

# David J Srolovitz

## List of Publications by Citations

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488  
papers

25,655  
citations

84  
h-index

140  
g-index

504  
ext. papers

27,618  
ext. citations

5.9  
avg, IF

7.06  
L-index

#	Paper	IF	Citations
488	High-Rate, Gas-Phase Growth of MoS <sub>2</sub> Nested Inorganic Fullerenes and Nanotubes. <i>Science</i> , <b>1995</b> , 267, 222-5	33.3	1045
487	Development of new interatomic potentials appropriate for crystalline and liquid iron. <i>Philosophical Magazine</i> , <b>2003</b> , 83, 3977-3994	1.6	941
486	On the stability of surfaces of stressed solids. <i>Acta Metallurgica</i> , <b>1989</b> , 37, 621-625		888
485	Computer simulation of grain growth I Kinetics. <i>Acta Metallurgica</i> , <b>1984</b> , 32, 783-791		876
484	Development of an interatomic potential for phosphorus impurities in $\alpha$ -iron. <i>Journal of Physics Condensed Matter</i> , <b>2004</b> , 16, S2629-S2642	1.8	442
483	Computer simulation of grain growth II. Grain size distribution, topology, and local dynamics. <i>Acta Metallurgica</i> , <b>1984</b> , 32, 793-802		415
482	Computer simulation of normal grain growth in three dimensions. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , <b>1989</b> , 59, 293-329		333
481	Simulation and theory of abnormal grain growth III anisotropic grain boundary energies and mobilities. <i>Acta Metallurgica</i> , <b>1989</b> , 37, 1227-1240		296
480	Crystal-melt interfacial free energies in hcp metals: A molecular dynamics study of Mg. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	281
479	Capillary instabilities in thin films. I. Energetics. <i>Journal of Applied Physics</i> , <b>1986</b> , 60, 247-254	2.5	272
478	Computer simulation of grain growth IV. Abnormal grain growth. <i>Acta Metallurgica</i> , <b>1985</b> , 33, 2233-2247		261
477	Structural defects in amorphous solids Statistical analysis of a computer model. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1981</b> , 44, 847-866		256
476	Computer simulation of grain growth-III. Influence of a particle dispersion. <i>Acta Metallurgica</i> , <b>1984</b> , 32, 1429-1438		255
475	Physical Origins of Intrinsic Stresses in Volmer-Weber Thin Films. <i>MRS Bulletin</i> , <b>2002</b> , 27, 19-25	3.2	249
474	Kinetics of ordering in two dimensions. II. Quenched systems. <i>Physical Review B</i> , <b>1983</b> , 28, 2705-2716	3.3	231
473	Finite-temperature defect properties from free-energy minimization. <i>Physical Review Letters</i> , <b>1989</b> , 63, 624-627	7.4	227
472	Cracklike surface instabilities in stressed solids. <i>Physical Review Letters</i> , <b>1993</b> , 71, 1593-1596	7.4	225

471	Computer simulation of grain growthIV. Anisotropic grain boundary energies. <i>Acta Metallurgica</i> , <b>1985</b> , 33, 509-520		216
470	Computer simulation of recrystallizationII Homogeneous nucleation and growth. <i>Acta Metallurgica</i> , <b>1986</b> , 34, 1833-1845		215
469	An atomistic study of deformation of amorphous metals. <i>Acta Metallurgica</i> , <b>1983</b> , 31, 335-352		214
468	The von Neumann relation generalized to coarsening of three-dimensional microstructures. <i>Nature</i> , <b>2007</b> , 446, 1053-5	50.4	213
467	Capillary instabilities in thin films. II. Kinetics. <i>Journal of Applied Physics</i> , <b>1986</b> , 60, 255-260	2.5	201
466	Engineering the shape and structure of materials by fractal cut. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 17390-5	11.5	196
465	Surface stress model for intrinsic stresses in thin films. <i>Journal of Materials Research</i> , <b>2000</b> , 15, 2468-2474	4.5	187
464	Local structural fluctuations in amorphous and liquid metals: a simple theory of the glass transition. <i>Journal of Physics F: Metal Physics</i> , <b>1982</b> , 12, 2141-2163		184
463	Radial distribution function and structural relaxation in amorphous solids. <i>Physical Review B</i> , <b>1981</b> , 24, 6936-6944	3.3	183
462	Measurement of the cleavage energy of graphite. <i>Nature Communications</i> , <b>2015</b> , 6, 7853	17.4	175
461	DislocationEwin interaction mechanisms for ultrahigh strength and ductility in nanotwinned metals. <i>Acta Materialia</i> , <b>2009</b> , 57, 4508-4518	8.4	160
460	Effects of lattice anisotropy and temperature on domain growth in the two-dimensional Potts model. <i>Physical Review A</i> , <b>1991</b> , 43, 2662-2668	2.6	158
459	Computer simulation on surfaces and [001] symmetric tilt grain boundaries in Ni, Al, and Ni3Al. <i>Journal of Materials Research</i> , <b>1989</b> , 4, 62-77	2.5	155
458	Grain-boundary kinetics: A unified approach. <i>Progress in Materials Science</i> , <b>2018</b> , 98, 386-476	42.2	154
457	Domain-growth kinetics for the Q-state Potts model in two and three dimensions. <i>Physical Review B</i> , <b>1988</b> , 38, 4752-4760	3.3	153
456	Elastic fracture in random materials. <i>Physical Review B</i> , <b>1988</b> , 37, 5500-5507	3.3	151
455	Diffusionally modified dislocation-particle elastic interactions. <i>Acta Metallurgica</i> , <b>1984</b> , 32, 1079-1088		151
454	Oscillatory surface relaxations in Ni, Al, and their ordered alloys. <i>Physical Review Letters</i> , <b>1986</b> , 57, 1308-1311	4.1	151

453	Simultaneous grain boundary migration and grain rotation. <i>Acta Materialia</i> , <b>2006</b> , 54, 1707-1719	8.4	148
452	Computer simulation of recrystallization in non-uniformly deformed metals. <i>Acta Metallurgica</i> , <b>1989</b> , 37, 627-639		145
451	Computer simulation of recrystallizationII. Heterogeneous nucleation and growth. <i>Acta Metallurgica</i> , <b>1988</b> , 36, 2115-2128		144
450	Grain boundaries exhibit the dynamics of glass-forming liquids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 7735-40	11.5	141
449	Size-dependent deformation of nanocrystalline Pt nanopillars. <i>Nano Letters</i> , <b>2012</b> , 12, 6385-92	11.5	137
448	Columnar growth in thin films. <i>Physical Review Letters</i> , <b>1988</b> , 60, 424-427	7.4	137
447	The Thermodynamics and Kinetics of film agglomeration. <i>Jom</i> , <b>1995</b> , 47, 31-36	2.1	136
446	Metal-ceramic adhesion and the Harris functional. <i>Physical Review Letters</i> , <b>1994</b> , 72, 4021-4024	7.4	135
445	Dislocation distributions in two dimensions. <i>Scripta Metallurgica</i> , <b>1989</b> , 23, 1347-1352		133
444	Kinetics of the Q-State Potts Model in Two Dimensions. <i>Physical Review Letters</i> , <b>1983</b> , 50, 263-266	7.4	129
443	Void formation during film growth: A molecular dynamics simulation study. <i>Journal of Applied Physics</i> , <b>1996</b> , 79, 1448-1457	2.5	127
442	Oxygen Diffusion in Yttria-Stabilized Zirconia: A New Simulation Model. <i>Journal of the American Ceramic Society</i> , <b>2005</b> , 87, 1821-1830	3.8	125
441	Inhibition of grain growth by second phase particles: Three dimensional Monte Carlo computer simulations. <i>Scripta Metallurgica</i> , <b>1989</b> , 23, 753-758		121
440	Misorientation dependence of intrinsic grain boundary mobility: simulation and experiment. <i>Acta Materialia</i> , <b>1999</b> , 47, 3901-3914	8.4	120
439	A kinetic Monte Carlo method for the atomic-scale simulation of chemical vapor deposition: Application to diamond. <i>Journal of Applied Physics</i> , <b>1997</b> , 82, 6293-6300	2.5	117
438	Theory of metal/ceramic adhesion. <i>Acta Metallurgica Et Materialia</i> , <b>1995</b> , 43, 2721-2730		115
437	Twisted Bilayer Graphene: Moiréwith a Twist. <i>Nano Letters</i> , <b>2016</b> , 16, 5923-7	11.5	112
436	Size effect in compression of single-crystal gold microparticles. <i>Acta Materialia</i> , <b>2011</b> , 59, 5202-5215	8.4	111

435	Brittle fracture in polycrystalline microstructures with the extended finite element method. <i>International Journal for Numerical Methods in Engineering</i> , <b>2003</b> , 56, 2015-2037	2.4	111
434	Boundary Mobility and Energy Anisotropy Effects on Microstructural Evolution During Grain Growth. <i>Journal of Materials Science</i> , <b>2002</b> , 10, 201-216		110
433	Microstructural simulation of dynamic recrystallization. <i>Acta Metallurgica Et Materialia</i> , <b>1992</b> , 40, 43-55		110
432	Morphology of nested fullerenes. <i>Physical Review Letters</i> , <b>1995</b> , 74, 1779-1782	7.4	109
431	Crosshatched surface morphology in strained III-V semiconductor films. <i>Journal of Applied Physics</i> , <b>1990</b> , 67, 4093-4098	2.5	109
430	Stress relaxation and misfit dislocation nucleation in the growth of misfitting films: A molecular dynamics simulation study. <i>Journal of Applied Physics</i> , <b>1998</b> , 83, 217-227	2.5	105
429	Computer Simulation of Final-Stage Sintering: I, Model Kinetics, and Microstructure. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 2857-2864	3.8	102
428	Computer simulation of the elastically driven migration of a flat grain boundary. <i>Acta Materialia</i> , <b>2004</b> , 52, 2569-2576	8.4	100
427	Thermodynamic properties of metastable Ag-Cu alloys. <i>Journal of Applied Physics</i> , <b>1993</b> , 74, 3144-3149	2.5	99
426	Analytical and numerical modeling of columnar evolution in thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1988</b> , 6, 2371-2380	2.9	99
425	Computer simulation of grain boundaries in Ni <sub>3</sub> Al: The effect of grain boundary composition. <i>Scripta Metallurgica</i> , <b>1986</b> , 20, 1389-1394		99
424	Systematic prediction of kinetically limited crystal growth morphologies. <i>Physical Review Letters</i> , <b>2005</b> , 95, 155503	7.4	98
423	A two-dimensional molecular dynamics simulation of thin film growth by oblique deposition. <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 5682-5690	2.5	98
422	Impurity effects on domain-growth kinetics. I. Ising model. <i>Physical Review B</i> , <b>1985</b> , 32, 3014-3020	3.3	97
421	Atomistic simulation of the deformation of gold nanopillars. <i>Acta Materialia</i> , <b>2007</b> , 55, 2085-2099	8.4	96
420	Kinetic Monte Carlo Simulation of Chemical Vapor Deposition. <i>Annual Review of Materials Research</i> , <b>2002</b> , 32, 297-319	12.8	96
419	Grain growth phenomena in films: A Monte Carlo approach. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1986</b> , 4, 2925-2931	2.9	96
418	First-principles study of graphene edge properties and flake shapes. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	95

4 <sup>17</sup>	Curvature driven grain boundary migration in aluminum: molecular dynamics simulations. <i>Acta Materialia</i> , <b>2005</b> , 53, 79-86	8.4	95
4 <sup>16</sup>	Self-interstitials in V and Mo. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	94
4 <sup>15</sup>	Grain growth in two dimensions. <i>Scripta Metallurgica</i> , <b>1983</b> , 17, 241-246		94
4 <sup>14</sup>	Effect of Fe segregation on the migration of a non-symmetric $\Sigma$ tilt grain boundary in Al. <i>Journal of Materials Research</i> , <b>2005</b> , 20, 208-218	2.5	93
4 <sup>13</sup>	Kinetics of buckling of a compressed film on a viscous substrate. <i>Applied Physics Letters</i> , <b>2001</b> , 78, 2482-2484	3.4	92
4 <sup>12</sup>	On the volume fraction dependence of particle limited grain growth. <i>Scripta Metallurgica</i> , <b>1987</b> , 21, 675-679		92
4 <sup>11</sup>	Nanowire failure: long = brittle and short = ductile. <i>Nano Letters</i> , <b>2012</b> , 12, 910-4	11.5	91
4 <sup>10</sup>	Texture development mechanisms in ion beam assisted deposition. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 5261-5269	2.5	90
4 <sup>09</sup>	Nonlinear geometric effects in mechanical bistable morphing structures. <i>Physical Review Letters</i> , <b>2012</b> , 109, 114302	7.4	89
4 <sup>08</sup>	Molecular dynamics simulation of triple junction migration. <i>Acta Materialia</i> , <b>2002</b> , 50, 1405-1420	8.4	89
4 <sup>07</sup>	Simulation of faceted film growth in two-dimensions: microstructure, morphology and texture. <i>Acta Materialia</i> , <b>1999</b> , 47, 2269-2281	8.4	89
4 <sup>06</sup>	Mechanical behavior and interface design of MoSi <sub>2</sub> -based alloys and composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>1992</b> , 155, 147-158	5.3	86
4 <sup>05</sup>	Nanoindentation size effect in single-crystal nanoparticles and thin films: A comparative experimental and simulation study. <i>Acta Materialia</i> , <b>2011</b> , 59, 2309-2321	8.4	85
4 <sup>04</sup>	Reconciling grain growth and shear-coupled grain boundary migration. <i>Nature Communications</i> , <b>2017</b> , 8, 1764	17.4	83
4 <sup>03</sup>	Crystal-melt interfacial free energies in metals: fcc versus bcc. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	83
4 <sup>02</sup>	A level set method for dislocation dynamics. <i>Acta Materialia</i> , <b>2003</b> , 51, 5499-5518	8.4	82
4 <sup>01</sup>	Tunable helical ribbons. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 011906	3.4	81
4 <sup>00</sup>	First-principles calculation of the thermodynamics of In <sub>x</sub> Ga <sub>1-x</sub> N alloys: Effect of lattice vibrations. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	81

399	Atomistic Simulation of Curvature Driven Grain Boundary Migration. <i>Journal of Materials Science</i> , <b>1998</b> , 6, 41-58		80
398	Grain-boundary metastability and its statistical properties. <i>Acta Materialia</i> , <b>2016</b> , 104, 259-273	8.4	78
397	Simulation of faceted film growth in three dimensions: microstructure, morphology and texture. <i>Acta Materialia</i> , <b>2005</b> , 53, 1191-1204	8.4	78
396	Brittle fracture in materials with random defects. <i>Physical Review B</i> , <b>1989</b> , 39, 9273-9281	3.3	77
395	Effects of particle size on inhibited grain growth. <i>Scripta Metallurgica Et Materialia</i> , <b>1990</b> , 24, 101-106		77
394	Atomic-scale analysis of liquid-gallium embrittlement of aluminum grain boundaries. <i>Acta Materialia</i> , <b>2014</b> , 73, 312-325	8.4	75
393	Defect interactions on solid surfaces. <i>Surface Science</i> , <b>1993</b> , 284, 211-221	1.8	75
392	van der Waals bilayer energetics: Generalized stacking-fault energy of graphene, boron nitride, and graphene/boron nitride bilayers. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	74
391	Thin film compressive stresses due to adatom insertion into grain boundaries. <i>Physical Review Letters</i> , <b>2007</b> , 99, 036102	7.4	74
390	Level set simulations of dislocation-particle bypass mechanisms. <i>Acta Materialia</i> , <b>2004</b> , 52, 1745-1760	8.4	73
389	Diffusional relaxation of the dislocation-inclusion repulsion. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1983</b> , 48, 795-809		73
388	Grain growth in three dimensions: A lattice model. <i>Scripta Metallurgica</i> , <b>1985</b> , 19, 225-230		73
387	Onset of plasticity in gold nanopillar compression. <i>Nano Letters</i> , <b>2007</b> , 7, 101-7	11.5	71
386	Deformation mechanisms, length scales and optimizing the mechanical properties of nanotwinned metals. <i>Acta Materialia</i> , <b>2011</b> , 59, 6890-6900	8.4	70
385	Surface morphology evolution in stressed solids: Surface diffusion controlled crack initiation. <i>Journal of the Mechanics and Physics of Solids</i> , <b>1994</b> , 42, 1551-1574	5	69
384	Mechanisms of failure in nanoscale metallic glass. <i>Nano Letters</i> , <b>2014</b> , 14, 5858-64	11.5	68
383	Abnormal grain growth induced by sub-boundary-enhanced solid-state wetting: Analysis by phase-field model simulations. <i>Acta Materialia</i> , <b>2009</b> , 57, 838-845	8.4	68
382	Computer simulation of recrystallizationIII. Influence of a dispersion of fine particles. <i>Acta Metallurgica Et Materialia</i> , <b>1992</b> , 40, 3475-3495		68

- 381 Strain engineering of 2D semiconductors and graphene: from strain fields to band-structure tuning and photonic applications. *Light: Science and Applications*, **2020**, 9, 190 16.7 68
- 380 A Monte Carlo-finite element model for strain energy controlled microstructural evolution: rafting in superalloys. *Acta Metallurgica*, **1989**, 37, 641-650 67
- 379 Topological framework for local structure analysis in condensed matter. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E5769-76 11.5 66
- 378 Structure and evolution of quenched Ising clusters. *Physical Review B*, **1984**, 30, 5150-5155 3.3 66
- 377 Microstructural evolution in two-dimensional two-phase polycrystals. *Acta Metallurgica Et Materialia*, **1993**, 41, 1119-1136 65
- 376 Etching effects during the chemical vapor deposition of (100) diamond. *Journal of Chemical Physics*, **1999**, 111, 4291-4299 3.9 64
- 375 Impurity effects on grain boundary migration. *Modelling and Simulation in Materials Science and Engineering*, **2002**, 10, R79-R109 2 63
- 374 Shadowing effects on the microstructure of obliquely deposited films. *Journal of Applied Physics*, **2002**, 91, 1963-1972 2.5 63
- 373 Local structure and topology of a model amorphous metal. *Journal of Physics F: Metal Physics*, **1981**, 11, 2209-2219 62
- 372 Phase field approach for simulating solid-state dewetting problems. *Acta Materialia*, **2012**, 60, 5578-5598.4 61
- 371 Interatomic potential for vanadium suitable for radiation damage simulations. *Journal of Applied Physics*, **2003**, 93, 3328-3335 2.5 61
- 370 Grain boundary migration: misorientation dependence. *Current Opinion in Solid State and Materials Science*, **2001**, 5, 9-14 12 61
- 369 Nanostructure and surface effects on yield in Cu nanowires. *Acta Materialia*, **2013**, 61, 1831-1842 8.4 60
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- 367 Dislocation climb effects on particle bypass mechanisms. *Philosophical Magazine*, **2006**, 86, 3937-3957 1.6 60
- 366 Abnormal grain growth in three dimensions. *Scripta Metallurgica Et Materialia*, **1990**, 24, 661-665 59
- 365 The inverse Hall-Petch relation in nanocrystalline metals: A discrete dislocation dynamics analysis. *Journal of the Mechanics and Physics of Solids*, **2016**, 88, 252-266 5 58
- 364 Dislocation motion in the presence of diffusing solutes: a computer simulation study. *Acta Materialia*, **2000**, 48, 2163-2175 8.4 58



363	Phase separation during film growth. <i>Journal of Applied Physics</i> , <b>1992</b> , 72, 442-446	2.5	58
362	Molecular dynamics simulation of single asperity contact. <i>Acta Materialia</i> , <b>2004</b> , 52, 3983-3996	8.4	57
361	Thermal conductivity of crystalline quartz from classical simulations. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	57
360	Adhesion in NiAl-Cr from first principles. <i>Physical Review B</i> , <b>1996</b> , 53, 13883-13890	3.3	56
359	Kinetics of Domain Growth: Universality of Kinetic Exponents. <i>Physical Review Letters</i> , <b>1984</b> , 52, 1321-1324	3.4	56
358	Effect of strain on the stacking fault energy of copper: A first-principles study. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	55
357	Large-scale molecular dynamics simulations of wear in diamond-like carbon at the nanoscale. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 073118	3.4	55
356	Computer Simulation of Final-Stage Sintering: II, Influence of Initial Pore Size. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 2865-2872	3.8	54
355	Characterization of atomic motion governing grain boundary migration. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	53
354	Mechanism of texture development in ion-beam-assisted deposition. <i>Applied Physics Letters</i> , <b>1999</b> , 75, 584-586	3.4	53
353	Mobility of low-angle grain boundaries in pure metals. <i>Philosophical Magazine</i> , <b>2010</b> , 90, 3107-3128	1.6	52
352	Adhesion effects in material transfer in mechanical contacts. <i>Acta Materialia</i> , <b>2006</b> , 54, 5305-5312	8.4	52
351	Effects of boundary inclination and boundary type on shear-driven grain boundary migration. <i>Philosophical Magazine</i> , <b>2008</b> , 88, 243-256	1.6	51
350	Grain boundary energy and grain growth in Al films: Comparison of experiments and simulations. <i>Scripta Materialia</i> , <b>2006</b> , 54, 1059-1063	5.6	51
349	Effect of material properties on liquid metal embrittlement in the AlGa system. <i>Acta Materialia</i> , <b>2009</b> , 57, 1546-1553	8.4	50
348	Stress distributions in growing oxide films. <i>Acta Materialia</i> , <b>2003</b> , 51, 2171-2190	8.4	50
347	The mechanism of texture formation during film growth: The roles of preferential sputtering and shadowing. <i>Applied Physics Letters</i> , <b>1996</b> , 69, 3007-3009	3.4	50
346	A new method for the simulation of alloys: Application to interfacial segregation. <i>Acta Metallurgica Et Materialia</i> , <b>1991</b> , 39, 3071-3082		50

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344	Clock-model description of incommensurate ferroelectric films and of nematic-liquid-crystal films. <i>Physical Review B</i> , <b>1986</b> , 34, 1815-1819	3.3	49
343	Edge dislocation-circular inclusion interactions at elevated temperatures. <i>Acta Metallurgica</i> , <b>1983</b> , 31, 2151-2159		49
342	Influence of flexoelectric coupling on domain patterns in ferroelectrics. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	48
341	Microstructure versus flaw: mechanisms of failure and strength in nanostructures. <i>Nano Letters</i> , <b>2013</b> , 13, 5703-9	11.5	48
340	Extended ensemble molecular dynamics method for constant strain rate uniaxial deformation of polymer systems. <i>Journal of Chemical Physics</i> , <b>1997</b> , 107, 4396-4407	3.9	48
339	Simulation of the interaction between Fe impurities and point defects in V. <i>Physical Review B</i> , <b>2007</b> , 76,	3.3	48
338	Monte Carlo simulation of phase separation during thin-film codeposition. <i>Journal of Applied Physics</i> , <b>1993</b> , 74, 1707-1715	2.5	47
337	Elastic step interactions on vicinal surfaces of fcc metals. <i>Surface Science</i> , <b>1994</b> , 317, 221-234	1.8	47
336	Polycrystal deformation in a discrete dislocation dynamics framework. <i>Acta Materialia</i> , <b>2014</b> , 75, 92-105	8.4	46
335	Origins of growth stresses in amorphous semiconductor thin films. <i>Physical Review Letters</i> , <b>2003</b> , 91, 096101	7.4	46
334	The effect of randomness on the strength of high-entropy alloys. <i>Acta Materialia</i> , <b>2019</b> , 166, 424-434	8.4	46
333	Stress and morphology evolution during island growth. <i>Physical Review Letters</i> , <b>2006</b> , 96, 186103	7.4	45
332	Metal / ceramic adhesion: a first principles study of MgO/Al and MgO/Ag. <i>Journal of Adhesion Science and Technology</i> , <b>1994</b> , 8, 837-851	2	45
331	Effects of diffusing impurities on domain growth in the Ising model. <i>Physical Review B</i> , <b>1987</b> , 35, 6902-6910	3.1	45
330	Structure and energy of (111) low-angle twist boundaries in Al, Cu and Ni. <i>Acta Materialia</i> , <b>2013</b> , 61, 1327-1337	7.1	44
329	Twinning in thin films—Elastic analysis. <i>Acta Materialia</i> , <b>1996</b> , 44, 4085-4096	8.4	44
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