Wei Cai

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

150 152 22,534 49 h-index g-index citations papers 6.6 7.1 157 24,437 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
152	Electro-chemo-mechanical charge carrier equilibrium at interfaces. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 23730-23740	3.6	1
151	Bending and precipitate formation mechanisms in epitaxial Ge-core/GeSn-shell nanowires. <i>Nanoscale</i> , 2021 , 13, 17547-17555	7.7	2
150	Phagocytic 'teeth' and myosin-II 'jaw' power target constriction during phagocytosis. <i>ELife</i> , 2021 , 10,	8.9	2
149	Slip-free multiplication and complexity of dislocation networks in FCC metals. <i>Materials Theory</i> , 2021 , 5,	2.2	2
148	A critical look at the prediction of the temperature field around a laser-induced melt pool on metallic substrates. <i>Scientific Reports</i> , 2021 , 11, 12224	4.9	4
147	Core energies of dislocations in bcc metals. <i>Physical Review Materials</i> , 2021 , 5,	3.2	1
146	Pipe-diffusion-enriched dislocations and interfaces in SnSe/PbSe heterostructures. <i>Physical Review Materials</i> , 2021 , 5,	3.2	2
145	A novel experimental method for in situ strain measurement during selective laser melting. <i>Virtual and Physical Prototyping</i> , 2020 , 15, 583-595	10.1	3
144	Dislocation density-based plasticity model from massive discrete dislocation dynamics database. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 145, 104152	5	6
143	Frontiers in the Simulation of Dislocations. <i>Annual Review of Materials Research</i> , 2020 , 50, 437-464	12.8	19
142	Molecular Dynamics 2020 , 573-594		5
141	Microparticle traction force microscopy reveals subcellular force exertion patterns in immune cell-target interactions. <i>Nature Communications</i> , 2020 , 11, 20	17.4	52
140	Intrinsic size dependent plasticity in BCC micro-pillars under uniaxial tension and pure torsion. <i>Extreme Mechanics Letters</i> , 2020 , 40, 100901	3.9	3
139	Stress effects on the energy barrier and mechanisms of cross-slip in FCC nickel. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 144, 104105	5	6
138	Topological origin of strain induced damage of multi-network elastomers by bond breaking. <i>Extreme Mechanics Letters</i> , 2020 , 40, 100883	3.9	12
137	Growth mode control for direct-gap core/shell Ge/GeSn nanowire light emission. <i>Materials Today</i> , 2020 , 40, 101-113	21.8	9
136	Multivalent Assembly of Flexible Polymer Chains into Supramolecular Nanofibers. <i>Journal of the American Chemical Society</i> , 2020 , 142, 16814-16824	16.4	14

(2018-2019)

135	Coupling of coherent misfit strain and composition distributions in coreBhell Ge/Ge1-xSnx nanowire light emitters. <i>Materials Today Nano</i> , 2019 , 5, 100026	9.7	12
134	High-Throughput Growth of Microscale Gold Bicrystals for Single-Grain-Boundary Studies. <i>Advanced Materials</i> , 2019 , 31, e1902189	24	6
133	Spherical harmonics method for computing the image stress due to a spherical void. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 126, 151-167	5	7
132	GPU-accelerated dislocation dynamics using subcycling time-integration. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019 , 27, 075014	2	8
131	Stretchable self-healable semiconducting polymer film for active-matrix strain-sensing array. <i>Science Advances</i> , 2019 , 5, eaav3097	14.3	102
130	Phase-field investigation of the stages in radial growth of core-shell Ge/GeSn nanowires. <i>Nanoscale</i> , 2019 , 11, 21974-21980	7:7	3
129	Strengthening Mechanism of a Single Precipitate in a Metallic Nanocube. <i>Nano Letters</i> , 2019 , 19, 255-26	50 1.5	6
128	Computation of virtual X-ray diffraction patterns from discrete dislocation structures. <i>Computational Materials Science</i> , 2018 , 146, 268-277	3.2	10
127	A spectral approach for discrete dislocation dynamics simulations of nanoindentation. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018 , 26, 055004	2	5
126	Microstructural origin of resistance-strain hysteresis in carbon nanotube thin film conductors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 1986-1991	11.5	73
125	Anisotropy effect on strain-induced instability during growth of heteroepitaxial films. <i>Journal of Materials Science</i> , 2018 , 53, 5777-5785	4.3	5
124	Discrete shear band plasticity through dislocation activities in body-centered cubic tungsten nanowires. <i>Scientific Reports</i> , 2018 , 8, 4574	4.9	12
123	Free energy change of a dislocation due to a Cottrell atmosphere. <i>Philosophical Magazine</i> , 2018 , 98, 149	9 1: 651	020
122	Properties of the Eshelby tensor and existence of the equivalent ellipsoidal inclusion solution. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 121, 71-80	5	2
121	Geometrically projected discrete dislocation dynamics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018 , 26, 065011	2	6
120	Energy of periodic discrete dislocation networks. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 121, 133-146	5	7
119	Dislocation Networks and the Microstructural Origin of Strain Hardening. <i>Physical Review Letters</i> , 2018 , 121, 085501	7.4	46
118	Predicting stability of nanofin arrays against collapse by phase field modeling. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2018 , 36, 051602	1.3	1

117	Highly stretchable polymer semiconductor films through the nanoconfinement effect. <i>Science</i> , 2017 , 355, 59-64	33.3	651
116	Reliability of Single Crystal Silver Nanowire-Based Systems: Stress Assisted Instabilities. <i>ACS Nano</i> , 2017 , 11, 4768-4776	16.7	18
115	Phase Field Model for Morphological Transition in Nanowire Vapor Liquid Bolid Growth. <i>Crystal Growth and Design</i> , 2017 , 17, 2211-2217	3.5	12
114	Atomistic mechanisms of orientation and temperature dependence in gold-catalyzed silicon growth. <i>Journal of Applied Physics</i> , 2017 , 122, 085106	2.5	2
113	In situ atomic-scale observation of oxygen-driven core-shell formation in PtCo nanoparticles. <i>Nature Communications</i> , 2017 , 8, 204	17.4	71
112	Stability of Eshelby dislocations in FCC crystalline nanowires. <i>International Journal of Plasticity</i> , 2016 , 86, 26-36	7.6	2
111	Anisotropic Size-Dependent Plasticity in Face-Centered Cubic Micropillars Under Torsion. <i>Jom</i> , 2016 , 68, 253-260	2.1	13
110	Direct observation of mineral-organic composite formation reveals occlusion mechanism. <i>Nature Communications</i> , 2016 , 7, 10187	17.4	82
109	Solute drag on perfect and extended dislocations. <i>Philosophical Magazine</i> , 2016 , 96, 895-921	1.6	36
108	Spontaneous, Defect-Free Kinking via Capillary Instability during Vapor-Liquid-Solid Nanowire Growth. <i>Nano Letters</i> , 2016 , 16, 1713-8	11.5	12
107	Fundamentals of Dislocation Dynamics Simulations. Springer Series in Materials Science, 2016, 53-87	0.9	20
106	Imperfections in Crystalline Solids 2016 ,		75
105	Advanced time integration algorithms for dislocation dynamics simulations of work hardening. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016 , 24, 045019	2	29
104	Spatiotemporal periodicity of dislocation dynamics in a two-dimensional microfluidic crystal flowing in a tapered channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 12082-12087	11.5	27
103	Dislocation Structure and Mobility in hcp ^{4}He. <i>Physical Review Letters</i> , 2016 , 117, 045301	7.4	11
102	Intrinsic Bauschinger effect and recoverable plasticity in pentatwinned silver nanowires tested in tension. <i>Nano Letters</i> , 2015 , 15, 139-46	11.5	67
101	Stochastic behaviors in plastic deformation of face-centered cubic micropillars governed by surface nucleation and truncated source operation. <i>Acta Materialia</i> , 2015 , 95, 176-183	8.4	41
100	Evaluation of the Surface Tension of Silicon-Gold Binary Liquid Alloy. <i>Materials Science Forum</i> , 2015 , 817, 772-777	0.4	5

(2012-2015)

99	A Bamboo-Inspired Nanostructure Design for Flexible, Foldable, and Twistable Energy Storage Devices. <i>Nano Letters</i> , 2015 , 15, 3899-906	11.5	257
98	Efficient time integration in dislocation dynamics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014 , 22, 025003	2	10
97	Ideal shear strength of a quantum crystal. <i>Physical Review Letters</i> , 2014 , 112, 155303	7·4	7
96	Modeling a distribution of point defects as misfitting inclusions in stressed solids. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 66, 154-171	5	49
95	Stress dependence of cross slip energy barrier for face-centered cubic nickel. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 62, 181-193	5	54
94	A three-dimensional phase field model for nanowire growth by the vapor I quid Bolid mechanism. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014 , 22, 055005	2	16
93	Zipping, entanglement, and the elastic modulus of aligned single-walled carbon nanotube films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 20426-30	11.5	36
92	Plasticity of bcc micropillars controlled by competition between dislocation multiplication and depletion. <i>Acta Materialia</i> , 2013 , 61, 3233-3241	8.4	42
91	Atomistic simulations of grain boundary segregation in nanocrystalline yttria-stabilized zirconia and gadolinia-doped ceria solid oxide electrolytes. <i>Acta Materialia</i> , 2013 , 61, 3872-3887	8.4	60
90	Conditional convergence in two-dimensional dislocation dynamics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013 , 21, 055003	2	15
89	Plasticity of metal nanowires. Journal of Materials Chemistry, 2012, 22, 3277		157
88	On the existence of Eshelby equivalent ellipsoidal inclusion solution. <i>Mathematics and Mechanics of Solids</i> , 2012 , 17, 840-847	2.3	9
87	Molecular Dynamics 2012 , 249-265		22
86	Computing dislocation stress fields in anisotropic elastic media using fast multipole expansions. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2012 , 20, 045015	2	14
85	Nucleation-controlled distributed plasticity in penta-twinned silver nanowires. <i>Small</i> , 2012 , 8, 2986-93	11	83
84	Dislocation dynamics simulation of Frank-Read sources in anisotropic ⊞e. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2012 , 20, 045022	2	24
83	Stress-driven migration of simple low-angle mixed grain boundaries. Acta Materialia, 2012, 60, 1395-14	08.4	32
82	Contribution of dislocation dipole structures to the acoustic nonlinearity. <i>Journal of Applied Physics</i> , 2012 , 111, 074906	2.5	24

81	Singular orientations and faceted motion of dislocations in body-centered cubic crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 15174-8	11.5	68
80	Ab initiokinetic Monte Carlo model of ionic conduction in bulk yttria-stabilized zirconia. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2012 , 20, 065006	2	10
79	Dislocation contribution to acoustic nonlinearity: The effect of orientation-dependent line energy. Journal of Applied Physics, 2011 , 109, 014915	2.5	39
78	The stability of Lomertottrell jogs in nanopillars. <i>Scripta Materialia</i> , 2011 , 64, 529-532	5.6	28
77	Energy barrier for homogeneous dislocation nucleation: Comparing atomistic and continuum models. <i>Scripta Materialia</i> , 2011 , 64, 1043-1046	5.6	71
76	Nanoscale patterning controls inorganic-membrane interface structure. <i>Nanoscale</i> , 2011 , 3, 391-400	7.7	17
75	Carbon-based supercapacitors produced by activation of graphene. <i>Science</i> , 2011 , 332, 1537-41	33.3	4940
74	Enhancing ionic conductivity of bulk single-crystal yttria-stabilized zirconia by tailoring dopant distribution. <i>Physical Review B</i> , 2011 , 83,	3.3	32
73	Entropic effect on the rate of dislocation nucleation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 5174-8	11.5	103
72	Molecular dynamics simulations of gold-catalyzed growth of silicon bulk crystals and nanowires. Journal of Materials Research, 2011 , 26, 2199-2206	2.5	14
71	Predicting the dislocation nucleation rate as a function of temperature and stress. <i>Journal of Materials Research</i> , 2011 , 26, 2335-2354	2.5	56
7º	Dislocation junctions and jogs in a free-standing FCC thin film. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2011 , 19, 025002	2	14
69	Equilibrium shape of dislocation shear loops in anisotropic Fe. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2011 , 19, 065006	2	29
68	Validity of classical nucleation theory for Ising models. <i>Physical Review E</i> , 2010 , 81, 030601	2.4	40
67	Role of Surface Roughness in Hysteresis during Adhesive Elastic Contact. <i>Philosophical Magazine Letters</i> , 2010 , 90, 891-902	1	54
66	Synthesis and photoluminescence properties of hexagonal Lanthanide(III)-doped NaYF4 microprisms. <i>CrystEngComm</i> , 2010 , 12, 4263	3.3	29
65	A gold-silicon potential fitted to the binary phase diagram. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 055401	1.8	16
64	Numerical tests of nucleation theories for the Ising models. <i>Physical Review E</i> , 2010 , 82, 011603	2.4	23

(2008-2010)

63	Orientation-dependent plasticity in metal nanowires under torsion: twist boundary formation and Eshelby twist. <i>Nano Letters</i> , 2010 , 10, 139-42	11.5	51
62	Efficient computation of forces on dislocation segments in anisotropic elasticity. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010 , 18, 045013	2	28
61	Size and temperature effects on the fracture mechanisms of silicon nanowires: Molecular dynamics simulations. <i>International Journal of Plasticity</i> , 2010 , 26, 1387-1401	7.6	108
60	Atomistic simulations of surface segregation of defects in solid oxide electrolytes. <i>Acta Materialia</i> , 2010 , 58, 2197-2206	8.4	69
59	Analysis of the elastic strain energy driving force for grain boundary migration using phase field simulation. <i>Scripta Materialia</i> , 2010 , 63, 1049-1052	5.6	34
58	Plasticity of metal wires in torsion: Molecular dynamics and dislocation dynamics simulations. <i>Journal of the Mechanics and Physics of Solids</i> , 2010 , 58, 1011-1025	5	55
57	Kinetic Monte Carlo simulations of oxygen vacancy diffusion in a solid electrolyte: Computing the electrical impedance using the fluctuationdissipation theorem. <i>Electrochemistry Communications</i> , 2010 , 12, 223-226	5.1	8
56	Modelling dislocations in a free-standing thin film. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009 , 17, 075007	2	48
55	Energy of a Prismatic Dislocation Loop in an Elastic Cylinder. <i>Mathematics and Mechanics of Solids</i> , 2009 , 14, 192-206	2.3	12
54	Mechanics of Crystalline Nanowires. <i>MRS Bulletin</i> , 2009 , 34, 178-183	3.2	144
54	Mechanics of Crystalline Nanowires. <i>MRS Bulletin</i> , 2009 , 34, 178-183 Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , 2009 , 324, 13		144 8900
53	Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , 2009 , 324, 13 Improved modified embedded-atom method potentials for gold and silicon. <i>Modelling and</i>	12 , 43	8900
53 52	Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , 2009 , 324, 13 Improved modified embedded-atom method potentials for gold and silicon. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009 , 17, 075008 Dislocation dynamics simulations in a cylinder. <i>IOP Conference Series: Materials Science and</i>	1 2-9 3 2	8900 40
53 52 51	Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , 2009 , 324, 13 Improved modified embedded-atom method potentials for gold and silicon. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009 , 17, 075008 Dislocation dynamics simulations in a cylinder. <i>IOP Conference Series: Materials Science and Engineering</i> , 2009 , 3, 012007 Synthesis and solid-state NMR structural characterization of 13C-labeled graphite oxide. <i>Science</i> ,	12 ,4 3 2	8900
53 52 51 50	Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , 2009 , 324, 13 Improved modified embedded-atom method potentials for gold and silicon. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009 , 17, 075008 Dislocation dynamics simulations in a cylinder. <i>IOP Conference Series: Materials Science and Engineering</i> , 2009 , 3, 012007 Synthesis and solid-state NMR structural characterization of 13C-labeled graphite oxide. <i>Science</i> , 2008 , 321, 1815-7 Comparison of thermal properties predicted by interatomic potential models. <i>Modelling and</i>	12 3 43 2 0.4	8900 40 3 1006
53 52 51 50 49	Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , 2009 , 324, 13 Improved modified embedded-atom method potentials for gold and silicon. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009 , 17, 075008 Dislocation dynamics simulations in a cylinder. <i>IOP Conference Series: Materials Science and Engineering</i> , 2009 , 3, 012007 Synthesis and solid-state NMR structural characterization of 13C-labeled graphite oxide. <i>Science</i> , 2008 , 321, 1815-7 Comparison of thermal properties predicted by interatomic potential models. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2008 , 16, 085005 Surface-controlled dislocation multiplication in metal micropillars. <i>Proceedings of the National</i>	12 3 43 2 0.4 33.3	8900 40 3 1006

45	Comparing the strength of f.c.c. and b.c.c. sub-micrometer pillars: Compression experiments and dislocation dynamics simulations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing,</i> 2008 , 493, 21-25	5.3	181
44	Synthesis and Photoluminescence Properties of Truncated Octahedral Eu-Doped YF3 Submicrocrystals or Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 3241-3245	3.8	88
43	Enabling strain hardening simulations with dislocation dynamics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2007 , 15, 553-595	2	341
42	Computing image stress in an elastic cylinder. <i>Journal of the Mechanics and Physics of Solids</i> , 2007 , 55, 2027-2054	5	45
41	Electronic structure calculations in a uniform magnetic field using periodic supercells. <i>Journal of Computational Physics</i> , 2007 , 226, 1310-1331	4.1	5
40	Brittle and ductile fracture of semiconductor nanowires Imolecular dynamics simulations. <i>Philosophical Magazine</i> , 2007 , 87, 2169-2189	1.6	118
39	A hybrid method for computing forces on curved dislocations intersecting free surfaces in three-dimensional dislocation dynamics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2006 , 14, 1139-1151	2	40
38	Geometric aspects of the ideal shear resistance in simple crystal lattices. <i>Philosophical Magazine</i> , 2006 , 86, 3847-3859	1.6	10
37	Dislocation multi-junctions and strain hardening. <i>Nature</i> , 2006 , 440, 1174-8	50.4	225
36	A non-singular continuum theory of dislocations. <i>Journal of the Mechanics and Physics of Solids</i> , 2006 , 54, 561-587	5	303
35	Computer Simulations of Dislocations 2006,		246
34	Adaptive importance sampling Monte Carlo simulation of rare transition events. <i>Journal of Chemical Physics</i> , 2005 , 122, 074103	3.9	6
33	Kinetic Monte Carlo method for dislocation migration in the presence of solute. <i>Physical Review B</i> , 2005 , 71,	3.3	9
32	Modeling Dislocations Using a Periodic Cell 2005 , 813-826		4
31	Nanohybrid Shish-Kebabs: Periodically Functionalized Carbon Nanotubes. <i>Advanced Materials</i> , 2005 , 17, 1198-1202	24	315
30	Dynamic transitions from smooth to rough to twinning in dislocation motion. <i>Nature Materials</i> , 2004 , 3, 158-63	27	213
29	Mobility laws in dislocation dynamics simulations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 387-389, 277-281	5.3	84
28	Dislocation Core Effects on Mobility. <i>Dislocations in Solids</i> , 2004 , 12, 1-80		87

(2000-2004)

27	Core energy and Peierls stress of a screw dislocation in bcc molybdenum: A periodic-cell tight-binding study. <i>Physical Review B</i> , 2004 , 70,	3.3	97
26	Ab initio calculations in a uniform magnetic field using periodic supercells. <i>Physical Review Letters</i> , 2004 , 92, 186402	7.4	19
25	Massively-Parallel Dislocation Dynamics Simulations. Solid Mechanics and Its Applications, 2004, 1-11	0.4	20
24	Effects of methane partial pressure on synthesis of single-walled carbon nanotubes by chemical vapor deposition. <i>Journal of Materials Science</i> , 2003 , 38, 3051-3054	4.3	6
23	Modeling of dislocationgrain boundary interactions in FCC metals. <i>Journal of Nuclear Materials</i> , 2003 , 323, 281-289	3.3	126
22	Periodic image effects in dislocation modelling. <i>Philosophical Magazine</i> , 2003 , 83, 539-567	1.6	166
21	Anomalous dislocation multiplication in FCC metals. <i>Physical Review Letters</i> , 2003 , 91, 025503	7.4	55
20	Nodal effects in dislocation mobility. <i>Physical Review Letters</i> , 2002 , 89, 115501	7.4	44
19	Importance sampling of rare transition events in Markov processes. <i>Physical Review E</i> , 2002 , 66, 046703	3 2.4	17
18	Molecular dynamics simulations of motion of edge and screw dislocations in a metal. <i>Computational Materials Science</i> , 2002 , 23, 111-115	3.2	69
17	Kinetic Monte Carlo approach to modeling dislocation mobility. <i>Computational Materials Science</i> , 2002 , 23, 124-130	3.2	12
16	Dislocation motion in BCC metals by molecular dynamics. <i>Materials Science & Dislocation motion in BCC metals by molecular dynamics. Materials Science & Dislocation Materials: Properties, Microstructure and Processing</i> , 2001 , 309-310, 160-163	5.3	56
15	Point defect interaction with dislocations in silicon. <i>Materials Science & Dislocation A: Structural Materials: Properties, Microstructure and Processing,</i> 2001 , 309-310, 129-132	5.3	9
14	Kinetic Monte Carlo modeling of dislocation motion in BCC metals. <i>Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 309-310, 270-273	5.3	33
13	Synthesis of nano-AgI arrays and their optical properties. <i>Journal of Materials Research</i> , 2001 , 16, 990-9	92 .5	33
12	Parameter-free modelling of dislocation motion: The case of silicon. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2001 , 81, 1257-1281		60
11	Anisotropic elastic interactions of a periodic dislocation array. <i>Physical Review Letters</i> , 2001 , 86, 5727-3	07.4	87
10	Intrinsic mobility of a dissociated dislocation in silicon. <i>Physical Review Letters</i> , 2000 , 84, 3346-9	7.4	66

9	Minimizing boundary reflections in coupled-domain simulations. <i>Physical Review Letters</i> , 2000 , 85, 3213	3- 9 .4	182	
8	Vacancy interaction with dislocations in silicon: the shuffle-glide competition. <i>Physical Review Letters</i> , 2000 , 84, 2172-5	7.4	49	
7	Efficient free-energy calculations by the simulation of nonequilibrium processes. <i>Computing in Science and Engineering</i> , 2000 , 2, 88-96	1.5	17	
6	Kinetic Monte Carlo method for dislocation glide in silicon. <i>Journal of Computer-Aided Materials Design</i> , 1999 , 6, 175-183		16	
5	Dynamics of Dissociated Dislocations in SI: A Micro-Meso Simulation Methodology. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 538, 69		3	
4	Kink Asymmetry and Multiplicity in Dislocation Cores. <i>Physical Review Letters</i> , 1997 , 79, 5042-5045	7.4	44	
3	Anisotropy of the reflectivity spectra of a BiSrCaCuO single crystal within the (001) plane. <i>Applied Physics Letters</i> , 1991 , 58, 1098-1099	3.4	4	
2	Superresolved microparticle traction force microscopy reveals subcellular force patterns in immune cell-target interactions		3	
-1	Phagocytic Footh and myocin-II fly hower target constriction during phagocytosis		-1	•