References

[1] B.L. Adams, D. Kinderlehrer, I. Livshits, D. Mason, W.W. Mullins, G.S. Rohrer, A.D. Rollett, D. Saylor, S Ta'asan, and C. Wu. Extracting grain boundary energy from triple junction measurement. *Interface Science*, 7:321–338, 1999.

[2] BL Adams, D Kinderlehrer, WW Mullins, AD Rollett, and S Ta'asan. Extracting the relative grain boundary free energy and mobility functions from the geometry of microstructures. *Scripta Materiala*, 38(4):531–536, Jan 13 1998.

[3] Luigi Ambrosio, Nicola Gigli, and Giuseppe Savaré. *Gradient flows in metric spaces and in the space of probability measures*. Lectures in Mathematics ETH Zürich. Birkhäuser Verlag, Basel, second edition, 2008.

[4] M. P. Anderson, D. J. Srolovitz, G. S. Grest, and P. S. Sahni. Computer simulation of grain growth-i. kinetics. *Acta metallurgica*, 32(5):783–791, 1984.

[5] Todd Arbogast. Implementation of a locally conservative numerical subgrid upscaling scheme for two-phase Darcy flow. *Comput. Geosci.*, 6(3-4):453–481, 2002. Locally conservative numerical methods for flow in porous media.

[6] Todd Arbogast and Heather L. Lehr. Homogenization of a Darcy-Stokes system modeling vuggy porous media. *Comput. Geosci.*, 10(3):291–302, 2006.

[7] Matthew Balhoff, Andro Mikelić, and Mary F. Wheeler. Polynomial filtration laws for low Reynolds number flows through porous media. *Transp. Porous Media*, 81(1):35–60, 2010.

[8] Matthew T. Balhoff, Sunil G. Thomas, and Mary F. Wheeler. Mortar coupling and upscaling of pore-scale models. *Comput. Geosci.*, 12(1):15–27, 2008.

[9] K. Barmak. unpublished.

[10] K. Barmak, W. E. Archibald, J. Kim, C. S. Kim, A. D. Rollett, G. S. Rohrer, S. Ta'asan, and D. Kinderlehrer. Grain boundary energy and grain growth in highly-textured al films and foils: Experiment and simulation. *Icotom 14: Textures of Materials, Pts 1and 2*, 495-497:1255–1260, 2005. Part 12.

[11] K. Barmak, W. E. Archibald, J. Kim, C. S. Kim, A. D. Rollett, G. S. Rohrer, S. Ta'asan, and D. Kinderlehrer. *Grain boundary energy and grain growth in highly-textured Al films and foils: Experiment and simulation*, volume 495-497 of *Materials Science Forum*, pages 1255–1260. 2005.

[12] K. Barmak, E. Eggeling, M. Emelianenko, Y. Epshteyn, D. Kinderlehrer, R.Sharp, and S.Ta'asan. Predictive theory for the grain boundary character distribution. In Proc. Recrystallization and Grain Growth IV,, 2010.

[13] K. Barmak, E. Eggeling, M. Emelianenko, Y. Epshteyn, D. Kinderlehrer, R. Sharp, and S. Ta'asan. Critical events, entropy, and the grain boundary character distribution. *Phys. Rev. B*, 83(13):134117, Apr 2011.

[14] K. Barmak, E. Eggeling, M. Emelianenko, Y. Epshteyn, D. Kinderlehrer, and S. Ta'asan. Geometric growth and character development in large metastable systems. *Rendiconti di Matematica, Serie VII*, 29:65–81, 2009.

[15] K. Barmak, M. Emelianenko, D. Golovaty, D. Kinderlehrer, and S. Ta'asan. On a statistical theory of critical events in microstructural evolution. In *Proceedings CMDS 11*, pages 185–194. ENSMP Press, 2007.

[16] K. Barmak, M. Emelianenko, D. Golovaty, D. Kinderlehrer, and S. Ta'asan. Towards a statistical theory of texture evolution in polycrystals. *SIAM Journal Sci. Comp.*, 30(6):3150–3169, 2007.

[17] K. Barmak, M. Emelianenko, D. Golovaty, D. Kinderlehrer, and S. Ta'asan. A new perspective on texture evolution. *International Journal on Numerical Analysis and Modeling*, 5(Sp. Iss. SI):93–108, 2008.

[18] Katayun Barmak, David Kinderlehrer, Irine Livshits, and Shlomo Ta'asan. Remarks on a multiscale approach to grain growth in polycrystals. In Gianni dal Maso, Antonio DeSimone, and Franco Tomarelli, editors, *Variational problems in materials science*, volume 68 of *Progr. Nonlinear Differential Equations Appl.*, pages 1–11. Birkhäuser, Basel, 2006.

[19] Jean-David Benamou and Yann Brenier. A computational fluid mechanics solution to the Monge-Kantorovich mass transfer problem. *Numer. Math.*, 84(3):375–393, 2000.

[20] G. Bertotti. *Hysteresis in magnetism.* Academic Press, 1998.

[21] K. Binder and D. W. Heermann. *Importance Sampling*, pages 97–112. Springer-Verlag, Heidelberg, Germany, 1992.

[22] K. Binder and D. W. Heermann. *Monte Carlo Simulation in Statistical Physics*, volume 1. Springer-Verlag, Heidelberg, Germany, 1992.

[23] Eran Bouchbinder and J. S. Langer. Nonequilibrium thermodynamics of driven amorphous materials. i. internal degrees of freedom and volume deformation. *Physical Review E*, 80(3, Part 1), Sep 2009.

[24] Eran Bouchbinder and J. S. Langer. Nonequilibrium thermodynamics of driven amorphous materials. ii. effective-temperature theory. *Physical Review E*, 80(3, Part 1), Sep 2009.

[25] Eran Bouchbinder and J. S. Langer. Nonequilibrium thermodynamics of driven amorphous materials. iii. shear-transformation-zone plasticity. *Physical Review E*, 80(3, Part 1), Sep 2009.

[26] Lia Bronsard and Fernando Reitich. On three-phase boundary motion and the singular limit of a vector-valued Ginzburg-Landau equation. *Arch. Rational Mech. Anal.*, 124(4):355–379, 1993.

[27] J.E. Burke and D. Turnbull. Recrystallization and grain growth. *Progress in Metal Physics*, 3(C):220–244,IN11–IN12,245–266,IN13–IN14,267–274,IN15,275–292, 1952. cited By (since 1996) 68.

[28] H. S. Chen, A. Godfrey, and Q. Liu. Effect of orientation noise on the determination of percolation thresholds from electron back-scatter pattern data. *Icotom 14: Textures of Materials, Pts 1and 2*, 495-497:231–236, 2005. Part 12.

[29] Philippe G. Ciarlet. *The finite element method for elliptic problems.* North-Holland Publishing Co., Amsterdam, 1978. Studies in Mathematics and its Applications, Vol. 4.

[30] Albert Cohen. A stochastic approach to coarsening of cellular networks. *Multiscale Model. Simul.*, 8(2):463–480, 2009/10.

[31] Thomas M. Cover and Joy A. Thomas. *Elements of information theory.* Wiley-Interscience [John Wiley & Sons], Hoboken, NJ, second edition, 2006.

[32] Antonio DeSimone, Robert V. Kohn, Stefan Müller, Felix Otto, and Rudolf Schäfer. Two-dimensional modelling of soft ferromagnetic films. *R. Soc. Lond. Proc. Ser. A Math. Phys. Eng. Sci.*, 457(2016):2983–2991, 2001.

[33] S. E. Dillard, J. F. Bingert, D. Thoma, and B. Hamann. Construction of simplified boundary surfaces from serial-sectioned metal micrographs. *Ieee Transactions on Visualization and Computer Graphics*, 13(6):1528–1535, 2007. Dillard, Scott E. Bingert, John F. Thoma, Dan Hamann, Bernd.

[34] Richard S. Ellis. *Entropy, large deviations, and statistical mechanics.* Classics in Mathematics. Springer-Verlag, Berlin, 2006. Reprint of the 1985 original.

[35] Y. Epshteyn and B. Rivière. On the solution of incompressible two-phase flow by a p-version discontinuous Galerkin method. *Comm. Numer. Methods Engrg.*, 22:741–751, 2006.

[36] Y. Epshteyn and B. Rivière. Fully implicit discontinuous finite element methods for two-phase flow. *Applied Numerical Mathematics*, 57:383–401, 2007.

[37] M Frechet. Sur la distance de deux lois de probabilite. *Comptes Rendus de l' Academie des Sciences Serie I-Mathematique*, 244(6):689–692, 1957.

[38] Crispin Gardiner. *Stochastic methods, 4th edition.* Springer-Verlag, 2009.

[39] S. K. Godunov. A difference method for numerical calculation of discontinuous solutions of the equations of hydrodynamics. *Mat. Sb. (N.S.)*, 47 (89):271–306, 1959.

[40] S. K. Godunov and V. S. Ryaben'kii. *Difference schemes*, volume 19 of *Studies in Mathematics and its Applications.* North-Holland Publishing Co., Amsterdam, 1987. An introduction to the underlying theory, Translated from the Russian by E. M. Gelbard.

[41] Robert Gomer and Cyril Stanley Smith, editors. *Structure and Properties of Solid Surfaces*, Chicago, 1952. The University of Chicago Press. Proceedings of a conference arranged by the National Research Council and held in September, 1952, in Lake Geneva, Wisconsin, USA.

[42] G. S. Grest, M. P. Anderson, and D. J. Srolovitz. Domain-growth kinetics for the q-state potts-model in 2-dimension and 3-dimension. *Physical Review B*, 38(7):4752–4760, 1988.

[43] J. Gruber, H. M. Miller, T. D. Hoffmann, G. S. Rohrer, and A. D. Rollett. Misorientation texture development during grain growth. part i: Simulation and experiment. *Acta Materialia*, 57(20):6102–6112, Dec 2009.

[44] J. Gruber, A. D. Rollett, and G. S. Rohrer. Misorientation texture development during grain growth. part ii: Theory. *Acta Materialia*, 58(1):14–19, Jan 2010.

[45] M. Gurtin. *Thermomechanics of evolving phase boundaries in the plane*. Oxford, 1993.

[46] G. N. Hassold and E. A. Holm. A fast serial algorithm for the finite temperature quenched potts model. *Computers in Physics*, 7(1):97–107, 1993.

[47] R. Helmig. *Multiphase flow and transport processes in the subsurface*. Springer, 1997.

[48] C. Herring. Surface tension as a motivation for sintering. In Walter E. Kingston, editor, *The Physics of Powder Metallurgy*, pages 143–179. Mcgraw-Hill, New York, 1951.

[49] C. Herring. The use of classical macroscopic concepts in surface energy problems. In Gomer and Smith [41], pages 5–81. Proceedings of a conference arranged by the National Research Council and held in September, 1952, in Lake Geneva, Wisconsin, USA.

[50] E. A. Holm. Critical nucleus sizes in the potts model, 1996.

[51] E. A. Holm and C. C. Battaile. The computer simulation of microstructural evolution. *Jom-Journal Of The Minerals Metals Materials Society*, 53(9):20–23, 2001.

[52] E. A. Holm, M. A. Miodownik, and A. D. Rollett. On abnormal subgrain growth and the origin of recrystallization nuclei. *Acta materialia*, 51(9):2701–2716, 2003.

[53] E.A. Holm, J.A. Glazier, D.J. Srolovitz, and G.S. Grest. The effects of lattice anisotropy and temperature on domain growth in the 2-d potts model. *Physical Review A*, 43(6):2662–2668, 1991.

[54] EA Holm, GN Hassold, and MA Miodownik. On misorientation distribution evolution during anisotropic grain growth. *Acta Materialia*, 49(15):2981–2991, Sep 3 2001.

[55] Y. Hu, M. A. Miodownik, and V. Randle. Experimental and computer model investigations of microtexture evolution of non-oriented silicon steel. *Materials Science and Technology*, 24(6):705–710, 2008.

[56] Arieh Iserles. *A first course in the numerical analysis of differential equations*. Cambridge Texts in Applied Mathematics. Cambridge University Press, Cambridge, 1996.

[57] O. M. Ivasishin, S. V. Shevchenko, and S. L. Semiatin. 3d monte carlo (potts) modelling of abnormal grain growth in textured materials. *Metallofizika I Noveishie Tekhnologii*, 26(2):269–286, 2004.

[58] O. M. Ivasishin, S. V. Shevchenko, and S. L. Semiatin. Implementation of exact grain-boundary geometry into a 3-d monte-carlo (potts) model for microstructure evolution. *Acta materialia*, 57(9):2834–2844, 2009.

[59] O. M. Ivasishin, S. V. Shevchenko, N. L. Vasiliev, and S. L. Semiatin. A 3-d monte-carlo (potts) model for recrystallization and grain growth in polycrystalline materials. *Materials Science and Engineering a-Structural Materials Properties Microstructure and Processing*, 433(1-2):216–232, 2006.

[60] R Jordan, D Kinderlehrer, and F Otto. Free energy and the fokker-planck equation. *Physica D*, 107(2-4):265–271, Sep 1 1997.

[61] R Jordan, D Kinderlehrer, and F Otto. The variational formulation of the fokker-planck equation. *SIAM J. Math. Analysis*, 29(1):1–17, Jan 1998.

[62] J. K. Jung, N. M. Hwang, Y. J. Park, and Y. C. Joo. Grain growth simulation of damascene interconnects: Effect of overburden thickness. *Japanese Journal Of Applied Physics Part 1-Regular Papers Short Notes Review Papers*, 43(6A):3346–3352, 2004.

[63] A. I. Khinchin. *Mathematical foundations of information theory*. Dover Publications Inc., New York, N. Y., 1957. Translated by R. A. Silverman and M. D. Friedman.

[64] D Kinderlehrer, J Lee, I Livshits, A Rollett, and S Ta'asan. Mesoscale simulation of grain growth. *Recrystalliztion and grain growth, pts 1 and 2*, 467-470(Part 1-2):1057–1062, 2004.

[65] D Kinderlehrer and C Liu. Evolution of grain boundaries. *Mathematical Models and Methods in Applied Sciences*, 11(4):713–729, Jun 2001.

[66] D Kinderlehrer, I Livshits, GS Rohrer, S Ta'asan, and P Yu. Mesoscale simulation of the evolution of the grain boundary character distribution. *Recrystallization and grain growth, pts 1 and 2*, 467-470(Part 1-2):1063–1068, 2004.

[67] David Kinderlehrer, Irene Livshits, and Shlomo Ta'asan. A variational approach to modeling and simulation of grain growth. *SIAM J. Sci. Comp.*, 28(5):1694–1715, 2006.

[68] Robert V. Kohn and Felix Otto. Upper bounds on coarsening rates. *Comm. Math. Phys.*, 229(3):375–395, 2002.

[69] G. Korniss, M.A. Novotny, and P.A. Rikvold. Parallelization of a dynamic monte carlo algorithm: a partially rejection-free conservative approach. *Journal of Computational Physics*, 153:488–508, 1999.

[70] D.P. Landau and K. Binder. *A Guide to Monte Carlo Simulations in Statistical Physics*. Cambridge University Press, Cambridge, England, 2000.

[71] L. D. Landau and E. M. Lifshitz. *Fluid mechanics*. Translated from the Russian by J. B. Sykes and W. H. Reid. Course of Theoretical Physics, Vol. 6. Pergamon Press, London, 1959.

[72] Peter D. Lax. Weak solutions of nonlinear hyperbolic equations and their numerical computation. *Comm. Pure Appl. Math.*, 7:159–193, 1954.

[73] Peter D. Lax. *Hyperbolic systems of conservation laws and the mathematical theory of shock waves*. Society for Industrial and Applied Mathematics, Philadelphia, Pa., 1973. Conference Board of the Mathematical Sciences Regional Conference Series in Applied Mathematics, No. 11.

[74] S. B. Lee, R. A. Lebensohn, and A. D. Rollett. Modeling the viscoplastic micromechanical response of two-phase materials using fast fourier transforms. *International Journal of Plasticity*, 27(5):707–727, 2011.

[75] S.-B. Lee, R.A. Lebensohn, and A.D. Rollett. Modeling the viscoplastic micromechanical response of two-phase materials using fast fourier transforms. *International Journal of Plasticity*, page accepted for publication, 2010.

[76] S. B. Lee, J. M. Rickman, and A. D. Rollett. Three-dimensional simulation of isotropic coarsening in liquid phase sintering i: A model. *Acta materialia*, 55(2):615–626, 2007.

[77] S.-B. Lee, J.M. Rickman, and A.D. Rollett. Three-dimensional simulation of isotropic coarsening in liquid phase sintering – i. model. *Acta materialia*, 55(2):615–626, 2007.

[78] Bo Li, John Lowengrub, Andreas Rätz, and Axel Voigt. Geometric evolution laws for thin crystalline films: modeling and numerics. *Commun. Comput. Phys.*, 6(3):433–482, 2009.

[79] I.M. Lifshitz, E. M. and V.V. Slyozov. The kinetics of precipitation from suprsaturated solid solutions. *Journal of Physics and Chemistry of Solids*, 19(1-2):35–50, 1961.

[80] John S. Lowengrub, Andreas Rätz, and Axel Voigt. Phase-field modeling of the dynamics of multicomponent vesicles: spinodal decomposition, coarsening, budding, and fission. *Phys. Rev. E (3)*, 79(3):0311926, 13, 2009.

[81] B.D. Lubachevsky. Efficient parallel simulations of dynamic ising spin systems. *Journal of Computational Physics*, 75:103–122, 1988.

[82] M. T. Lusk, M. Upmanyu, and T. Vincent. Targeted manipulation of grain boundaries and triple junctions on thin films using lasers: A potts model simulation. *Journal of Applied Physics*, 99(2), 2006. 023505.

[83] A. Martin Meizoso and J. M. Martinez Esnaola. 3-d grain growth kinetics using q-potts models. tetrakaidecahedron space discretisations. *Materials Science Forum*, 113-115:361–366, 1993.

[84] MA Miodownik, P Smereka, DJ Srolovitz, and EA Holm. Scaling of dislocation cell structures: diffusion in orientation space. *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*, 457(2012):1807–1819, Aug 8 2001.

[85] C. Monnereau, N. Pittet, and D. Weaire. An analysis of surface curvature and growth laws for foam cells using the surface evolver. *Europhysics Letters*, 52(3):361–367, 2000.

[86] O. G. Mouritsen and M. J. Zuckermann. Model of interfacial melting. *Physical Review Letters*, 58(4):389–392, 1987.

[87] W.W. Mullins. *Solid Surface Morphologies Governed by Capillarity*, pages 17–66. American Society for Metals, Metals Park, Ohio, 1963.

[88] W.W. Mullins. On idealized 2-dimensional grain growth. *Scripta Metallurgica*, 22(9):1441–1444, SEP 1988.

[89] Felix Otto, Tobias Rump, and Dejan Slepčev. Coarsening rates for a droplet model: rigorous upper bounds. *SIAM J. Math. Anal.*, 38(2):503–529 (electronic), 2006.

[90] A. B. Pippard. *Elements of classical thermodynamics for advanced students of physics.* Cambridge University Press, New York, 1957.

[91] R.B. Potts. Some generalized order-disorder transformations. *Proceedings of the Cambridge Philosophical Society*, 48:106–109, 1952.

[92] R.B. Potts and J.C. Ward. The combinatiorial method and the two-dimensional ising model. *Progress of Theoretical Physics*, 13(1):38–46, 1955.

[93] D. Raabe. Scaling monte carlo kinetics of the potts model using rate theory. *Acta materiala*, 48:1617–1628, 2000.

[94] B. Radhakrishnan and G. B. Sarma. Simulating the interaction between a straight boundary and a particle. *Materials Science Forum*, 467-470:1105–1110, 2004.

[95] Howard Reiss. *Methods of thermodynamics.* Dover Publications Inc., Mineola, NY, 1996. Corrected reprint of the 1965 original.

[96] P. R. Rios. Comparison between a grain size distribution obtained by a monte carlo potts model and by an analytical mean field model. *Scripta materialia*, 41(12):1283–1287, 1999.

[97] J. Rissanen. Complexity and information in data. In *Entropy*, Princeton Ser. Appl. Math., pages 299–312. Princeton Univ. Press, Princeton, NJ, 2003.

[98] GS Rohrer. Influence of interface anisotropy on grain growth and coarsening. *Annual Review of Materials Research*, 35:99–126, 2005.

[99] A. D. Rollett and D. Raabe. A hybrid model for mesoscopic simulation of recrystallization. *Computational Materials Science*, 21(1):69–78, 2001.

[100] Anthony D. Rollett, S.-B. Lee, R. Campman, and G. S. Rohrer. Three-dimensional characterization of microstructure by electron back-scatter diffraction. *Annual Review of Materials Research*, 37:627–658, 2007.

[101] P. S. Sahni, G. S. Grest, M. P. Anderson, and D. J. Srolovitz. Kinetics of the q-state potts-model in 2 dimensions. *Physical Review Letters*, 50(4):263–266, 1983.

[102] DM Saylor, A Morawiec, and GS Rohrer. The relative free energies of grain boundaries in magnesia as a function of five macroscopic parameters. *Acta Materialia*, 51(13):3675–3686, AUG 1 2003.

[103] H. Schaeben, R. Hielscher, J. J. Fundenberger, D. Potts, and J. Prestin. Orientation density function-controlled pole probability density function measurements: automated adaptive control of texture goniometers. *Journal of Applied Crystallography*, 40:570–579, 2007. Part 3.

[104] James P. Sethna. *Statistical mechanics*, volume 14 of *Oxford Master Series in Physics.* Oxford University Press, Oxford, 2006. Entropy, order parameters, and complexity, Oxford Master Series in Statistical Computational, and Theoretical Physics.

[105] Cyril Stanley Smith. Grain shapes and other metallurgical applications of topology. In Gomer and Smith [41], pages 65–108. Proceedings of a conference arranged by the National Research Council and held in September, 1952, in Lake Geneva, Wisconsin, USA.

[106] D. J. Srolovitz and G. S. Grest. Impurity effects on domain-growth kinetics .2. potts-model. *Physical Review B*, 32(5):3021–3025, 1985.

[107] H. Bruce Stewart and Burton Wendroff. Two-phase flow: models and methods. *J. Comput. Phys.*, 56(3):363–409, 1984.

[108] V. Tikare and J. D. Cawley. Application of the potts model to simulation of ostwald ripening. *Journal of The American Ceramic Society*, 81(3):485–491, 1998.

[109] V. Tikare, E. A. Holm, D. Fan, and L.-Q. Chen. Comparison of phase-field and potts model for coarsening processes. *Acta materiala*, 47(1):363–371, 1998.

[110] V. Tikare, E. A. Holm, D. Fan, and L. Q. Chen. Comparison of phase-field and potts models for coarsening processes. *Acta materialia*, 47(1):363–371, 1998.

[111] Andrea Toselli and Olof Widlund. *Domain decomposition methods—algorithms and theory*, volume 34 of *Springer Series in Computational Mathematics*. Springer-Verlag, Berlin, 2005.

[112] M. Upmanyu, G. N. Hassold, A. Kazaryan, E. A. Holm, Y. Wang, B. Patton, and D. J. Srolovitz. Boundary mobility and energy anisotropy effects on microstructural evolution during grain growth. *Interface Science*, 10:201 – 216, 2002.

[113] Cédric Villani. *Topics in optimal transportation*, volume 58 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2003.

[114] J. Von Neumann and R. D. Richtmyer. A method for the numerical calculation of hydrodynamic shocks. *J. Appl. Phys.*, 21:232–237, 1950.

[115] C Wagner. Theorie der alterung von niederschlagen durch umlosen (Ostwald-Reifung). *Zeitschrift fur Elektrochemie*, 65(7-8):581–591, 1961.

[116] H. Wang and G. Q. Liu. Evaluation of growth rate equations of three-dimensional grains using large-scale monte carlo simulation. *Applied Physics Letters*, 93(13), 2008. Wang, Hao Liu, Guoquan 131902.

[117] D. Weygand, Y. Brechet, and J. Lepinoux. A vertex dynamics simulation of grain growth in two dimensions. *Philosophical Magazine B-Physics Of Condensed Matter Statistical Mechanics Electronic Optical And Magnetic Properties*, 78(4):329–352, 1998.

[118] D. Weygand, Y. Brechet, and Z. Neda. Capillarity-driven interface dynamics: Application to grain growth phenomenon. *Philosophical Magazine B-Physics Of Condensed Matter Statistical Mechanics Electronic Optical And Magnetic Properties*, 75(6):937–949, 1997.

[119] S. A. Wright, S. J. Plimpton, T. P. Swiler, R. M. Fye, M. F. Young, and E. A. Holm. Potts-model grain growth simulations: Parallel algorithms and applications. Technical Report SAND97-1925, Sandia National Laboratories, 1997.

[120] C. K. Yoon and D. P. Field. Evolution of annealing twins in sputtered cu films. *Journal of Electronic Materials*, 39(2):191–199, 2010.