1-10 'Compressive stress effects on nanoparticle modulus and fracture'.
- J274 Leschkies, K.S., Divakar, R., Basu, J., Enache-Pommer, E., Boercker, J.E, Carter, C.B., Kortshagen, U.R., Norris, D.J. and Aydil, E.S., 2007, *Nano Lett* **7**(6), 1793-1798, 'Photosensitization of ZnO Nanowires with CdSe Quantum Dots for photovoltaic Devices'.
- J273 Deneen Nowak, J., Mook, W.M., Minor, A.M., Gerberich, W.W. and Carter, C.B., 2007, *Philos. Mag.* **87**(1), 29-37 'Fracturing a Nanoparticle'.
- J272 Bolon, B.T., Haugen, M.A., Abin-Fuentes, A., Deneen, J., Carter, C.B. and Leighton, C., 2007, *J. Magnetism Magnetic Mater.* **309**, 54-63, 'Multiple Antiferromagnet/Ferromagnet Interfaces as a Probe of Grain-Size-Dependent Exchange Bias in Polycrystalline Co/Fe₅₀Mn₅₀'.
- J271 McCarty, K.F. Pierce, J.P. and Carter, C.B, 2006, *Appl. Phys. Lett.* **88**, 141902-1-3, 'Translation-related domain boundaries form to relieve strain in a thin alumina film on NiAl (110)'.
- J270 Ding, Y.P., Dong, Y., Bapat, A., Nowak, J.D., Carter, C.B., Kortshagen, U.R. and Campbell, S. A., 2006, *IEEE Trans. Electron Devices* **53**(10), 2525-2531, 'Single Nanoparticle Semiconductor Devices'.
- J269 Gerberich, W.W., Mook, W.M., Chambers, M.D., Cordill, M.D., Perrey, C.R., Carter, C.B., Miller, R.E., Curtin, W.A., Mukerjee, R. and Girshick, S.L., 2006, *J. Appl. Mech.* **73**, 327-334, 'An Energy Balance Criterion for Nanoindentation-Induced Single and Multiple Dislocation Events'.
- J268 Farrer, J.K. and Carter, C.B., 2006, *J Mater. Sci.* **41**, (16) 5169-5184, 'Texture in Solid-State Reactions'.
- J267 Deneen, J., Mook, W.M., Minor, A., Gerberich, W.W. and Carter, C.B., 2006, *J. Mater. Sci.* **41**, (14) 4477-4483, 'In Situ Deformation of Silicon Nanospheres'.

- J266 Cordill, M.J., Chambers, M.D., Lund, M.S., Hallman, D.M., Perrey, C.R., Carter, C.B., Bapat, A., Kortshagen, U. and Gerberich, W.W., 2006, *Acta Mater.* **54**, 4515-4523, 'Plasticity Responses in Ultra-Small Confined Cubes and Films'.
- J265 Perrey, C.R. and Carter, C.B., 2006, *J. Mater. Sci.* **41**, 2711-2722, 'Insights into Nanoparticle Formation Mechanisms'.
- J264 Ling, W.L., Hamilton, J.C., Thürmer, K., Thayer, G.E., de la Figuera, J., Hwang, R.Q., Carter, C.B., Bartelt, N.C. and McCarty, K.F., 2006, *Surf. Sci.* **600**, 1735-1757, 'Herringbone and Triangular Patterns of Dislocations in Ag, Au, and AgAu Alloy Films on Ru(0001)'.
- J263 Farrer, J.K. and Carter, C.B., 2006, *J. Mater. Sci.* **41**(3), 779-792 'Defect Structure in GaN Pyramids'.
- J262 Farrer, J.K., Carter, C.B. and Ravishankar, N., 2006, *J. Mater. Sci.*, **41**(3), 661-674 'The Effects of Crystallography on Grain Boundary Migration in Alumina'.
- J261 Ravishankar, N. and Carter, C.B., 2005, *Philos. Mag. Lett.* **85**(10), 523-532 'Ordered Nanostructures by Site-Specific Heterogeneous Nucleation'.
- J260 Ling, W.L., Bartelt, N.C., McCarty, K.L. and Carter, C.B., 2005, *Phys. Rev. Lett.* **95**, 166105-1-166105-4, 'Twin Boundaries Can Be Moved by Step Edges During Film Growth'.
- J259 Gerberich, W.W., Mook, W.M., Cordill, M.J., Carter, C.B., Perrey, C.R., Heberlein, J.V. and Girshick, S.L., 2005, *Int. J. Plast.* **21**, 2391-2405, 'Reverse Plasticity in Single Crystal Nanospheres'.
- J258 Farrer, J.K., Johnson, M.T., Bentley, J. and Carter, C.B., 2005, *Surface Sci.* **587**(3), 205-218 'Epitaxial Formation of Forsterite on MgO Single Crystals during Vacuum Annealing'.
- J257 Gerberich, W.W., Cordill, M.J., Mook, W.M., Moody, N.R., Perrey, C.R., Carter, C.B., Mukherjee, R. and Girshick, S.L., 2005, *Acta Mater.* **53**, 2215-2219, 'A Boundary Constraint Energy Balance Criterion for Small Volume Deformation'.
- J256 Thompson, S., Perrey, C.R., Carter, C.B., Belich, T.J., Kakalios, J., Kortshagen, U., 2005, *J. Appl. Phys.* **97**(3) 034310-1-034310-7 'Experimental Investigations into the Formation of Nanoparticles in a/nc-Si:H Thin Films.'
- J255 Gilliss, S.R., Bentley, J. and Carter, C.B., 2005, *Appl. Surf. Sci.* **241**, 61-67, 'Electron Energy-loss Spectroscopic Study of the Surface of Ceria Abrasives.'
- J254 Munoz, N.E., Gilliss, S.R. and Carter, C.B., 2004, *Surface Sci.* **573**, 391-402, 'Remnant Grooves on Alumina Surfaces.'
- J253 Blanford, C.F., Carter C.B. and Stein A., 2004, *J. Microsc.* **216**, 263-287 'A Method for Determining Void Arrangements in Inverse Opals'
- J252 Bapat, A., Anderson, C., Perrey, C.R., Carter, C.B., Campbell, S.A., and Kortshagen, U., 2004, *Plasma Phys. Control. Fusion* **46**, B97-B109, 'Plasma Synthesis of Single Crystal Silicon Nanoparticles for Novel Electronic Device Applications'
- J251 Hafiz, J., Wang, X., Mukherjee, R., Mook, W., Perrey, C.R., Deneen, J., Heberlein, J.V.R., McMurry, P.H., Gerberich, W.W., Carter, C.B., Girshick, S.L., 2004, *Surface & Coatings Technology* **188-189**, 364-370, 'Hypersonic Plasma Particle Deposition of Si-Ti-N Nanostructured Coating'.
- J250 Perrey, C.R., Thompson, S., Kortshagen, U., Lentzen, M. and Carter, C.B., 2004, *J. Non-Cryst. Solids* **343**, 78-84, 'Observation of Si Nanocrystals in a/nc-Si:H Films by Spherical-Aberration-Corrected Transmission Electron Microscopy'.
- J249 Perrey, C.R., Carter, C.B., Michael, J., Kotula, P., Stach, E. and Radmilovic, V., 2004, *J. Microsc.* **214**(3) 222-236, 'Using the FIB to Characterize Nanoparticle Materials.'
- J248 Thürmer, K., Carter C.B., Bartelt, N.C. and Hwang, R.Q., 2004, *Phys. Rev. Lett.* **92**(10) 106101-1-106101-4, 'Self-Assembly via Adsorbate-Driven Dislocation Reactions.'
- J247 Ravishankar, N., Shenoy, V.B. and Carter C.B., 2004, *Adv. Mater.* **16**(1) 76-80, 'Electric Field Singularity Assisted Nanopatterning.'
- J246 Munoz, N.E., Gilliss, S.R. and Carter, C.B., 2004, *Philos. Mag. Lett.* **84**(1) 21-26, 'The Monitoring of Grain-Boundary Grooves in Alumina.'
- J245 Cohen, D. and Carter, C.B., 2003, *Interface Sci.* **11**, 391-401. ' $\Sigma=3$ {11} Lateral Twin Boundaries in GaP'

- J244 Bapat, A., Perrey, C.R., Campbell, S.A., Carter, C.B. and Kortshagen, U., 2003, *J. Appl. Phys.* **94**(3), 1969-1974 'Synthesis of Highly Oriented, Single-Crystal Nanoparticles in a Low-Pressure, Inductively Coupled Plasma.'
- J243 Ravishankar, N., Gilliss, S.R. and Carter, C.B., 2003, *J. Eur. Ceram. Soc.* **23**(15) 2777-2785 'Glass and Metals on Crystalline Oxides.'
- J242 Blanford, C.F., and Carter C.B., 2003, *Microsc. Microanal.* **9**(3), 245-263, 'Electron Radiation Damage of MCM-41 and Related Materials.'
- J241 de la Figuera, J., Carter, C.B., Bartelt, N.C. and Hwang, R.Q. 2003, *Surface Science* **53**(1), 29-38. 'Interplay between gas adsorption and dislocation structure on a metal surface.'
- J240 Gerberich, W.W., Mook, W.M., Perrey, C.R., Carter, C.B., Baskes, M., Mukherjee, R., Gidwani, A., Heberlein, J., McMurry, P., and Girshick, S., 2003, *J. Mech. Phys. Solids* **51**, 979-992. 'Superhard Silicon Nanospheres.'
- J239 Ravishankar, N., Gilliss, S.R. and Carter, C.B., 2002, *Microsc. Microanal.* **8**(4) 257-267. 'Dewetting of Liquids on Ceramic Surfaces at High Temperatures.'
- J238 Cohen, D. and Carter, C.B., 2002, *J. Microsc.* **208**, 84-99. 'Structure of the (110) Antiphase Boundary in Gallium Phosphide.'
- J237 Li, M., Palacio, M.L., Carter, C.B. and Gerberich, W.W., 2002, *Thin Solid Films* **416**(1-2), 174-183. 'Indentation Deformation and Fracture of Thin Polystyrene Films.'
- J236 Yanina, S.V. and Carter, C.B., 2002, *J. Mater. Res.* **17**(12), 3056-3064, 'Precipitation from a Reactive Silicate on MgO.'
- J235 Yanina, S.V. and Carter, C.B., 2002, *Surface Sci. Lett.* **513**, L402-L412, 'Terraces and Ledges on (001) Spinel Surfaces.'
- J234 Yanina, S.V. and Carter, C.B., 2002, *Surface Sci.* **511**, 133-146 'Dislocations at Spinel Surfaces.'
- J233 Korte, C., Ravishankar, N. Carter, C.B. and Schmalzried, H., 2002, *Solid State Ionics* **148**, 111-121 'Kinetics of Spinel Formation in an External Applied Electric Field.'
- J232 Ravishankar, N. and Carter, C.B., 2002, *J. Mater. Res.* **17**(1), 98-106, 'Bunching of Surface Steps and Facet Formation on an Alumina Surface.'
- J231 Li, M., Carter, C.B., Hillmyer, M.A. and Gerberich, W.W., 2001, *J. Mater. Res.* **16**(12), 3378-88, 'Adhesion of polymer-inorganic interfaces by nanoindentation.'
- J230 Yan, H., Blanford, C.F., Lytle, J.C., Carter, C.B., Smyrl, W.H. and Stein, A., 2001, *Chem. Mater.* **13**, 4314-4321, 'Influence of Processing Conditions on Structures of 3D Ordered Macroporous Metals Prepared by Colloidal Crystal Templating.'
- J229 Ravishankar, N. and Carter, C.B., 2001, *J. Am. Ceram. Soc.* **84**(4), 859-862, 'Exuding Liquid from Grain Boundaries in Alumina.'
- J228 Cho, N.-H. and Carter, C.B., 2001, *J. Mater. Sci.* **36**, 4511-4518, 'Structural Features of $\Sigma=19$, [110] GaAs Tilt Grain Boundaries.'
- J227 Cho, N.-H. and Carter, C.B., 2001, *J. Mater. Sci.* **36**, 4209-4222, 'Formation, Faceting, and Interaction Behaviors of Antiphase Boundaries in GaAs Thin Films.'
- J226 Cho, N.-H. and Carter, C.B., 2001, *Japan J. Appl. Phys.* **40**, 4458-4465, 'Structural Features of $\Sigma=3$ and 9, [110] GaAs Tilt Grain Boundaries.'
- J225 Ravishankar, N. and Carter, C.B., 2001, *Acta Mater.* **49**, 1963-1969, 'Migration of Alumina Grain Boundaries Containing a Thin Glass Film.'
- J224 de la Figuera, J., Pohl, K., de la Fuente, O.R., Schmid, A.K., Bartelt, N.C., Carter, C.B., and Hwang, R.Q., 2001, *Phys. Rev. Lett.* **86**(17) 3815-3818, 'Direct Observation of Misfit Dislocation Glide on Surfaces.'
- J223 Johnson, M.T., Carter, C.B. and Schmalzried, H. 2000, *J. Am. Ceram. Soc.* **83**(7), 1768-1772, 'Behavior of MgFe₂O₄ Films on MgO in an Electric Field.'
- J222 Ramamurthy, S., Schmalzried, H. and Carter, C.B., 2000, *Philos. Mag. A* **80**, 2651-2674, 'Interaction of Silicate Liquid with a Sapphire Surface.'
- J221 Ravishankar, N. and Carter, C.B., 2000, *Interface Sci.* **8**(2/3), 297-306, 'Glass/Crystal Interfaces in Liquid-Phase Sintered Materials.'

- J220 Mallamaci, M.P. and Carter, C.B., 1999, *J. Am. Ceram. Soc.* **82**(1), 33-42, 'Crystallization of Pseudo-Orthorhombic Anorthite on Basal Sapphire.'
- J219 Johnson, M.T., Michael, J.R., Gilliss, S.R. and Carter, C.B., 1999, *Philos. Mag.* **A79**(12), 2887-2898, 'Iron Oxide on (001) MgO.'
- J218 Anderson, I.A., Carter, C.B. and Schmalzried, H., 1999, *Philos. Mag. Lett.* **79**, 901-911 'On the Microstructures of Equilibrated and Quenched Spinel-Containing Nickel Titanates.'
- J217 Johnson, M.T., Kotula, P.G. and Carter, C.B., 1999, *J Crystal Growth* **206**, 299-307 'Growth of Nickel Ferrite Thin Films Using Pulsed-Laser Deposition.'
- J216 Cohen, D. and Carter C, B., 1999, *Philos. Mag.* **A79** 1805-1815 'Evaluation of the Extrinsic and Intrinsic Stacking-Fault Energies of GaP.'
- J215 Yang, W., McPherson, S., Mao, Z., McKernan, S. and Carter, C.B., 1999, *J. Crystal Growth* **204**, 270-274, 'Single Crystal GaN Pyramid Growth on (111) Si Substrates by Selective Lateral Overgrowth.'
- J214 Johnson, M.T. and Carter, C.B., 1999, *Philos. Mag. Lett.* **79**, 609-617, 'Movement of Pt Markers in MgO During a Solid-State Reaction.'
- J213 Zagrebelny, A., Lilleodden, E., Gerberich, W. and Carter, C.B., 1999, *J. Am. Ceram. Soc.* **82**(7), 1803-08, 'Indentation of Silicate-Glass Films on Al₂O₃ Substrates.'
- J212 Johnson, M.T., Carter, C.B. and Michael, J., 1999, *J. Am. Ceram. Soc. Commun.* **82**(6), 1644-46, 'SEM Analysis of Oxide Thin Films and Reactions.'
- J211 Cohen, D., McKernan, S and Carter C, B., 1999, *Microsc. Microanal.* **5**(3), 173-186, (publisher's erratum 5 377-378), 'Characterization of the Absolute Crystal Polarity across Twin Boundaries in GaP using Convergent-Beam Electron Diffraction.'
- J210 Zagrebelny, A.V. and Carter, C.B., 1999, *Philos. Mag.* **A79**, 835-845, 'Detection of Residual Stresses in Glass-Penetrated Polycrystalline Alumina with Nanoindentation.'
- J209 Johnson, M.T. and Carter, C.B., 1999, *Thin Solid Films* **339**, 117-119, 'AlN Films Grown by Electric-Field Induced Flux of Al Cations.'
- J208 Kotula, P.G., Carter, C.B., Chen, K.C., Thoma, D.J., Chu, F, and Mitchell, T.E., 1998, *Scripta Mater.* **30**(4/5), 619-623, 'Defects and Site Occupancies in Nb-Cr-Ti C15 Laves Phase Alloys'.
- J207 Medlin, D.L., Campbell, G.H. and Carter, C.B., 1998, *Acta Mater.* **46**(14), 5135-42 'Stacking Defects in the 9R Phase at an Incoherent Twin Boundary in Copper.'
- J206 Kotula, P.G. and Carter, C.B., 1998, *J. Am. Ceram. Soc.* **81**, 2877-84 'Kinetics of Thin-Film Reactions of NiO with Al₂O₃ II: {100} and {102} Reaction Couples.'
- J205 Kotula, P.G. and Carter, C.B., 1998, *J. Am. Ceram. Soc.* **81**, 2869-76 'Kinetics of Thin-Film Reactions of NiO with Al₂O₃ I: (0001) and {110} Reaction Couples.'
- J204 Mallamaci, M.P. and Carter, C.B., 1998, *Acta Mater.* **46**(8), 2895-2907, 'Faceting of the Interface between Al₂O₃ and Anorthite Glass.'
- J203 Johnson, M.T., Gilliss, S.R., and Carter, C.B., 1998, *Microsc. Microanal.* **4**, 158-163, 'Use of Pt Markers in the Study of Solid-State Reactions in the Presence of an Electric Field'
- J202 Johnson M.T., and Carter, C.B., 1998 *Microsc. Microanal.* **4**(2), 141-145 'Thin-Film Reaction Between α -Fe₂O₃ and (001) MgO'
- J201 Ramamurthy, S. and Carter, C.B., 1998, *Phys. Stat. Sol. a* **166**, 37-55 'The {111}/{100} Interface in Cubic Materials and Related Systems.'
- J200 Kotula, P.G., Johnson, M.T. and Carter, C.B., 1998, *Z. Phys. Chemie* **206S**, 73-99 'Thin-Film Reactions.'
- J199 Mallamaci, M.P., Sartain, K.B. and Carter, C.B., 1998, *Philos. Mag.* **77**, 562-575, 'Crystallization of Calcium-Hexaluminate on Basal Alumina.'
- J198 Mallamaci, M.P., Bentley, J. and Carter, C.B., 1997, *Acta Mater.* **46**, 283-303 'In-Situ TEM Crystallization of Silicate-Glass Films on Al₂O₃.'
- J197 Zagrebelny, A. and Carter, C.B., 1997, *Scripta Met.* **37**, 1869-75 'Indentation of Strained Silicate-Glass Films on Alumina Substrates.'

- J196 Johnson, M.T., Schmalzried, H. and Carter, C.B., 1997, Solid State Ionics **101-103**, 1327-1333. 'The Effect of an Applied Electric Field on a Heterogeneous Solid-State Reaction.'
- J195 Bench, M.W., Kotula, P.G. and Carter, C.B., 1997 Surf. Sci. **391**, 183-195 'Influence of the Nature of the (0001) α -Alumina Surface on Thin Film Growth.'
- J194 Heffelfinger, J.R. and Carter, C.B., 1997, Surf. Sci. **389** 188-200 'Mechanisms of Surface Faceting and Coarsening.'
- J193 Heffelfinger, J.R. and Carter, C.B., 1997, Philos. Mag. Lett. **76** (3), 223-232 'The Effect of Surface Structure on the Growth of Ceramic Thin Films.'
- J192 Anderson, I.M., Bentley, J. and Carter, C.B., 1997, Ultramicroscopy **68** (2), 95-107 'Secondary fluorescence correction formulae for X-ray microanalysis II: Self-supporting Discs.'
- J191 Anderson, I.M., Bentley, J. and Carter, C.B., 1997, Ultramicroscopy **68** (2), 77-94 'Secondary Fluorescence Correction for X-Ray Microanalysis I: The Parallel-Sided Thin Foil, Wedge, and Bulk Specimen.'
- J190 Schmid, A.K., Bartelt, N.C., Hamilton, J.C., Carter, C.B. and Hwang, R.Q., 1997, Phys. Rev. Lett. **78**(18), 3507-10. 'Brownian Motion of Dislocations in Thin Films.'
- J189 Heffelfinger, J.R., Bench, M.W. and Carter, C.B., 1997, Surf. Sci. **370**, L168-L172. 'Steps and the Structure of the (0001) α -Alumina Surface.'
- J188 Johnson, M.T., Heffelfinger, J.R., Kotula, P.G. and Carter, C.B., 1997, J. Microscopy **185**(2), 225-232. 'Microscopy of Interfaces in Model Oxide Composites.'
- J187 Heffelfinger, J.R., Kieschke, R.R. and Carter, C.B., 1997, J. Microscopy **185**(2), 217-224. 'Characterization and Microanalysis of Interfacial Reactions in Metal-matrix Composite Systems.'
- J186 Medlin, D.L., Carter, C.B., Angelo, J.E., Mills, M.J., 1997, Philos. Mag. **A75**(3), 733-747. 'Climb and Glide of $a/3\langle 111 \rangle$ Dislocations in an Aluminum $\Sigma=3$ Boundary.'
- J185 Ramamurthy, S., Mallamaci, M.P., Zimmerman, C.M., Carter, C.B., Duncombe, P.R. and Shaw, T.M., 1996, JMSA **2**(3), 113-128. (reprinted in Microsc. Microanal. **3** suppl. 3) 'Microstructure of Polycrystalline MgO Penetrated by a Silicate Liquid.'
- J184 Kotula, P.G. and Carter, C.B., 1996, Phys. Rev. Lett. **77**(16), 3367-3370. 'Interfacial Control of Reaction Kinetics in Oxides.'
- J183 Campbell, G.H., Chan, D.K., Medlin, D.L., Angelo, J.E. and Carter, C.B., 1996, Scripta Mater. **35**(7), 837-842. 'Dynamic Observation of the FCC to 9R Shear Transformation in a Copper $\Sigma=3$ Incoherent Twin Boundary.'
- J182 Ramamurthy, S., Mallamaci, M.P. and Carter, C.B., 1996, Scripta Met. **34**(11), 1179-1783. 'Initial Stages of Solid-Liquid Interactions in the MgO-CaMgSiO₄ System.'
- J181 Ramamurthy, S., Hebert, B.C. and Carter, C.B., 1995, Philos. Mag. Lett. **72**(5), 269-275. 'Dewetting of Glass-Coated α -Al₂O₃ {100} Surface.'
- J180 Heffelfinger, J.R., Bench, M.W. and Carter, C.B., 1995, Surf. Sci. **343**, L1161-L1166. 'On the Faceting of Ceramic Surfaces.'
- J179 Tietz, L.A., Carter, C.B. and McKernan, S., 1995, Ultramicroscopy **60**, 241-246. 'Top-Bottom Effects in Double Diffraction.'
- J178 Zhu, J.G., Palmstrøm, C.J. and Carter, C.B., 1995, Acta Metall. Mater. **43**(11), 4171-4177. 'Misfit Dislocations at ErAs/GaAs Heterojunctions.'
- J177 Zhu, J.G., Palmstrøm, C.J. and Carter, C.B., 1995, J. Appl. Phys. **77**(9), 4312-4320. 'Study of Molecular-Beam Epitaxial Growth of GaAs on (100) Sc_xEr_{1-x}As/GaAs.'
- J176 Carter, C.B. and Hwang, R.Q., 1995, Phys. Rev. **B51** (7), 4730-4733. 'Dislocations and the Reconstruction of (111) fcc Metal Surfaces.'
- J175 Zhu, J.G., Palmstrøm, C.J. and Carter, C.B., 1995, J. Appl. Phys. **77** (9), 4321-4328. 'Lattice Matched GaAs/Sc_{0.3}Er_{0.7}As/GaAs Heterostructures Grown on Various Substrate Orientations.'
- J174 Anderson, I.M., Bentley, J. and Carter, C.B., 1995, J. Microscopy **178** (3), 226-239. 'The Secondary Fluorescence Correction for X-Ray Microanalysis in the Analytical Electron Microscope.'
- J173 Bench, M.W., Carter, C.B., Wang, F., Cohen, P., 1995, App. Phys. Lett. **66**(18), 2400-2402. 'Characterization of Iron Based Precipitates in GaAs Layers Grown by Molecular-Beam Epitaxy.'

- J172 Rasmussen, D.R., Summerfelt, S., McKernan, S. and Carter, C.B., 1995, *J. Microscopy* **179**(1), 77-89. 'Imaging Small Spinel Particles in a NiO Matrix.'
- J171 Kotula, P.G. and Carter, C.B., 1995, *J. Am. Ceram. Soc.* **78** (1), 248-250. 'Nucleation of Solid-State Reactions between Nickel Oxide and Aluminum Oxide.'
- J170 Norton, M.G. and Carter, C.B., 1995, *J. Mater. Sci.* **30**, 381-389. 'Moiré Patterns and their Application to the Study of the Growth of YBa₂Cu₃O_{7-δ} Thin Films.'
- J169 Kotula, P.G. and Carter, C.B., 1995, *Scripta Met.* **32**(6), 863-866. 'Volume Expansion and Lattice Rotations in Solid-State Reactions between Oxides.'
- J168 Colbert, T.D., Zhang, J., McClure, S.M., Nikolaev, P., Chen, Z., Hafner, J.H., Owens, D.W., Kotula, P.G., Carter, C.B., Weaver, J.H., Rinzler, A.G. and Smalley, E.R., 1994, *Science* **266**, 1218-1222. 'Growth and Sintering of Fullerene Nanotubes.'
- J167 Kotula, P.G., Erickson, D.D. and Carter, C.B., 1994, *J. Am. Ceram. Soc.* **77** (12), 3287-3291. 'Use of Thin-Film Substrates to Study Enhanced Solid-State Transformations.'
- J166 Kotula, P.G., Norton, M.G. and Carter, C.B., 1994, *J. Mater. Sci. Lett.* **13**, 1275-1277. 'Surface Morphology of Pulsed-Laser Deposited Aluminum Nitride Thin Films.'
- J165 McKernan, S. and Carter, C.B., 1994, *MSA Bulletin* **24**(1), 335-340. 'Grain-Boundary Characterization by Conventional TEM: A Survey of Current Techniques.'
- J164 Carter, C.B. and Rasmussen, Y.K., 1994, *Acta Metall. Mater.* **42**(8), 2741-2752. 'Growth of Spinel Particles on Alumina Thin Films. II. Morphology and Crystallography of the Interface.'
- J163 Carter, C.B. and Rasmussen, Y.K., 1994, *Acta Metall. Mater.* **42**(8), 2729-2740. 'Growth of Spinel Particles on Alumina Thin Films. I. Orientation Relationships and Shape of the Particles.'
- J162 Gerthsen, D. and Carter, C.B., 1993, *phys. stat. sol. a* **136**, 29-43. 'Stacking-Fault Energies of GaAs.'
- J161 Morosin, B., Norton, M.G., Carter, C.B., Venturini, E.L. and Ginley, D.S., 1993, *J. Mater. Res.* **8**(4), 720-726. 'Structural Studies in Tl-Ca-Ba-Cu-O Superconducting Thin Films.'
- J160 Tietz, L.A. and Carter, C.B., 1993, *Philos. Mag.* **A67**(3), 729-744. 'Structure of the Fe₂O₃-Al₂O₃ (10 $\bar{1}2$) Interface.'
- J159 Tietz, L.A. and Carter, C.B., 1993, *Philos. Mag.* **A67**(3), 699-727. 'Structure of the Fe₂O₃-Al₂O₃ (0001) Interface.'
- J158 Norton, M.G., Hellman, E.S., Hartford Jr., E.H. and Carter, C.B., 1993, *Physica C* **205**, 347-353. 'Compositionally Modulated Nucleation and Growth of Barium Bismuth Oxide Thin Films on MgO.'
- J157 Palmstrøm, C.J., Cheeks, T.L., Gilchrist, H.L., Zhu, J.G., Carter, C.B., Wilkens, B.J. and Martin, R., 1992, *J. Vac. Sci. Technol.* **A10**(4), 1946-1953. 'Effect of Orientation on the Schottky Barrier Height of Thermodynamically Stable Epitaxial Metal/GaAs Structures.'
- J156 Norton, M.G., Cracknell, K.P.D. and Carter, C.B., 1992, *J. Am. Ceram. Soc.* **75**(7), 1999-2002. 'Pulsed-Laser Deposition of Barium Titanate Thin Films.'
- J155 Tietz, L.A. and Carter, C.B., 1992, *J. Am. Ceram. Soc.* **75**(5), 1097-1102. 'Imaging and Diffraction Study of Continuous α -Fe₂O₃ Films on (0001)Al₂O₃.'
- J154 Summerfelt, S.R. and Carter, C.B., 1992, *J. Mater. Res.* **7**(5), 1271-1277. 'Direct Observation of Nucleation Embryos During NiFe₂O₄ Precipitation in NiO.'
- J153 McKernan, S., Norton, M.G. and Carter, C.B., 1992, *J. Mater. Res.* **7**(5), 1052-1059. 'The 45° Grain Boundaries in YBa₂Cu₃O_{7-δ}.'
- J152 Theodore, N.D., Alford, T.L., Barbour, J.C., Carter, C.B. and Mayer, J.W., 1992, *Appl. Phys.* **A54**, 527-532. 'TEM Characterization of Yttrium Silicide Layers Synthesized by Ion Implantation.'
- J151 Theodore, N.D., Arney, S.C., Carter, C.B. and MacDonald, N.C., 1992, *J. Electrochem. Soc.* **139**(1), 290-296. 'A Transmission Electron Microscopy Study of Process-Induced Defects in Submicron SOI Structures.'
- J150 Summerfelt, S.R. and Carter, C.B., 1992, *J. Am. Ceram. Soc.* **75**(8), 2244-2250. 'Kinetics of NiFe₂O₄ Precipitation in NiO.'
- J149 Norton, M.G., Carter, C.B., Fleischer, E.L. and Mayer, J.W., 1992, *J. Mater. Res.* **7**(12), 3171-3174. 'Solid Krypton in MgO.'

- J148 Tietz, L.A., Summerfelt, S.R. and Carter, C.B., 1992, *Philos. Mag.* **A65**, 439-460. 'The Effect of Substrate Orientation on the Chemical Vapour Deposition Growth of α -Fe₂O₃ on α -Al₂O₃.'
- J147 Summerfelt, S.R. and Carter, C.B., 1992, *Acta Metall. Mater.* **40**(10), 2805-2812. 'Interaction Between Dislocations and NiFe₂O₄ Precipitates in a NiO Matrix.'
- J146 Summerfelt, S.R. and Carter, C.B., 1992, *Philos. Mag.* **A65**(6), 1503-1519. 'Coarsening and Shape Transformation of NiFe₂O₄ Precipitates in a NiO Matrix.'
- J145 Summerfelt, S.R. and Carter, C.B., 1992, *Acta Metall. Mater.* **40**(5), 1051-1067. 'Morphology of NiFe₂O₄ Precipitation in NiO.'
- J144 Summerfelt, S.R. and Carter, C.B., 1992, *Acta Metall. Mater.* **40**(10), 2799-2804. 'Dissolution of NiFe₂O₄ Particles in a NiO Matrix.'
- J143 Sung, G.Y., McKernan, S. and Carter, C.B., 1992, *J. Mater. Res.* **7**(2), 474-481. 'Flat Interfaces in Zinc Oxide-Based Varistor Ceramics.'
- J142 Susnitzky, D.W. and Carter, C.B., 1992, *J. Am. Ceram. Soc.* **75**(9), 2463-2478. 'Surface Morphology of Heat-Treated Ceramic Thin Films.'
- J141 Susnitzky, D.W. and Carter, C.B., 1992, *Surf. Sci.* **265**, 127-138. 'Metal Particles on the Surfaces of Heat-Treated Ceramic Thin Films.'
- J140 McKernan, S., Zhu, G.J. and Carter, C.B., 1991, *Philos. Mag. Lett.* **64**(6), 349-355. 'Observation of Double Ribbons in GaAs and AlGaAs.'
- J139 Tietz, L.A. and Carter, C.B., 1991, *Physica C* **182**, 241-251. 'Special Grain Boundaries in YBa₂Cu₃O_{7-x} Thin Films.'
- J138 Fleischer, E.L., Norton, M.G., Zaleski, M.A., Hertl, W., Carter, C.B. and Mayer, J.W., 1991, *J. Mater. Res.* **6**(9), 1905-1912. 'Microstructure of Hardened and Softened Zirconia after Xenon Implantation.'
- J137 Norton, M.G., Kotula, P.G. and Carter, C.B., 1991, *J. Appl. Phys.* **70**(5), 2871-2873. 'Oriented Aluminum Nitride Thin Films Deposited by Pulsed-Laser Ablation.'
- J136 Norton, M.G., Scarfone, C., Li, J., Carter, C.B. and Mayer, J.W., 1991, *J. Mater. Res.* **6**(10), 2022-2025. 'Epitaxy of Barium Titanate Thin Films Grown on MgO by Pulsed-Laser Ablation.'
- J135 Norton, M.G., Moeckly, B.H., Carter, C.B. and Buhrman, R.A., 1991, *J. Cryst. Growth* **114**, 258-263. 'Growth Mechanism of YBa₂Cu₃O_{7- δ} Thin Films on Vicinal MgO.'
- J134 Norton, M.G., Hellman, E.S., Hartford, E.H. and Carter, C.B., 1991, *J. Cryst. Growth* **113**, 716-721. 'Early Stages of Growth of Epitaxial Barium Bismuth Oxide Films on Single-Crystal MgO.'
- J133 Theodore, N.D., Schwarz, S.A., Hwang, D.M. and Carter, C.B., 1991, *Mater. Lett.* **12**, 222-228. 'Behavior of Defects in Dual-Implanted AlGaAs Superlattices.'
- J132 Moeckly, B.H., Lathrop, D.K., Russek, S.E., Buhrman, R.A., Norton, M.G. and Carter, C.B., 1991, *IEEE Transactions on Magnetics* **27**(2), 1017. 'Growth and Properties of YBa₂Cu₃O₇ Thin Films on Non-Lattice-Matched and Polycrystalline Substrates.'
- J131 Norton, M.G. and Carter, C.B., 1991, *J. Cryst. Growth* **110**, 641-651. 'The Nucleation and Heteroepitaxial Growth of YBa₂Cu₃O_{7- δ} Thin Films on MgO.'
- J130 Theodore, N.D., Alford, T.L., Carter, C.B., Mayer, J.W. and Cheung, N.W., 1991, *Appl. Phys A* **54**, 124-131. 'TEM Analysis of the Influence of Dose on Damage Behavior in MeV Au²⁺-Implanted Silicon.'
- J129 Norton, M.G., Fleischer, E.L., Hertl, W., Carter, C.B. and Mayer, J.W., 1991, *J. Nucl. Instr. and Meth.* **B59/60**, 1215-1218. 'Transmission-Electron Microscopy Study of Ion Beam Implanted Single-Crystal Ceramics.'
- J128 Susnitzky, D.W. and Carter, C.B., 1991, *Mater. Lett.* **12**, 27-31. 'Growth of Thoria on Heat-Treated SiC.'
- J127 Susnitzky, D.W. and Carter, C.B., 1991, *J. Mater. Res.* **6**(11), 2403-2411. 'Defect/Surface Interactions in Heat-Treated Ceramic Thin Films.'
- J126 Susnitzky, D.W. and Carter, C.B., 1991, *J. Mater. Res.* **6**(9), 1958-1963. 'The Formation of Copper Aluminate By Solid-State Reaction.'

- J125 Norton, M.G. and Carter, C.B., 1991, *Physica C* **182**, 30-38. 'Effect of Substrate Temperature and Oxygen Pressure on the Microstructure of Thin $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Films Deposited on MgO by Pulsed-Laser Ablation.'
- J124 Rasmussen, D.R. and Carter, C.B., 1991, *Philos. Mag.* **A63**(3), 503-517. 'Interpretation of HRTEM Images of Interfaces Containing Misfit Dislocations Lying Parallel to the Surface of the Sample.'
- J123 Norton, M.G., Fleischer, E.L., Hertl, W., Carter, C.B., Mayer, J.W. and Johnson, E., 1991, *Phys. Rev.* **B43**(11), 9291-9294. 'Occurrence of Solid Noble-Gas Inclusions in Ion-Beam-Implanted Magnesium Oxide.'
- J122 Rasmussen, D.R., McKernan, S. and Carter, C.B., 1991, *Phys. Rev. Lett.* **66**(20), 2629-2632. 'Rigid-Body Translation and Bonding Across $\{110\}$ Antiphase Boundaries in GaAs.'
- J121 Rasmussen, D.R., McKernan, S. and Carter, C.B., 1991, *Philos. Mag.* **A63**(6), 1299-1314. 'A Quantitative Analysis of Strong-Beam α Fringes from $\{110\}$ Antiphase Boundaries in GaAs.'
- J120 Rasmussen, D.R. and Carter, C.B., 1991, *J. Electron Microsc. Technique* **18**(4), 429-436. 'A Computer Program for Many-Beam Image Simulation of Amplitude-Contrast Images.'
- J119 Sung, G.Y., Carter, C.B., Cho, D.H. and Chong, H.K., 1991, *J. Mater. Sci.* **26**, 1803-1807. 'Sinter-forged $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconducting Ceramics from the Spray-Roasted Powders.'
- J118 Hong, Q.Z., Zhu, J.G., Carter, C.B. and Mayer, J.W., 1991, *Appl. Phys. Lett.* **58**(9), 905-907. 'Thermal Stability of PtSi Contact to $\text{Ge}_x\text{Si}_{1-x}$.'
- J117 Carter, C.B., Anderson, G. and Ponce, F., 1991, *Philos. Mag.* **A63**(2), 279-298. 'Accommodation of Misfit During the Initial Growth of GaAs on $\{111\}$ -Si.'
- J116 Norton, M.G. and Carter, C.B., 1990, *J. Mater. Res.* **5**(12), 2762-2765. 'Observation of the Early Stages of Heteroepitactic Growth of BaTiO_3 Thin Films'.
- J115 Norton, M.G. and Carter, C.B., 1990, *Physica C* **172**, 47-56. 'On the Optimization of the Laser Ablation Process for the Deposition of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Thin Films.'
- J114 Norton, M.G., McKernan, S. and Carter, C.B., 1990, *Philos. Mag. Lett.* **62**(2), 77-82. 'Direct Observation of Grain Orientation in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Thin Films.'
- J113 Rasmussen, D.R. and Carter, C.B., 1990, *Ultramicroscopy* **32**, 337-348. 'On the Fresnel-Fringe Technique for the Analysis of Interfacial Films.'
- J112 Moeckly, B.H., Russek, S.E., Lathrop, D.K., Buhrman, R.A., Norton, M.G. and Carter, C.B., 1990, *Appl. Phys. Lett.* **57**(27), 2951-2953. 'Growth and Properties of $\text{YBa}_2\text{Cu}_3\text{O}_7$ Thin Films on Vicinal and Polycrystalline MgO Substrates.'
- J111 Susnitzky, D.W. and Carter, C.B., 1990, *J. Am. Ceram. Soc.* **73**(8), 2485-2493. 'Structure of Alumina Grain Boundaries Prepared with and without a Thin Amorphous Intergranular Film.'
- J110 Norton, M.G., Summerfelt, S.R. and Carter, C.B., 1990, *Appl. Phys. Lett.* **56**(22), 2246-2248. 'Surface Preparation for the Heteroepitactic Growth of Ceramic Thin Films.'
- J109 Allen, L.H., Phillips, J.R., Theodore, D., Carter, C.B., Soave, R., Mayer, J.W. and Ottaviani, G., 1990, *Phys. Rev.* **B41**(12), 8203-8212. 'Two-dimensional Si Growth During Thermal Annealing of Au/Polycrystalline-Si Bilayers.'
- J108 Simpson, Y. K. and Carter, C.B., 1990, *J. Am. Ceram. Soc.* **73**(8), 2391-2398. 'Faceting Behavior of Alumina in the Presence of a Glass.'
- J107 Zhu, J.G. and Carter, C.B., 1990, *Philos. Mag.* **A62**(3), 319-328. ' 60° Dislocations in (001) GaAs/Si Interfaces.'
- J106 Zhu, J.G., Palmström, C.J., Carter, C.B. and Mounier, S., 1990, *Appl. Phys. Lett.* **56**(14), 1323-1325. 'Microstructure of Epitactically Grown GaAs/ErAs/GaAs.'
- J105 Norton, M.G. and Carter, C.B., 1990, *MRS Bulletin* **15**(10), 51-59. 'Interfaces in Structural Ceramics.'
- J104 Smith, D.A., Elgat, Z., Krakow, W., Levi, A.A. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 8-12. 'Multiple Structures in a $\Sigma=27$ Related Boundary in Germanium.'
- J103 Tietz, L.A., Carter, C.B., Lathrop, D.K., Russek, S.E., Buhrman, R.A. and Michael, J.R., 1989, *J. Mater. Res.* **4**(5), 1072-1081. 'Crystallography of $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ Thin Film-Substrate Interfaces.'

- J102 Theodore, N.D., De Cooman, B.C. and Carter, C.B., 1989, *phys. stat. sol. (a)* **114**, 105-111. 'Extrinsic Dissociation of a Dislocation in GaAs in the Presence of Point Defects.'
- J101 De Cooman, B.C., Carter, C.B., Chan, K.-T. and Shealy, J.R., 1989, *Acta Met.* **37**(10), 2779-2793. 'The Characterization of Misfit Dislocations at {100} Heterojunctions in III-V Compound Semiconductors.'
- J100 Zhu, J.G., Carter, C.B., Palmstrøm, C.J. and Garrison, K.C., 1989, *Appl. Phys. Lett.* **55**(1), 39-41. 'Characterization of the CoGa/GaAs Interface.'
- J099 De Cooman, B.C. and Carter, C.B., 1989, *Acta Met.* **37**(10), 2765-2777. 'The Accommodation of Misfit at {100} Heterojunctions in III-V Compound Semiconductors by Gliding Dissociated Dislocations.'
- J098 McArdle, J.L., Messing, G.L., Tietz, L.A. and Carter, C.B., 1989, *J. Am. Ceram. Soc.* **72**(5), 864-867. 'Solid-Phase Epitaxy of Boehmite-Derived α -Alumina on Hematite Seed Crystals.'
- J097 Norton, M.G., Tietz, L.A., Summerfelt, S.R. and Carter, C.B., 1989, *Appl. Phys. Lett.* **55**(22), 2348-2350. 'Observation of the Early Stages of Growth of Superconducting Thin Films by Transmission Electron Microscopy.'
- J096 Tietz, L.A., Summerfelt, S.R., English, G.R. and Carter, C.B., 1989, *Appl. Phys. Lett.* **55**(12), 1202-1204. 'Early Stages of the Heteroepitaxial Growth of Hematite on (0001) Al_2O_3 by Transmission Electron Microscopy.'
- J095 De Cooman, B.C., Carter, C.B., Wicks, G.W., Tanoue, T. and Eastman, L.F., 1989, *Thin Solid Films* **170**, 49-62. 'The Structure of InAs/GaSb Superlattices.'
- J094 De Cooman, B.C. and Carter, C.B., 1989, *Philos. Mag.* **A60**(2), 245-266. 'Dislocation Configurations in Semi-Insulating, n-type and p-type GaAs Deformed at 150°C.'
- J093 Rasmussen, D.R., Cho, N.-H., Susnitzky, D.W. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 27-32. 'Determination of the Lattice Translation across Antiphase Boundaries.'
- J092 Rasmussen, D.R., Simpson, Y.K., Kilaas, R. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 52-57. 'Contrast Effects at Grooved Interfaces.'
- J091 Susnitzky, D.W., Hertl, W. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 223-241. 'Vanadia-Induced Transformations in Yttria-Stabilized Zirconia.'
- J090 Susnitzky, D.W., Summerfelt, S.R. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 249-255. 'Reaction Couples of Ceramic Thin Films Prepared by CVD.'
- J089 Summerfelt, S.R. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 150-156. 'The Movement of the Spinel-NiO Interface in Thin Films.'
- J088 De Cooman, B.C. and Carter, C.B., 1989, *phys. stat. sol. (a)* **112**, 473-492. 'High-Resolution Microscopy of Dissociated Screw Dislocations in GaAs.'
- J087 McKernan, S. and Carter, C.B., 1989, *Ultramicroscopy* **30**, 256-262. 'The Growth of Hematite by Oxidation of Iron-Bearing Olivine.'
- J086 Czanderna, K.K., Morrissey, K.J., Palmstrøm, C.J., Carter, C.B. and Merrill, R.P., 1989, *J. Mater. Sci.* **24**(2), 515-522. 'Growth of α -Alumina on Crystallographically Distinct Aluminum Substrates.'
- J085 Susnitzky, D.W., Summerfelt, S.R. and Carter, C.B., 1988, *Scripta Met.* **22**(7), 1149-1154. 'Thin-Film NiO- Al_2O_3 Reaction Couples Prepared by CVD.'
- J084 Tietz, L.A., De Cooman, B.C., Carter, C.B., Lathrop, D.K., Russek, S.E. and Buhrman, R.A., 1988, *J. Electron Microsc. Technique* **8**(3), 263-272. 'Structure of Superconducting Thin Films of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Grown on SrTiO_3 and Cubic Zirconia.'
- J083 Veyssi re, P. and Carter, C.B., 1988, *Philos. Mag. Lett.* **57**(4), 211-220. 'Dissociation of Dislocations in MgAl_2O_4 Spinel Deformed at Low Temperatures.'
- J082 McKernan, S., De Cooman, B.C., Carter, C.B., Bour, D.P. and Shealy, J.R., 1988, *J. Mater. Res.* **3**(3), 406-409. 'Direct Observation of Ordering in (GaIn)P.'
- J081 Chen, S.H., Carter, C.B. and Palmstrøm, C.J., 1988, *J. Mater. Res.* **3** (6), 1385-1396. 'Lateral Diffusion in Ni-GaAs Couples Investigated by Transmission Electron Microscopy.'
- J080 De Cooman, B.C. and Carter, C.B., 1988, *phys. stat. sol. (a)* **112**, 41-54. 'The Formation of Faulted Dipoles in Plastically Deformed GaAs.'

- J079 Susnitzky, D.W., Hertl, W. and Carter, C.B., 1988, *J. Am. Ceram. Soc.* **71** (11), 992-1004. 'Destabilization of Zirconia Thermal Barriers in the Presence of V_2O_5 .'
- J078 Mei, P., Schwarz, S.A., Venkatesan, T., Schwartz, C.L., Harbison, J.P., Florez, L., Theodore, N.D. and Carter, C.B., 1988, *Appl. Phys. Lett.* **53**(26), 2650-2652. 'Mixing Inhibition and Crystalline Defects in Heavily Si-Doped AlAs/GaAs Superlattices.'
- J077 Cho, N.-H., McKernan, S., Wagner, D.K. and Carter, C.B., 1988, *J. Phys. C-5* **10**(49), 245-250. 'Grain Boundaries and Antiphase Boundaries in GaAs.'
- J076 Carter, C.B., Colgan, E.G., McKernan, S., Simpson, Y.K., Summerfelt, S.R., Susnitzky, D.W. and Tietz, L.A., 1988, *J. Phys. C-5* **10**(49), 239-244. 'Hetero- and Homo-Phase Boundaries in Ceramic Oxides.'
- J075 Carter, C.B., 1988, *Acta Metall.* **36** (10), 2753-2760. ' $\Sigma=99$ and $\Sigma=41$ Grain Boundaries.'
- J074 Skrotzki, W., Wendt, H., Carter, C.B. and Kohlstedt, D.L., 1988, *Acta Metall.* **36**(4), 983-994. 'The Relation Between the Structure and Mechanical Properties of a $\Sigma=51$ Tilt Boundary in Germanium.'
- J073 Skrotzki, W., Wendt, H., Carter, C.B. and Kohlstedt, D.L., 1988, *Philos. Mag.* **A57**(3), 383-409. 'Secondary Dislocations in [011] Tilt Boundaries in Germanium.'
- J072 De Cooman, B.C., McKernan, S., Carter, C.B., Ralston, J.R., Wicks, G.W. and Eastman, L.F., 1987, *Philos. Mag. Lett.* **56** (3), 85-90. 'The Observation of Stacking-Fault Tetrahedra in III-V Compounds.'
- J071 Backhaus-Ricoult, M. and Carter, C.B., 1987, *J. Am. Ceram. Soc.* **70**(10), C291-C294. 'Mechanism of the Internal Reduction of (Mg,Cu)O.'
- J070 De Cooman, B.C. and Carter, C.B., 1987, *Appl. Phys. Lett.* **50**(1), 40-42. 'Faulted Dipoles in GaAs.'
- J069 Chen, S.H., Carter, C.B. and Enquist, P., 1987, *Appl. Phys.* **A44**, 143-151. 'Transmission Electron Microscopy Study of Defects in Sn-Doped GaAs Films Grown by Molecular Beam Epitaxy.'
- J068 Simpson, Y.K., Colgan, E.G. and Carter, C.B., 1987, *J. Am. Ceram. Soc.* **70**(7), C149-C151. 'Kinetics of the Growth of Spinel on Alumina Using Rutherford Backscattering Spectroscopy.'
- J067 Chen, S.H., Carter, C.B., Elgat, Z., Zheng, L.R. and Mayer, J.W., 1987, *J. Appl. Phys.* **62**(4), 1189-1194. 'The Structure of Ni₅Si₂ Formed in Ni-Si Thin-film Lateral Diffusion Couples.'
- J066 Carter, C.B., Elgat, Z. and Shaw, T.M., 1987, *Philos. Mag.* **A55**(1), 21-38. 'Lateral Twin Boundaries in Spinel.'
- J065 Carter, C.B., Elgat, Z. and Shaw, T.M., 1987, *Philos. Mag.* **A55**(1), 1-19. 'Twin Boundaries Parallel to the Common-{111} Plane in Spinel.'
- J064 Carter, C.B. and Simpson, Y. K., 1986, *Ber. Bunsenges. Phys. Chem.* **90**, 676-680. 'Thin-Film Reactions.'
- J063 Carter, C.B., 1986, *Ber. Bunsenges. Phys. Chem.* **90**, 643-649. 'Interfaces in Solid-State Reactions.'
- J062 Susnitzky, D.W. and Carter, C.B., 1986, *J. Am. Ceram. Soc.* **69**(9), C217-220. 'Identification of γ -Alumina Surface Structures by Electron Diffraction.'
- J061 Susnitzky, D.W. and Carter, C.B., 1986, *J. Am. Ceram. Soc.* **69**(2), C25-27. 'The Topotactic Growth of β -Alumina on α -Alumina.'
- J060 Simpson, Y.K. and Carter, C.B., 1986, *Philos. Mag.* **A53**(1), L1-6. 'A New Approach to the Study of Solid-State Reactions.'
- J059 Simpson, Y.K., Carter, C.B., Morrissey, K.J., Angelini, P. and Bentley, J., 1986, *J. Mater. Sci.* **21**, 2689-2696. 'The Identification of Thin Amorphous Films at Grain-Boundaries in Al₂O₃.'
- J058 Cho, N.-H., Carter, C.B., Elgat, Z., and Wagner, D.K., 1986, *Appl. Phys. Lett.* **49**(1), 29-31. 'Growth of GaAs Bicrystals.'
- J057 Ralston, J., Wicks, G.W., Eastman, L.F., De Cooman, B.C. and Carter, C.B., 1986, *J. Appl. Phys.* **59**(1), 120-123. 'Defect Structure and Intermixing of Ion-Implanted Al_xGa_{1-x}As/GaAs Superlattices.'
- J056 Chen, S.H., Carter, C.B., Palmstrøm, C.J. and Ohashi, T., 1986, *Appl. Phys. Lett.* **48**(12), 803-805. 'Transmission Electron Microscopy Studies on Lateral Reaction of GaAs with Ni.'

- J055 Schaus, C.F., Shealy, J.R., Eastman, L.F., De Cooman, B.C. and Carter, C.B., 1986, *J. Appl. Phys.* **59**(2), 678-680. 'Improved GaAs/AlGaAs Quantum Well Heterostructures by Organometallic Vapor-Phase Epitaxy.'
- J054 Kuesters, K.-H., De Cooman, B.C. and Carter, C.B., 1986, *Philos. Mag.* **A53**(1), 141-159. 'High-Stress Deformation of GaAs.'
- J053 Susnitzky, D.W. and Carter, C.B., 1985, *J. Am. Ceram. Soc.* **68**(11), 569-574. 'Localization of Potassium in Al₂O₃.'
- J052 Cho, N.-H., De Cooman, B.C., Carter, C.B., Fletcher, R., and Wagner, D.K., 1985, *Appl. Phys. Lett.* **47**(8), 879-881. 'Antiphase Boundaries in GaAs.'
- J051 Morrissey, K.J., Czanderna, K.K., Merrill, R.P. and Carter, C.B., 1985, *Ultramicroscopy* **18**, 379-385. 'Transition Alumina Structures Studied Using HREM.'
- J050 Chen, S.H., Elgat, Z., Barbour, J.C., Zheng, L.R., Mayer, J.W. and Carter, C.B., 1985, *Ultramicroscopy* **18**, 297-303. 'High-Resolution Electron Microscopy Studies of Nickel Silicides formed in Lateral Diffusion Couples'.
- J049 Elgat, Z. and Carter, C.B., 1985, *Ultramicroscopy* **18**, 313-321. 'Analysis of Grain Boundaries by HREM.'
- J048 De Cooman, B.C., Cho, N.-H., Elgat, Z. and Carter C.B., 1985, *Ultramicroscopy* **18**, 305-312. 'HREM of Compound Semiconductors.'
- J047 Kuesters, K.-H., De Cooman, B.C., Shealy, J.R. and Carter, C.B., 1985, *J. Cryst. Growth* **71**, 514-518. 'TEM Observations of Compositional Variations in Al_xGa_{1-x}As Grown by OMVPE.'
- J046 Kuesters, K.-H., De Cooman, B.C. and Carter, C.B., 1985, *J. App. Phys.* **58**(11), 4065-4073. 'Dislocation Motion in GaAs/Al_xGa_{1-x}As Structures.'
- J045 De Cooman, B.C., Kuesters, K.-H. and Carter, C.B., 1985, *J. Electron Microsc. Techn.* **2**, 533-546. 'Cross-Sectional Reflection Electron Microscopy of III-V Compound Epilayers.'
- J044 Carter, C.B. and Schmalzried, H., 1985, *Philos. Mag.* **A52**(2), 207-224. 'The Growth of Spinel into Al₂O₃.'
- J043 De Cooman, B.C. and Carter, C.B., 1985, *Philos. Mag.* **A51**(2), 175-190. 'On the Point Group of Stoichiometric Spinel, MgO•Al₂O₃.'
- J042 Chen, S.H., Zheng, L.R., Barbour, J.C., Zingu, E.C., Hung, L.S., Carter, C.B. and Mayer, J.W., 1984, *Mater. Lett.* **2**(6A,B), 469-476. 'Lateral-Diffusion Couples Studied by Transmission Electron Microscopy.'
- J041 Chen, S.H., Zheng, L.R., Carter, C.B. and Mayer, J.W., 1984, *J. Appl. Phys.* **57**(2), 258-263. 'Transmission Electron Microscopy Studies on the Lateral Growth of Nickel Silicides.'
- J040 De Cooman, B.C., Kuesters, K.-H. and Carter, C.B., 1984, *Philosophical Magazine A* **50**(6), 849-856. 'Reflection Electron Microscopy of Epilayers Grown by Molecular Beam Epitaxy.'
- J039 Ostyn, K.M., Carter, C.B., Koehne, M., Falke, H. and Schmalzried, H., 1984, *J. Am. Ceram. Soc.* **67**(10), 679-685. 'Internal Reactions in Oxide Solid Solutions.'
- J038 Czanderna, K.K., Morrissey, K.J., Carter, C.B. and Merrill, R.P., 1984, *J. Catalysis* **89**, 182-184. 'High-Resolution TEM Observations of α-Al₂O₃ in Transition Alumina Films.'
- J037 Morrissey, K.J., Czanderna, K.K., Carter, C.B. and Merrill, R.P., 1984, *J. Am. Ceram. Soc.* **67**(5), C88-90. 'Growth of α-Al₂O₃ Within a Transition Alumina Matrix.'
- J036 De Cooman, B.C. and Carter, C.B., 1984, *Ultramicroscopy* **13**, 233-240. 'Electron Interferometry from Voids in Spinel.'
- J035 Carter, C.B., 1984, *Philos. Mag.* **A50**(1), 133-141. 'Electron Diffraction from Microtwins and Long-Period Polytypes.'
- J034 Morrissey, K.J. and Carter, C.B., 1984, *J. Am. Ceram. Soc.* **67**(4), 292-301. 'Faceted Grain Boundaries in Al₂O₃.'
- J033 Carter, C.B., 1983, *phys. stat. sol. (a)* **80**, 51-64. 'Multiple Ribbons in Face-Centered Cubic Materials: IV. The Interaction between Double Ribbons and Inclined Dislocations.'
- J032 Wilkens, M., Föll, H. and Carter, C.B., 1982, *phys. stat. sol. (a)* **73**, K15-K19. 'A Further Comment on the Weak-Beam Contrast of Stacking Faults in Silicon.'

- J031 Shaw, T.M. and Carter, C.B., 1982, *Scripta Met.* **16**(12), 1431-1436. 'Faceting of Twin Boundaries in Spinel.'
- J030 Ostyn, K.M. and Carter, C.B., 1982, *Surf. Sci.* **121**, 360-374. 'On the Reduction of Nickel Oxide.'
- J029 Hagège, S., Carter, C.B., Cosandey, F. and Sass, S.L., 1982, *Philos. Mag.* **A45**(4), 723-740. 'The Variation of Grain Boundary Structural Width with Misorientation Angle and Boundary Plane.'
- J028 Carter, C.B. and Kohlstedt, D.L., 1981, *Phys. Chem. Minerals* **7**, 110-116. 'Electron Irradiation Damage in Natural Quartz Grains.'
- J027 Carter, C.B. and Sass, S.L., 1981, *J. Am. Ceram. Soc.* **64**(6), 335-345. 'Electron Diffraction and Microscopy Techniques for Studying Grain-Boundary Structure.'
- J026 Carter, C.B., Roberts, J.S. and Wood, C.E.C., 1981, *Appl. Phys. Lett.* **38**(10), 805-807. 'Glide of Dissociated Dislocations in III-V Compounds.'
- J025 Carter, C.B., 1981, *phys. stat. sol. (a)* **63**, 335-344. 'Multiple Ribbons in Face-Centered Cubic Materials III. Jogs on Double Ribbons.'
- J024 Carter, C.B., Föll, H., Ast, D.G. and Sass, S.L., 1981, *Philos. Mag.* **A43**(2), 441-467. 'Electron Diffraction and Microscopy Studies of the Structure of Grain Boundaries in Silicon.'
- J023 Carter, C.B., Kohlstedt, D.L. and Sass, S.L., 1980, *J. Am. Ceram. Soc.* **63**(11-12), 623-627. 'Electron Diffraction and Microscopy Studies of the Structure of Grain Boundaries in Al₂O₃.'
- J022 Chiang, S.-W., Carter, C.B. and Kohlstedt, D.L., 1980, *Scripta Met.* **14**, 803-807. 'Constricted Segments on Faulted Dipoles in Germanium.'
- J021 Föll, H., Carter, C.B. and Wilkens, M., 1980, *phys. stat. sol. (a)* **58**, 393-407. 'Weak-Beam Contrast of Stacking Faults in Transmission Electron Microscopy.'
- J020 Carter, C.B., 1980, *phys. stat. sol. (a)* **62**, 139-147. 'Multiple Ribbons in Face-Centered Cubic Materials II. The Formation of Double and Multiple Ribbons.'
- J019 Carter, C.B., 1980, *phys. stat. sol. (a)* **61**, 579-589. 'Multiple Ribbons in Face-Centered Cubic Materials I. The Geometry and Properties of Double Ribbons.'
- J018 Chiang, S.-W., Carter, C.B. and Kohlstedt, D.L., 1980, *Philos. Mag.* **A42**(1), 103-121. 'Faulted Dipoles in Germanium: A High Resolution Electron Microscopy Study.'
- J017 Carter, C.B., Donald, A.M. and Sass, S.L., 1980, *Philos. Mag.* **A41**(4), 467-476. 'The Study of Grain Boundary Thickness Using Electron Diffraction Techniques.'
- J016 Carter, C.B., 1980, *phys. stat. sol. (a)* **61**, 147-157. 'The Effect of Solute Interaction and Anisotropic Elasticity on Shockley Partial Dislocations in an F.C.C. Alloy.'
- J015 Carter, C.B., 1980, *Philos. Mag.* **A42**, 31-46. 'Observations on the Climb of Extended Dislocations Due to Irradiation in the HVEM.'
- J014 Carter, C.B., 1980, *Philos. Mag.* **A41**(5), 619-635. 'The Influence of Jogs on the Extension of Dislocation Nodes.'
- J013 Carter, C.B., 1979, *phys. stat. sol. (a)* **54**, 395-406. 'The Extension of Jogs on Dissociated Dislocations in FCC Metals.'
- J012 Föll, H. and Carter, C.B., 1979, *Philos. Mag.* **A40**(4), 497-510. 'Direct TEM Determination of Intrinsic and Extrinsic Stacking-Fault Energies of Silicon.'
- J011 Carter, C.B., Donald, A.M., and Sass, S.L., 1979, *Philos. Mag.* **A39**(5), 533-549. 'Diffraction Effects and Images from Inclined Grain Boundaries in Polycrystalline Thin Films.'
- J010 Carter, C.B. and Föll, H., 1978, *Scripta Met.* **12**, 1135-1139. 'The Contrast from Incoherent Twin Interfaces Observed Using the Weak-Beam Technique.'
- J009 Cosandey, F., Komem, Y., Bauer, C.L. and Carter, C.B., 1978, *Scripta Met.* **12**, 577-582. 'Lattice Imaging of Low-Angle [001] Tilt Boundaries in Bicrystalline Films of Gold.'
- J008 Carter, C.B., 1977, *Philos. Mag.* **36**(1), 147-167. 'The Formation and Properties of Faulted Dipoles.'
- J007 Carter, C.B. and Holmes, S.M., 1977, *Philos. Mag.* **35**(5), 1161-1172. 'The Stacking-Fault Energy of Nickel.'
- J006 Carter, C.B. and Hirsch, P.B., 1977, *Philos. Mag.* **35**(6), 1509-1522. 'The Formation and Glide of Jogs in Low Stacking-Fault Energy Face-Centered Cubic Materials.'

- J005 Carter, C.B. and Ray, I.L.F., 1977, *Philos. Mag.* **35**(1), 189-200. 'On the Stacking-Fault Energies of Copper Alloys.'
- J004 Carter, C.B., 1977, *Philos. Mag.* **35**(1), 75-79. 'The Operation of a Dislocation Glide Source.'
- J003 Carter, C.B. and Holmes, S.M., 1975, *Philos. Mag.* **32**(3), 599-614. 'The Study of Faulted Dipoles in Copper Using Weak-Beam Electron Microscopy.'
- J002 Carter, C.B. and Ray, I.L.F., 1974, *Philos. Mag.* **29**(5), 1231-1235. 'Observations of Constrictions on Dissociated Dislocation Lines in Copper Alloys.'
- J001 Carter, C.B. and Williams, P.M., 1972, *Philos. Mag.* **26**(2), 393-398. 'An Electron Microscopy Study of Intercalation in Transition Metal Dichalcogenides.'

Conference Proceedings

- C446 Carter CB (2016) *Microsc. Microanal.* 21 (suppl. 2; The Gareth Thomas Symposium) in preparation. 'Dislocations Today.'
- C445 Carter CB, Janish MT, Jungjohann KL (2016) *Microsc. Microanal.* 21 (suppl. 2) in preparation. 'Using TEM Operando Methods to Understand Energy Storage.'
- C444 Zhang H, Suresh A, Carter CB, Wilhite BA (2014) *Electrochemical, Catalytic and O₂-Permeation Studies of Iron-Doped Barium Zirconates for Membrane Reactor Applications.* *ECS Transactions* 61(1) 307-318.
- C443 Janish, M.T., Mackay, D.T., Jungjohann, K.L., Liu, Y., Carter, C.B. and Norton, M.G. *Initial Observations of the Lithiation of Tin Nanoneedles.* in *IMC-18*. 2014. MS-14-P-3454-1-2. Prague, Czech Republic
- C442 Carter, C.B. and Janish, M.T., (2014) *Proc. EMSI-2014.* **4**, 8-9. 'TEM In-Situ Experimentation.'
- C441 Carter, C.B., Janish, M.T., Kotula, P.G., Roller, J.M., Mackay, D., Huang, F., Liu, Y., Jungjohann, K.L., Cornelius, C., Maric, R. and Norton, M.G. (2014) *AMTC Lett.* **4**, 156-157. 'TEM studies of nanomaterials and nanodevices.'
- C440 Carter, C.B. (2014) *Microsc. Microanal.* 19 (suppl. 2) 1914-5. 'The Role of Microscopy in Understanding Defects in Ceramics.'
- C439 Carter, C.B. (2014) *Microsc. Microanal.* 19 (suppl. 2) 1020-1. 'Imaging Extended Defects by TEM.'
- C438 Correa-Baena, J.P., Rastegar, V., Janish, M.J., Kotula, P.G., Agrios, A.G., and Carter, C.B. (2014) *Microsc. Microanal.* 19 (suppl. 2) 1952-3. 'Antimony Doped Tin Oxide Aerogels for Applications in Energy Conversion and Energy Storage.'
- C437 Janish, M.T., Kotula, P.G., Boyce, B., Carter, C.B. (2014) *Microsc. Microanal.* 19 (suppl. 2) 1082-3. 'Observations on Heavily Deformed Tantalum.'
- C436 Janish, M.T., Huang, F., Suresh, A., Katherine L. Jungjohann, K.L., Carter, C.B., Cornelius, C., (2014) *Microsc. Microanal.* 19 (suppl. 2) 1976-7. 'Heat Treatment of TiO₂/SiO₂ Electrospun Ceramic Fibers.'
- C435 Janish, M.T., Mackay, D.T., Liu, Y., Jungjohann, K.L., C. Barry Carter, C.B., Norton, M.G., (2014) *Microsc. Microanal.* 19 (suppl. 2) 1878-9. 'Lithiation of Tin Nanoneedles Investigated by in-situ TEM.'
- C434 M. Josefina Arellano-Jimenez, M.J., Suresh, A., McCutcheon, J., Kotula, P.G., Carter, C.B., (2014) *Microsc. Microanal.* 19 (suppl. 2) 1974-5. 'Effect of atmosphere on heat-treated electro-spun TiO₂ fibers.'
- C433 Roller, J., Arellano-Jimenez, M.J., Jain, R., Yu, H., Maric, R. and Carter, C.B. (2013) *ECS Transactions*, 45(21) 97-106 (2013) 'Processing, Activity and Microstructure of Oxygen Evolution Anodes Prepared by a Dry and Direct Deposition Technique.'
- C432 Rastegar, V., Roller, J., Arellano-Jimenez, M.J., Janish, M.T., Jain, R., Maric, R. and Carter, C.B. (2013) *Microsc. Microanal.* 18 (suppl. 2) 1720-1 'TEM Characterization on Oxygen-Deficient Titania Supported Pt Electrocatalysts for Energy Conversion'
- C431 Roller, J., Jain, R., Yu, H., Arellano-Jimenez, M.J., Carter, C.B. and Maric, R. (2013) *Microsc. Microanal.* 18 (suppl. 2) 1730-1 'Structure and Phase Determination of a Bimetallic Pd-Ru Catalyst Prepared from the Vapor Phase with Reactive Spray Deposition Technique.'

- C430 Jain, R., Kuo, C.-H., Roller, J., Suib, S.L., Carter, C.B. and Maric, R. (2013) *Microsc. Microanal.* 18 (suppl. 2) 1722-3 'TEM Characterization of Ceria Supported Pt Catalyst for Water-Gas Shift Reaction Produced by Reactive Spray Deposition Technique'
- C429 Yu, H., Roller, J., Jain, R., Carter, C.B. and Maric, R. (2013) *Microsc. Microanal.* 18 (suppl. 2) 1614-5 'Transmission Electron Microscopy Study on Platinum Nanoparticles Distribution in PEMFC Catalyst Layers under Different Ionomer/Carbon Ratios Fabricated by Direct Dry Deposition'
- C428 Janish, M.T., Huang, F., Zhang, L., Rastegar, V., Martin, N., Chan, J., McKenzie, B.B., Michael, J.R., Cornelius, C. and Carter, C.B. (2013) *Microsc. Microanal.* 18 (suppl. 2) 1894-5 'Characterization of Novel Ceramic Composite Nanofibers by Electron Microscopy'
- C427 Arellano-Jimenez, M.J., Bogart, J., Carter, C.B., Mikael, P.E., Nukuvaparu, S.P. and Laurencin, C. (2012) *Microsc. Microanal.* 17 (suppl. 2) 1640-1 'Microtomy of Reinforced Polymer Scaffolds'
- C426 Arellano-Jimenez, M.J., Hire, C., Adamson, D. and Carter, C.B. (2012) *Microsc. Microanal.* 17 (suppl. 2) 1592-3 'Characterization of Zirconia Nanoparticles Produced by Biomimetic Condensation'
- C425 Roller, J., Arellano-Jimenez, M.J., Bogart, J., Maric, R. and Carter, C.B. (2012) *Microsc. Microanal.* 17 (suppl. 2) 1390-1 'Ultramicrotoming Pt Catalyzed Substrates and Dispersion Supports'
- C424 Suresh, A., Arellano-Jimenez, M.J., McCutcheon, J. and Carter, C.B. (2012) *Microsc. Microanal.* 17 (suppl. 2) 1392-3 'Polycrystalline TiO₂ Produced by Electrospinning'
- C423 Arellano-Jimenez, M.J., Suresh, A., Carter, C.B. and Wilhite, B.A. (2012) *Microsc. Microanal.* 17 (suppl. 2) 1390-1 'Understanding the Micro-structural Evolution of Cobalt-doped Ceria with Respect to Sintering Temperature Using FIB and TEM'
- C422 Basu, J., Suresh, A., Wilhite, B. and Carter, C.B. (2010) *Microsc. Microanal.* 15 (suppl. 2) 1208-09 'FIB and TEM Study of Reactivity of Co-Doped BaCe_{1-x}Zr_xO₃ Membrane in Reducing Environment.'
- C421 Basu, J., Garg, A. and Carter, C.B. (2010) *Microsc. Microanal.* 15 (suppl. 2) 1234-35 'Structure and Chemistry of La Doped BiFeO₃ Multiferroic Thin Film.'
- C420 Mikael, P., Basu, J., Syam, N., Laurencin, C. and Carter, C.B. (2010) *Microsc. Microanal.* 15 (suppl. 2) 1032-3 'Characterization of Carbon Nanotube Reinforced Polymer Scaffold for Bone Tissue Engineering.'
- C419 Winterstein, J.P., M., Sezen, M., Re_nik, A. and Carter, C.B. (2010) *Microsc. Microanal.* 15 (suppl. 2) 1486-87 'Microscopy of the spinel-forming reaction with nanoparticles.'
- C418 Winterstein, J.P., Carter, C.B., Grogger, W. and Hofer, F. (2010) *Microsc. Microanal.* 15 (suppl. 2) 1416-17 'Microscopy and Microanalysis of Cerium Oxide Grain Boundaries.' doi:10.1017/S1431927610060150
- C417 Suresh, A., Basu, J., Sammes, N.M., Carter, C.B. and Wilhite, B.A. 2009, *Adv in Solid Oxide Fuel Cells V*, *Cer. Eng. Sci. Proc.* 30 (4), 167-173. 'Synthesis and activity of co-doped barium cerium zirconate for catalysis and proton conduction.'
- C416 Bhowmick, S., Riesterer, J.L., Xue, Y. and Carter, C.B. 2009, *Adv in Solid Oxide Fuel Cells V*, *Cer. Eng. Sci. Proc.* 30 (4), 105-112. 'Phase-boundary grooving at surfaces of solid oxide fuel cell materials.'
- C415 Basu, J., Winterstein, T.P., Bhowmick, S. and Carter, C.B. 2009, *Adv in Solid Oxide Fuel Cells V*, *Cer. Eng. Sci. Proc.* 30 (4), 233-238. 'Synthesis and characterization of oxide nanoparticles for energy applications.'
- C414 Suresh, A., Basu, J., Sammes, N.M., Carter, C.B. and Wilhite, B.A. 2009, *Mater. Res. Soc. Symp. Proc.* 1126, 139-144 'Synthesis and activity of co-doped barium cerium zirconate for hydrogen reforming and purification.'
- C413 Basu, J., Bhowmick, S., Winterstein, J., Wang, C., Xue, Y. and Carter, C.B., 2009, *Microsc. Microanal.* 14 (suppl. 2) 1404-1405 'Microscopy of oxide nanoparticles for energy applications.'

- C412 Gülgün, M.A., Altay, A., Aslan, I. and Carter, C.B. 2009, MC2009 Graz Austria. Vol 3, 283-4 'Calcium and (alpha)- Alumina'.
- C411 Winterstein, J.P. and Carter, C.B. 2009, MC2009 Graz Austria. Vol 3, 319-20 'TEM investigation of defects in ceria'.
- C410 Basu, J., Bhowmick, S., Winterstein, J., Ravishankar, N. and Carter, C.B., 2009, Microsc. Microanal. 14 (suppl. 2) 1442-1443 'Metal nanostructures on ceramic surfaces for energy applications.'
- C409 Winterstein, J.P., Wang, C. and Carter, C.B., 2009, Microsc. Microanal. 14 (suppl. 2) 1444-1445 'Electron microscopy analysis of interfaces in oxides for energy applications.'
- C408 Winterstein, J. and Carter, C.B., 2009, Microsc. Microanal. 14 (suppl. 2) 1332-1333 'Reacting oxide nanoparticles with a substrate.'
- C407 Basu, J., Divakar, R., Ravishankar, N. and Carter, C.B., 2008, Microsc. Microanal. 13 (suppl. 2) 374-5 'Complementary Microscopy Techniques for Characterizing Nanostructures.'
- C406 Basu, J., Divakar, R., Winterstein, J.P., Ravishankar, N. and Carter, C.B., 2008, Microsc. Microanal. 13 suppl. 2, 246-7 'In situ Microscopy: A Tool to Understand Mechanisms.'
- C405 Winterstein, J.P., Basu, J., Herzing, A., Anderson, I.A. and Carter, C.B., 2008, Microsc. Microanal. 13 suppl. 2, 280-1 'Combined structural and chemical investigations of ceria nanoparticles in the TEM.'
- C404 Divakar, R., Basu, J., Leschkies, K.S., Kortshagen, U.R., Aydil, E.S., Norris, D.J. and Carter C.B., 2007, Microsc. Microanal. 12 suppl. 2, 756-7 'TEM Characterization of CdSe Quantum Dot Sensitized ZnO Nanowires.'
- C403 Divakar, R., Basu, J. and Carter, C.B., 2007, Microsc. Microanal. 12 suppl. 2, 980-1 'Hydrothermal Synthesis of Cuboidal Nanocrystalline Ceria.'
- C402 Deneen Nowak, J., Song, S., Campbell, S.A. Carter, C.B., 2007, Microsc. Microanal. 12 suppl. 2, 850-1 'Characterization of Ytterbium Silicide Thin Films.'
- C401 Deneen Nowak, J. and Carter, C.B., 2007, Microsc. Microanal. 12 suppl. 2, 642-3 'The Effect of Morphology on Contacts Between Nanoparticles.'
- C400 Divakar, R., Basu, J. and Carter, C.B., 2007, Microscopy of Semiconductor Materials XV (Springer), Pp229-232 'TEM Characterization of ZnO Nanorods'
- C399 Deneen Nowak, J., Song, S.H., Campbell, S.A. and Carter, C.B., 2007, Microscopy of Semiconductor Materials XV (Springer), Pp323-326 'TEM Study of Ytterbium Silicide Films.'
- C398 Deneen Nowak, J and Carter, C.B., 2007, Microscopy of Semiconductor Materials XV (Springer), Pp277-280, 'Morphology of Semiconductor Nanoparticles.'
- C397 Basu, J., Deneen, J., Divakar, R., Hoffman, S., Colli, A., Franciosi, A. and Carter, C.B., 2006, 'Defects and Interfaces in ZnSe Nanowires' Proc.16th Int. Microsc. Congr., IMC16, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 1229.
- C396 Deneen, J., Mook, W.M., Minor, A.M., Gerberich, W.W. and Carter, C.B., 2006, 'Dynamic Studies in the TEM: in-situ Compression of Nanoparticles' Proc.16th Int. Microsc. Congr., IMC16, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 902.
- C395 Altay, A., Rulis, P., Ching, W.-Y., Arslan, I., Gulgun, M.A. and Carter, C.B., 2006, 'Structural Investigations of CA and CA₂ by Energy-Loss Near-Edge Spectrometry and *ab initio* Calculations' Proc.16th Int. Microsc. Congr., IMC16, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 837.
- C394 Blackwell, C., Anderson, C., Deneen, J., Carter, C.B., Kortshagen, U. and Kakalios J., 2006, 'The Influence of Thermophoresis Effects During Deposition of Hydrogenated Amorphous Silicon Thin Films with Nanocrystalline Silicon Inclusions' in Amorphous and Polycrystalline Thin-Film Silicon Science and Technology--2006, edited by H.A. Atwater, Jr., V. Chu, S. Wagner, K. Yamamoto, H-W. Zan (Mater. Res. Soc. Symp. Proc. 910, Warrendale, PA), 0910-A07-07.
- C393 Anderson, C., Blackwell, C., Deneen, J., Carter, C.B., Kortshagen, U. and Kakalios J., 2006, 'Dual-Chamber Plasma Co-Deposition of Nanoparticles in Amorphous Silicon Thin Films' in Amorphous and Polycrystalline Thin-Film Silicon Science and Technology--2006, edited by H.A. Atwater, Jr.,

- V. Chu, S. Wagner, K. Yamamoto, H-W. Zan (Mater. Res. Soc. Symp. Proc. 910, Warrendale, PA), 0910-A04-02.
- C392 Basu, J., Divakar, R., Kumar, S. and Carter, C.B., 2006, 'Inversion Domain Boundaries in Wurtzite GaN' *Microsc. Microanal.* 12 suppl. 2 1084-1085.
- C391 Riesterer, J.L., Gilliss, S.R., Ravishankar, N. and Carter, C.B., 2006, 'A Study of Dewetting on (001) Rutile using AFM' *Microsc. Microanal.* 12 suppl. 2 1028-1029.
- C390 Riesterer, J.L., Farrer, J.K., Ravishankar, N. and Carter, C.B., 2006, 'Studying Trapped Grains in Alumina using SEM and EBSD' *Microsc. Microanal.* 12 suppl. 2 1020-1021.
- C389 Deneen, J., Mook, W.M., Minor, A.M., Gerberich, W.W. and Carter C.B., 2006, 'Contacting Nanoparticles' *Microsc. Microanal.* 12 suppl. 2 948-949.
- C388 Bentley, J., Farrer, J.K., Johnson, M.T. and Carter C.B., 2006, 'Forsterite Formed on MgO Single Crystals During In Situ Annealing' *Microsc. Microanal.* 12 suppl. 2 814-815.
- C387 Divakar, R., Basu, J., and Carter, C.B., 2006, 'Growth of ZnO Nanorods: A TEM Study' *Microsc. Microanal.* 12 suppl. 2 698-699.
- C386 Basu, J., Deneen, J., Divakar, R., Wang, X., Jacobs, H. and Carter, C.B., 2006, 'Interfaces of ZnO Nanowires Grown on Semiconducting Surfaces' *Microsc. Microanal.* 12 suppl. 2 694-695.
- C385 Deneen, J., Cernetti, P., Gresback, R., Kortshagen, U. and Carter, C.B., 2006, 'TEM Study of the Morphology of Nanoparticles' *Microsc. Microanal.* 12 suppl. 2 612-613.
- C384 Deneen, J., Mook, W.M., Basu, J., Divakar, R., Gerberich, W.W. and Carter, C.B., 2006, 'Characterization of Defects in Nanoparticles' *Microsc. Microanal.* 12 suppl. 2 594-595.
- C383 Blanford, C.F., Carter, C.B. and Stein, A., 2006, 'Determination of void arrangements in inverse opals by transmission electron microscopy' *J. Phys.: Conf. Series*, vol 26, 264-267, EMAG-NANO2005: Imaging, Analysis and Fabrication on the Nanoscale, Leeds, UK, ed. P D Brown, R Baker and B Hamilton, Institute of Physics: Bristol. S0523
- C382 Riesterer, J.L., Gilliss, S.R., Farrer, J.K., Ravishankar, N. and Carter, C.B., 2006 'Studying Alumina Boundary Migration Using Combined Microscopy Techniques', *J. Phys.: Conf. Series*, vol 26, 123-126, EMAG-NANO2005: Imaging, Analysis and Fabrication on the Nanoscale, Leeds, UK, ed. P D Brown, R Baker and B Hamilton, Institute of Physics: Bristol.
- C381 Bentley, J., Gilliss, S.R., Carter, C.B. Al-Sharab, J.F., Cosandey, F. Anderson, I.M. and Kotula, P.J., 2006, 'Nanoscale EELS Analysis of Oxides: Composition Mapping, Valence Determination and Beam Damage' *J. Phys.: Conf. Series*, vol 26, 69-72, EMAG-NANO2005: Imaging, Analysis and Fabrication on the Nanoscale, Leeds, UK, ed. P D Brown, R Baker and B Hamilton, Institute of Physics: Bristol.
- C380 Carter, C. B., 2006, Proc. IMC16 'Microscopy of Ceramics' Proc.16th Int. Microsc. Congr., IMC16, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 1711.
- C379 Ding, Y.P., Bapat, A., Dong, Y., Perrey, C.R., Kortshagen, U.R., Carter, C.B. and Campbell, S.A., 2005, 'A Single Nanoparticle Silicon Transistor' 63rd TMS Device Research Conference, June 22-24, 2005, Santa Barbara, CA, Device Research Conference Digest, 2005. DRC '05. 63rd vol. 1, pp 165-166.
- C378 Perrey, C.R., Deneen, J. and Carter, C.B., 2005, 'Defects and Interfaces in Semiconductor Nanoparticles', *Microscopy of Semiconducting Materials*, Oxford, April 2005, in Springer Proceedings in Physics, Ed: Cullis, A.G.; Hutchinson, J.L., Springer, New York, Vol 107, pp 323-326.
- C377 Deneen, J., Perrey, C.R., Ding, Y., Bapat, A., Campbell, S.A., Kortshagen, U. and Carter, C.B., 2005, 'Microscopy of Nanoparticles for Semiconductor Devices' in *Microscopy of Semiconducting Materials*, Oxford, April 2005, in Springer Proceedings in Physics, Ed: Cullis, A.G.; Hutchinson, J.L., Springer, New York, Vol 107, pp 315-318.
- C376 Altay, A., Gulgun, M. A. and Carter, C. B., 2005, *Microsc. Microanal.* 11, Suppl 2 'Shifting Through Phase Fields: CaAl₄O₇ on Sapphire' 1796-1797.

- C375 Deneen, J., Perrey, C.R., Kumar, S. and Carter, C.B., 2005, 'Characterization of Defects in ZnS and GaN' Microscopy of Semiconducting Materials, Oxford, April 2005, in Springer Proceedings in Physics, Ed: Cullis, A.G.; Hutchinson, J.L., Springer, New York, Vol 107, pp 83-86.
- C374 Perrey, C.R., Deneen, J.M. and Carter, C.B., 2004, Microsc. Microanal. 10, Suppl 2 'The Effects of Rapid Cooling on the Structure and Morphology of Silicon Nanoparticles' 592-593
- C373 Perrey, C.R., Deneen, J.M., Thompson, S.S., Lentzen, M., Kortshagen, U. and Carter, C.B., 2004, Microsc. Microanal., 10, Suppl 2 'Observation of Si Nanocrystals by Spherical-Aberration-Corrected Transmission Electron Microscopy' 996-997
- C372 Gilliss, S.R., Bentley, J. and Carter, C.B., 2004, 'Nanochemistry of Ceria Abrasive Particles' MRS 2004 vol 818 Symp M: Nanoparticles and Nanowire Building Blocks-Synthesis, Processing, Characterization and Theory, Eds. O. Glembocki, C. Hunt, C. Murray, G. Galli M1.8.1-6
- C371 Bapat, A., Dong, Y., Perrey, C.R., Carter, C.B., Campbell, S.A. and Kortshagen, U., 2004, 'Silicon Nanoparticle Synthesis using Constricted Mode Capacitive Silane Plasma' MRS Spring 2004 vol 818, 405-410, Symp M: Nanoparticles and Nanowire Building Blocks-Synthesis, Processing, Characterization and Theory, Eds. O. Glembocki, C. Hunt, C. Murray, G. Galli M14.4.1-6
- C370 Perrey, C.R. Deneen, J.M. and Carter, C.B., 2004, 'The Effects of Processing on the Morphology of Nanoparticles' MRS Spring 2004 vol 818 Symp M: Nanoparticles and Nanowire Building Blocks-Synthesis, Processing, Characterization and Theory, Eds. O. Glembocki, C. Hunt, C. Murray, G. Galli M11.10.1-6
- C369 Perrey, C.R. Thompson, S.,S. Lentzen, M., Kortshagen, U. and Carter, C.B., 2004, 'Understanding the Structure of Si Nanoclusters in a/nc-Si:H Films using Spherical-Aberration-Corrected Transmission Electron Microscopy' MRS Spring2004 vol 808, 17-22, Symp A: Amorphous and Nanocrystalline Silicon Science and Technology Eds. Gautam Ganguly, Michio Kondo, Eric A. Schiff, Reinhard Carius, Rana Biswas A8.7.1-6
- C368 Deb, B., Altay, A., Gilliss, S. R., Munoz, N.E. and Carter, C.B., 2004 'Techniques for Etching Alumina' MRS Spring 04 Symposium N N3.11 Vol 819, Interfacial Engineering for Optimized Properties III, Eds, C.A. Schuh, M. Kumar, V. Randle, C.B. Carter. 177-182
- C367 Gilliss, S.R., Ravishankar, N. and Carter, C.B., 2004, 'Dewetting on the Surface of Rutile' MRS Spring 04 Symposium N: Vol 819, Interfacial Engineering for Optimized Properties III, Eds, C.A. Schuh, M. Kumar, V. Randle, C.B. Carter. 165-170
- C366 Shetty, S., Shenoy, V.B., Carter, B.C. and Ravishankar, N., 2004 'Nanopatterning on Reconstructed Ceramic Surfaces' MRS Spring 2004 Symp N Vol 819, Interfacial Engineering for Optimized Properties III, Eds, C.A. Schuh, M. Kumar, V. Randle, C.B. Carter. 159-164
- C365 Deneen, J.M., Lentzen, M. and Carter, C.B., 2004, Microsc. Microanal. 10, Suppl 2, 'Investigation of ZnS Nanobelts by Spherical-Aberration-Corrected Transmission Electron Microscopy' 55-56
- C364 Gilliss, S.R., Ravishankar, N., Farrer, J.K. and Carter, C.B., 2003, Microsc. Microanal. 9(suppl 2), 676-677, 'Boundary Migration in Rutile.'
- C363 Gilliss, S.R., Bentley, J. and Carter, C.B., 2003, Microsc. Microanal. 9(suppl 2), 420-421 'Electron Energy-Loss Spectroscopy of Ceria Abrasives.'
- C362 Gilliss, S.R., Riesterer, J., Altay, A. and Carter, C.B., 2003, Microsc. Microanal. 9(suppl 2), 674-675, 'On the Faceting of Alumina'.
- C361 Perrey, C.R., Lentzen, M. and Carter, C.B., 2003, Microsc. Microanal. 9(suppl 2), 394-395, 'Distinct as Snowflakes: the Shapes of Silicon Nanoscale Particles.'
- C360 Perrey, C.R., Carter, C.B., Bentley, J. and Lentzen, M., 2003, Microsc. Microanal. 9(suppl 2), 412-413, 'Analysis of Amorphous and Oxide Surface Layers on Nanoparticles.'
- C359 Perrey, C.R., Carter, C.B. and Lentzen, M., 2003, Microsc. Microanal. 9(suppl 2), 958-959, 'Application of Variable Cs HRTEM to the Study of Nanoscale Structures.'
- C358 Gilliss, S.R., Munoz, N., Perrey, C.R., Riesterer, J., Ravishankar, N., Farrer, J.K. and Carter, C.B., 2003, Microsc. Microanal. 9(suppl 2), 64-65, 'Analysis of Grain Boundary Migration in Alumina.'
- C357 Carter, C.B., Gilliss, S.R. and Perrey, C.R., 2003, Microsc. Microanal. 9(suppl 2) 102-103, 'Effects of Sample Preparation in Analysis: Imaging.'

- C356 Munoz, N.E., Gilliss, S.R., Ravishankar, N. and Carter, C.B., 2003, Mater. Res. Proc. (Fall 2002 Symp I) 750 Y8.39.1-6 'Investigation of Surface Grooves from Migrating Grain Boundaries'
- C355 Gilliss, S.R., Altay, A., Riesterer, J., Ravishankar, N. and Carter, C.B., 2003, Mater. Res. Proc. (Fall 2002 Symp I) 750 Y8.38.1-7 'Monitoring Faceting on Ceramic Surfaces'
- C354 Perrey, C.R., Thompson, R., Carter, C.B., Gidwani, A., Mukherjee, R., Renault, T., McMurry, P.H., Heberlein, J.V.R. and Girshick, S.L., .2003, Mater. Res. Proc. (Fall 2002 Symp I) 740 I4.6.1-6 'Characterization of nanoparticle films and structures produced by hypersonic plasma particle deposition'
- C353 Perrey, C.R., Mook, W.M., Carter, C.B. and Gerberich, W.W., 2003, Mater. Res. Proc. (Fall 2002 Symp I) 740 I3.13.1-6 'Characterization of Mechanical Deformation of Nanoscale Volumes'
- C352 Bapat, A., Kortshagen, U., Campbell, S.A., Perrey, C.R. and Carter, C.B., 2003, Mater. Res. Proc. (Fall 2002 Symp F) 737, 301-306, (F1.10.1-6) 'Synthesis of Crystalline Silicon Nanoparticles in Low-Pressure Inductive Plasmas'
- C351 de la Figuera, J., Schmid, A.K., Pohl, K., Bartelt, N.C., Carter, C. B. and Hwang, R. Q., 2003 'Glide and climb of dislocations in ultra thin metal films' Thermec' 2003, Int. conf. on Processing of Advanced Materials. July 7-11, 2003, Leganés, Madrid, Spain
- C350 Belich, T.J., Thompson, S., Perrey, C.R, Kortshagen, U., Carter, C.B. and Kakalios, J., 2003, Mater. Res. Soc. Symp. Proc., 762, 509-514, (A14.4.1-A14.4.6), (MRS Spring 03), 'Hydrogenated Amorphous Silicon Thin Films with Nanocrystalline Silicon Inclusions'
- C349 Gilliss, S.R., Ravishankar, N., Kotula, P.G., Michael, J.R. and Carter, C.B., 2002. Microsc. Microanal. 8 (suppl. 2), 562-563, 'Application of FIB and TEM for the Characterization of Dewetting Behavior on Ceramics.'
- C348 Ravishankar, N., Gilliss, S.R. and Carter, C.B., 2002, Proc. ICEM15 v1, 141-2. 'Dewetting of Liquids on Ceramic Surfaces at High Temperatures'
- C347 Perrey, C.R., Carter, C.B., Kotula, P.G. and Michael, J.R., 2002. Microsc. Microanal. 8 (suppl 2), 'Characterization of Nanoparticle Films and Structures Using Focused Ion Beam Milling and Transmission Electron Microscopy.'
- C346 Farrer, J.K., Carter, C.B., McKernan, S. and Mao, Z., 2001, 673, Mater. Res. Soc. Symp. Proc., P3.12.1-P3.12.6, 'Thickness-Fringe Contrast Analysis of Defects in GaN.'
- C345 Farrer, J.K., Ravishankar, N. and Carter, C.B., 2001, Mater. Res. Soc. Symp. Proc., 654, AA5.8.1-AA5.8.6 'Exudation of Silicate Liquid from Polycrystalline Alumina.'
- C344 Gilliss, S.R., Farrer, J.K., Ravishankar, N., Schwabel, M.G. and Carter C.B., 2001 Microsc. Microanal., 7(2), 1236-1237 'Microanalysis of AFM Tips coated with Cerium Oxide.'
- C343 Ravishankar, N. and Carter, C.B., 2001 Microsc. Microanal., 7(2), 416-417 'Surface Steps on Flux-Grown Alumina.'
- C342 Farrer, J.K., Ravishankar, N., Michael, J. R. and Carter, C.B. 2001 Microsc. Microanal., 7(2), 326-327 'TEM Analysis of an Alumina Bicrystal Section Using a FIB.'
- C341 Li, M., Carter, C.B. and Gerberich, W.W., 2001, Mater. Res. Soc. Symp. Proc. 649 Q7.21.1-6 'Nanoindentation Measures of Polystyrene Adhesion.'
- C340 Farrer, J.K., Ravishankar, N., Michael, J.R. and Carter, C.B., 2001, Mater. Res. Soc. Symp. Proc. (Fall 2000 Symposium) 652, Y1.2.1-Y1.2.6, 'Grain Boundary Migration in Polycrystalline Materials.'
- C339 Ravishankar, N. and Carter, C.B., 2001, Acta Microscopica 81-82, CIASEM-VI 'Surfaces and Grain Boundaries in Ceramics.'
- C338 Yanina, S.V. and Carter, C.B., 2000, Morphology and Dynamics of Crystal Surfaces in Complex Molecular Systems, Mater. Res. Soc. Symp. Proc. 620, M9.4.1-M9.4.6, Ed. J. DeYoreo, W. Casey, A. Malkin, E. Vlieg, M. Ward, 'Interaction of Moving Steps and Crystal Defects on Spinel Surfaces.'
- C337 Ravishankar, N. and Carter, C.B., 2000, Morphology and Dynamics of Crystal Surfaces in Complex Molecular Systems, Mater. Res. Soc. Symp. Proc. 620, M2.8.2-M2.8.7, Ed. J. DeYoreo,

- W. Casey, A. Malkin, E. Vlieg, M. Ward, 'Glass-Crystal Boundaries in Liquid-Phase Sintered Ceramics.'
- C336 Ravishankar, N. and Carter, C.B., 2000, Sintering Science and Technology, ed. by R. A. German, G. L. Messing, R. G. Cornwall, pp 264-270 'Interfaces, Glass and Liquid-Phase Sintering'. S9958
- C335 Korte, C., Farrer, J.K., Ravishankar, N., Michael J.R., Schmalzried, H. and Carter, C.B., 2000, Mater. Res. Soc. Symp. Proc. 586, 151-156 'On the Influence of Applied Fields on Spinel Formation.'
- C334 Yanina, S.V. and Carter, C.B., 2000, Mater. Res. Soc. Symp. Proc., 586, 87-91 'On Dewetting of Reactive Silicate Glass Films on Single-Crystal Ceramic Substrates.'
- C333 Ravishankar, N. and Carter, C.B., 2000, Mater. Res. Soc. Symp. Proc. 586, 59-64 'Control of Grain Boundary Microstructures in Liquid-Phase Sintered Alumina.'
- C332 Yanina, S.V. and Carter, C.B., 2000, Microsc. Microanal., 6 Suppl. 2, 714-5, 'Evaporation Spirals on {111} and {001} surfaces of MgAl₂O₄ Spinel'.
- C331 Blanford, C.F., Yan, H.W., Stein, A. and Carter, C.B., 2000, Microsc. Microanal., 6 Suppl. 2, 70-71, 'SEM and TEM of Metallic Inverse Opals'.
- C330 Gilliss, S., Yanina, S.V., Ravishankar, N. and Carter, C.B., 2000, Microsc. Microanal., 6 Suppl. 2, 716-7, 'Surfaces of Gadolinium Gallium Garnet'.
- C329 Ravishankar, N., Johnson, M.T. and Carter, C.B., 2000, Microsc. Microanal., 6 Suppl. 2, 386-7, 'Migrating Interfaces in Sapphire Bicrystals and Tricrystals'.
- C328 Ravishankar, N. and Carter, C.B., 2000, Microsc. Microanal., 6 Suppl. 2, 388-9, 'Silicate Glass and Evaporation from Sapphire Surfaces'.
- C327 Li, M., Carter, C.B., Hillmyer, M.A. and Gerberich, W.W., 2000, Microsc. Microanal., 6 Suppl. 2, 722-3, 'Characterizing Interfacial Fracture Toughness using AFM'.
- C326 Carter, C.B., Ravishankar, N and Yanina S.V., 2000, Grain Boundary Transactions: Ceram. Trans. 118 pp 411-417 'Glass in and on Ceramic Oxides.'
- C325 Carter, C.B., Ravishankar, N. and Yanina, S.V., 1999, Inst. Phys. Conf. Ser. 161 43-46 (EMAG99 Sheffield) 'Dewetting Behaviour of Reactive Silicate Glass Films on Single-Crystal Ceramic Substrates'
- C324 Ravishankar, N. and Carter, C.B., 1999, Revista Latinoamericana de Metalurgia y Materiales 19 7-12, CIASEM, Venezuela 24-28 October 99, 'Application of SEM to the Study of Ceramic Surfaces'.
- C323 Mao, Z., McKernan, S., Carter, C.B., Yang, W. and McPherson, S., 1999, MRS Internet J. Nitride Semicond. Res., vol.4S1, G3.13, (Mater. Res. Soc. Symp. Proc. 537 G3.13)) 'Defects in GaN Pyramids Grown on Si(111) Substrates by Selective Lateral Overgrowth.'
- C322 Blanford, C.F., Stein, A and Carter, C.B., 1999, Microsc. Microanal., 5 Suppl. 2, 820-821 'Electron Microscopy of Hierarchical materials'
- C321 Ravishankar, N., Ramamurthy, S., Schmalzried, H and Carter, C.B., 1999, Microsc. Microanal., 5 Suppl. 2, 812-813 'Wetting of anorthite liquid on m-sapphire substrates'
- C320 Ravishankar, N and Carter, C.B., 1999, Microsc. Microanal., 5 Suppl. 2, 800-801 'Migration of silicate liquid out of grain boundaries in ceramics'
- C319 Mao, Z., McKernan, S., Carter, C.B., Yang W. and McPherson, S.A., 1999, Microsc. Microanal., 5 Suppl. 2, 736-737 'Weak-beam fringe contrast analysis of defects in GaN pyramids.'
- C318 Mao, Z., McKernan, S., Carter, C.B., Yang W. and McPherson, S.A., 1999, Microsc. Microanal., 5 Suppl. 2, 734-735 'Horizontal defects parallel to the interface in GaN pyramids.'
- C317 Carter, C.B., Medlin, D.L., Cohen, D. and Campbell, G., 1999 Microsc. Microanal., 5 Suppl. 2, 694-695 'Stacking-fault fringes'
- C316 Cohen, D. and Carter, C.B., 1999, Microsc. Microanal., 5 Suppl. 2, 172-173 'Statistical Assessment of experimental uncertainty in the quantitative analysis of strong-beam α -fringe contrast'.
- C315 Carter, C.B., Ravishankar, N., Korte, C and Mallamaci, M.P., 1999 Microsc. Microanal., 5 Suppl. 2, 98-99 'Interfaces in Glass-containing Ceramics'.

- C314 Medlin, D.L., Foiles, S.M., Campbell, G.H. and Carter, C.B., 1999 Materials Science Forum 294-296 35-42 (IIIB-9, Prague) 'Effect of Grain Boundary Dislocations on 9R Stacking Errors at an Incoherent Twin Boundary in Copper'.
- C313 Johnson, M. T., Gilliss S. R., and Carter, C. B. 1998 Mater. Res. Soc. Symp. Proc. 481 303-308 'Electric-Field Effects on Reactions Between Oxides'.
- C312 Zagrebelny, A.V. and Carter, C.B., 1998, Mater. Res. Soc. Symp. Proc. (Thin Films-Stresses and Mechanical Properties) 505 481-486 'Micromechanical Properties of Silicate-Glass Films on Sapphire Substrates'.
- C311 Day, R.D., Dickerson, R.M., Maggiore, C.J., Brooks, P.M., Russell, P.E., Woodward, T. and Carter, C.B., 1998, Microsc. Microanal., 4 suppl. 2, 326-7, 'TEM analysis of deformation zones in FIB-prepared samples of microplooughed gold (100) and (111) surfaces'.
- C310 Johnson, M. T., Kotula, P.G., and Carter, C. B., 1998, TMS Proceedings Fall 97, Boundaries and Interfaces in Materials: The David A Smith Symposium Ed by Pond, R.C. et al 'The Effect of Interfaces on Solid-State Reactions Between Oxides' pp141-50.
- C309 Kotula, P.G., Carter, C.B., Chen, K.C., Thomas, D.J., Chu, F, and Mitchell, T.E., 1998, Electron Microscopy 1998 , (ICEM-14, Cancun Mexico), vol. 2 Materials Science 71-2 'Defects in Nb-Cr-Ti C15 Laves Phase Alloys'.
- C308 Ramamurthy, S., Mallamaci, M.P. and Carter, C.B., 1998 Proc. EUREM-11, (Dublin 1996), 'Microstructures Between Calcium Aluminosilicate and α -Al₂O₃' vol 2 706-7.
- C307 Johnson, M.T., Heffelfinger, J.R., Kotula, P.G. and Carter, C.B., 1998, Proc. EUREM-11, (Dublin 1996), 'Fundamental Processes in Ceramic Thin-Film Reactions' vol 2 677-8.
- C306 McKernan, S., Ramamurthy, S. and Carter, C.B., 1998, EUREM-11, Dublin 1996, 'The Quantitative Evaluation of in-situ High-Temperature Environmental SEM Images' vol 1 150-1.
- C305 Johnson, M.T. and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 594-5 'The Effect of an Electric Field On the Reaction Between Oxides'.
- C304 Cohen, D., Medlin, D. L. and Carter, C. B., 1998, Mater. Res. Soc. Symp. Proc. 510 613-618 'Characterization of the Structure and Polarity of Twin Boundaries in GaP'.
- C303 Cohen, D., Medlin, D.L., and Carter, C. B., 1998, Microsc. Microanal., 4 Suppl. 2, 786-7, 'Determination of Rigid Body Lattice Translations Across Antiphase and Twin Boundaries in Compound Semiconductors'.
- C302 Cohen, D., Campbell, G. H., King, W. E., and Carter, C. B., 1998, Microsc. Microanal., 4 Suppl. 2, 784-5, 'Quantitative HRTEM of Twin Boundaries in Compound Semiconductors and Metals using Non-Linear Least-Squares Methods'.
- C301 Medlin, D.L., Campbell, G.H. and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 774-5, 'Grain Boundary Dislocations and Stacking Defects in the 9R Phase at an Incoherent Twin Boundary in Copper'.
- C300 Blanford, C.F., Bentley, J., Stein, A., and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 712-3, 'An Investigation into Beam Damage of Mesoporous Materials'.
- C299 Johnson, M.T., Mao, Z. and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 638-9, 'AlN Films Grown by Electric Field Induced Flux of Al Cations'.
- C298 Farrer, J.K., Caldwell, D.A., Palmstrøm, C.J. and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 634-5, 'Solid-Phase Epitaxial Regrowth of GaAs by in-situ Controlled Intermediate Phase Decomposition'.
- C297 Mao, Z., Johnson, M.T. and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 628-9, 'Microstructural characterization of GaN on (0001) sapphire'.
- C296 Mao, Z., Johnson, M.T. and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 592-3, 'Defects in pseudo-orthorhombic anorthite on basal sapphire'.
- C295 Yanina, S.V., Johnson, M.T., Z. Mao and Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 590-1, 'Devitrification of Monticellite (CaMgSiO₄) Films Grown on (001)-Oriented Single-Crystal MgO'.
- C294 Carter, C.B., 1998, Microsc. Microanal., 4 Suppl. 2, 550-1, 'Dislocations in ceramics'.

- C293 Kotula, P.G., Carter, C.B., Chen, K.C., Thoma, D.J., Chu, F., and Mitchell, T.E., 1998, *Microsc. Microanal.*, 4 Suppl. 2, 536-7, 'Defects in Nb-Cr-Ti C15 Laves Phase Alloys.'
- C292 Johnson, M. T., Mao, Z., and Carter, C. B., 1998 *Mater. Res. Soc. Symp. Proc. Nitride Semiconductors (Fall 1997)* 482, 405-409 'Crystal Defects in GaN on (0001) Sapphire'
- C291 Medlin, D.L., Foiles, S.M. and Carter, C.B., 1997, *Mater. Res. Soc. Symp. Proc.* 466, 125-30 'Grain Boundary Dislocation Structure and Motion in an Aluminum $\Sigma=3$ [011] Bicrystal.'
- C290 Johnson, M.T., Kotula, P.G. and Carter, C.B., 1997, *Mater. Res. Soc. Symp. Proc.* 453 695-701 'Solid-State Reactions in Model Oxide Systems.'
- C289 Blanford, C.F., Aronson, B.J., McKernan, S., Stein, A., Carter, C.B., 1997, *Microsc. Microanal.*, '97, Cleveland, vol. 3, suppl. 2, 1005-6 'The Study of Ti-MCM-41 by Transmission Electron Microscopy'
- C288 Cohen, D. and Carter, C. B., 1997, *Mater. Res. Soc. Symp. Proc.* 442, 503-8. 'Characterization of APBs in GaP.'
- C287 Campbell, G.H., King, W.E., Cohen, D. and Carter, C.B., 1997, *Mater. Res. Soc. Symp. Proc.* 466, 119-124 'Quantitative High Resolution Electron Microscopy of Grain Boundaries.'
- C286 Zagrebelny, A.V. and C. B. Carter, 1997, *Microsc. Microanal.*, 3 Suppl. 2, 1281-1282 'Surface Morphology of Mechanically Strained Silicate Glass Films on Alumina Substrates.'
- C285 Zagrebelny, A.V. and C. B. Carter, 1997, *Microsc. Microanal.*, 3 Suppl. 2, 1269-1270 'Micromechanical Behavior of Silicate Glass Films on Alumina Substrates.'
- C284 Yanina, S. V., Johnson, M.T. and Carter, C. B., 1997, *Microsc. Microanal.*, 3 Suppl. 2, 741-742 'The Dynamics of MgO Surface Faceting.'
- C283 Cohen, D., McKernan, S. and Carter, C. B., 1997, *Microsc. Microanal.*, 3 Suppl. 2, 491-492 'Characterization of Crystal Polarity Across Twin Boundaries in GaP.'
- C282 Johnson, M.T. and Carter, C. B., 1997, *Microsc. Microanal.*, 3 Suppl. 2, 623-624 'Solid-State Reactions in the Presence of an Electric Field.'
- C281 Johnson, M.T., Kotula P. G. and Carter, C. B., 1997, *Microsc. Microanal.*, 3 Suppl. 2, 739-740 'Formation of Nickel Ferrite Films by Solid-State Reaction.'
- C280 Johnson, M.T., Yanina, S. V. and Carter, C. B. 1997, *Acta Microscopica* 6 Suppl B 102 CIASEM (4th Interamerican Cong. on EM), Guayaquil, Ecuador, Sept. 23-26, 'Microscopy of Ceramic Surfaces.'
- C279 Zagrebelny, A.V., Nelson, J.C. and Carter, C.B., 1996, *Mater. Res. Soc. Symp. Proc.*, 440, 189-94 'Micromechanical Deformation of Single-Crystal Alumina Surfaces.'
- C278 Zagrebelny A.V., Lilleodden E. T., Carter C. B., 1996, 'Effect of Glass Composition on Mechanical Properties of Interfaces between Alumina and Silicate Glass', *Mater. Res. Soc. Symp. Proc.*, 458, 179-184.
- C277 Lilleodden, E.T., Zagrebelny, A.V., Ramamurthy, S. and Carter, C. B., 1996, *Mater. Res. Soc. Symp. Proc.* 436, 177-182. 'Probing Silicate/Sapphire Interfaces using AFM and Nanoindentation.'
- C276 Carter, C.B., Heffelfinger, J.R. and Ramamurthy, S., 1996, *Acta Microscopica* 5B, 4-5, 'Interaction between Glass and Surfaces: A Combined AFM, SEM, TEM Study.'
- C275 Carter, C.B., Johnson, M.T. and Kotula, P.G., 1996, *Acta Microscopica* 5B, 2-3, 'Solid-State Reactions in Oxides by AFM, SEM and TEM.'
- C274 Johnson, M.T., Thompson, R.S. and Carter, C.B., 1996, *Microscopy & Microanalysis '96*, Minneapolis, 642-643, 'Heterogeneous Solid-State Reactions Between MgO(001) and Iron Oxide.'
- C273 Johnson, M.T., Anderson, I.M., Bentley, J., and Carter, C.B., 1996, *Microscopy & Microanalysis '96*, Minneapolis, 478-479, 'Low-Voltage EDS of Magnesium Ferrite Dendrites in a FEG-SEM.'
- C272 Heffelfinger, J.R., Bench, M.W., Johnson, M.T., and Carter, C.B., 1996, *Microscopy & Microanalysis '96*, Minneapolis, 368-369, 'AFM as a Tool for Studying Ceramic Surfaces.'
- C271 Medlin, D.L., Foiles, S.M. and Carter, C.B., 1996, *Microscopy & Microanalysis '96*, Minneapolis, 328-329, 'Grain Boundary Dislocation Structure and Motion in an Aluminum $\Sigma=3$ Bicrystal.'

- C270 Zagrebelny, A.V., Lilleodden, E.T., Nelson, J.C., Ramamurthy, S., and Carter, C.B., 1996, Microscopy & Microanalysis '96, Minneapolis, 660-661, 'In-situ and Ex-situ AFM Imaging of μN Load Indents on Silicate Glass/Alumina Interfaces.'
- C269 Zagrebelny, A.V., Nelson, J.C., Ramamurthy, S., and Carter, C.B., 1996, Microscopy & Microanalysis '96, Minneapolis, 662-663, 'Silicate-Glass/Sapphire Interfaces Probed with Micromechanical Testing Instruments: SEM and TEM Combined Characterization.'
- C268 Ramamurthy, S., Hebert, B.C., Carter, C.B. and Schmalzried, H., 1996, Mater. Res. Soc. Symp. Proc. 398, 295-300, 'Interaction of Silicate Liquid with Sapphire Surfaces.'
- C267 Heffelfinger, J.R., Kieschke, R.R. and Carter, C.B., 1996, Mater. Res. Soc. Symp. Proc. 398, 251-256, 'Interfacial Reactions in Metal-Matrix Composites.'
- C266 Heffelfinger, J.R., Bench, M.W. and Carter, C.B., 1996, Mater. Res. Soc. Symp. Proc. 399, 263-268, 'On the Roughening of Ceramic Surfaces.'
- C265 Zagrebelny, A.V., Nelson, J.C., Lilleodden, E.T., Ramamurthy, S. and Carter, C.B., 1996, Mater. Res. Soc. Symp. Proc. 401, 103-108, 'Alumina-Silicate Glass Interfacial Properties Probed by Micromechanical Testing Techniques.'
- C264 Anderson, I.M., Carter, C.B. and Bentley, J., 1995, Proc. 29th Annual Conference MAS, Breckenridge, Colorado, 285-286, (Ed E.S. Etz, VCH: New York) 'The Self-Supporting Disc: A Specimen Geometry Exhibiting Low Secondary Characteristic Fluorescence.'
- C263 Anderson, I.M., Carter, C.B. and Bentley, J., 1995, Proc. 29th Annual Conference MAS, Breckenridge, Colorado, 213-214, (Ed E.S. Etz, VCH: New York) 'The Secondary Characteristic Fluorescence Correction in the EPMA.'
- C262 Carter, C.B., Medlin, D.L., Angelo, J.E and Mills, M.J., 1995, IIBM-7, Lisbon, Portugal, Materials Science Forum 207-209 (1), 209-212, 'The 112 Lateral Twin Boundaries in FCC Metals.'
- C261 Heffelfinger, J.R., Kotula, P.G. and Carter, C.B., 1995, IIBM-7, Lisbon, Portugal, Materials Science Forum 207-209 (2), 705-708, 'Ceramic Thin-Film Reactions.'
- C260 Ramamurthy, S., Mallamaci, M.P., Zimmerman, C.M., Sartain, K.B. and Carter, C.B., 1995, IIBM-7, Lisbon, Portugal, Materials Science Forum 207-209 (2), 753-756, 'Glass Crystallization and Interfaces.'
- C259 Ramamurthy, S., Hebert, B.C. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 342-343, 'Olivine-MgO Interfaces Produced by Crystallization of Glass Films on Single-Crystal MgO Substrates.'
- C258 Ramamurthy, S., Hebert, B.C. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 340-341, 'Non-Equilibrium Silicate Glass in Contact with Faceted $\{1010\}$ γ -Al₂O₃ Surface: An SEM Study.'
- C257 Bench, M.W., Heffelfinger, J.R. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 334-335, 'AFM Study of the Dynamics of γ -Alumina Surface Faceting During High-Temperature Processing.'
- C256 Heffelfinger, J.R., Kieschke, R.R. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 546-547, 'Microanalysis and Characterization of Protective Coatings Used in Metal-Matrix Composites.'
- C255 Heffelfinger, J.R., Bench, M.W. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 332-333, 'AFM Studies of Annealed Single-Crystal γ -Alumina Surfaces.'
- C254 Kotula, P.G. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 338-339, 'Ceramic Thin-Film Reactions: Phase Boundaries and Kinetics.'
- C253 Kotula, P.G. and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 330-331, 'The Measurement of Thin-Film Reaction Layers with High-Resolution FESEM.'
- C252 Bench, M.P., Kotula, P.G., and Carter, C.B., 1995, 53rd Annual Meeting MSA, Kansas City, 336-337, 'The Annealed (0001) γ -Alumina Surface and its Influence on Thin-Film Growth.'
- C251 Carter, C.B., Kotula, P.G. and Ramamurthy, S., 1995, Mater. Res. Soc. Symp. Proc. 343, 517-522. 'Growth of Rock-Salt Structured Oxides on ZrO₂ and Al₂O₃.'

- C250 McKernan, S., King, S.L. and Carter, C.B., 1994, ICEM 13, Paris, France, 891. 'Convergent-Beam Thickness Determination: A Quantitative Comparison of Recording Media.'
- C249 Anderson, I.M., Carter, C.B. and Bentley, J., 1994, 52nd Annual Meeting MSA, New Orleans, 1002-1003. 'Microstructure and Chemistry of MgO- and CoO-Doped Nickel-Titanate Spinel.'
- C248 Ramamurthy, S. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 359-360, 'The $\{111\}/\{100\}$ Interface in Cubic Materials.'
- C247 Ramamurthy, S., Mallamaci, M.P. and Carter, C.B., 1994, 28th Meeting MAS, New Orleans, 193-194, 'Chemistry of Intergranular Films in MgO.'
- C246 Mallamaci, M.P., Sartain, K.B. and Carter, C.B., 1994, ICEM 13, Paris, France, 227-8. 'Glass in Aluminum-Oxide Grain Boundaries.'
- C245 Mallamaci, M. and Carter, C.B., 1994, ICEM 13, Paris, France, 225-6. 'Nucleation and Growth of Orthorhombic Anorthite.'
- C244 McKernan, S. and Carter, C.B., 1994, ICEM 13, Paris, France, 143-4. 'The Role of the APB in Misfit Strain Relief.'
- C243 McKernan, S. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 420-421. 'Convergent-Beam Thickness Determination: The Advantages of Digital Imaging.'
- C242 Carter, C.B., Kotula, P.G., Heffelfinger, J.R. and Erickson, D.D., 1994, ICEM 13, Paris. 889-890. 'Modeling Bulk Oxide Interfaces and Reactions Using a Thin-Film Geometry.'
- C241 Bench, M.W. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 528-529. 'Pulsed-laser Deposition Growth of Copper Oxide on α -Al₂O₃ and MgO.'
- C240 Bench, M.W. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 642-643. 'Study of the Growth of TiO₂ on Al₂O₃ by Pulsed-Laser Ablation.'
- C239 Kotula, P.G., Erickson, D.D. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 1028-1029. 'The Use of High-Resolution FESEM to Study Solid-State Phase Transformations and Reactions.'
- C238 Erickson, D.D., Kotula, P.G. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 532-533. 'Thin Film Substrates for the Study of Solid-State Transformations.'
- C237 Heffelfinger, J.R. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 644-645. 'Observation of Solid-State Reaction Between a Thin Yttria Film and a (0001) α -Alumina Substrate.'
- C236 Heffelfinger, J.R. and Carter, C.B., 1994, 52nd Annual Meeting MSA, New Orleans, 530-531. ' $\{110\}<110>$ edge dislocations in YSZ films grown on (100) MgO by PLD.'
- C235 King, S.L. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 317, 65-70, 'The Role of Steps on the Microstructure of Titanium-Oxide Films Deposited by PLD onto (100) MgO Surfaces.'
- C234 Anderson, I.M., Bentley, J. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 332, 309-314. 'AEM Investigation of Tetrahedrally Coordinated Ti⁴⁺ in Nickel-Titanate Spinel.'
- C233 Bentley, J., Horton, L.L., McHargue, C., McKernan, S., Carter, C.B., Tanaka, S. and Davis, R.F., 1994, Mater. Res. Soc. Symp. Proc. 332, 385-391, 'Compositions and Chemical Bonding in Ceramics by Quantitative Electron Energy-Loss Spectrometry.'
- C232 Kotula, P.G., Erickson, D. D. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 319, 57-62. 'The Use of Thin Film Substrates to Study Enhanced Solid-State Transformations.'
- C231 Heffelfinger, J.R. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 317, 553-558. 'Evolution of Yttrium Aluminum Garnet Films by Solid-State Reaction.'
- C230 Anderson, I.M., Bentley, J. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 332, 315-320. 'Quantitative X-Ray Microanalysis for the Study of Nanometer-Scale Phases in the AEM.'
- C229 King, S.L., Heffelfinger, J.R., Mallamaci, M.P., McKernan, S. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 318, 407-412, 'Surface Steps on (100) MgO Substrates Imaged by TEM, SEM and AFM.'
- C228 Bench, M.W., Sartain, K.B. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 317, 491-496. 'On the Evolution of Copper Oxide Films Grown on α -Al₂O₃ by Pulsed-Laser Ablation.'

- C227 Ramamurthy, S., Mallamaci, M.P. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 321, 633-638, 'Crystallization of Glass Films on Single-Crystal MgO Substrates.'
- C226 Kotula, P.G. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 319, 63-68. 'Observation of the Phase-Boundary Controlled Formation of NiAl₂O₄ from a Single-Crystal NiO Thin Film and a Single α -Al₂O₃ Substrate.'
- C225 Mallamaci, M.P., Ramamurthy, S. and Carter, C.B., 1994, Mater. Res. Soc. Symp. Proc. 318, 589-594, 'Liquid Infiltration of MgO and Al₂O₃ Thin Films.'
- C224 Mallamaci, M.P., Carter, C.B. and Bentley, J., 1994, Mater. Res. Soc. Symp. Proc. 321, 567-572, 'In-Situ TEM Crystallization of Anorthite Glass Films on α -Al₂O₃.'
- C223 Kotula, P.G. and Carter, C.B., 1994, 2nd Int. Conf on Laser Ablation, Knoxville, 288, 231-236. 'Solid-State Reactions Using Films Deposited by Pulsed-Laser Ablation.'
- C222 Carter, C.B., 1993, International Conference on Intergranular and Interphase Boundaries, Thessaloniki, Greece 126-8, 555. 'Interfaces and the Growth of Thin Oxide Films.'
- C221 McKernan, S. and Carter, C.B., 1993, 2nd Interamerica Congress on Electron Microscopy, Cancun. 'High-Resolution TEM of Grain Boundaries.'
- C220 McKernan, S. and Carter, C.B., 1993, Polycrystalline Semiconductors III, St. Malo, Journal de Physique 37-38, 67-74. 'Structure of Grain Boundaries in Polycrystalline Semiconductors.'
- C219 Heffelfinger, J.R., King, S.L., Mallamaci, M.P. and Carter, C.B., 1993, 2nd Interamerica Congress on Electron Microscopy, Cancun. 'Surfaces Characterization of (100) MgO Using Combined Techniques.'
- C218 Mallamaci, M.P. and Carter, C.B., 1993, 2nd Interamerica Congress on Electron Microscopy, Cancun. 'Epitaxial Crystallization of Anorthite-Glass Films on Alumina.'
- C217 Erickson, D.D., Kotula, P.G. and Carter, C.B., 1993, 2nd Interamerica Congress on Electron Microscopy, Cancun. 'The Use of Thin Film Substrates to Study Enhanced Solid-State Transformations.'
- C216 Bentley, J., McKernan, S., Carter, C.B. and Revcolevschi, A., 1993, EMAG 93 138 (2), 39-42. 'Microanalysis of An Oxidized Cobalt Oxide-Zirconia Eutectic.'
- C215 Bentley, J., McKernan, S., Carter, C.B. and Revcolevschi, A., 1993, Microbeam Analysis 2, S286-287. 'Microanalysis of Directionally Solidified Cobalt Oxide-Zirconia Eutectic.'
- C214 King, S.L. and Carter, C.B., 1993, 2nd International Conf on Laser Ablation, Knoxville, 288, 209-214. 'Pulsed-Laser Deposition of TiO₂ onto MgO (100) Substrates: The Effect of Substrate Morphology.'
- C213 Anderson, I.M., Bentley, J. and Carter, C.B., 1993, Microbeam Analysis 2, S230-231. 'Correction of Secondary Fluorescence in the AEM for Common Specimen Geometries.'
- C212 Bench, M.W., Sartain, K.B, Mallamaci, M.P. and Carter, C.B., 1993, 51st Annual Meeting MSA, 1152-1153. 'Characterization of Copper Oxide Deposited on α -Al₂O₃ by Pulsed-Laser Ablation.'
- C211 Bench, M.W., Miller, T.J., Nathan M.I. and Carter, C.B., 1993, 51st Annual Meeting MSA, 800-801. 'Characterization of Al/GaAs Schottky Barriers with Thin Si Interfacial Layers.'
- C210 Ramamurthy, S., McKernan, S. and Carter, C.B., 1993, 51st Annual Meeting MSA, 1154-1155. 'Study of Cobalt Oxide Films Grown on Single-Crystal Yttria-Stabilized Zirconia by Pulsed-Laser Ablation.'
- C209 McKernan, S., Ramamurthy, S. and Carter, C.B., 1993, 51st Annual Meeting MSA, 926-927. 'Electron Diffraction Study of Thin Cobalt Oxide Films Grown by Pulsed Laser Deposition on Zirconia Substrates.'
- C208 Ramamurthy, S., Mallamaci, M.P., Carter, C.B., Duncombe, P.R. and Shaw, T.M., 1993, 51st Annual Meeting MSA, Cincinnati, 948-949. 'Microstructure of Dense MgO Penetrated by a Silicate Liquid.'
- C207 McKernan, S., Kotula, P.G., Evans, D., Carter, C.B. and Weaver, J. H., 1993, 51st Annual Meeting MSA, 760-761. 'High-Resolution Microscopy of Carbon Nanotubes.'
- C206 King, S.L. and Carter, C.B., 1993, 51st Annual Meeting MSA, Cincinnati, 1142-1143. 'TiO₂ on MgO by PLD: The Effect of the Substrate Treatment.'

- C205 King, S.L. and Carter, C.B., 1993, 51st Annual Meeting MSA, Cincinnati (100), 964-965. 'The Morphology of Acid-Cleaned Heat-Treated MgO (100) Surfaces.'
- C204 King, S.L., McKernan, S. and Carter, C.B., 1993, 51st Annual Meeting MSA, Cincinnati (100), 1158-1159. 'CBED Determinations of Step-Heights on Etched and Annealed MgO (100) Surfaces.'
- C203 King, S.L. and Carter, C.B., 1993, 51st Annual Meeting MSA, Cincinnati, 1134-1135. 'TEM Observations of Surface-Step and Hole-Edge Faceting in Acid-Etched and Annealed MgO Thin-Foils.'
- C202 Mallamaci, M.P., Bentley, J. and Carter, C.B., 1993, 51st Annual Meeting MSA, Cincinnati, 438-439. 'Microanalysis of Silicate Glass Films Grown on α -Al₂O₃ by Pulsed-Laser Deposition.'
- C201 Mallamaci, M.P., Bentley, J. and Carter, C.B., 1993, 51st Annual Meeting MSA, Cincinnati, 928-929. 'In-Situ Crystallization of Silicate Glass Films Deposited on α -Al₂O₃.'
- C200 Kotula, P.G. and Carter, C.B., 1993, 51st Annual Meeting MSA, 1120-1121. 'Characterization of NiO Thin Films on α -Al₂O₃ Before and After Heat Treatment.'
- C199 Norton, M.G. and Carter, C.B., 1993, 51st Annual Meeting MSA, 934-935. 'Electron Microscopy of Ceramic Superconductors.'
- C198 McKernan, S. and Carter, C.B., 1993, Mater. Res. Soc. Symp. Proc. 280, 553-556. 'High-Resolution Electron Microscopy of Olivine-Magnetite Interfaces.'
- C197 Mallamaci, M., Bentley, J. and Carter, C.B., 1993, Mater. Res. Soc. Symp. Proc. 285, 433-438. 'Microanalysis of Calcium-Aluminosilicate Glass Films Grown on α -Al₂O₃ by Pulsed-Laser Ablation.'
- C196 Kotula, P. and Carter, C.B., 1993, Mater. Res. Soc. Symp. Proc. 285, 373-378. 'Interfacial Reactions During Processing of Thin Nickel Oxide Films Grown by Pulsed-Laser Ablation.'
- C195 McKernan, S. and Carter, C.B., 1993, Mater. Res. Soc. Symp. Proc. 295, 173-178. 'Image Simulations of Ge Twin Boundaries.'
- C194 King, S.L. and Carter, C.B., 1992, Mater. Res. Soc. Symp. Proc. 280, 157-160. 'A TEM Study of Step Morphology on the Non-UHV Heat-Treated MgO (100) Surface.'
- C193 King, S.L., McKernan, S. and Carter, C.B., 1992, Mater. Res. Soc. Symp. Proc. 280, 661-664. 'The Determination of Step Heights on the Non-UHV Heat-Treated MgO (100) Surfaces by CBED.'
- C192 Norton, M.G., Hellman, E.S., Hartford, E.H. and Carter, C.B., 1992, 50th Annual Meeting EMSA, 76-77. 'Observations on the Growth of Barium Bismuth Oxide Thin Films.'
- C191 McKernan, S. and Carter, C.B., 1992, 50th Annual Meeting EMSA, Boston, 120-121. 'Characterization of Structural Units in Tilt Grain Boundaries.'
- C190 McKernan, S. and Carter, C.B., 1992, 50th Annual Meeting EMSA, Boston, 214-215. 'The Structure of a Near α -27 \langle 110 \rangle Tilt Grain Boundary in Ge.'
- C189 Carter, C.B. and McKernan, S., 1992, 50th Annual Meeting EMSA, Boston, 112-113. 'High-Resolution Imaging of Ceramics.'
- C188 Norton, M.G. and Carter, C.B., 1992, 50th Annual Meeting EMSA, 236-237. 'Analysis of Moiré Patterns in Images of Thin YBa₂Cu₃O_{7- δ} Films on MgO.'
- C187 Anderson, I.M., Tietz, L.A. and Carter, C.B., 1992, Mater. Res. Soc. Symp. Proc. 238, 807-814. 'Interface Structure of Iron Oxide Thin Films Grown on Sapphire and Single-Crystal MgO.'
- C186 Norton, M.G. and Carter, C.B., 1992, Scanning Microscopy 6 (2), 385-398. 'Growth of YBa₂Cu₃O_{7- δ} Thin-Films-Nucleation, Heteroepitaxy and Interfaces.'
- C185 Anderson, I.M. and Carter, C.B., 1991, Mater. Res. Soc. Symp. Proc. 237, 175-180. 'Determination of the Width of the Single Phase Stability Field of Nickel Titanate Spinel.'
- C184b Moeckly, B.H., Lathrop, D.K., Russek, S.E., Buhrman R.A., Norton, M.G. and Carter, C.B., 1991, IEEE Trans. Magnetics, 27(2), 1017-1020, 'Growth and Properties of YBa₂Cu₃O_{7- δ} Thin Films on Non-lattice-Matched and Polycrystalline Substrates.'
- C184a Anderson, I.M., Norton, M.G. and Carter, C.B., 1991, 49th Annual Meeting EMSA, San Jose, 780-781. 'TEM Study of Thin Iron Oxide Films Deposited by Pulsed-Laser Ablation.'
- C183 Norton, M.G., Kotula, P.G. and Carter, C.B., 1991, 49th Annual Meeting EMSA, 952-953. 'Growth and Characterization of Aluminum Nitride Thin Films.'

- C182 Norton, M.G. and Carter, C.B., 1991, 49th Annual Meeting EMSA, San Jose, 1068-1069. 'Observations of the Growth of YBa₂Cu₃O_{7-x} Thin Films on MgO by Pulsed-Laser Ablation.'
- C181 Summerfelt, S.R. and Carter, C.B., 1991, Mater. Res. Soc. Symp. Proc. 230, 351-356. 'Interaction between Dislocations and NiFe₂O₄ Precipitates in an NiO Matrix.'
- C180 Zhu, J.G., Carter, C.B. and Palmstrøm, C.J., 1991, 49th Annual Meeting EMSA, San Jose, 848-849. 'A Study of GaAs/Sc_{0.3}Er_{0.7}As/GaAs Heterostructures Grown on Novel GaAs Substrate Orientations.'
- C179 Norton, M.G., Carter, C.B., Moeckly, B.H., Russek, S.E. and Buhrman, R.A., 1991, Sci. and Tech. of Thin Film Superconductors 2, 379-387. 'Microstructure Development in Thin-Film Superconductors.'
- C178 Norton, M.G., Cracknell, K.P.B., Scarfone, C., Carter, C.B., Li, J. and Mayer, J.W., 1991, Mater. Res. Soc. Symp. Proc. 202, 23-28. 'Heteroepitactic Growth of BaTiO₃ on MgO by Pulsed-Laser Ablation.'
- C177 Norton, M.G., Kotula, P., Li, J., McKernan, S., Cracknell, K., Carter, C.B. and Mayer, J.M., 1991, Mater. Res. Soc. Symp. Proc. 226, 209-214. 'Growth and Microstructure of Aluminum Nitride Thin Films.'
- C176 Norton, M.G., McKernan, S. and Carter, C.B., 1991, Mater. Res. Soc. Symp. Proc. 225, 349-353. 'A Technique for the Examination of Surface Effects in Aluminum Nitride Ceramics.'
- C175 McKernan, S., Rasmussen, D.R. and Carter, C.B., 1991, 49th Annual Meeting EMSA, San Jose, 664-665. 'Limits to the Determination of the Rigid-Body Translations.'
- C174 McKernan, S., Elgat, Z. and Carter, C.B., 1991, Inst. Phys. Conf. Ser. 117 (3), 113-116. 'The Structure of Twist Units in a Ge $\bar{1}10$ Tilt Grain-Boundary.'
- C173 Zhu, J.G., Palmstrøm, C.J. and Carter, C.B., 1991, Inst. Phys. Conf. Ser. 117 (7), 419-422. 'The Growth of GaAs on Sc_{0.3}Er_{0.7}As Epilayers.'
- C172 McKernan, S., Rasmussen, D.R. and Carter, C.B., 1991, Inst. Phys. Conf. Ser. 117 (3), 139-142. 'The Measurement of the Rigid-Body Translation Across the {111} APB Facet in GaAs.'
- C171 Finstad, T.G., Palmstrøm, C.J., Mounier, S., Keramidis, V.G., Zhu, J.G. and Carter, C.B., 1991, Mater. Res. Soc. Symp. Proc. 202, 413-418. 'Initial Stages of GaAs Growth on Sc_{1-x}Er_xAs Surfaces.'
- C170 Norton, M.G., Yang, T.K.A., Kotula, P., Rugg, K.L., McKernan, S. and Carter, C.B., 1991, Mater. Res. Soc. Symp. Proc. 203, 241-246. 'Modification and Reactions of Aluminum Nitride Surfaces.'
- C169 Scarfone, C., Norton, M.G., Carter, C.B., Li, J. and Mayer, J.W., 1991, Mater. Res. Soc. Symp. Proc. 221, 23-28. 'Characterization of BaTiO₃ Thin Films Deposited by Pulsed-Laser Ablation.'
- C168 McKernan, S., Carter, C.B. and Elgat, Z., 1991, Mater. Res. Soc. Symp. Proc. 209, 637-642. 'Defects in the Structure of $\bar{1}10$ Tilt Grain-Boundaries in Ge.'
- C167 McKernan, S., Norton, M.G. and Carter, C.B., 1991, Mater. Res. Soc. Symp. Proc. 203, 229-234. 'Grain boundaries in High Thermal Conductivity Aluminum Nitride.'
- C166 Zhu, J.G., Palmstrøm, C.J., Mounier, S. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 160, 325-330. 'Characterization of ErAs/GaAs and GaAs/ErAs/GaAs Structures.'
- C165 Palmstrøm, C.J., Cheeks, T.L., Gilchrist, H.L., Zhu, J.G., Carter, C.B. and Nahory, R.E., 1990, Mater. Res. Soc. Symp. Proc. 21, 63-66. 'Schottky Barrier Height Control in Metal-III-V Epitaxy.'
- C164 Zhu, J.G., Carter, C.B. and Palmstrøm, C.J., 1990, Mater. Res. Soc. Symp. Proc. 198, 171-176. 'Misfit Dislocations at Mismatched Epitactic Heterojunctions.'
- C163 Zhu, J.G., Palmstrøm, C.J. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 198, 177-182. 'Defects in MBE-Grown GaAs/ErAs/GaAs Layers.'
- C162 Norton, M.G., English, G.R. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 200, 237-242. 'Early Stages of the Heteroepitactic Growth of Ferroelectric Thin Films.'
- C161 Norton, M.G., Carter, C.B., Moeckly, B., Russek, S.E. and Buhrman, R.A., 1990, Mater. Res. Soc. Symp. Proc. 191, 141-146. 'Optimizing Process Parameters for the Growth of YBa₂Cu₃O_{7-x} Thin Films.'

- C160 Norton, M.G. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 191, 165-170. 'Effect of Substrate on the Early Stages of the Growth of YBa₂Cu₃O_{7-x} Thin Films.'
- C159 Palmstrøm, C.J., Harbison, J.P., Sands, T., Ramesh, R., Finstad, T.G., Mounier, S., Zhu, J.G., Carter, C.B., Florez, L.T. and Keramidas, V.G., 1990, SPIE 1285, 85. 'Growth of Buried Metal Aluminides and Gallides and of Rare-Earth Monopnictides in Compound Semiconductors: A Comparison.'
- C158 Palmstrøm, C.J., Harbison, J.P., Sands, T., Ramesh, R., Finstad, T.G., Mounier, S., Zhu, J.G., Carter, C.B., Florez, L.T. and Keramidas, V.G., 1990, Mater. Res. Soc. Symp. Proc. 198, 153-169. 'Growth of Buried Metal Aluminides and Gallides and of Rare-Earth Monopnictides in Compound Semiconductors: A Comparison.'
- C157 Tietz, L.A., Summerfelt, S.R., English, G.R. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 168, 113-118. 'Initial Stages in the Growth of Oxide Thin Films by CVD.'
- C156 Alford, T.L., Theodore, N.D., Mayer, J.W., Carter, C.B. and Cheung, N.W., 1990, ICEM 12, Seattle, 654-655. 'Investigation of MeV Au⁺⁺ implanted Silicon.'
- C155 Theodore, N.D., Verdonckt-Vandebroek, S., Carter, C.B. and Wong, S.S., 1990, ICEM 12, Seattle, 628-629. 'Characterization of Lateral Bipolar Transistor Structures.'
- C154 Maggard, J.G., Theodore, N.D. and Carter, C.B., 1990, ICEM 12, Seattle, 378-379. 'The Behavior of an α -Alumina Twist Grain-Boundary in the Presence of Silica.'
- C153 McKernan, S., Rasmussen, D.R. and Carter, C.B., 1990, ICEM 12, Seattle, 362-363. 'The Determination of the Rigid Body Translation Across Antiphase Boundaries in GaAs.'
- C152 McKernan, S. and Carter, C.B., 1990, ICEM 12, 500-501. 'Polarity Determination in Sphalerite and Wurtzite structures.'
- C151 Theodore, N.D., Allen, L.H., Carter, C.B. and Mayer, J.W., 1990, ICEM 12, Seattle, 650-651. 'TEM Characterization of Au/Polysilicon Interactions.'
- C150 Anderson, I.M., Muan, A. and Carter, C.B., 1990, ICEM 12, Seattle, 1058-1059. 'Microstructural Observations of the Wustite-Spinel Coexistence Following Quenching of Cation-Excess Spinel, Ni_{2(1+x)}Ti_{1-x}O₄.'
- C149 Carter, C.B., 1990, ICEM 12, Seattle, 308-309. 'Recent Applications of TEM to the Study of Interfaces.'
- C148 Tietz, L.A., Summerfelt, S.R. and Carter, C.B., 1990, ICEM 12, Seattle, 376-377. 'Growth of Hematite on (0001) and {102} Sapphire Substrates.'
- C147 Norton, M.G., Fleischer, E.L., Hertl, W., Mayer, J.W. and Carter, C.B., 1990, ICEM 12, Seattle, 1048-1049. 'Direct Observation of Microstructural Changes in Ion-Beam-Modified Ceramics.'
- C146 Norton, M.G., English, G.R., Scarfone, C. and Carter, C.B., 1990, ICEM 12, Seattle, 706-707. 'Early Stages of the Growth of BaTiO₃ Thin Films Studied by TEM.'
- C145 McKernan, S., Norton, M.G., and Carter, C.B., 1990, ICEM 12, Seattle, 350-351. 'Low-Energy Surfaces and Interfaces in Aluminum Nitride.'
- C144 Norton, M.G., and Carter, C.B., 1990, ICEM 12, Seattle, 88-89. 'Nucleation and Heteroepitaxy of YBa₂Cu₃O_{7-x} Thin Films.'
- C143 Norton, M.G., and Carter, C.B., 1990, ICEM 12, Seattle, 8-9. 'Microstructure of Thin YBa₂Cu₃O_{7-x} Films.'
- C142 Alford, T.L., Theodore, N.D., Barbour, J.C., Carter, C.B. and Mayer, J.W., 1990, ICEM 12, Seattle, 570-571. 'TEM Study of Buried Yttrium Silicide Formed by Ion Implantation.'
- C141 Theodore, N.D., Mei, P., Carter, C.B., Palmstrøm, C., Schwarz, S.A., Harbison, J.P. and Florez, L.T., 1990, Mater. Res. Soc. Symp. Proc. 163, 709-714. 'Behavior of Dopant-Related Defects in AlGaAs Superlattices.'
- C140 Russek, S.E., Moeckly, B.H., Buhrman, R.A., McWhirter, J.T., Sievers, A.J., Norton, M.G., Tietz, L.A. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 169, 455-458. 'Pulsed Laser Deposition of High-Tc Superconducting Thin Films.'

- C139 Schaff, W.J., Offsey, S.D., Tasker, P.J., Eastman, L.F., McKernan, S. and Carter, C.B., 1990, SPIE Symp. on Laser Diodes, Optics and Applications. 'Strained-Layer Quantum-Well Lasers Grown by Molecular-Beam Epitaxy for Longer Wavelength High-Speed Applications.'
- C138 Norton, M.G., Tietz, L.A., Summerfelt, S.R. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 169, 509-512. 'Direct Observation by Transmission Electron Microscopy of the Early Stages of Growth of Superconducting Thin Films.'
- C137 Tietz, L.A., Summerfelt, S.R. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 159, 209-215. 'The Structure of Interfaces in Oxide Heterojunctions Formed by CVD.'
- C136 McKernan, S., Carter, C.B., Ricoult, D. and Cullis, A.G., 1990, Mater. Res. Soc. Symp. Proc. 159, 407-412. 'High-Resolution Electron Microscopy of Olivine-Magnetite Interfaces.'
- C135 McKernan, S. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 167, 259-264. 'On the Structure of Planar Defects in AlN.'
- C134 Norton, M.G., Tietz, L.A., Carter, C.B., Russek, S.E., Moeckly, B.H. and Buhrman, R.A., 1990, Mater. Res. Soc. Symp. Proc. 169, 513-516. 'Grain Boundaries in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films.'
- C133 Zhu, J.G., McKernan, S., Palmstrøm, C.J. and Carter, C.B., 1990, Mater. Res. Soc. Symp. Proc. 159, 89-94. 'High-Resolution Imaging of CoGa/GaAs and ErAs/GaAs Interface.'
- C132 Carter, C.B., Summerfelt, S.R., Tietz, L.A., Norton, M.G. and Susnitzky, D.W., 1989, Inst. Phys. Conf. Ser. 98, 415-418. 'Epitactic and Topotactic Growth Using Thin Films.'
- C131 Zhu, J.G., Palmstrøm, C.J., Garrisson, K.C. and Carter, C.B., 1989, Inst. Phys. Conf. Ser., J. Phys. 98, 411-414. 'Phase Boundaries Between GaAs and Other Cubic Materials.'
- C130 Zhu, J.G., Palmstrøm, C.J., Garrisson, K.C. and Carter, C.B., 1989, Inst. Phys. Conf. Ser. 100, 659-664. 'Misfit Dislocations at the CoGa/GaAs Interface.'
- C129 Theodore, N.D., Carter, C.B., Arney, S.C. and MacDonald, N.C., 1989, Inst. Phys. Conf. Ser. 100, 551-556. 'TEM Characterization of Defect Configurations in Submicron SOI Structures.'
- C128 Rasmussen, D.R., McKernan, S. and Carter, C.B., 1989, 47th Annual Meeting EMSA, San Antonio, 130-131. 'HREM Images of Interfaces Containing Misfit Dislocations Lying Parallel to the Surface of the Sample.'
- C127 Carter, C.B., Zhu, J.G. and Palmstrøm, C.J., 1989, 47th Annual Meeting EMSA, San Antonio, 446-447. 'Metal/GaAs Interfaces.'
- C126 Carter, C.B. and Tietz, L.A., 1989, 47th Annual Meeting EMSA, San Antonio, 178-179. 'Interfaces in High-Tc Superconducting Oxides.'
- C125 Carter, C.B., 1989, 47th Annual Meeting EMSA, San Antonio, 5-8. 'New Approaches for Studying Phase Boundaries by TEM.'
- C124 McKernan, S. and Carter, C.B., 1989, 47th Annual Meeting EMSA, San Antonio, 432-433. 'Planar Defects in AlN.'
- C123 Sung, G.Y., McKernan, S. and Carter, C.B., 1989, 47th Annual Meeting EMSA, San Antonio, 598-599. 'Grain Boundaries in Zinc Oxide-Based Varistor Ceramics.'
- C122 Carter, C.B., McKernan, S., Rasmussen, D.R., Simpson, Y.K., Summerfelt, S.R., Susnitzky, D.W. and Tietz, L.A., 1989, Mater. Res. Soc. Symp. Proc. 139, 189-198. 'High-Resolution Microscopy of Ceramics.'
- C121 Zhu, J.G., McKernan, S., Carter, C.B., Schaff, W.J. and Eastman, L.F., 1989, Mater. Res. Soc. Symp. Proc. 144, 285-290. 'Dislocations in GaAs/Si Interfaces.'
- C120 Theodore, N.D., Carter, C.B., Mei, P., Schwartz, S.A., Harbison, J.P. and Venkatesan, T., 1989, Mater. Res. Soc. Symp. Proc. 144, 139-144. 'Defects Correlated to Mixing Behavior of Highly Silicon-Doped GaAs/AlAs Superlattices.'
- C119 McKernan, S., Rasmussen, D.R. and Carter, C.B., 1989, Mater. Res. Soc. Symp. Proc. 139, 309-314. 'High-Resolution Electron Microscopy of Hematite Formed by External Oxidation of Iron-Bearing Olivine.'
- C118 Theodore, N.D., Carter, C.B., Arney, S.C. and MacDonald, N., 1989, Mater. Res. Soc. Symp. Proc. 130, 377-382. 'Behavior of Defects Related to Interface-Stresses in Model Submicron SOI Structures.'

- C117 McKernan, S., Carter, C.B., Bour, D.P. and Shealy, J.R., 1989, Mater. Res. Soc. Symp. Proc. 130, 111-116. 'A Study of Defects in Ordered Ternary Semiconductor Epilayers.'
- C116 Carter, C.B., 1988, Surfaces and Interfaces in Ceramic Materials, NATO AS 1, Series E: Applied Sciences 173, 29-55. 'Structure and Microstructure of Interfaces in Ceramic Materials.'
- C115 McKernan, S., Zhu, J.G., Carter, C.B., Caridi, E. and Schaff, W., 1988, Mater. Res. Soc. Symp. Proc. 116, 273-278. 'Defects and Interfaces in GaAs Grown on Si.'
- C114 Susnitzky, D.W., Carter, C.B., and Hertl, W., 1988, Mater. Res. Soc. Symp. Proc. 122, 491-496. 'The $ZrO_2(+Y_2O_3)$ - YVO_4 Interface: Destabilization of Cubic $ZrO_2(+Y_2O_3)$ in the Presence of V_2O_5 .'
- C113 Susnitzky, D.W., Summerfelt, S.R., and Carter, C.B., 1988, Mater. Res. Soc. Symp. Proc. 122, 541-546. 'Metal-Ceramic Interphase Interfaces: Preparation and Structural Characterization.'
- C112 Cho, N.H., Rasmussen, D.R., McKernan, S., Carter, C.B. and Wagner, D.K., 1988, Mater. Res. Soc. Symp. Proc. 122, 33-38. 'The Study of Interfaces in GaAs.'
- C111 Smith, D.A., Elgat, Z., Krakow, W., Levi, A.A. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 592-593. 'Structural Multiplicity in a Tilt Boundary in Germanium.'
- C110 McKernan, S., Cho, N.-H., Rasmussen, D.R. and Carter, C.B., 1988, Inst. Phys. Conf. Ser. 93 (1), 171-172. 'High Resolution Characterization of Interface-Related Defects in III-V Semiconductors.'
- C109 McKernan, S. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 928-929. 'Observation of Double Ribbons in GaAs.'
- C108 McKernan, S., Carter, C.B., Bour, D. and Shealy, J.R., 1988, 46th Annual Meeting EMSA, 902-903. 'Planar Defects in Ordered $(Ga,In)P$.'
- C107 McKernan, S. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 800-801. 'Growth of Hematite by Surface Oxidation of Olivine.'
- C106 Rasmussen, D.R., Simpson, Y.K., Kilaas, R. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 610-611. 'Contrast Effects at Grooved Interfaces.'
- C105 Tietz, L.A., Carter, C.B., Lathrop, D.K., Russek, S.E., and Buhrman, R.A., 1988, 46th Annual Meeting EMSA, 870-871. 'Special Grain Boundaries in $YBa_2Cu_3O_{7-x}$.'
- C104 Simpson, Y.K. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 570-571. 'The Interaction Between Basal-Twin Boundaries and a Glassy Phase in α -Alumina Compacts.'
- C103 Summerfelt, S.R. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 766-767. 'Movement of the Spinel-Wustite Interface in Thin Films.'
- C102 Rasmussen, D.R., Cho, N.-H., and Carter, C.B., 1988, 46th Annual Meeting EMSA, 600-601. 'Determination of the Lattice Translation Across $\{110\}$ APBs on GaAs.'
- C101 Cho, N.-H. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 594-595. 'The Use of Image Symmetry in the Analysis of High-Resolution Image of Grain Boundaries in GaAs.'
- C100 Susnitzky, D.W., Summerfelt, S.R., and Carter, C.B., 1988, Inst. Phys. Conf. Ser. 93 (2), 549-550. 'Thin-Film Reactions of Ceramics Prepared by CVD.'
- C099 Carter, C.B., McKernan, S., Simpson, Y.K., Susnitzky, D.W. and Tietz, L.A., 1988, EUREM 88, Inst. Phys. Conf. Ser. 93 (2), 545-546. 'Recent Studies of Grain Boundaries in Ceramic Oxides.'
- C098 Conner, J.R., Theodore, N.D., Arney, S.C., Carter, C.B. and MacDonald, N.C., 1988, 46th Annual Meeting EMSA, 822-823. 'Transmission Electron Microscopy of 1/4-Micron SOI Structures.'
- C097 Susnitzky, D.W., Summerfelt, S.R. and Carter, C.B., 1988, 46th Annual Meeting EMSA, 798-799. 'Reaction Couples of Ceramic Thin Films Prepared by CVD.'
- C096 Susnitzky, D.W., 1988, 46th Annual Meeting EMSA, 792-793. 'Vanadia-Induced Transformations in Ytria-Stabilized Zirconia.'
- C095 Tietz, L.A., Carter, C.B., Lathrop, D.K., Russek, S.E. and Buhrman, R.A., 1988, Mater. Res. Soc. Symp. Proc. 99, 715-718. 'Grain Boundaries in $YBa_2Cu_3O_{7-x}$ Thin Films.'
- C094 Tietz, L.A., De Cooman, B.C., Carter, C.B., Lathrop, D.K., Russek, S.E. and Buhrman, R.A., 1988, Mater. Res. Soc. Symp. Proc. 99, 719-722. 'The Morphology of $YBa_2Cu_3O_{7-x}$ Thin Films Grown on Ceramic Substrates.'

- C093 McKernan, S., De Cooman, B.C., Carter, C.B., Bour, D. and Sheally, R.C., 1988, Mater. Res. Soc. Symp. Proc. 104, 637-640. 'TEM Studies of Ordering in MOCVD-Grown (GaIn)P on GaAs.'
- C092 Cho, N.-H., McKernan, S., Rasmussen, D.R., Carter, C.B. and Wagner, D.K., 1988, Mater. Res. Soc. Symp. Proc. 104, 617-622. 'Interface Defects in GaAs and GaAs-Al_xGa_{1-x}As Grown on Ge.'
- C091 De Cooman, B.C. and Carter, C.B., 1987, Inst. Phys. Conf. Ser. 87, 259-268. 'TEM Studies of Deformation-Induced Defects in Gallium Arsenide.'
- C090 De Cooman, B.C., Carter, C.B. and Ralston, J.R., 1987, SPIE 797, 185-193. 'Al_xGa_{1-x}As/GaAs Superlattice Disorder by Ion-Implantation and Diffusion: A TEM Study of Mechanisms.'
- C089 McKernan, S., De Cooman, B.C., Conner, J.R., Summerfelt, S.R. and Carter, C.B., 1987, Inst. Phys. Conf. Ser. 87, 201-206. 'Electron Microscope Imaging of III-V Compound Superlattices.'
- C088 Cho, N.-H., McKernan, S., Carter, C.B., De Cooman, B.C. and Wagner, D.K., 1987, Mater. Res. Soc. Symp. Proc. 91, 161-166. 'Characterization of Dislocations in GaAs Grown on Si and Ge.'
- C087 Cho, N.-H., Carter, C.B., Wagner, D.K. and McKernan, S., 1987, Mater. Res. Soc. Symp. Proc. 91, 181-186. 'Characterization of APBs in GaAs Grown on Si and Ge.'
- C086 Cho, N.-H., Carter, C.B., Wagner, D.K. and McKernan, S., 1987, Inst. Phys. Conf. Ser. 87, 281-286. 'Grain Boundaries and APBs in GaAs.'
- C085 Simpson, Y.K., Colgan, E.G. and Carter, C.B., 1987, Mater. Res. Soc. Symp. Proc. 94, 299-304. 'The Kinetics of Ni-Al Spinel Growth Using Rutherford Backscattering Spectroscopy.'
- C084 Simpson, Y.K. and Carter, C.B., 1987, Mater. Res. Soc. Symp. Proc. 94, 45-50. 'The Early Stages of the Spinel-Alumina Phase Transformation.'
- C083 Cho, N.-H., McKernan, S. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 314-315. 'Faceted Antiphase Boundaries in GaAs Grown on Ge.'
- C082 De Cooman, B.C. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 308-311. 'Glide of Extended Dislocations in III-V Compounds.'
- C081 De Cooman, B.C., McKernan, S. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 316-317. 'Stacking-Fault Tetrahedra in Ion-Implanted III-V Compounds.'
- C080 Simpson, Y.K. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 294-295. 'Growth of Spinel into Alumina.'
- C079 Summerfelt, S.R. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 268-269. 'The Wustite-Spinel Interface.'
- C078 Tietz, L.A. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 270-271. 'Structure of Spinel/Sesquioxide Phase Boundaries.'
- C077 Tietz, L.A., Dieckmann, R. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 158-159. 'Twin Boundaries in Hausmannite (γ -Mn₃O₄).'
- C076 Susnitzky, D.W. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 154-155. 'Method for Determining Surface Step Heights and Its Application to α -Al₂O₃.'
- C075 Susnitzky, D.W., McKernan, S. and Carter, C.B., 1987, 45th Annual Meeting EMSA, 150-151. 'Characterization of Potassium Aluminates in an α -Al₂O₃ Matrix.'
- C074 Susnitzky, D.W. and Carter, C.B., 1987, Mater. Res. Soc. Symp. Proc. 82, 463-468. 'Surface Morphology of Single-Crystal Ceramics.'
- C073 De Cooman, B.C. and Carter, C.B., 1987, Mater. Res. Soc. Symp. Proc. 82, 253-258. 'Partial Dislocation Mobility in GaAs.'
- C072 De Cooman, B.C., Conner, J.C., Summerfelt, S.R., McKernan, S., Carter, C.B. and Shealy, J.R., 1987, Mater. Res. Soc. Symp. Proc. 77, 187-190. 'Imaging of III-V Compound Superlattices by HREM and REM.'
- C071 Chen, S.-H., Carter, C.B., Palmström, C.J. and Ohashi, T., 1986, Mater. Res. Soc. Symp. Proc. 54, 361-366. 'Lateral Reactions of GaAs with Ni Studied by Transmission Electron Microscopy.'
- C070 Carter, C.B., 1986, ICEM 11, Kyoto, 147-150. 'Interfaces in Ceramics.'
- C069 De Cooman, B.C., Kuesters, K.-H. and Carter, C.B., 1986, Mater. Res. Soc. Symp. Proc. 62, 37-44. 'The Core-Structure of Dislocations in GaAs.'

- C068 De Cooman, B.C., Carter, C.B., Ralston, J. and Wicks, G.W., 1986, Mater. Res. Soc. Symp. Proc. 56, 333-338. 'The Defect Structure of Ion-Implanted Al_xGa_{1-x}As/GaAs Superlattices.'
- C067 Carter, C.B., De Cooman, B.C., Cho, N.-H., Fletcher, R., Wagner, D.K. and Ballantyne, J., 1986, Mater. Res. Soc. Symp. Proc. 56, 73-78. 'Defects in GaAs Grown on Ge Substrates.'
- C066 Carter, C.B., 1986, Mater. Res. Soc. Symp. Proc. 60, 199-210. 'Structure of Dislocations and Interfaces in Non-Metallic Crystalline Materials.'
- C065 Ralston, J., Wicks, G.W., Eastman, L.F., De Cooman, B.C. and Carter, C.B., 1986, Mater. Res. Soc. Symp. Proc. 56, 327-332. 'Intermixing of Ion-Implanted AlGaAs/GaAs Superlattices.'
- C064 Kouh Simpson, Y.M., Carter, C.B., Sklad, P. and Bentley, J., 1986, Mater. Res. Soc. Symp. Proc. 62, 427-434. 'Grain Boundary Glassy Phase Identification and Possible Artifacts.'
- C063 Kouh Simpson, Y.M. and Carter, C.B., 1986, Mater. Res. Soc. Symp. Proc. 60, 265-272. 'The Study of the Formation and Growth of Ni-Al Spinel Using a New Thin Film Specimen Geometry.'
- C062 Susnitzky, D.M., Kouh Simpson, Y.M., De Cooman, B.C. and Carter, C.B., 1986, Mater. Res. Soc. Symp. Proc. 60, 219-226. 'The Structure of Surface Steps on Low-Index Planes of Oxides.'
- C061 Morrissey, K.J. and Carter C.B., 1985, 43rd Annual Meeting EMSA, 214-215. 'Structural Transitions in Al₂O₃.'
- C060 De Cooman, B.C., Chen, S. H., Carter, C.B., Ralston, J. and Wicks, G. D., 1985, Inst. Phys. Conf. Ser. 76, 301-306. 'The Structure of Ion-Implanted Al_xGa_{1-x}As/GaAs Superlattices.'
- C059 De Cooman, B.C., Kuesters, K.-H. and Carter, C.B., 1985, Inst. Phys. Conf. Ser. 76, 55-60. 'Dislocations in GaAs.'
- C058 Carter, C.B., Cho, N.-H., Elgat, Z., Fletcher, R. and Wagner, D.K., 1985, Inst. Phys. Conf. Ser. 76, 221-226. 'Grain Boundaries in GaAs.'
- C057 Morrissey, K.J. and Carter, C.B., 1985, Mater. Res. Soc. Symp. Proc. 41, 137-142. 'Surface Steps on γ -Alumina Films.'
- C056 Kuesters, K.-H., De Cooman B.C. and Carter, C.B., 1985, 13th Int. Conf. on Defects in Semiconductors, 351-357. 'Study of Dislocation Motion in GaAs and Al_xGa_{1-x}As/GaAs Devices.'
- C055 Schaff, W.J., Maki, P.A., Eastman, L.F., Rathbun, L., De Cooman, B.C. and Carter, C.B., 1985, Mater. Res. Soc. Symp. Proc. 37, 15-21. 'The Effect of Doping on the Interface Between GaAs and AlGaAs.'
- C054 Chen, S.-H., Barbour, J.C., Zheng, L.R., Carter, C.B. and Mayer, J.W., 1985, Mater. Res. Soc. Symp. Proc. 37, 635-640. 'Structure Analysis of Ni-Silicides Formed in Lateral Diffusion Couples.'
- C053 Skrotzki, W., Wendt, H., Carter, C.B. and Kohlstedt, D.L., 1985, Mater. Res. Soc. Symp. Proc. 41, 261-266. 'Structural Changes of a $\Sigma=51$ Tilt Boundary in Ge During High Temperature Creep.'
- C052 Kouh, Y.M., Carter, C.B. and Schmalzried, H., 1985, 43rd Annual Meeting EMSA, 216-217. 'The Spinel/Alumina Phase Boundary.'
- C051 Chen, S.-H., Enquist, P. and Carter, C.B., 1985, Mater. Res. Soc. Symp. Proc. 41, 369-374. 'Tin-Doping Induced Defects in GaAs Films Grown by Molecular Beam Epitaxy.'
- C050 De Cooman, B.C., Carter, C.B., Tanoue, T. and Wicks, G.W., 1985, Mater. Res. Soc. Symp. Proc. 37, 13-21. 'TEM Studies of InAs-GaSb Strained Superlattices.'
- C049 Morrissey, K.J. and Carter, C.B., 1985, Advances in Materials Characterization II, 179-187. 'Characterization of Grain Boundaries in Alumina.'
- C048 Morrissey, K.J., Czanderna, K.K., Merrill R.P. and Carter, C.B., 1984, 42nd Annual Meeting EMSA, Detroit, 648-649. 'Analysis of Transition Alumina Structures Using HRTEM.'
- C047 Carter, C.B., 1984, Int. Colloq. on Dislocations, Aussois, 227-251. 'What's New in Dislocation Dissociation?'
- C046 Kavanagh, K., Chen, S.-H., Palmstrøm, C., Carter, C.B. and Mukherjee, S.D., 1984, Mater. Res. Soc. Symp. Proc. 25, 143-148. 'RBS and TEM Analysis of Ta Silicides on GaAs.'
- C045 Elgat, Z. and Carter, C.B., 1984, Mater. Res. Soc. Symp. Proc. 25, 293-298. 'Formation of Microtwins in Low-Angle Grain Boundaries in Germanium.'
- C044 Wendt, H., Ostyn, K.M. and Carter, C.B., 1984, Mater. Res. Soc. Symp. Proc. 24, 87-92. 'Dislocation Dissociation in Mg_{0.n}Al₂O₃ Spinel.'

- C043 Morrissey, K.J. and Carter, C.B., 1984, Mater. Res. Soc. Symp. Proc. 24, 121-127. 'Special Grain Boundaries in Al₂O₃.'
- C042 Skrotzki, W., Wendt, H., Carter, C.B. and Kohlstedt, D.L., 1984, Mater. Res. Soc. Symp. Proc. 25, 299-304. 'Structure and Dissociation of a 15° <110> Tilt Boundary in Germanium.'
- C041 Morrissey, K.J., Elgat, Z., Kouh, Y. and Carter, C.B., 1984, Mater. Res. Soc. Symp. Proc. 31, 331-336. 'High-Resolution TEM Studies of γ -Alumina Type Structures.'
- C040 Carter, C.B., 1984, Mater. Res. Soc. Symp. Proc. 31, 267-278. 'The Structure of Grain Boundaries and Phase Boundaries in Ceramics.'
- C039 Carter, C.B. and Morrissey, K.J., 1984, Adv. Ceram. 10, 303-323. 'Grain Boundary Structure in Al₂O₃.'
- C038 Ostyn, K.M., Carter, C.B., and Schmalzried, H., 1983, Beitr. Elektronenmikroskop. Direktabb. Oberfl. 16, 255-261. 'Structure of Oxide-Oxide Phase Boundaries.'
- C037 Ostyn, K.M., Wendt, H. and Carter, C.B., 1983, Beitr. Elektronenmikroskop. Direktabb. Oberfl. 16, 225-232. 'Low-Angle Boundaries in Spinel.'
- C036 Kouh, Y. and Carter, C.B., 1983, Inst. Phys. Conf. Ser. 67, 291-296. 'Chemical and Structural TEM of Defects in Doped GaAs.'
- C035 Dodsworth, J., Kohlstedt, D.L. and Carter, C.B., 1983, Adv. Ceram. 6, 102-109. 'Grain Boundaries in Transition Metal Carbides.'
- C034 Dodsworth, J., Carter, C.B. and Kohlstedt, D.L., 1983, Adv. Ceram. 6, 73-84. 'Formation of Grain Boundaries in MgO by Deformation.'
- C033 Carter, C.B. and Elgat, Z., 1983, Adv. Ceram. 6, 192-201. 'Migration of Grain Boundaries in Si and Ge.'
- C032 Ostyn, K.M. and Carter, C.B., 1983, Adv. Ceram. 6, 44-58. 'Structure of Interfaces in Cubic Oxides.'
- C031 Morrissey, K.J. and Carter, C.B., 1983, Adv. Ceram. 6, 85-95. 'Dislocations in Twin Boundaries in Al₂O₃.'
- C030 Morrissey, K.J. and Carter, C.B., 1983, Mater. Sci. Res. 15, 297-307. 'Analysis of Second-Phase Particles in Al₂O₃.'
- C029 Ostyn, K.M. and Carter, C.B., 1983, 41st Annual Meeting EMSA, Phoenix, 50-51. 'Dislocation Dissociation in Low-Angle Spinel Boundaries.'
- C028 Morrissey, K.J., Kouh, Y. and Carter, C.B., 1983, 41st Annual Meeting EMSA, Phoenix, 46-47. 'High Resolution TEM and Analytical Study of Second-Phase Particles in Al₂O₃.'
- C027 Ostyn, K.M., Schmalzried H. and Carter, C.B., 1983, 41st Annual Meeting EMSA, Phoenix, 54-55. 'Spinel/Oxide Interfaces Formed by Internal Solid-State Reactions.'
- C026 Morrissey, K.J. and Carter, C.B., 1983, 41st Annual Meeting EMSA, Phoenix, 48-49. 'Faceted Grain Boundaries in Al₂O₃.'
- C025 Carter, C.B., DeSimone, D.M., Griem, H.T. and Wood, C.E.C., 1983, Mater. Res. Soc. Symp. Proc. 14, 271-275. 'Analysis of Defects in Heavily-Doped MBE-GaAs.'
- C024 Carter, C.B., DeSimone, D.M., Griem, H.T. and Wood, C.E.C., 1982, 40th Annual Meeting EMSA, Washington, D. C., 442-445. 'Defects in Heavily-Doped MBE GaAs.'
- C023 Shaw, T.M. and Carter, C.B., 1982, 40th Annual Meeting EMSA, Washington, D. C., 550 -551. 'Faceted Twin Boundaries in an Mg-Al Spinel.'
- C022 Morrissey, K.J. and Carter, C.B., 1982, ICEM 10, Hamburg, 343-344. 'Faceted Twin Boundaries in Al₂O₃.'
- C021 Ostyn, K.M. and Carter, C.B., 1982, ICEM 10, Hamburg, 191-192. 'Effects of Ion-Beam Thinning on the Structure of NiO.'
- C020 Carter, C.B., 1982, Grain Boundaries in Semiconductors, 33-38. 'The Structure of Dislocations in Low Angle Grain Boundaries in the Diamond-Cubic Lattice.'
- C019 Carter, C.B., Rose, J. and Ast, D.G., 1981, 39th Annual Meeting EMSA, Atlanta, 160-161. 'TEM Study of a Tilt Boundary in Hot-Pressed Silicon.'

- C018 Ostyn, K.M. and Carter, C.B., 1981, 39th Annual Meeting EMSA, Atlanta, 230-231. 'Surface Dislocations in NiO.'
- C017 Carter, C.B., Rose, J. and Ast, D.G., 1981, Inst. Phys. Conf. Ser. 60, 153-158. 'Study of a Tilt Boundary in Hot-Pressed Silicon.'
- C016 Carter, C.B. and Föll, H., 1981, International Conference on Dislocation Modeling of Physical Systems, Physica C (Pergamon), 554-558. 'Dissociated Dislocations in (111) Twist Boundaries.'
- C015 Carter, C.B., 1980, 38th Annual Meeting EMSA, Reno, 370-373. 'The Study of Grain Boundaries in Ceramics by Electron Diffraction.'
- C014 Carter, C.B., F. Cosandey, Hagège, S. and Sass, S.L., 1980, 7th European Conference on Electron Microscopy, 234-235. 'The Use of Electron Diffraction Techniques to Study the Thickness of Grain Boundaries.'
- C013 Carter, C.B., Föll, H., Ast, D.G. and Sass, S.L., 1980, 7th European Conference on Electron Microscopy, 314-315. 'Grain Boundaries in Silicon: An Electron Diffraction and Microscopy Study.'
- C012 Carter, C.B., Föll, H., Ast, D.G. and Sass, S.L., 1979, 37th Annual Meeting EMSA, San Antonio, 686-687. 'Electron Microscopy and Diffraction Studies of Grain Boundaries in Silicon.'
- C011 Föll, H., Carter, C.B. and Wilkens, M., 1979, 37th Annual Meeting EMSA, San Antonio, 690-691. 'On the Contrast from Stacking Faults.'
- C010 Budai, J., Carter, C.B., Donald, A.M. and Sass, S.L., 1979, 37th Annual Meeting EMSA, San Antonio, 506-509. 'Electron and X-Ray Diffraction Studies of Grain Boundaries.'
- C009 Carter, C.B., Donald, A.M. and Sass, S.L., 1978, ICEM 9, Toronto, 420-421. 'Diffraction Effects from Inclined Grain Boundaries in Polycrystalline Thin Foils.'
- C008 Carter, C.B., Cherns, D., Hirsch, P.B. and Saka, H., 1978, ICEM 9, Toronto, 324-325. 'Electron Microscope Studies of Climb Dissociated Dislocations.'
- C007 Pond, R.C., Sutton, A.P., Carter, C.B. and Clark, W.A.T., 1977, Inst. Phys. Conf. Ser. 36, 247-250. 'Stacking-Fault Contrast Using Weak-Beam Condition.'
- C006 Carter, C.B. and Holmes, S.M., 1977, Inst. Phys. Conf. Ser. 36, 177-180. 'Dissociated Dislocation Dipoles in FCC Materials.'
- C005 Carter, C.B., 1977, Inst. Phys. Conf. Ser. 36, 173-176. 'Jogs on Extended Defects in FCC Materials.'
- C004 Carter, C.B., 1977, 15th Czech. Conf. on Elec. Microsc., Prague, B, 455-458. 'Weak-Beam Observations of Jogs and Dissociated Dislocations.'
- C003 Carter, C.B. and Holmes, S.M., 1976, 6th Eur. Conf. on Elec. Microsc., Jerusalem, 581-583. 'Studies of Dislocation Dipoles in FCC Metals.'
- C002 Carter, C.B. and Hirsch, P.B., 1976, 4th Int. Conf. on the Strength of Metals and Alloys 1, 70-74. 'Formation, Structure, and Movement of Jogs in Copper Alloys.'
- C001 Carter, C.B. and Holmes, S.M., 1975, EMAG 75, 413-416. 'Weak-Beam Images of Faulted Dipoles in Face-Centered Cubic Metals.'

Other publications (partial) by researchers while in our group

(Where CBC advised the student but did not participate in the research to a significant extent.)

- G038 Venugopal, B.R., Ravishankar, N., Perrey, C.R., Shivakumara C. and Rajamathi, M., 2006, J. Phys. Chem. B 2006, 110, 772-776 'Layered Double Hydroxide-CdSe Quantum Dot Composites through Colloidal Processing: Effect of Host Matrix-Nanoparticle Interaction on Optical Behavior'
- G037 Marquis, E.A., Riesterer, J.L., Seidman D.N. and Larson, D.J., 2006, ICM-16 Saporro, Japan 'Mg segregation at coherent and semi-coherent Al/Al₃Sc interfaces'
- G036 Marquis, E.A., Riesterer, J.L., Seidman D.N. and Larson, D.J., 2006, Microsc. Microanal. 12, 'Mg segregation at coherent and semi-coherent Al/Al₃Sc interfaces'
- G035 Altay, A. and Gülgün, M.A. 2004, Euro Ceramics VIII, (Eur. Ceram. Soc. Istanbul, June 2003) 'Calcium in Alpha-Alumina: The Myth and some EM Observations' pp 219-224

- G034 [Blanford, C.F.](#), Yan, H., Schroden, R.C., Al-Daous, M. and Stein, A., 2001, Adv. Mater. 13(6) 401-407 'Gems of Chemistry and Physics: Macroporous Metal Oxides with 3D Order'
- G033 [Blanford, C.F.](#), Schroden, R.C., Stein, A., 2000, Mat Res Soc. Symp. D: Solvatochromic Behavior of Three-Dimensionally Ordered Macroporous (3DOM) Materials from Colloidal Crystal Templates. Document ID 39772.
- G032 Holland, B.T., [Blanford, C.F.](#), and Stein, A., 1998, Science, 281 538-540, 'Synthesis of Macroporous Minerals with Highly Ordered Three-Dimensional Warrays of Spheroidal Voids'
- G031 Medlin, D.L., Smugeresky, J.E., and [Cohen, D.](#), 1998 Microsc. Microanal., 4 Suppl. 2, 596-597 'Image Periodicities Introduced by Three-Fold Astigmatism in HRTEM Images of alpha-Al₂O₃ and Related Materials'
- G030 Campbell, G. H., King, W. E. and [Cohen, D.](#), 1997, Microsc. Microanal., 3(5) 451-7. 'Analysis of Experimental Error in High Resolution Electron Micrographs'
- G029 King, W.E., Campbell, G.H., Foiles, S.M., Cohen, D. and Hanson, K.M. 1997, J. Microscopy. 190 131-143 'Quantitative HREM Observation of the Σ 11 (113)/[10] Grain Boundary Structure in Aluminum and Comparison with Atomistic Simulation.'
- G028 Campbell, G.H., Cohen, D., King, W.E., 1997, Microsc. Microanal., 3(4), 299-310. 'Data Preparation for Quantitative High Resolution Electron Microscopy.'
- G027 McKernan, S., 1995 Microbeam Analysis Society Meeting, Denver, CO. 'Imaging Ceramics in the Environmental Scanning Electron Microscope.'
- G026 McKernan, S. and Norton, M.G. 1995, Proceedings of Microcopy and Microanalysis 1995, (53rd Annual Meeting MSA, Kansas City) eds Bailey, G.W., Ellisman, M.H., Hennigar, R.A. and Zaluzec, N.J., pp 632-633 'The Detection of Xe Gas Bubbles in MgO High-Resolution Lattice Images.'
- G025 McKernan, S., 1995, Proceedings of Microcopy and Microanalysis 1995, (53rd Annual Meeting MSA, Kansas City) eds Bailey, G.W., Ellisman, M.H., Hennigar, R.A. and Zaluzec, N.J., pp 102-103 'The Quantitative Comparison of Experimental and Simulated Diffraction Contrast Images.'
- G024 Xu, M., Polonka, J., Goldman, A.I., Finnemore, D.K. and McKernan, S., 1993, Applied Superconductivity 1 (10-12), 1547-1554. 'Growth of Precipitates in Bi₂Sr₂Ca₁Cu₂O₈.'
- G023 Xu, M., Polonka, J., Goldman, A.I., Finnemore, D.K. and McKernan, S., 1993, IEEE Transactions on Applied Superconductivity 3 (1), 1647-1651. 'Growth of CaO Precipitates in Bi₂Sr₂Ca₁Cu₂O₈+_x.'
- G022 McKernan, S., 1994, 28th Meeting of the Microbeam Analysis Society, New Orleans, 246-247. 'Environmental Scanning Electron Microscopy of Ceramics at High Temperature.'
- G021 Norton, M.G., Jiang, W. and Kotula, P.G., 1994, Scripta Met. 31 (5), 555-558. 'Surface Roughening of Single Crystal Zirconia Implanted with Xenon.'
- G020 Kotula, P.G., 1994, MSA 52nd Annual Meeting, New Orleans, 520-521. 'A New Approach to the Study of Solid-State Reactions in Oxide Ceramics.'
- G019 McKernan, S., Wright, J. and Francis, L.F., 1994, Mater. Res. Soc. Symp. Proc. 321, 561-566, 'The Evolution of Sol-Gel films in the Environmental Scanning Electron Microscope.'
- G018 McKernan, S., 1993, 51st Annual Meeting MSA, 910-911. 'Ceramics in the Environmental Scanning Electron Microscope.'
- G017 Offsey, S.D., Schaff, W.J., Lester, L.F., Eastman, L.F. and McKernan, S., 1991, J. Quantum Electronics 27 (6), 1455-1462. 'Strained-Layer InGaAs-GaAs-AlGaAs Lasers Grown by Molecular Beam Epitaxy for High-Speed Modulation.'
- G016 Hong, Q.Z., Zhu, J.G., Xia, W. and Mayer, J.W., 1990, Mater. Res. Soc. Symp. Proc. 160, 313. 'Ge Transport and Epitaxy in the Amorphous-Ge/Pd₂Si/[111]Si System.'
- G015 Tadayan, B., Tadayan, S., Zhu, J.G., Spencer, M.G., Harris, G.L., Griffin, J. and Eastman, L.F., 1990, J. Vac. Sci. Technol. B8, 131. 'Growth of Indium Doped GaAs by Migration-Enhanced Epitaxy at the Extremely Low Substrate Temperature of 120 C.'
- G014 Zhu, J.G., 1990, 12th International Congress on Electron Microscopy, Seattle, 586-7. 'TEM Study of Epitactically Grown GaAs/Sc_xEr_{1-x}As/GaAs Heterostructures.'

- G013 Hong, Q.Z., Zhu, J.G. and Mayer, J.W., 1989, Appl. Phys. Lett. 55 (8), 747-748. 'Solid Phase Epitaxy of Ge-Si Alloy on [111] Si Through a Pd₂Si Layer.'
- G012 Susnitzky, D.W., 1988, Cornell Engineer. 'Transmission Electron Microscopy of Ceramics.'
- G011 Bour, D.P., Shealy, J.R. and McKernan, S., 1987, J. Appl. Phys. 63 (4), 1241-1243. 'Ga_{0.5}In_{0.5}P/GaAs Interfaces by Organometallic Vapor Phase Epitaxy.'
- G010 McKernan, S., 1987, 45th Annual Meeting EMSA, 102-103. 'Image Processing of Non-Periodic Electron Micrographs.'
- G009 McKernan, S., 1987, 45th Annual Meeting EMSA, 44-45. 'Applications of WACBED to Superlattice Structures in Compound Semiconductors.'
- G008 Cho, N.-H., 1987, 45th Annual Meeting EMSA, 338-339. 'Twin Boundaries in GaAs Grown on Ge.'
- G007 Simpson, Y.K., 1987, 45th Annual Meeting EMSA, 152-153. 'Faceting Behavior of Al₂O₃ in the Presence of a Glassy Phase.'
- G006 Palmstrøm, C.J., Galvin, G.J., Schwarz, S.A., De Cooman, B.C. and Mayer, J.W., 1986, Mater. Res. Soc. Symp. Proc. 56, 67-72. 'Solid Phase Epitaxial Growth of Ge on GaAs.'
- G005 Zheng, L.R., Hung, L.S., Chen, S.-H. and Mayer, J.W., 1985, J. Appl. Phys. 'Effects of Krypton on CrSi₂ Formation.'
- G004 Palmstrøm, C.J., Galvin, G.J., Schwartz, S.A., De Cooman, B.C. and Mayer, J.W., 1985, Mater. Res. Soc. Symp. Proc. 56, 67-72. 'Solid-Phase Epitaxial Growth of Ge on GaAs.'
- G003 Chen, S.-H., 1985, 43rd Annual Meeting EMSA, 368-369. 'Near-Surface Segregation of Sn in Heavily Sn-Doped GaAs Films Grown by Molecular-Beam Epitaxy.'
- G002 Hung, L.S., Chen, S.-H. and Mayer, J.W., 1984, Mater. Res. Soc. Symp. Proc. 25, 253-258. 'Interaction of Al Films on Single Crystal Si Substrates Induced by Ion Irradiation and Post-Anneal.'
- G001 Morrissey, K.J., 1984, 42nd Annual Meeting EMSA, 404-405. 'TEM Observations on Pores in Alumina.'

Theses supervised (30 PhD; 4 MS)

- T034 Winterstein, J.P. December 2011, PhD Thesis, (UConn), 'Analytical EM of Ceramics Interfaces'
- T033 Xue, Y. May 2011, MS Thesis, (UConn), 'Ceramic Materials Used in Solid Oxide Fuel Cells (SOFCs)'
- T032 Riesterer, J.L. February 2009, PhD Thesis, (U of MN), 'Reconstructing Oxide Surfaces'
- T031 Nowak, J.D. December 2007, PhD Thesis, (U of MN), 'Characterization of Surfaces & Interfaces in Nanoparticles using Transmission Electron Microscopy'
- T030 Altay, A. June 2006, PhD Thesis, (U of MN), 'Calcium Aluminate in Alumina'
- T029 Riesterer, J.L., December 2005, MS Thesis, (U of MN), 'Combining FIB, AFM and EBSD for Analysis of Dynamic Processes on Ceramic Surfaces'
- T028 Kumar, S, September 2005, MS Thesis, (U of MN), 'Defects in Polycrystalline GaN'
- T027 Farrer, J.K, August 2004, PhD Thesis, (U of MN), 'The Application of Electron Diffraction to the Study of Surfaces and Interfaces in Ceramic Materials'
- T026 Perrey, C.R., June 2004, PhD Thesis, (U of MN), 'Characterizing Nanoparticles'
- T025 Gilliss, S.R., April 2004, PhD Thesis, (U of MN), 'Ceramic Oxides: Surfaces and Amorphous/Crystalline Interfaces'
- T024 Yanina, S.V., September 2001, PhD Thesis, (U of MN), 'Surface Studies of Ceramic Materials.'
- T023 Blanford, C.F., November 2000, PhD Thesis, (U of MN), 'Synthesis and Electron Microscopy of Inorganic and Hybrid Organic-Inorganic Mesoporous and Macroporous Materials.'
- T022 Zagrebelny, A.N., October 2000, PhD Thesis, (U of MN), 'Micromechanical Properties of Silicate-Glass Intergranular Films in Alumina Ceramics.'
- T021 Cohen, D., March 1999, PhD Thesis, (U of MN), 'A Study of Planar Defects in Gallium Phosphide.'

- T020 Johnson, M.T., Sept. 1998, PhD Thesis, (U of MN), 'Oxide Thin Films: Epitaxy, Reactions and Interfaces.'
- T019 Heffelfinger, J.R., Jan. 1997, PhD Thesis, (U of MN), 'Ceramic Surfaces and Solid-State Reactions.'
- T018 Ramamurthy, S., July 1996, PhD Thesis, (U of MN), 'Amorphous-Crystalline Interfaces in Oxide-Ceramics.'
- T017 Kotula, P.G., 1995, PhD Thesis, (U of MN), 'Interfacial Reactions and Kinetics in the Alumina Nickel Oxide System.'
- T016 Mallamaci, M., 1994, PhD Thesis, (Cornell U.), 'Interfaces Between Alumina and Silicate-Glass Films.'
- T015 Anderson, I.M., 1993, PhD Thesis, (Cornell U.), 'Nickel-Titanate Spinel: A Nonstoichiometric Compound with a Narrow Range of Homogeneity and An Equilibrium Nanometer-Scale Two-Phase Microstructure.'
- T014 Scarfone, C., 1991, MS. Thesis, (Cornell U.), 'Formation and Characterization of Ferroelectric Thin-Films Deposited by Pulsed-Laser Ablation.'
- T013 Zhu, G.J., 1991, PhD Thesis, (Cornell U.), 'Growth and Structural Characterization of Novel Semiconductor Heterostructures.'
- T012 Tietz, L.A., 1991, PhD Thesis, (Cornell U.), 'Transmission Electron Microscopy Studies of Nucleation, Growth and Interfaces in Ceramic Heterojunctions.'
- T011 Theodore, N.D., 1991, PhD Thesis, (Cornell U.), 'A Contribution to the Study of Extended-Defects in Semiconductors.'
- T010 Summerfelt, S.R., 1990, PhD Thesis, (Cornell U.), 'Precipitation of Nickel Ferrite in a Nickel Oxide Matrix.'
- T009 Rasmussen, D.R., 1990, PhD Thesis, (Physics, H.C. Ørsted Institute, U. of Copenhagen, Denmark), 'Simulation and Interpretation of Transmission Electron Microscope Images of Defects in Crystals.'
- T008 Cho, N.-H., 1989, PhD Thesis, (Cornell U.), 'Planar Defects in Gallium Arsenide.'
- T007 Susnitzky, D.W., 1989, PhD Thesis, (Cornell U.), 'Surfaces, Interfaces and Solid-State Reactions in Ceramic Materials.'
- T006 Simpson, Y.K., 1989, PhD Thesis, (Cornell U.), 'Grain Boundaries, Phase Boundaries and Reactions in Ceramic Oxides.'
- T005 De Cooman, B.C., 1987, PhD Thesis, (Cornell U.), 'Contribution to the Study of Extended Defects in Gallium Arsenide and Related Compounds.'
- T004 Chen, S.-H., 1985, PhD Thesis, (Cornell U.), 'Metal Reactions with Semiconductors in Ni-Si, Ni-GaAs Systems Studied by Transmission Electron Microscopy.'
- T003 Elgat, Z., 1985, PhD Thesis, (Cornell U.), 'Structure of Twin Boundaries in Ge and Spinel.'
- T002 Morrissey, K.J., 1985, PhD Thesis, (Cornell U.), 'TEM Observations of α -Al₂O₃, β -Al₂O₃, γ -Al₂O₃, δ -Al₂O₃, and θ -Alumina.'
- T001 Ostyn, K.M., 1984, PhD Thesis, (Cornell U.), 'Interfaces and Related Solid-State Reactions in Oxides.'

Invited talks (1990-) (including most that were given; not including declined invitations)

- 172 "Tentative: TEM of Advanced Materials" Plenary Talk, International Conference on Technologically Advanced Materials (ICTAM) and Asian Meeting on Ferroelectricity (AMF10) University of Delhi, New Delhi, November 7-11, 2016
- 171 "Using TEM Operando Methods to Understand Energy Storage" Invited Talk in the *Electron Microscopy of Materials for Electrochemical Power Systems Symposium*, M&M, Columbus OH July 24-28, 2016
- 170 "Dislocations" Invited Talk in the Gareth Thomas Memorial Symposium, M&M, Columbus OH July 24-28, 2016
- 169 "Studying Defects in the TEM" Invited Talk, International Conference on Metals and Materials Research (ICMR 2016) IISc, Bangalore, June 20-22, 2016

- 168 "Tentative: *Operando* in the TEM" Invited Talk, EMSI, Varanasi June 6-10, 2016
- 167 "Tentative: *Operando* Studies in the TEM" Dept Seminar, UN Texas, Dept MSE, Mar 4, 2016
- 166 "Ceramics for Energy Applications" Plenary Talk, International Conference on Ceramic & Advanced Materials for Energy and Environment, Indian Ceramic Society Annual Meeting, Christ University. Kengeri, Bangalore, India, December 15, 2015
- 165 "Microscopy of Nanomaterials" One-day workshop on 'Nanomaterials' as the 'Chief Guest' - in conjunction with the inauguration of the Department of Nanotechnology, Visvesvaraya Technological University, Bangalore, India, December 14, 2015
- 164 "The Future of TEM & Why We Must Remember the Past" MSA Traveling Speaker Talk at the Oklahoma Microscopy Society in conjunction with the 104th Technical Meeting of the Oklahoma Academy of Science at Oklahoma City University November 13, 2015.
- 163 "Interfaces in Ceramic Materials" Robert B. Sosman Award Symposium "Structures and Properties of Grain Boundaries: Towards an atomic-scale understanding of ceramics" MS&T 2015, Columbus, Ohio from October 4-8, 2015
- 162 "Thoughts on *Operando* TEM" CINT User Meeting, Santa Fe, NM September 21-22, 2015
- 161 "Defects in the TEM" YUCOMAT 2015, Herceg Novi, Montenegro, 2 September 2015
- 160 "Challenging TEM" Workshop on Electron Microscopy for Biological, Environmental, and Energy Research (EMBEER), LNNL, Richland WA 30 July 2015
- 159 "Microscopy of Ceramic Materials" New England Section ACerS Regional Meeting, 27 May 2015
- 158 "Studying Defects in Crystalline Materials using TEM" Department of Materials Science & Engineering, University of Tennessee, Knoxville, TN 10 April 2015
- 157 "Studying Defects using TEM" Department of Physics, University of Texas, San Antonio, TX 13 Feb 2015
- 156 "Electron microscopy: Past, Present and Future" Keynote Opening Talk, 4th Workshop on Advanced Electron Microscopy, University of Texas, San Antonio, TX 11 Feb 2015
- 155 "Challenges for TEM and TEMers" Michigan Microscopy & Microanalysis Society, Detroit, MI. 6 Nov 2014
- 154 "TEM - it's always in situ" Plenary Talk, Polish Microscopy Society, Krakow, Poland. 15 Sept 2014
- 153 "The Role of Microscopy in Understanding Ceramic Processing" Invited Talk, M&M 2014, Hartford CT, 6 August 2014
- 152 "Imaging Extended Defects by TEM" Invited Talk, M&M 2014, Hartford CT, 4 August 2014
- 151 "TEM - it's always in situ: Invited Talk, Annual Meeting Indian Microscopy Society, New Delhi, 9 July 2014
- 150 "Future and Present Challenges for TEM" Dept Seminar, Tokyo University of Science, Tokyo, Japan 19 May 2014
- 149 "TEM: Past, Present and Future" Dept Seminar, Tohoku University, Sendai, Japan 16 May 2014
- 148 "TEM Studies of Nanomaterials and Nanodevices" (Invited) Advanced Microscopy & Theoretical Computations 4 in Hamamatsu Japan, 8 May 2014.
- 147 "Reactions In-Situ and Ex-Situ" (Invited): Japan Microscopy Society, Chiba, Japan, 11 May 2014
- 146 "Characterizing Materials Using Electron Microscopy Department Seminar" Chem E Dept. Seminar, Univ. Nebraska, Lincoln, NE, 4 April, 2014
- 145 "Challenges for TEM and TEMers" (Invited) S. California Microscopy Society, (UC Irvine) 8 February 2014
- 144 "Using Electron Microscopy" Dept Seminar, University of Ulm, Germany, 16 October 2013.
- 143 "Microscopy? Now and Then!" Distinguished Physical Scientist Talk, Microscopy & Microanalysis, August 2013
- 142 'On TiO₂'. Invited Talk (51st Meeting of EMSI (July 6-8, Bangalore, India) 2012.
- 141 'Reactions at Surfaces'. Department Seminar (April 20, Ohio State Univ.) 2012.
- 140 'Reactions at Surfaces'. Department Seminar (April 13, Texas A&M.) 2012.
- 139 'Studies of MgO Nanoparticles'. Department Seminar (Mar. 16, Oregon State Univ.) 2012.
- 138 'Modeling Reactions at Surfaces'. APEM 2012 (Feb. 6- Mar. 9, Perth, Australia) 2012.

- 137 'Electron Microscopy: Linking Universities and Industry'. Workshop on University/Industry Interactions (Jan. 19-20, Nagoya, Japan) 2012.
- 136 'TEM Past, Present and Future'. EMSI50 50th Anniversary meeting of EMSI (July 6-8, Hyderabad, India) 2011.
- 135 'Interfaces in Ceramic Materials: History and Speculation' iib2010. 27 June-1 July 2010 Nagoya, Japan 'Invited Talk' iib2010.
- 134 'Ceria & Related Oxides: The Need for Modeling' The 2nd International Symposium on Advanced Microscopy and Theoretical Calculations—Nanotechnology and Environmental Materials (AMTC2) June 24-26, 2010, Nagoya
- 133 'Interfaces and Small Particles' MSE Dept seminar, University of Maryland. 23 Apr 2010, College Park MD 'Invited Talk' iib2010, NagJune- 1.
- 132 'Interfaces and Small Particles' Solid Mechanics/Materials Seminar, Brown University. 22 Mar 2010, Providence RI 'Invited Talk' iib2010, NagJune- 1.
- 131 'Interfaces in Ceramics: Challenges for Microscopy' University of Graz. 29 Jan 2010 Graz, Austria 'Invited Talk' iib2010, NagJune- 1.
- 130 'Interfaces and Small Particles' University of Leoben. 28 Jan 2010 Leoben, Austria 'Invited Talk' iib2010, NagJune- 1.
- 129 'Thermal Grooving in Two-Phase Fuel-Cell Materials' CIASEM 2009 Rosario, Argentina, 26-29 October 2009. Invited Talk.
- 128 'Interfaces and Small Particles' RPI, Troy NY 21 October 2009. Department Seminar.
- 127 'Interfaces in Ceramics: Challenges for Microscopy' Workshop on Electron Microscopy of Ceramic Materials, Eskisehir, Turkey 12-13 October 2009. Invited Keynote Talk.
- 126 'Introduction to TEM: Lecture 2' School on the Electron Microscopy of Ceramic Materials, Eskisehir, Turkey 8-11 October 2009. 2nd invited 90 minutes lecture.
- 125 'Introduction to TEM: Lecture 1' School on the Electron Microscopy of Ceramic Materials, Eskisehir, Turkey 8-11 October 2009. Invited opening 90 minutes lecture.
- 124 'The State of TEM' Workshop on the TEM, St Gobain, Northborough MA 6 October 2009. Invited Opening Keynote Talk.
- 123 'Synthesis and TEM Characterization of Ceria Nanoparticles' ICAM/Brazilian-MRS, Rio de Janeiro, Brazil 20-24 September 2009. Invited Talk.
- 122 'Studying Small Particles in the TEM' Joint Congress of the Spanish and Portuguese Microscopy Societies 18 June 2009. Invited Talk.
- 121 'Microscopy of Ceramic Materials' Dept. Engin. Ceramics & Glass, University of Aveiro. Portugal, 15 June 2009. Invited Talk.
- 120 'Oxide-on-oxide wetting' HTC-2009 (High Temperature Capillarity; Athens, Greece, May 2009) 5-9 May 2009. Invited Talk.
- 119 'TEM-At What Voltage? Nagoya University, 10 November 2008. Invited Talk.
- 118 'Thermal Grooving in the Presence of Glass'. APMC9: 9th Asia-Pacific Microscopy Conference, 2-7 November 2008, Jeju Island, Korea. Invited Talk.
- 117 'Materials for Improved Energy Production and Storage'. 1st Int. Workshop on Advanced Microscopy and Theoretical Calculations for Nanotechnology and Environmental Materials in Nagoya, Congress Center, Japan 28-30 June 2008. Invited Talk.
- 116 'A Few of My Favorite Things: Reflections on TEM, SEM, STM, AFM and VLM'. Connecticut Microscopy Society Spring Meeting. Yale U. Med School, 22 May 2008. Invited Talk.
- 115 'Ceramic Nanomaterials' 2nd International Symposium on Nanostructured Materials and Nanotechnologies: Development and Applications. Jan 27-Feb 1, 2008 ACerS 32nd Int. Conf & Exp. on Adv. Ceram. and Composites Daytona Beach, FL
- 114 'Kinetics and Stability of Interfaces' Chemistry and Thermodynamics of Grain Boundaries Session (in honor of Rowland Cannon) Jan 27-Feb 1, 2008 ACerS 32nd Int. Conf & Exp. on Adv. Ceram. and Composites Daytona Beach, FL

- 113 'Using Electron Microscopy in the Quest for Improved Energy Production and Storage' CIASEM 2007, Cuzco, Peru 23-28 Sept. 2007.
- 112 'Using Electron Microscopy in the Quest for Improved Energy Production and Storage' CIASEM 2007, Cuzco, Peru 23-28 Sept. 2007.
- 111 'Glass in and on Oxides' Seminar, Dept. Chemical, Materials & Biomolecular Engineering, U. Connecticut, 30 October 2006.
- 110 'Interactions between Glass and Oxide Surfaces' The 3rd Int'l Symp on Advanced Ceramics (ISAC-3). <http://www.jsps124.org/isac2006/>. 11-15 December 2006. Grand Copthorne Waterfront Hotel. Singapore
- 109 'Use of In Situ TEM to Study Nanomaterials' Brazilian MRS 2006 Florianopolis, Brazil, Oct. 2006.
- 108 'Microscopy of Ceramics' IMC-16 2006 Sapporo, Japan, 4 Sept. 2006.
- 107 'The Study of Nanomaterials by TEM' Seminar, Dept. Materials Science, UCLA, 29 May 2006.
- 106 'Thin Films in Ceramic Grain Boundaries' The Brandon Symposium, TMS Spring Meeting, 14 Mar. 2006.
- 105 'Transmission Electron Microscopy of Nanomaterials' XLth meeting of the Portuguese Society of Electron Microscopy and Cell Biology, 9 Dec. 2005.
- 104 'Glass in Crystalline Ceramics' MRS Fall meeting, Boston Symposium KK, 28 Nov., 2005
- 103 'The study of Nanoparticles using TEM' Invited Plenary Talk. 4th Brazilian MRS meeting, Recife, Brazil, 7 October 2005.
- 102 'Glass in and on Oxides' Electron Microscopy Group Department Seminar, University of Cambridge, UK, February 22, 2005
- 101 'Some Studies of Ceramic Nanoparticles and more' ICYS (International Center for Young Scientists, NIMS, Tsukuba, Japan, February 4, 2005
- 100 'Insights into Nanoparticle Formation Mechanisms by Plasma Processing' International Symposium on Characterization of Real Materials and Real Processing TEM, U. of Nagoya, Japan, January 26, 2005
- 99 'Some Studies of Ceramic Nanoparticles' Department of Materials Science, University of Tokyo, Japan, January 21, 2005
- 98 'From Physics to Ceramics' Guest Lecture, Introduction to Physics, Chalmers University of Technology, Göteborg University, Department of Experimental Physics, November 11, 2004
- 97 'Nanoparticles and Nanofilms', Chalmers University of Technology, Göteborg University, Department of Mechanical Engineering, November 8, 2004
- 96 'Some Thoughts on the Future of TEM' MPI for Biochemistry, Martinsreid, October 29, 2004
- 95 'The Behavior of Glass in Ceramic Materials' Brazilian MRS, Foz de Iguacu, October 11, 2004
- 94 'Microscopy of Ceramics' Chalmers University of Technology, Göteborg University, Department of Experimental Physics, September 24, 2004
- 93 'Microscopy of Interfaces' Joint Metallurgy and Materials Research Center Dept Seminar, IISc, Bangalore, March 19, 2004
- 92 'Nanoparticles' Materials for the Future Symposium celebrating 25 Years of the Materials Research Center, MRC, IISc, Bangalore, March 16, 2004
- 91 'Liquids and Ceramic Interfaces' Department of Materials Science, University of Tokyo, Japan, March 5, 2004
- 90 'Nanochemistry of Ceria Particles: Electron Energy-Loss Spectroscopic Study of the Surface of Ceria Abrasives ' The 9th International Symposium on Advanced Physical Fields (APF-9): Characterization of Artificial Nanostructures and Nanomaterials, Tsukuba, Japan, March 2, 2004
- 89 'TEM Studies of Interfaces in III-V Compounds' symposium H1 to be presented at the 204th Meeting of the Electrochemical Society, Orlando, Florida, October 12-17, 2003
- 88 'Interfaces in Oxides' symposium L1 to be presented at the 204th Meeting of the Electrochemical Society, Orlando, Florida, October 12-17, 2003
- 87 'Analysis of Thin Ceramic Films' to be presented at Scanning 2003

- 86 'Nanoscale Plasticity in Free Standing Spheres Less than 100 nm Diameter' to be presented at Plasticity 2003, July 7-11, 2003, Quebec City; to be published in Int. J. Plasticity
- 85 'Interface structure and characterization and/or (de)wetting behavior' Surfaces and Interfaces Symposium at the 105th Annual American Ceramic Society Meeting April 27-30, 2003 in Nashville, TN
- 84 'Synthesis of Silicon Nanoparticles in Inductively Coupled Silane Plasmas' presented at the 2002 Gordon Conference on Plasma Processing Science (July 21-26)
- 83 'Characterization of Composite Materials by Combined EM Techniques' Microscopy of Composites, Oxford, 26 March 2002
- 83 'Ceramic Interfaces' Annual Meeting Brazilian Society of EM, Sao Paulo, Oct. 2001.
- 82 'Defects in Compound Semiconductors' Annual Meeting Brazilian Society of EM, Sao Paulo, Oct. 2001.
- 81 'Diffraction Contrast in the TEM: A Series of Lectures.' Department of Materials Science, Cath. Univ., Rio de Janeiro, Oct. 2002.
- 80 'Discussion of the Choice of Length Scales in Grain Boundary Studies' Lead opinion at Solid State Studies in Ceramics: Gordon Research Conference, 9 August 2000
- 79 'Glass in and on Ceramic Oxides', Cal. Tech. MSE Department Seminar, 21 February, 2001
- 78 'Glass in and on Ceramic Oxides', Japan FCC Int Workshop, Nagoya, 15-17 March 2000
- 77 'Glass in and on Ceramic Oxides', Portland State University. MSE Department Seminar, 1 November, 2000
- 76 'Glass in and on Ceramic Oxides', Virginia Tech. MSE Department Seminar, 6 April, 2000
- 75 'Interfaces in Ceramics', IFW Dresden July, 2002
- 74 'Linking Materials Science & Chemical Engineering.' Department of Materials Science, Cath. Univ., Rio de Janeiro, Oct. 2002.
- 73 'Mechanism of Glass-Crystal Boundary Migration in Ceramics' with N. Ravishankar, 2 May 2000, Annual meeting, American Ceramic Society, St Louis MI, 2000 (BS5-002-00)
- 72 'Model Studies of Glass in Alumina Grain Boundaries' Int. Symp. On Science & Technology of Alumina, Ringberg, Germany, March 17. 2002.
- 71 'Semiconductors', IFW Dresden July, 2002
- 70 'Semiconductors', U. of Jena, Germany, July 2002
- 69 'Surfaces and Grain Boundaries in Ceramics', At CIASEM-VI October 2001.
- 68 'Ceramic Surfaces, Grain Boundaries and Crystalline Interphases', AIMS Annual Spring Meeting, Tucson AZ, 10 February 2000
- 67 'Ceramic Surfaces, Interfaces and Wetting', Georgia Tech., Ann Arbor, 16 November 1999
- 66 'Some Fundamental Aspects of Liquid-phase Sintering'. Presented by Dr Ravishankar, Fall Meeting, American Ceramic Society, Seattle WA, 28 October, 1999
- 65 'SEM of Ceramic Surfaces', CIASEM, IntraAmerica Society for Electron Microscopy, Caracas, Venezuela, 26 October 1999
- 64 'Ceramic Surfaces, Interfaces and Wetting', University of Michigan, Ann Arbor, 15 October 1999
- 63 'Glass in and on Ceramic Oxides', Department of Energy, 28 September 1999
- 62 'Archie Howie Symposium: Celebrations in Pioneering Electron Microscopy', Microscopy & Microanalysis 99 (Portland, OR) vol 5, suppl 2 658-659, Interfaces Symposium, Portland Oregon 3 August 1999
- 61 'Reactions in and on Oxide Thin Films', University of Wisconsin, 11 May 1999
- 60 'Faceting of Oxide Surfaces and Thin-Film Growth', Clemson University, 12 April, 1999
- 59 'Ceramic Surfaces', Spring Meeting, American Ceramic Society, 27 April, 1999
- 58 'Reactions in and on Oxide Thin Films', Cambridge Univ., UK, 19 March, 1999
- 57 'Glass Films in and on Oxides', Lawrence Berkeley National Lab, 14 Dec. 1998
- 56 'Interfaces in Ceramics', Acta Materialia Topical Conference, La Jolla, Ca., 26 Oct. 1998
- 55 'Glass Films in and on Oxides', Fall Meeting, American Ceramic Society, 22 Oct. 1998

- 54 'The Future of Transmission Electron Microscopy', Minnesota Microscopy Society Fall meeting, 15 Oct 1998
- 53 'Glass Films in and on Oxides', PPG, Pittsburgh, 5 Oct. 1998
- 52 'The Future of Transmission Electron Microscopy', Carnegie Mellon University, 25 Sept., 1998
- 51 'Reactions in and on Oxides', University of Hannover, Department Seminar, 7 July 1998
- 50 'A New Method to Study Solid-State Reactions', University of Köln, Department Seminar, 1 July 1998
- 49 'Oxide Thin Films and Reactions', University of Erlangen, Department Seminar, 5 June 1998
- 48 'Oxide Thin Films and Surfaces' University of Karlsruhe, Laboratorium für Elektronenmikroskopie, Department Seminar, 18 May 1998
- 47 'A New Method to Study Solid-State Reactions in Oxides', Bayerisches Geoinstitut, Universitaet Bayreuth, Department Seminar, 27 April 1998
- 46 'Dislocations in Ceramic Oxides' MSA Microscopy and Microanalysis Meeting, Symposium on Ceramics and Minerals 12-16 July 1998, Atlanta
- 45 'Microscopy of Ceramic Surfaces', Spring Meeting of the Alabama Microscopy and Imaging Society, Feb 1998
- 44 'Faceting of Oxide Surfaces and Thin-Film Growth', Fall MRS, invited talk 2 Dec 1997
- 43 'Surfaces in Oxides', CMS Seminar Los Alamos National Labs, NM. 19 Nov. 1997
- 42 'Microscopy of Ceramic Surfaces' 4th Interamerican Electron Microscopy Conference, 23-26 September 1997, Guayaquil, Ecuador.
- 41 'Reactions and Phase Transformations in Thin Oxide Films,' 23 June 1997, Department of Materials, University of Leeds, UK.
- 40 'Electron and Scanning Probe Microscopy of Glass/Ceramic Interfaces,' 4 August 1997, Ceramics Gordon Research Conference on New Perspectives in Interface Science, Kimball Union, NH.
- 39 'The Structure of Close-Packed Surfaces,' 15 May 1997, Dept. of Materials, Oxford University Department Seminar, Oxford, UK.
- 38 'Oxide Thin Films: Substrates, Growth and Reactions,' 28 April 1997, MS&E, Arizona State University Department Seminar, Tempe, AZ.
- 37 'Phase Contrast in the TEM,' 18 April 1997, MS&E, North Carolina State University Guest Lecture, Raleigh, NC..
- 36 'Oxide Thin Films: Substrates, Growth and Reactions,' 18 April 1997, MS&E, North Carolina State University Department Seminar, Raleigh, NC.
- 35 'TEM of Ceramics,' 4 April 1997, NCEM New Building/Microscope Dedication Symposium, Lawrence Berkeley National Lab., Berkeley, CA.
- 34 'AFM as a Complement to SEM and TEM in Materials Science,' 27 October 1996, 15th NCSEM Annual Symposium on Advances in Microscopy, Wilmington, North Carolina.
- 33 'Solid-State Reactions in Oxides by AFM, SEM and TEM' 13 October 1996, MICROMAT '96, Fifth Brazilian Conference on Microscopy of Materials, Rio de Janeiro, Brazil.
- 32 'Interaction between Glass and Surfaces: As Combined AFM, SEM, TEM Study,' 13 October 1996, MICROMAT '96, Fifth Brazilian Conference on Microscopy of Materials, Rio de Janeiro, Brazil.
- 31 'Solid State Reactions in Oxide Thin Films,' 8 September 1996, Thirteenth International Symposium on the Reactivity of Solids, University of Hamburg, Hamburg, Germany.
- 30 'AFM as a Complement to SEM and TEM in Materials Science,' 23 May 1996, Microscopy Society of Northeastern Ohio Spring Symposium, Case Western Reserve University, Cleveland, OH.
- 29 'Understanding Surfaces, Interfaces, & Thin Films,' 11 May 1996, Thirteenth Annual Spring Symposium of The New England Society for Electron Microscopy, Marine Biological Laboratories, Woods Hole, Massachusetts.
- 28 'Reactions and Phase Transformations in Thin Oxide Films,' 11 April 1995, Case Western Reserve University, Cleveland, OH.
- 27 'Growth and Reactions in Oxide Thin Films,' 12 March 1995, University of California-Santa Barbara, Santa Barbara, CA.

- 26 'Reacting NiO and Al₂O₃,' 31 October 1994, Hannover, Germany.
- 25 'Thin Ceramic Films: Growth and Reactions,' 30 October 1994, Jülich, Germany.
- 23 'The Role of Defects During Growth and Reactions in Oxides,' 27 October 1994, Lausanne, Switzerland.
- 22 'Interfaces in Ceramics,' 13 July 1994, Max Planck Institut for Mikrostrukturphysik, Halle, Germany.
- 21 'Thin Ceramic Films: Growth and Reactions,' 1 November 1993, Departmental Colloquium, Department of Materials Science, University of Illinois, Urbana, IL.
- 20 'High-Resolution TEM of Grain Boundaries,' 26 September 1993, 2nd Interamerica Congress on Electron Microscopy, Cancun, Mexico.
- 19 'Structure of Grain Boundaries in Polycrystalline Semiconductors,' 8 September 1993, Int. Conf. on Polycrystalline Semiconductors, St Malo, France.
- 18 'Interfaces in Ceramic Materials,' June 1993, Argonne National Labs, Argonne, IL.
- 17 'Interfaces in Ceramic Materials,' May 1993, Department of Materials Science, University of Wisconsin, Madison, WI.
- 16 'Interfaces in Ceramic Materials,' 1 May 1993, NIST Ceramics Group Seminar, Gaithersburg, MD.
- 15 'High-Resolution TEM of Ceramics,' August 1992, EMSA Symposium on High-Resolution TEM (Prof. David J. Smith, Organizer), Boston, MA.
- 14 'Interfaces and the Growth of Thin Oxide Films,' 21 June 1992, International Conference on Intergranular and Interphase Boundaries, Thessaloniki, Greece.
- 13 'Growth of Thin Ceramic Films,' April 1992, 3M Special Symposium on Inorganic Materials, St. Paul, MN.
- 12 'Thin Ceramic Films: Growth and Reactions,' March 1992, Texas Instruments, Dallas, TX.
- 11 'High-Resolution Microscopy Center,' 31 March 1992, Minnesota EM Soc., Minneapolis, MN.
- 10 'An Overview of the Study of Interfaces Using TEM,' February 1992, 3M An. Div., St. Paul, MN.
- 9 'Interfaces Growth and Reactions in Ceramic Oxides,' November 1991, Departmental Seminar, Purdue University, Lafayette, IN.
- 8 'Interfaces in Ceramics,' November 1991, MRS Fall Meeting, Boston, MA.
- 7 'Interfaces in Ceramic Thin Films,' 31 May 1991, Am. Ceram. Soc., Northern Ohio Section, 1991 Distinguished Speaker Award, Cleveland, OH.
- 6 'Growth of YBa₂Cu₃O_{7-d} Thin Films-Nucleation Heteroepitaxy and Interfaces Scanning Microscopy,' 6 May 1991, Scanning Microscopy, Baltimore, MD.
- 5 'The Nucleation and Growth of Thin Ceramic Films,' 8 April 1991, IBM, Almaden.
- 4 'New Approaches for Studying Interfaces in Oxides,' 4 December 1990, U. Minnesota, MN.
- 3 'The Nucleation and Growth of Thin Oxide Films,' 7 November 1990, Sandia National Labs, Albuquerque, NM.
- 2 'Heterojunctions in Semiconductors,' 5 November 1990, Arizona State University, AZ.
- 1 'Recent Applications of TEM to the Study of Interfaces,' August 1990, 12th Int. Cong. on EM, Seattle, WA.

Other conference activities (1990-) (some)

36. Plenary Speaker and Round-Table Discussion Participant, CIASEM 2011 (Sept. 25 –Sept 29, Merida, Mexico) 2011.
35. International Scientific Advisory Board, MC 2011 (Aug. 29 –Sept 2, Kiel, Germany) 2011.
34. International Advisory Committee, EMSI50 (July 6-8, Hyderabad, India) 2011.
33. Committee for Ceramic Powders: Synthesis, Processing and Sintering, CIMTEC, Florence, 6-18 June 2010.
32. Program Committee, iib2010 June 2010.
31. Symposium Organizer, ICAM/B-MRS Rio de Janeiro, Brazil, Oct. 2009.
30. Symposium Organizer, Frontiers of Electron Microscopy in Materials Science (FEMMS): the 'Materials Science' session. Nagasaki, Japan, 27 Sept. - 2 Oct. 2009.

29. Conference Organizer: International Symposium on the Reactivity of Solids Meeting in Minneapolis, MN 3-6 June 2007
28. Symposium Organizer, Brazilian MRS 2006 Florianopolis, Brazil, Oct. 2006.
27. Session Chair, IMC-16 2006 'Ceramics' Sapporo, Japan, 4 Sept. 2006.
26. Symposium Organizer & Session Chair, M&M 2006 '50th Anniversary of Observation of Dislocations' Chicago IL, 31 Aug. 2006.
25. Session Chair, The Gerberich Symposium, TMS Spring Meeting, 14 Mar. 2006.
24. Symposium Organizer & Session Chair, 'Interfaces' FEMMS 2006, Kasteel Vaalsbroek, 30 Oct. 2005.
23. Chair, Ceramics Gordon Conference, 10-14 July 2004
22. Symposium Organizer, 'Interfacial Engineering for Optimized Properties III,' MRS Spring Meeting, San Francisco, 13-15 April 2004.
21. Symposium Organizer, 'Structure-Property Relationships of Oxide Surfaces and Interfaces,' MRS Fall Meeting, Boston, 2-3 December 2002.
20. Vice Chair, Ceramics Gordon Conference, 11-16 July 2002
19. Symposium Organizer, 'Structure-Property Relationships of Oxide Surfaces and Interfaces,' MRS Fall Meeting, Boston, 27 Nov-1 December 2000.
18. Program Committee, International Union of Microbeam Analysis Societies Meeting, Kona, Hawaii, June 2000.
17. Symposium Organizer, Microscopy & Microanalysis 2000, Scanned-Probe Microscopy Symposium, Philadelphia, PA, August 2000.
16. Symposium Organizer, 'Interfacial Engineering for Optimized Properties II,' MRS Fall Meeting, Boston, 28 Nov-3 December 1999.
15. Symposium Organizer, Microscopy & Microanalysis '99, The Howie Symposium, Portland, OR, August 1999.
14. Symposium Organizer, Microscopy & Microanalysis '99, Ceramics Symposium, Portland, OR, August 1999.
13. Symposium Organizer, International Conference on Electron Microscopy, Cancun, August 1998.
12. International Advisory Board for ISRS (International Symposium on reactivity of solids), 1996-2000.
11. Symposium Organizer, 'Interfacial Engineering for Optimized Properties,' MRS Fall Meeting, Boston, 2-6 December 1996.
10. Session Chairman 'Critical Issues in Ceramic Microstructures,' Microscopy & Microanalysis, Minneapolis, 11-15 August 1996.
9. Session Chairman 'Boundary Migration Transformation and Kinetics II' Session, MRS Fall Meeting, (Symp Cb Defect-Interface Interactions), Boston, 1993.
8. Session Chairman 'Dislocations' Session, Int. Conf on Polycrystalline Semiconductors, St Malo France, 7 September 1993.
7. Symposium Organizer 'Microscopy of Ceramics,' 51st Annual Meeting MSA, Cincinnati, August 1993.
6. Organizing Committee and Session Chairman, Hirsch Symposium 'Understanding Materials,' marking the retirement of Sir Peter Hirsch, September 1992.
5. Symposium Organizer and Session Chairman 'Microscopy of Interfaces,' 50th Annual Meeting EMSA, Boston, August 1992.
4. Session Chairman, International Conference on Intergranular and Interphase Boundaries, Thessaloniki Greece, 21-26 June 1992.
3. Symposium Organizer and Session Chairman 'New Applications of HREM,' EMSA, San Jose, August 1991.
2. Symposium Organizer and Session Chairman 'Fine Structure of Defects,' ICEM 12, Seattle Washington, August 1990

1. Focused Session Organizer with Dr Paul Bristowe MIT 'Computer Modeling and Experimental Study of Grain Boundaries,' Annual Meeting of the American Physical Society, Anaheim CA, March 1990.

Unpublished conference talks 1995- (by year)

- 16.1 MRS Symposium; in preparation. Chou, SS, Kaehr B, Swartzentruber B, Matt Janish MT, Cook A, Beechem T, Carter, C.B. Brinker, 'Photonic Sintering of Solution Processed Bi₂Te₃ Thermoelectrics.' Spring MRS, Phoenix AZ, 2016
- MS&T 2015 (October 4-7, 2015, Columbus, OH) Janish MT, Kotula, PG, Boyce, BL, Mook WM, Carter CB "Defects in tantalum".
- 13.2 Fall 2013 MRS (December 1-6, 2013, Boston)
 - a) Janish, M., Huang, F., Zhang, L., Rastegar, V., Martin, N., Chan, J., McKenzie, B.B., Michael, J.R., Cornelius, C. and Carter, C.B. "Characterization of Electrospun Ceramic Nanofibers by Electron Microscopy".
 - b) Roller, J.M., Arellano-Jimenez, M.J., Vukmirovic, M., Yu, H., Adzic, R., Kotula, P., Carter, C.B. and Maric, R. "Investigation of Structural Features in Pd Nanoparticle Cores Comprising a Shell Layer of Pt".
 - c) Rastegar, V., Roller, J.M., Arellano-Jimenez, M.J., Janish, M., Jain, R., Maric, R. and Carter, C.B. "Electron Microscopy Characterization of Ebonex/Pt Electrocatalysts for Energy Conversion" 224th ECS Meeting – San Francisco, USA
- 13.1 224th ECS Meeting (October 27 – November 1, 2013) (Batteries, Fuel Cells, and Energy Conversion).
 - a) Roller, J., Yu, H., Vukmirovic, M.B., Carter, C.B., Adzic, R.R. and Maric, R., "Flame Based Synthesis of Core-Shell Structures Using Pd-Ru and Pd Cores Prepared From the Vapor Phase With Reactive Spray Deposition Technology"
- 12.4 Electrochem. Soc. Fall 2012 meeting (12 Oct. 2012, Honolulu)
 - a) Maric, R., Roller, J., Arellano-Jiménez, M.J., Mustain, W. and Carter, C.B., "Catalytic Activity in Un-Doped and Rare Earth-Doped Strontium Cerates". "Microstructure and Durability of Non-Carbon Supported Cathode Prepared by a Direct Dry Deposition Technique".
- 12.3 AIChE Fall 2012 (Nov. 2012, Pittsburgh)

Suresh, A., Mhadeshwar, A., Carter, C.B. and Wilhite, B.A., "Catalytic Activity in Un-Doped and Rare Earth-Doped Strontium Cerates".
- 12.2 M&M 2012 (July 29- Aug. 2, 2012, Phoenix)
 - a) Arellano-Jiménez, M.J., Suresh, A., McCutcheon, J. and Carter, C.B., "Polycrystalline TiO₂ Produced by Electrospinning".
 - b) Arellano-Jiménez, M.J., Hire, C., Adamson, D. and Carter, C.B., "Characterization of Zirconia Nanoparticles Produced by Biomimetic Condensation".
 - c) Arellano-Jiménez, M.J., Bogart, J., Mikael, P.E., Nukavarapu, S.P., Laurencin, C. and Carter, C.B., "Microtomy in reinforced polymer scaffolds".
 - d) Arellano-Jiménez, M.J., Suresh, A., Wilhite, B.A. and Carter, C.B., "Understanding the Microstructural Evolution of Cobalt-doped Ceria with Respect to Sintering Temperature using FIB and TEM".
 - e) Roller, J., Arellano-Jiménez, M.J., Bogart, J., Maric, R. and Carter, C.B., "Ultramicrotoming Pt Catalyzed Substrates and Dispersion Supports".
- 12.1 Spring 2012 MRS (April 9-13, 2011, San Francisco)
 - a) Arellano-Jimenez, J.R., Pehmoeller, E. and Carter, C.B., MRS Spring 2012 Symposium TT (Interfaces in Materials, Biology, and Physiology) 'Revealing Interfaces in Natural Materials'.
 - b) Arellano-Jimenez, M.J., Michael, J.R., Bogart, J., Pehmoeller, E. and Carter, C.B., MRS Spring 2012 Symposium Q (Titanium Dioxide Nanomaterials) 'Interfaces Between Titanium Dioxide Polymorphs and Their Relation to Nanoparticles'.

- c) Roller, J., Arellano-Jimenez, M.J., Maric, R. and Carter, C.B., MRS Spring 2012 Symposium U (Materials For Catalysis In Energy) ‘Microstructure of low-Pt-loaded Catalysts Dispersed Via a Dry One-step Process onto Corrosion-resistant Supports’.
- d) Suresh, A., Carter, C.B. and Wilhite, B.A., MRS Spring 2012 Symposium U (Materials For Catalysis In Energy). “Examination of the Relative Catalytic Activities of Undoped and Cobalt-Doped Barium Cerate-Zirconates towards Methanol Partial Oxidation”.
- e) Suresh, A., Arellano-Jimenez, M.J., Carter, C.B. and Wilhite, B.A., MRS Spring 2012 Symposium CCC (Local Probing Techniques and In-Situ Measurements in Materials Science). “Microstructural Evolution of Gadolinium-Doped Barium Cerate in Moisture at Elevated Temperatures”.
- f) Suresh, A., Arellano-Jimenez, M.J., Carter, C.B. and Wilhite, B.A., MRS Spring 2012 Symposium YY (Rare-Earth-based Materials). “Structural Characterization of Transition Metal-Doped Ceria Synthesized by HMTA-Based Coprecipitation”.
- 11.5 Paper presented at 20th National Electron Microscopy Congress (Oct. 25-28, 2011, Antalya, Turkey)
Carter, C.B., ‘TEM of Ceramic Materials; IFSM and Iznik’.
- 11.4 Paper presented at CIASEM 2011 (September 25-29, 2011, Merida, Mexico)
Carter, C.B., ‘TEM: Past, Present & Future.’ (KeyNote Plenary)
Arellano-Jimenez, M.J., Michael, J.R., Bogart, J., Pehmoeller, E. and Carter, C.B., ‘Analysis of Interfaces in TiO₂’.
Arellano-Jimenez, M.J., Bogart, J., Pehmoeller, E. and Carter, C.B., ‘Interfaces in Natural Ceramic Materials’.
Winterstein, J.P., Arellano-Jimenez, Gülgün, M.J., Bogart, J., Pehmoeller, E. and Carter, C.B., ‘Second phases in polycrystalline doped CeO₂’.
- 11.2 Paper presented at EMSI50 (July 6-8, Hyderabad, India)
Carter, C.B., ‘TEM Past, Present and Future’.
- 11.1 Paper presented at E-MRS 2011 (May 9-12, Nice, France)
Arellano-Jimenez, M.J., Winterstein, J.P., Gulgun, M.A. and Carter, C.B., ‘Microstructure of doped cerium oxide ceramics’.
- 10.3 Paper presented at PTM2010 Solid-Solid Phase Transformations in Inorganic Materials June 6-10, 2010 Palais des Papes, Avignon, France.
Winterstein, J.P., Bhowmick, S., Riesterer, J.L., Grogger, W., Hofer, F. and Carter, C.B. 'Surface effects in oxide solid-state reactions'.
- 10.1 Papers presented at the 2010 ACerS Cocoa Beach Meeting in Daytona, FL, January 2008.
Basu, J., Suresh, A., Wilhite, B.A., Carter C.B. and Singh, P., 'Observation on Structural Modification of Co-doped Barium Cerate-Zirconate during Exposure to Reducing Environment'.
Basu, J., Bhowmick, S., Carter C.B. and Singh, P., 'Interdiffusion in NiO-YSZ Composites'.
- 09.3 Paper presented at CIASEM 2009 (Comm. InterAmerica Societies for Electron Microscopy) Rosario, Argentina, October 2009.
Bhowmick, S., Riesterer, J.L. and Carter, C.B., 'Thermal Grooving in Two-Phase Fuel-Cell Materials Thermal Grooving in Two-Phase Fuel-Cell Materials'.
- 09.2 Papers presented at ICAM 2009 (International Conference on Advanced Materials) Rio de Janeiro, Brazil, September 2009.
Basu, J., Winterstein, J.P., Ravishankar, N. and Carter, C.B., 'Synthesis and TEM characterization of ceria nanoparticles'.
Winterstein, J.P., Bhowmick, S., Riesterer, J.L., Basu, J. and Carter, C.B. 'Solid-state reactions and microstructure in the Ni-Ti-O system'.
Norton, M.G. and Carter, C.B. 'Incorporating Nanomaterials into a new Ceramics Textbook'.
- 09.1 Papers presented at the 2009 33rd International Conference & Exposition on Advanced Ceramics and Composites in Daytona, FL, Jan. 18-21, 2009.
Sammes, N. Suresh, A., Basu, J., Wilhite, B.A. and Carter, C.B. 'Synthesis and catalytic activity of Co-doped BaCexZr1-xO3 mixed conductors for hydrogen reforming'.
Riesterer, J.L. and Carter, C.B., 'Phase-boundary Grooving at the Surface in SOFC Materials'.

- Basu, J., Ravishankar, N. and Carter, C.B., 'Patterning Arrays of Nanoparticles'
- Basu, J., Bhowmick, S. Winterstein, T.P. and Carter, C.B., 'Hydrothermal Synthesis of CeO₂ and its derivatives for Energy and the Environment.'
- 08.4 Papers presented at the 2008 Fall Materials Research Society meeting in Boston
- Winterstein, J.P. and Carter, C.B. (Symposium TT: Local Structure and Dynamics in Amorphous Systems) 'Electron-beam induced crystallization of lanthanum oxide'
- Winterstein, J.P. and Carter, C.B. (Symposium NN: In Situ Studies across Spatial and Temporal Scales for Nanoscience & Technology) 'In situ reduction of doped cerium oxide nanoparticles in the TEM'.
- Riesterer, J.L., Bhowmick, S. and Carter, C.B. (Symposium O: Structure/property relationships in fluorite derivative compounds) 'Using AFM to Study Grooving at ZrO₂-Al₂O₃ Phase Boundaries'.
- Riesterer, J.L., Ravishankar, N. and Carter, C.B. (Symposium PP: Solid-state chemistry of inorganic materials VII) 'Behavior of Second-Phase Liquids in Ceramics'.
- Bhowmick, S., Basu, J. and Carter, C.B. (Symposium S: Solid-State Ionics) 'Low-temperature hydrothermal synthesis of nanocrystalline BaCeO₃-based proton conductors'.
- Suresh, A., Basu, J., Wilhite, B.A. and Carter, C.B. (Symposium S: Solid-State Ionics) 'Synthesis and catalytic activity of Co-doped BaCeXZr₁-XO₃ mixed conductors for hydrogen reforming'.
- Bhowmick, S., Riesterer, J.L., Winterstein, J.P. and Carter, C.B. (Symposium PP: Solid-State Chemistry of Inorganic Materials VII) 'Microstructure and phase behavior in Ni-Ti-O system'.
- 08.3 Papers presented at the 2008 Microscopy Society of America Meeting, Albuquerque NM, 4-8 August 2008
- Winterstein, J.P., Basu, J., Herzing, A., Anderson, I.A. and Carter, C.B., 2008, *Microsc. Microanal. M&M*, 'Combined structural and chemical investigations of ceria nanoparticles in the TEM.'
- Basu, J., Divakar, R., Winterstein, J.P., Ravishankar, N. and Carter, C.B., 2008, *Microsc. Microanal. M&M*, 'In situ Microscopy: A Tool to Understand Mechanisms.'
- Basu, J., Divakar, R., Ravishankar, N. and Carter, C.B., 2008, *Microsc. Microanal. M&M*, 'Complementary Microscopy Techniques for Characterizing Nanostructures.'
- 08.2 Paper presented at the 1st Int. Workshop on Advanced Microscopy and Theoretical Calculations for Nanotechnology and Environmental Materials in Nagoya, Congress Center, Japan 28-30 June 2008. 'Interface Formation. Invited Talk with Julia Nowak.
- 08.1 Papers presented at the 2008 ACerS Cocoa Beach Meeting in Daytona, FL, January 27-February 1, 2008.
- Carter C.B., 'Kinetics and Stability of Interfaces' Chemistry and Thermodynamics of Grain Boundaries Session (in honor of Rowland Cannon). Invited Talk.
- Carter C.B., 'Ceramic Nanomaterials' 2nd International Symposium on Nanostructured Materials and Nanotechnologies: Development and Applications. Invited Talk.
- 07.8 Papers presented at the 2007 Fall Materials Research Society meeting in Boston
- Norton, M.G. and Carter, C.B., 2007, Fall MRS, Boston, MA, 'Incorporating Nanomaterials into a new ceramics textbook'.
- 07.7 Paper presented at the AIChE Ann. Meeting, Nov. 4 -9, 2007, Salt Palace Convention Center, Salt Lake City, Utah.
- Leschkies, K.S., Ramachandran, D., Basu, J., Enache-Pommer, E., Boercker, J.E., Carter, C.B., Kortshagen, U.R., Norris, D.J. and Aydil, E.S., 'Nanowire-Based Quantum-Dot-Sensitized Solar Cells'.
- 07.6 Paper presented at the 57th Canadian Chemical Engineering Conference (CSCHE 2007) _October 28-31, 2007_. Shaw Convention Centre _Edmonton, AB, Canada.
- Carter C.B., 'TEM of Nanoparticles'. Invited Talk.
- 07.5 Paper presented at the 9th CIASEM meeting (9th InterAmerican Congress on Electron Microscopy) in Cuzco, Peru 23-28 Sept 2007.
- Carter C.B., 'Using Electron Microscopy in the Quest for Improved Energy Production and Storage'. Invited Talk.

- 07.4 Papers presented at the 2007 Microscopy Society of America Meeting in Fort Lauderdale, FL, 5-9 August 2007
- Deneen Nowak, J. and Carter, C.B., 2007, *Microsc. Microanal. M&M 2007*, 'The Effect of Morphology on Contacts Between Nanoparticles.'
- Deneen Nowak, J., Song, S., Campbell, S.A. Carter, C.B., 2007, *Microsc. Microanal. M&M 2007*, 'Characterization of Ytterbium Silicide Thin Films.'
- Divakar, R., Basu, J. and Carter, C.B., 2007, *Microsc. Microanal. M&M 2007*, 'Hydrothermal Synthesis of Cuboidal Nanocrystalline Ceria.'
- Divakar, R., Basu, J., Leschkies, K.S., Kortshagen, U.R., Aydil, E.S., Norris, D.J. and Carter C.B., 2007, *Microsc. Microanal. M&M 2007*, 'TEM Characterization of CdSe Quantum Dot Sensitized ZnO Nanowires.'
- 07.3 Papers presented at the 2007 International Symposium on the Reactivity of Solids Meeting in Minneapolis, MN 3-6 June 2007
- Basu, J., Ramachandran, D., Riesterer, J.L., Deneen Nowak, J., Winterstein J. and Carter, C.B., 'In Situ TEM Study of solid state reaction of ZnO nanorods on Sapphire'.
- 07.2 Papers presented at the 2007 Spring Materials Research Society Meeting in San Francisco April 2007
- Divakar, R., Basu, J. and Carter, C.B., 2007, Spring MRS, San Francisco, CA, 'In Situ TEM Study of Dewetting and Solid-State Reactions of Nanocrystalline Thin-Film Oxides on Sapphire'.
- Basu, J., Divakar, R., Ravishankar N. and Carter, C.B., 2007, Spring MRS, San Francisco, CA, 'In Situ Observation of Dewetting and Pattern Formation of Au and Ag Nanocrystalline Thin Films on Reconstructed c- and m-Planes of Sapphire'.
- Riesterer, J.L., Farrer, J.K., Ravishankar, N. and Carter, C.B., 2007, Spring MRS, San Francisco, CA, 'Characterizing Grain Boundary Migration and Grain Growth'.
- Riesterer, J.L., Gilliss, S.R., Ravishankar, N. and Carter, C.B., 2007, Spring MRS, San Francisco, CA, 'AFM Study of m-plane Al₂O₃ Surface Reconstruction'.
- 07.1 Papers presented at the 2007 Microscopy of Semiconducting Materials Meeting in Cambridge, UK
- Deneen Nowak, J and Carter, C.B., 2007, *Microscopy of Semiconductor Materials XV*, Cambridge, 1-5 April 2007 'Morphology of Semiconductor Nanoparticles.'
- Deneen Nowak, J., Song, S.H., Campbell, S.A. and Carter, C.B., 2007, *Microscopy of Semiconductor Materials XV*, Cambridge, April 2007 'TEM Study of Ytterbium Silicide Films.'
- Divakar, R., Basu, J. and Carter, C.B., 2007, *Microscopy of Semiconductor Materials XV*, Cambridge, April 2007 'TEM Characterization of ZnO Nanorods'
- 06.6 Invited Paper presented at the 2006 Brazilian Materials Research Society Meeting in Florianapolis, Brazil, October 2006
- Carter, C.B., 'Use of In Situ TEM to Study Nanomaterials' Brazilian MRS 2006 Florianapolis, Brazil, Oct. 2006
- 06.5 Paper presented at the 2006 IMC-16 Meeting in Sapporo, Japan, 3-8 Sept. 2006.
- Altay, A., Rulis, P., Ching, W.-Y., Arslan, I., Gulgun, M.A. and Carter, C.B., 2006, 'Structural Investigations of CA and CA₂ by Energy-Loss Near-Edge Spectrometry and ab initio Calculations' *Proc.16th Int. Microsc. Congr., IMC16*, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 837.
- Deneen, J., Mook, W.M., Minor, A.M., Gerberich, W.W. and Carter, C.B., 2006, 'Dynamic Studies in the TEM: in-situ Compression of Nanoparticles' *Proc.16th Int. Microsc. Congr., IMC16*, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 902.
- Basu, J., Deneen, J., Divakar, R., Hoffman, S., Colli, A., Franciosi, A. and Carter, C.B., 2006, 'Defects and Interfaces in ZnSe Nanowires' *Proc.16th Int. Microsc. Congr., IMC16*, edited by Hideki Ichinose and Takahisa Sasaki, Sapporo, Japan, 2006, p 1229.
- 06.4 Papers presented at the 2006 Materials Science & Technology Meeting in Cincinnati, OH
- Riesterer J.L. and Carter C.B., 2006 'Grain Boundary Migration and Grain Growth in AlAl₂O₃'
- Riesterer J.L., Ravishankar, N. and Carter C.B., 2006 'AFM Studies of SiO₂ Films on (001) TiO₂'

- Riesterer J.L., Marquis, E.M. and Carter C.B., 2006 'Atom-Probe Tomography of Induced Composition Variations in Cu Alloys'
- Deneen, J., Perrey, C.R. and Carter C.B., 2006 'Lattice Defects in Nanoparticles'
- Deneen, J., Mook, W.M., Gerberich, W.W. and Carter C.B., 2006 'Strain at Nanoparticle Contacts'
- 06.3 Papers presented at the 2006 Spring MRS Meeting in San Francisco
- Deneen, J., Mook, W.M., Minor, A.M., Gerberich W.W. and Carter C.B., 'Transmission Electron Microscopy Study of the Mechanical Behavior of Nanoscale Materials' submitted to Symposium Z: Mechanics of Nanoscale Materials and Devices
- Deneen, J., Basu, J., Ramachandran, D. and Carter, C.B., 'Nanowire Growth: A Transmission Electron Microscopy Study' submitted to Symposium P: Semiconductor Nanowires - Fabrication, Physical Properties, and Applications
- Anderson, C., Blackwell, C., Deneen, J., Carter, C.B., Kakalios, J. and Kortshagen, U., 'Dual-Chamber Plasma Co-Deposition of Nanoparticles in Amorphous Silicon Thin Films' submitted to Symposium A: Amorphous and Polycrystalline Thin-Film Silicon Science and Technology
- Blackwell, C., Anderson, C., Deneen, J., Carter, C.B., Kortshagen, U. and Kakalios, J., 'The Influence of Thermophoresis Effects During Deposition of Hydrogenated Amorphous Silicon Thin Films' submitted to Symposium A: Amorphous and Polycrystalline Thin-Film Silicon Science and Technology
- Campbell, S.A., Ding, Y., Dong, Y., Bapat, A., Deneen, J., Carter, C.B. and Kortshagen, U., 'A Single Nanoparticle Transistor' submitted to Symposium D: Transistor Scaling - Methods, Materials, and Modeling
- 06.2 Papers presented at the 2006 Spring APS Meeting in San Antonio
- Wu, J., Parker, J., Perrey, C., Carter, C.B., Lynn, J., Butler, P., Zheng, H., Mitchell, J. and Leighton, C., 2006, 'Intrinsic nanoscale electronic phase separation and simple percolation in $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ '
- Bolon, B., Haugen, M.A., Abin-Fuentes, A., Deneen, J., Carter, C.B. and Leighton, C., 2006 'Using multiple antiferromagnet/ferromagnet interfaces as a probe of grain size dependent exchange bias in polycrystalline $\text{Co/Fe}_{50}\text{Mn}_{50}$ '
- 06.1 Papers presented at the 2006 Spring TMS Meeting in San Antonio
- Carter, C.B., Riesterer, J.L., Altay, A., Farrer, J.K. and Ravishankar, N., 2005, 'Thin Films in Ceramic Grain Boundaries' submitted to TMS Brandon Symposium March 12-16 2006, San Antonio, TX, USA
- Deneen, J., Mook, W.M., Minor, A.M., Gerberich, W.W., and Carter, C.B., 2006, 'Fracture at the Nanoscale: an In Situ Study' Presented in the Symposium in Honor of Gerberich's 70th Birthday
- 05.7 Paper presented at the 2005 XLth meeting of the Portuguese Society of Electron Microscopy and Cell Biology, 8-10 December 2005
- Carter, C.B. and Deneen, J., 2005, 'Transmission Electron Microscopy of Nanomaterials' XLth meeting of the Portuguese Society of Electron Microscopy and Cell Biology, 8-10 December 2005. (Invited)
- 05.6 Papers presented at the 2005 Fall Materials Research Society meeting in Boston
- Carter, C.B., Gilliss, S.R. and Riesterer, J.L., 2005, 'Glass in Crystalline Ceramics' MRS Fall meeting, Boston Symposium:KK: Solid-Solid Interfaces from Observation to Modeling ID:177930. Invited
- Altay, A., Gulgun, M.A. and Carter, C.B., 2005, 'Crystallization of Calcium Aluminate Phases: Bulk vs. Interface' MRS Fall Meeting, Boston, MA, November 2005
- 05.5 Papers presented at the AVS 52nd International Symposium, October 30-November 4, 2005, Boston MA
- Bartelt, N.C., Ling, W.L., McCarty, K.F. and Carter, C.B., 2005, 'Twin Boundaries can be Moved by Step Edges During Film Growth'. TF+EM-WeM3
- McCarty, K.F., Bartelt, N.C., Pierce, J.P. and Carter, C.B., 2005, 'Thermodynamic Stability of Alumina Films on $\text{NiAl}(110)$ and the Dynamics of their Extended Defects'. SS2-MoM3

- Leighton, C., Lynn, J., Glinka, C., Zheng, H., Mitchell, J., Moulton, W., Hoch, M., Kuhns, P., Reyes, A., Perrey, C., Carter, C.B., 2005 'Doped Cobaltites: Phase Separation, Intergranular GMR and Glassy Transport Phenomena' MI-ThA1 Invited
- 05.4 Paper presented at NANO2005, Integrated Nanosystems: Design, Synthesis and Applications, September 15-16, 2005, Berkeley, CA
- Ding, Y., Dong, Y., Bapat, A., Perrey, C.R., Carter, C.B., Campbell, S.A. and Kortshagen, U., 2005, 'Single Crystal Silicon Nanoparticle-Based Transistor'
- 05.3 Paper presented at the EuroConference on Interfaces on Nanostructured Materials, June 2005, Kloster Irsee, Germany
- Altay, A., Gulgun, M.A. and Carter, C.B., 2005, 'Interfacial Reactions of CaAl₄O₇ and CaAl₁₂O₁₉.'
- 05.2 Papers presented at the Spring meeting APS, April 16-19, 2005 Tampa, FL
- Leighton, C., Wu, J., Lynn, J., Glinka, C., Burley, J., Zheng, H., Mitchell, J., Moulton, W., Hoch, M., Kuhns, P., Reyes, A., Perrey, C.R., Munoz, N.E., Thompson, R. and Carter, C.B., 'Doped Cobaltites: Phase Separation, Intergranular Giant Magnetoresistance, and Glassy Transport Phenomena'
- 05.1 Paper presented at the 107th Annual meeting ACerS, April 10-13, 2005 Baltimore, MD
- Altay, A., Deb, B. Gilliss, S. R. and Carter, C.B. 2004, 'Selective Dissolution of Surfaces in Alpha-Alumina'.
- 04.4 Papers presented at the IGERT-SFB poster show, June 24-25, 2004 in Duisburg, Germany
- Thompson, S.S., Perrey, C.R., Deneen, J.M., Carter, C.B. and Kortshagen, U.R., 'Plasma-Synthesis of Mixed-Phase Si Films: Nanocrystalline Si Inclusions in an Amorphous Si Matrix'
- 04.3 Papers presented at the 106th Annual meeting ACerS, April 18-21, 2004 Indianapolis, IN
- Altay, A., Gülgün, M.A. and Carter, C.B., 'Thin-Film Reactions of CaAl₄O₇ and CaAl₁₂O₁₉ with (-Al₂O₃)'.
- Altay, A., Deb, B., Gilliss, S.R., and Carter, C.B., 'Selective Dissolution of Surfaces in (-Alumina'
- 04.2 Papers presented at the 2004 Spring Materials Research Society meeting April 12-16, 2004 in San Francisco
- Shetty, S., Shenoy, V.B, Carter, C, B and Ravishankar, N., 2004, 'Nanopatterning on Reconstructed Ceramic Surfaces' Symp N
- Riesterer, J.L., Gilliss, S.R. Ravishankar, N. and Carter, C.B., 2004, 'Boundary Migration in Alumina Bicrystals' Symp N
- Perrey, C.R. Thompson, S.,S. Lentzen, M., Kortshagen, U. and Carter, C.B., 2004, 'Understanding the Structure of Si Nanoclusters in a/nc-Si:H Films using Spherical Aberration-Corrected Transmission Electron Microscopy'. Symp A
- Perrey, C.R. Deneen, J.M. and Carter, C.B., 2004, 'The Effects of Processing on the Morphology of Nanoparticles'. Symp M
- Bapat, A., Perrey, C.R. Kortshagen, U., Carter, C.B., and Campbell, S.A. 2004, 'Silicon Nanoparticle Synthesis using Constricted Mode Capacitive Silane Plasma'.
- Gilliss, S.R., Ravishankar, N. and Carter, C.B., 2004, 'Dewetting on the Surface of Rutile' Symp. N: Interfacial Engineering for Optimized Properties III
- Gilliss, S.R., Bentley, J. and Carter, C.B., 2004, 'Nanochemistry of Ceria Abrasive Particles' Symp. M: Nanoparticles and Nanowire Building Blocks-Synthesis, Processing, Characterization, and Theory
- Deb, B., Altay, A., Gilliss, S. R. and Carter, C.B., 2004 'A Systematic Study of Monitoring the Changes on the Surfaces and Interfaces in (-Alumina after Chemical and Thermal Treatments' Symp.
- 04.1 Papers presented at ULIS 2004 (Ultimate Integration of Silicon), March 11-12, 2004 Leuven, Belgium
- Dong, Y., Bapat, A., Shen, Z., Perrey, C. R., Carter, C. B., Kortshagen, U. and Campbell, S. A 'Single Crystal Nanoparticles for 3D Integrated Systems'
- 03.11 Papers presented at the 2003 Fall Materials Research Society meeting in Boston

- Mook, W.M., Deneen, J.M., Perrey, C.R., Carter, C.B., Gerberich, W.W., 2003, MRS Fall 03 Symp A, 'Characterizing the Mechanical Response of Silicon Nanostructures'.
- 03.10 Papers presented at the 56th Ann. Gaseous Electronics Conf., San Francisco Oct. 21-24 2003
Wang, X., Hafiz, J., Mukherjee, R., Gidwani, A., Renault, T., Heberlein, J., McMurry, P., Girshick, S., Perrey, C., Mook, W., Carter, C.B. and Gerberich, W.W., 'Nanoparticle Film Deposition Using a Hypersonically Expanded Plasma.'
- 03.9 Papers presented at the 204th Meeting of the Electrochemical Society, Orlando, Florida, Oct. 12-17 2003
Carter, C.B., 'Interfaces in Oxides' Symp. L1
Carter, C.B., 'TEM Studies of Interfaces in III-V Compounds' Symp. H1
- 03.8 Papers presented at the 16th International Symposium on Plasma Chemistry, Taormina, Italy. June 22-29, 2003
Hafiz, J., Wang, X., Mukherjee, R., Gidwani, A., Renault, T., Perrey, C.R., Mook, W., McMurry, P., Heberlein, J., Carter, C.B., Gerberich, W.W. and Girshick, S., 'Thermal Plasma Synthesis and Characterization of Si/Ti/N Nanoparticle Films'.
Bapat, A., Kortshagen, U., Campbell, S., Perrey, C.R. and Carter, C.B., 'Low-Temperature Plasma Synthesis of Single-Crystal Silicon Nanoparticles'.
Kortshagen, U., Bapat, A., Perrey, C.R., Carter, C.B., Dong, Y. and Campbell, S., 'Low-Pressure Plasma Synthesis of Crystalline Silicon Nanoparticles for Novel Electronic Devices'.
Thompson, S., Perrey, C.R., Belich, T.J., Kortshagen, U., Carter, C.B., and Kakalios, J., 'Hydrogenated Silicon Thin Films with Nanocrystalline Inclusions Deposited in Low-Pressure SiH₄:He:H₂-Plasmas'.
- 03.7 Papers presented at the 2003 conference of the American Association for Aerosol Research (AAAR)
Wang, X., Renault, T., Perrey, C.R., Mukherjee, R., Hafiz, J., Gidwani, A., Carter, C.B., Heberlein, J., Girshick, S. and McMurry, P.H., 'In-situ Nanoparticle Diagnostics in a Thermal Plasma Process'.
- 03.6 Invited paper presented at the 2003 Spring Scanning meeting in San Diego
Gilliss, S.R. Ravishankar, and Carter, C.B., 'Analysis Of Thin Ceramic Films.'
- 03.5 Invited paper presented at the 2003 IUMRS meeting in Singapore (meeting cancelled: SARS)
Gilliss, S.R. Ravishankar, and Carter, C.B., 'Interfaces between glasses and Crystalline Oxides.'
- 03.4 Papers presented at the 2003 NanoFIB meeting in Cambridge UK. April 4, 2003.
Perrey, C.R., Carter, C.B., Michael, J., Kotula, P., Stach, E. and Radmilovic, V., 'Using the FIB to characterize nanoparticle materials.'
- 03.3 Invited papers presented at the 2003 Spring TMS meeting in San Diego: The Terry Mitchell Symp.
Perrey, C.R. and Carter, C.B., 'Nanoparticles and Nanofilms.' TMS Mitchell Symposium
- 03.2 Papers presented at the 2003 Spring Materials Research Society meeting in San Francisco
Thompson, S, Belich, T.J., Perrey, C.R, Kortshagen, U., Carter, C.B. and Kakalios, J., 'Experimental Studies of Medium Range Order in Nanostructured Hydrogenated Silicon Thin Films.'
- 03.1 Papers presented at the 2003 Annual meeting ACerS, Nashville TN
Gilliss, S.R. and Carter, C.B., Characterization of Grain Boundary Migration in the Presence of a Glassy Phase for Ceramic Bicrystals
Carter, C.B., The Past and the Future of Ceramic Interface Studies (Invited)
Carter, C.B., Structures and Interfaces: Characterization of Interface Structure and Properties (Invited)
Munoz, N., Gilliss, S.R. and Carter, C.B., Analysis of the Geometry and Evolution of Surface Grooves at Migrating Boundaries in Alumina
Perrey, C.R. and Carter, C.B., Analysis of Nanoparticle Structure and Surfaces
- 02.3 Papers presented at the 2002 Fall Materials Research Society meeting in Boston
Perrey, C.R., Mook, W.M., Carter, C.B. and Gerberich, W.W. 'Characterization of Mechanical Deformation of Nanoscale Volumes'

- Perrey, C.R., Thompson, R., Carter, C.B., Gidwani, A., Mukherjee, R., Renault, T., McMurry, P.H., Heberlein, J.V.R. and Girshick, S.L., 'Characterization of nanoparticle films and structures produced by hypersonic plasma particle deposition'
- Bapat, A., Kortshagen, U., Campbell, S.A., Perrey, C.R. and Carter, C.B., 'Synthesis of Crystalline Silicon Nanoparticles in Low-Pressure Inductive Plasmas'
- 02.2 Papers presented at the 55th Ann. Gaseous Electronics Conf, Minneapolis, MN Oct. 2002
- Gidwani, A., Girshick, S., Heberlein, J., McMurry, P., Gerberich, W.W., Carter, C.B., Nelson, B., Mukherjee, R., Renault, T., Mook, W., Perrey, C.R. and Wang, T., 2002, Bull. Am. Phys. Soc., 47(7), 60, 'Hypersonic Plasma Particle Deposition of Nanostructured Films and Patterns'.
- 02.1 Papers presented at the 2002 Annual meeting ACerS, St Louis, MO
- Munoz, N., Gilliss, S.R., Ravishankar, N. and Carter, C.B., 'Investigation of Grain Boundary Grooving using AFM' (2002 Best Undergraduate Poster Award)
- Perrey, C.R., Carter, C.B., Kotula, P.G. and Michael J.R., 'TEM Investigation of Nanoparticles'
- Perrey, C.R., Ravishankar, N. and Carter, C.B., 'TEM Study of Grain Boundary Migration in Ceramic Bicrystals'
- Gilliss, S.R. Ravishankar, N. and Carter, C.B. 'Dewetting on Ceramic Surfaces' (2002 Snow Award)
- 01.3 Papers presented at the 2001 Fall Materials Research Society meeting in Boston
- Ravishankar, N. and Carter, C.B., 2001, Symp. P5.29 'Motion of Sapphire Surface Steps'
- Ravishankar, N., Gilliss, S.R. and Carter, C.B., 'Dewetting of Liquids on Reconstructed Ceramic Surfaces'
- Perrey, C.R., Ravishankar, N. and Carter, C.B., 'TEM Study of Grain Boundary Migration in Ceramic Bicrystals'
- Perrey, C.R., Gilliss, S.R. and Carter, C.B., 'TEM Investigation of Nanoparticles'
- Munoz, N., Gilliss, S.R., Ravishankar, N. and Carter, C.B., 'Grooving at Migrating Grain Boundaries in Alumina'
- 01.2 Papers presented at the 2001 Spring Materials Research Society meeting in San Francisco
- Farrer, J.K., Ravishankar, N., Michael, J.R. and Carter, C.B., Symp. FF, 'Study of Interface Migration in Ceramic Materials by EBSD'.
- 01.1 Papers presented at the 2001 Annual meeting ACerS, Indianapolis
- Farrer, J.K., Ravishankar, N., Michael, J. R. and Carter, C.B., 'The Study of Solid State Reactions using EBSD'
- Farrer, J.K., Ravishankar, N., Michael, J. R. and Carter, C.B., 'Study of Interface Migration by EBSD'
- Gilliss, S.R., Carter, C.B. and Schwabel, M.G., 'Cerium Oxide Thin Films on Fused Silica Glass'
- 00.3 Papers presented at the 2000 Fall Materials Research Society meeting in Boston
- Blanford, C. F., Yan, H., Schrodin, R. C, Al-Daous, M., Stein, A. and Carter, C.B., 'Grain Growth in Three-Dimensionally Ordered Macroporous (3DOM) Materials as Observed in the TEM.'
- 00.2 Papers presented at the 2000 Annual meeting ACerS, St Louis
- Carter, C.B. and Ravishankar, N., 'Mechanism of Glass-Crystal Boundary Migration in Ceramics'. (Invited)
- 00.1 Papers presented at the 2000 Spring Materials Research Society meeting in San Francisco
- Yanina, S.V. and Carter, C.B., Symp. M., 'Interaction of Moving Steps and Crystal Defects on Spinel Surfaces'.
- Ravishankar, N. and Carter, C.B., Symp. M2.8. 'Crystal-Liquid Boundaries in Liquid-Phase Sintered Ceramics'
- 99.2 Papers presented at 1999 Fall Meeting ACerS, Pacific Coast Regional Meeting Washington State
- Yanina, S.V. and Carter, C.B., 'Evaporation from Dislocation Sites on Spinel Surfaces'.
- Carter, C.B. and Ravishankar, N., 'Some Fundamental Aspects of Liquid-Phase Sintering' (invited).
- 99.1 Papers presented at the 1999 Annual ACerS, Indianapolis
- Carter, C.B. 1999 'Ceramic Surfaces', Spring Meeting, American Ceramic Society, 27 April, 1999
- 98.4 Papers presented at the 1998 Fall Materials Research Society meeting in Boston (unpublished)

- Cohen, D., Medlin, D.L. and Carter, C.B., 1999, Mater. Res. Soc. Symp. Proc. C (Fall '98 meeting, Boston, Surface and Interface Structure and Dynamics) 'Internal Interfaces in Compound Semiconductor Thin Films'
- Johnson, M. T. and Carter, C. B., 1999, Mater. Res. Soc. Symp. Proc. 547, (Fall '98 meeting, Boston, Solid-State Chemistry of Inorganic Materials II) 'The Effect of an Electric Field on Oxide Solid-State Reactions'
- 98.3 Papers presented at 1998 Fall Meeting ACerS, Irvine
 Carter, C.B., Yanina, S.V. and Heffelfinger, J.R., 1999 (Pacific Coast Regional Meeting ACerS, Oct 21-24, 1998) 'Faceting of Oxide Surfaces and its Influence on Thin Oxide Films'
- 98.2 Papers presented at the 1998 Annual ACerS, Cincinnati
 Kotula, P.G. and Carter, C.B., 1998 (100th Annual Meeting & Exposition, Cincinnati, May 3-6, 1998) 'Interfacial-Reaction Control of the Kinetics of Spinel Formation'
 Carter, C.B. and Yanina, S.V., 1998 (100th Annual Meeting & Exposition, Cincinnati, May 3-6, 1998) 'Surfaces of Spinels' (invited paper).
- 98.1 Papers presented at the 1998 Spring Materials Research Society meeting in San Francisco (unpublished)
 Cohen, D., Farrer, J., Tanaka, M., Palmstrøm, C.J., and Carter, C.B., 1998 Mater. Res. Soc. Symp. Proc. (Spring '98 meeting). 'Characterization of the Mn Surfactant Assisted Growth of GaAs on ErAs/GaAs'
- 97.4 Paper presented at the 1997 Fall Materials Research Society meeting in Boston (unpublished)
 Kotula, P.G. and Carter, C.B., 1998, Mater. Res. Soc. Symp. Proc. (Fall '97 meeting; Phase Transformations and Systems Driven Far from Equilibrium). 'Interfacial-Reaction Control of Kinetics in Oxides.'
 Carter, C.B. and Heffelfinger, J.R., 1998, Mater. Res. Soc. Symp. Proc. (Fall '97 meeting; Evolution of Surface Morphology and Thin-Film Microstructure). 'Faceting of Oxide Surfaces and Thin-Film Growth.'
- 97.3 Papers presented at the 1997 Fall meeting of TMS, David A. Smith Symposium, Indianapolis, IN
 M.T. Johnson, P.G. Kotula and C.B. Carter, 'The Effect of Interfaces in Solid-State Reaction Between Oxide.'
- 97.2 Papers presented at the 1997 Annual Meeting of the American Ceramic Society in Cincinnati
 Zagrebelny, A.V. and Carter, C.B., 1997, (SXVI-035-97), (Bull. Am. Ceram. Soc. 76, 238, 'Effect Of Silicate Glass Composition On The Mechanical Properties Of Alumina-Silicate Glass Interfaces.'
 Johnson, M.T., Heffelfinger, J.R. and Carter, C.B., 1997, (BP-013-97), (Bull. Am. Ceram. Soc. 76, 248, 'Surface Structure Effects on Oxide Thin Films.'
 Blanford, C., Carter, C.B. and Stein, A., 1997, (SXXI-004-97), (Bull. Am. Ceram. Soc. 76, 246, 'Comparative Study of MCM-41 by TEM and EDS.'
- 97.1 Papers presented at the 1997 Spring Materials Research Society meeting in San Francisco (unpublished)
 Heffelfinger, J.R., Johnson, M.T. and Carter, C.B., 'The Effect of Surface Structure on the Initial Stages of Thin-Film Growth.' (Paper L11.8, 2 Apr. 97)
- 96.7 Papers presented at the 1996 Fall Materials Research Society meeting in Boston (unpublished)
 Kotula, P.G., Johnson, M.T., and Carter, C.B., 'Nickel Ferrite Thin-Films Formed by Solid-State Reaction.' Session: Thin Films and Surfaces: Structure and Morphology.
 Johnson, M.T., Strojny, A., Gerberich, W.W. and Carter, C.B., 'Mechanical Properties in the System Fe₂O₃/MgFe₂O₄/MgO.' Session: Interfacial Engineering for Optimized Properties.
 Carter, C.B., 'Interfacial Engineering: An Overview.' Session: Interfacial Engineers for Optimized Properties.
 Heffelfinger, J.R. and Carter, C.B., 'Faceting and Thin Film Growth on Ceramic Surfaces.'
- 96.6 Papers presented at the 1996 Spring Materials Research Society Symposium in San Francisco

- Lilleodden, E.T., Zagrebelny, A.V., Ramamurthy, S. and Carter, C.B., 'Probing Silicate/Sapphire Interfaces using AFM and Nanoindentation.'
- 96.5 Presented at the Reactivity of Solids Meeting, Hamburg, Germany, September 8-12, 1996
Johnson, M.T., Schmalzried, H. and Carter, C.B., 'Heterogeneous Solid-State Reactions Between MgO (001) and Iron Oxide.'
- Johnson, M.T., Kotula, P.G. and Carter, C.B., 'Solid-State Reactions in Oxide Thin-Films.'
- 96.4 Papers presented at the 1996 EUREM '96, XI European Congress on Microscopy, Dublin, Ireland 26-30 August 1996
Johnson, M.T., Heffelfinger, J.R., Kotula, P.G. and Carter, C.B., 'Fundamental Processes in Thin-Film Reactions.'
- 96.3 Papers presented at the 1996 Conference on Composites, Advanced Ceramics, Materials and Structures (Cocoa Beach; American Ceramic Society)
Heffelfinger, J.R., Carter, C.B. and Kieschke, R.R., (C-69-96F) (Bull. Am. Ceram. Soc. 74(10), 111), 'A Study of Y2O3 Coatings used in Metal-Matrix Composites.'
- 96.2 Papers presented at the 1996 Annual Meeting of the American Ceramic Society in Indianapolis
Carter, C.B., Heffelfinger, J.R., Johnson, M.T., Kotula, P.G. and Ramamurthy, S., (Invited) 'Field-Emission SEM and its Ceramic Applications.' Advanced Electron, Photon and Ion Beam Characterization Techniques Symposium: Electron Beam Techniques I. Advanced Electron, Photon and Ion Beam Techniques for Ceramic Characterization Symposium.
Zagrebelny, A.V., Ramamurthy, S., Lilleodden, E.T., Nelson, J.C. and Carter, C.B., 'Probing Interfaces between Glass and Alumina by Contact-Mechanics Techniques.' Ceramic Joining Symposium
Johnson, M.T., Schmalzried, H. and Carter, C.B., 'Electric Field Effects In Ceramic Thin-Film Reactions.' Basic Science Division: General Session Topics
Heffelfinger, J.R. and Carter, C.B., 'Ceramic Surfaces as Revealed by AFM.' Advanced Electron, Photon and Ion Beam Characterization Techniques Symposium
Kotula, P.G., Carter, C.B. and Schmalzried, H., 'The Kinetics of Reactions between Thin Films of NiO and γ -Al₂O₃.' Basic Science Division Session: General Session, Diffusion and Kinetics
Kotula, P.G., Carter, C.B. and Schmalzried, H., 'The Microstructure and Orientation Relationships of NiO/NiAl₂O₄/Al₂O₃ Thin-Film Reaction Couples.' Basic Science Division Session: General Session, Interfacial Characterization and Phenomena
Ramamurthy, S., Zagrebelny, A.V., Hebert, B.C. and Carter, C.B., 'Interfaces between Silicates and Single-Crystals of γ -Al₂O₃ And MgO.' Session: Structure, Chemistry, Characterization: Symposium: Interfaces
Johnson, M.T., Bentley, J. and Carter, C.B., 'In-Situ Annealing of MgO.' Advanced Electron, Photon And Ion Beam Characterization Techniques Symposium: Electron Beam Techniques I
- 96.1 Paper presented at the 1996 TMS Annual Meeting in Anaheim, CA
Carter, C.B., Hwang, R.Q. and Hamilton, J.C., 1996 (5 Feb.) (Invited) EMPMD: Structure and Morphology of Epitaxial Thin Films, 'The Structure of Close-Packed Surfaces.'
Kieschke, R.R., Heffelfinger, J.R. and Carter, C.B., 1996 (5 Feb.) (Invited) 'Performance of Barrier Coatings for Al₂O₃ Fibers in Titanium Alloys.'
- 95.3 Paper presented at the 1995 Pacific Coast Regional Meeting of the American Ceramic Society
Carter, C.B., (Invited) 'Interface Structure and Reactions in Ceramic-Based Materials.' Part of a series of invited lectures.
- 95.2 Papers presented at the 1995 Fall Meeting of the Materials Research Society
Heffelfinger, J. R., Kotula, P. G. and Carter, C.B., 1995, MRS 1995 Fall Meeting, Boston 'Ceramic Thin-Film Reactions.'
Johnson, M.T., Kotula, P. G. and Carter, C.B., 1995, MRS 1995 Fall Meeting, Boston 'Solid-State Reactions with Spinel Forming Oxides.'
Zagrebelny, A.V., Ramamurthy, S. and Carter, C.B., 1995, MRS 1995 Fall Meeting, Boston 'Study on Infiltration of Calcium-Alumino-Silicate Glass in Polycrystalline Alumina Ceramics.'

- Bentley, J., Johnson, M.T. and Carter, C.B., 'In-situ annealing of MgO', Paper presented at the 1995 Fall Meeting of the Materials Research Society, Boston, MA, November 27-December 1
- 95.1 Papers presented at the 1995 Annual Meeting of the American Ceramic Society
- Ramamurthy, S. and Carter, C.B., 'Epitactic Crystallization Of Forsterite On MgO Substrates.' Interfaces Symposium. Session Topic: Structure, Chemistry and Characterization.
- Kotula, P. G. and Carter, C.B., 'Thin-Film Reactions Between NiO And γ -Al₂O₃, Substrates.' Interfaces Symposium. Session Topic: Structure, Chemistry and Characterization.
- Kotula, P. G. and Carter, C.B., 'Transforming Transition Aluminas.' Substrates. Interfaces Symposium. Session Topic: Structure, Chemistry and Characterization.
- Mallamaci, M. P., Ramamurthy, S. Zagrebelny, A.V., Zimmerman, C.M., Sartain K. and Carter, C.B., 'Glass Layers and Grain Boundaries.' Substrates. Interfaces Symposium. Session Topic: Structure, Chemistry and Characterization.