

C. BARRY CARTER GROUP PUBLICATIONS: GRAIN BOUNDARIES

- 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.”
- 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.”
- J011 Carter, C.B., Donald, A.M., and Sass, S.L., 1979, *Phil. Mag.* **A39** (5), 533–549. “Diffraction Effects and Images from Inclined Grain Boundaries in Polycrystalline Thin Films.”
- J017 Carter, C.B., Donald, A.M. and Sass, S.L., 1980, *Phil. Mag.* **A41** (4), 467–476. “The Study of Grain Boundary Thickness Using Electron Diffraction Techniques.”
- J023 Carter, C.B., Kohlstedt, D.L. and Sass, S.L., 1980, *J. Amer. Cer. Soc.* **63** (11–12), 623–627. “Electron Diffraction and Microscopy Studies of the Structure of Grain Boundaries in Al_2O_3 .”
- J024 Carter, C.B., Föll, H., Ast, D.G. and Sass, S.L., 1981, *Phil. Mag.* **A43** (2), 441–467. “Electron Diffraction and Microscopy Studies of the Structure of Grain Boundaries in Silicon.”
- 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.”
- J029 Hagège, S., Carter, C.B., Cosandey, F. and Sass, S.L., 1982, *Phil. Mag.* **A45** (4), 723–740. “The Variation of Grain Boundary Structural Width with Misorientation Angle and Boundary Plane.”
- J031 Shaw, T.M. and Carter, C.B., 1982, *Scripta Met.* **16** (12), 1431–1436. “Faceting of Twin Boundaries in Spinel.”
- J034 Morrissey, K.J. and Carter, C.B., 1984, *J. Am. Ceram. Soc.* **67** (4), 292–301. “Faceted Grain Boundaries in Al_2O_3 .” J049 Elgat, Z. and Carter, C.B., 1985, *Ultramicroscopy* **18**, 313–321. “Analysis of Grain Boundaries by HREM.”
- 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.”
- J055 Carter, C.B., Elgat, Z. and Shaw, T.M., 1987, *Phil. Mag.* **A55** (1), 1–19. “Twin Boundaries Parallel to the Common- $\{111\}$ Plane in Spinel.”
- J056 Carter, C.B., Elgat, Z. and Shaw, T.M., 1987, *Phil. Mag.* **A55** (1), 21–38. “Lateral Twin Boundaries in Spinel.”
- 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.”
- J059 Simpson, Y.K., Carter, C.B., Morrissey, K.J., Angelini, P. and Bentley, J., 1986, *J. Mat. Sci.* **21**, 2689–2696. “The Identification of Thin Amorphous Films at Grain-Boundaries in Al_2O_3 .”
- 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.”

- J075 Carter, C.B., 1988, *Acta Metall.* **36** (10), 2753–2760. “ $\Sigma=99$ and $\Sigma=41$ Grain Boundaries.”
- J087 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.”
- 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.”
- 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.”
- 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.”
- J113 Rasmussen, D.R. and Carter, C.B., **1990**, *Ultramicroscopy* **32**, 337–348. “On the Fresnel-Fringe Technique for the Analysis of Interfacial Films.”
- J117 Norton, M.G. and Carter, C.B., 1990, *MRS Bulletin* **15** (10), 51–59. “Interfaces in Structural Ceramics.”
- J121 Rasmussen, D.R., McKernan, S. and Carter, C.B., 1991, *Phil. Mag.* **A63** (6), 1299–1314. “A Quantitative Analysis of Strong-Beam Fringes from $\{110\}$ Antiphase Boundaries in GaAs.”
- 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.”
- J139 Tietz, L.A. and Carter, C.B., 1991, *Physica C* **182**, 241–251. “Special Grain Boundaries in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Thin Films.”
- 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.”
- J153 McKernan, S., Norton, M.G. and Carter, C.B., 1992, *J. Mater. Res.* **7** (5), 1052–1059. “The 45° Grain Boundaries in $\text{YBa}_2\text{Cu}_3\text{O}_{7-d}$.”
- 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.”
- J170 Norton, M.G. and Carter, C.B., 1995, *J. Mat. Sci.* **30**, 381–389. “Moiré Patterns and their Application to the Study of the Growth of $\text{YBa}_2\text{Cu}_3\text{O}_{7-d}$ Thin Films.”
- J183 Campbell, G.H., Chan, D.K., Medlin, D.L., Angelo, J.E. and Carter, C.B., 1996, *Scripta Mat.* **35** (7), 837–842. “Dynamic Observation of the FCC to 9R Shear Transformation in a Copper $\Sigma=3$ Incoherent Twin Boundary.”
- J186 Medlin, D.L., Carter, C.B., Angelo, J.E., Mills, M.J., 1997, *Phil. Mag. A*, **75**(3), 733–747. “Climb and Glide of $a/3\langle 111 \rangle$ Dislocations in an Aluminum $\Sigma=3$ Boundary.”
- 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.”
- 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.”

- J211 Cohen, D., McKernan, S and Carter C, B., 1999, *Microscopy and Microanalysis* **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.”
- J223 Ravishankar, N. and Carter, C.B., 2001, *J. Am. Ceram. Soc.*, **84**(4), 859-862, “Exuding Liquid from Grain Boundaries in Alumina.”
- J225 Ravishankar, N. and Carter, C.B., 2001, *Acta Mater.*, **49**, 1963–1969, “Migration of Alumina Grain Boundaries Containing a Thin Glass Film”
- 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”.
- 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”.
- 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”
- J229 Ravishankar, N. and Carter, C.B., 2001, *J. Am. Ceram. Soc.*, **84**(4), 859–862, “Exuding Liquid from Grain Boundaries in Alumina.”
- J234 Yanina, S.V. and Carter, C.B., 2002, *Surface Sci.*, **511**, 133–146 “Dislocations at Spinel Surfaces.”
- J235 Yanina, S.V. and Carter, C.B., 2002, *Surface Sci. Lett.*, **513**, L402–L412, “Terraces and Ledges on (001) Spinel Surfaces.”
- J238 Cohen, D. and Carter, C.B., 2002, *J. Microsc.*, **208**, 84–99. “Structure of the (001) Antiphase Boundary in Gallium Phosphide.”
- 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.”
- J245 Cohen, D. and Carter, C.B., 2003, *Interface Sci.* **11**, 391–401. “ $\Sigma=3$ $\{11\bar{2}\}$ Lateral Twin Boundaries in GaP
- J246 Munoz, N.E., Gilliss, S.R. and Carter, C.B., 2004, *Phil. Mag. Lett.*, **84**(1) 21–26, “The Monitoring of Grain-Boundary Grooves in Alumina.”
- J254 Munoz, N.E., Gilliss, S.R. and Carter, C.B., 2004, *Surface Science* **573**, 391–402, “Remnant Grooves on Alumina Surfaces.”
- J260 Ling, W.L., Bartlett, 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”.