Ju Li

List of Publications by Year in descending order

547 papers	57,639 citations	767 119 h-index	1536 218 g-index
564 all docs	564 docs citations	564 times ranked	47083 citing authors

#	Article	IF	Citations
1	Quantum spin Hall effect in two-dimensional transition metal dichalcogenides. Science, 2014, 346, 1344-1347.	12.6	1,558
2	In Situ Observation of the Electrochemical Lithiation of a Single SnO ₂ Nanowire Electrode. Science, 2010, 330, 1515-1520.	12.6	1,430
3	Ab initiocalculation of ideal strength and phonon instability of graphene under tension. Physical Review B, 2007, 76, .	3.2	1,225
4	AtomEye: an efficient atomistic configuration viewer. Modelling and Simulation in Materials Science and Engineering, 2003, 11, 173-177.	2.0	1,083
5	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. Science, 2018, 359, 1489-1494.	12.6	1,065
6	Transition of lithium growth mechanisms in liquid electrolytes. Energy and Environmental Science, 2016, 9, 3221-3229.	30.8	1,054
7	Strain-engineered artificial atom as a broad-spectrum solar energy funnel. Nature Photonics, 2012, 6, 866-872.	31.4	907
8	Theory of Shear Banding in Metallic Glasses and Molecular Dynamics Calculations. Materials Transactions, 2007, 48, 2923-2927.	1.2	895
9	Sizeâ€Dependent Endocytosis of Nanoparticles. Advanced Materials, 2009, 21, 419-424.	21.0	895
10	Ultra-strength materials. Progress in Materials Science, 2010, 55, 710-757.	32.8	696
11	Anisotropic Swelling and Fracture of Silicon Nanowires during Lithiation. Nano Letters, 2011, 11, 3312-3318.	9.1	691
12	Ideal Pure Shear Strength of Aluminum and Copper. Science, 2002, 298, 807-811.	12.6	686
13	Atomistic mechanisms governing elastic limit and incipient plasticity in crystals. Nature, 2002, 418, 307-310.	27.8	621
14	Temperature and Strain-Rate Dependence of Surface Dislocation Nucleation. Physical Review Letters, 2008, 100, 025502.	7.8	587
15	Ultralow contact resistance between semimetal and monolayer semiconductors. Nature, 2021, 593, 211-217.	27.8	579
16	Giant piezoelectricity of monolayer group IV monochalcogenides: SnSe, SnS, GeSe, and GeS. Applied Physics Letters, 2015, 107, .	3.3	569
17	Strong crystal size effect on deformation twinning. Nature, 2010, 463, 335-338.	27.8	553
18	In situ atomic-scale imaging of electrochemical lithiation in silicon. Nature Nanotechnology, 2012, 7, 749-756.	31.5	533

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19	Interfacial plasticity governs strain rate sensitivity and ductility in nanostructured metals. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3031-3036.	7.1	522
20	Fluorine-donating electrolytes enable highly reversible 5-V-class Li metal batteries. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1156-1161.	7.1	512
21	Icosahedral Platinum Alloy Nanocrystals with Enhanced Electrocatalytic Activities. Journal of the American Chemical Society, 2012, 134, 11880-11883.	13.7	496
22	Pie-like electrode design for high-energy density lithiumâ€“sulfur batteries. Nature Communications, 2015, 6, 8850.	12.8	453
23	Intercalation-conversion hybrid cathodes enabling Liâ€“S full-cell architectures with jointly superior gravimetric and volumetric energy densities. Nature Energy, 2019, 4, 374-382.	39.5	449
24	Mechanical instabilities of homogeneous crystals. Physical Review B, 1995, 52, 12627-12635.	3.2	432
25	Atomistic modeling of interfaces and their impact on microstructure and properties. Acta Materialia, 2010, 58, 1117-1151.	7.9	430
26	Self-healing SEI enables full-cell cycling of a silicon-majority anode with a coulombic efficiency exceeding 99.9%. Energy and Environmental Science, 2017, 10, 580-592.	30.8	421
27	Ductile crystalline-amorphous nanolaminates. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11155-11160.	7.1	419
28	Indentation across size scales and disciplines: Recent developments in experimentation and modeling. Acta Materialia, 2007, 55, 4015-4039.	7.9	403
29	The evolving quality of frictional contact with graphene. Nature, 2016, 539, 541-545.	27.8	389
30	Spectrin-Level Modeling of the Cytoskeleton and Optical Tweezers Stretching of the Erythrocyte. Biophysical Journal, 2005, 88, 3707-3719.	0.5	376
31	Phase field modeling of defects and deformation. Acta Materialia, 2010, 58, 1212-1235.	7.9	365
32	How Solid-Electrolyte Interphase Forms in Aqueous Electrolytes. Journal of the American Chemical Society, 2017, 139, 18670-18680.	13.7	365
33	Quantifying the early stages of plasticity through nanoscale experiments and simulations. Physical Review B, 2003, 67, .	3.2	361
34	Liquid cell transmission electron microscopy observation of lithium metal growth and dissolution: Root growth, dead lithium and lithium flotsams. Nano Energy, 2017, 32, 271-279.	16.0	361
35	Reversible Nanopore Formation in Ge Nanowires during Lithiationâ€“Delithiation Cycling: An In Situ Transmission Electron Microscopy Study. Nano Letters, 2011, 11, 3991-3997.	9.1	356
36	Approaching the ideal elastic limit of metallic glasses. Nature Communications, 2012, 3, 609.	12.8	345

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37	Coordination Polymers Derived General Synthesis of Multishelled Mixed Metalâ€Oxide Particles for Hybrid Supercapacitors. Advanced Materials, 2017, 29, 1605902.	21.0	345
38	In Situ TEM Experiments of Electrochemical Lithiation and Delithiation of Individual Nanostructures. Advanced Energy Materials, 2012, 2, 722-741.	19.5	341
39	Developing Highâ€Performance Lithium Metal Anode in Liquid Electrolytes: Challenges and Progress. Advanced Materials, 2018, 30, e1706375.	21.0	335
40	Ideal shear strain of metals and ceramics. Physical Review B, 2004, 70, .	3.2	334
41	Li metal deposition and stripping in a solid-state battery via Coble creep. Nature, 2020, 578, 251-255.	27.8	333
42	Optoelectronic crystal of artificial atoms in strain-textured molybdenum disulphide. Nature Communications, 2015, 6, 7381.	12.8	331
43	Signature of Metallic Behavior in the Metalâ€“Organic Frameworks M₃(hexaiminobenzene)₂ (M = Ni, Cu). Journal of the American Chemical Society, 2017, 139, 13608-13611.	13.7	324
44	Ultra-high-voltage Ni-rich layered cathodes in practical Li metal batteries enabled by a sulfonamide-based electrolyte. Nature Energy, 2021, 6, 495-505.	39.5	323
45	Microtwinning and other shearing mechanisms at intermediate temperatures in Ni-based superalloys. Progress in Materials Science, 2009, 54, 839-873.	32.8	305
46	Competition of shape and interaction patchiness for self-assembling nanoplates. Nature Chemistry, 2013, 5, 466-473.	13.6	278
47	Hydrogen embrittlement of ferritic steels: Observations on deformation microstructure, nanoscale dimples and failure by nanovoiding. Acta Materialia, 2012, 60, 5160-5171.	7.9	274
48	Reactive boride infusion stabilizes Ni-rich cathodes for lithium-ion batteries. Nature Energy, 2021, 6, 362-371.	39.5	274
49	Triple Point Topological Metals. Physical Review X, 2016, 6, .	8.9	273
50	Super-elastic ferroelectric single-crystal membrane with continuous electric dipole rotation. Science, 2019, 366, 475-479.	12.6	272
51	Probing the Failure Mechanism of SnO₂ Nanowires for Sodium-Ion Batteries. Nano Letters, 2013, 13, 5203-5211.	9.1	270
52	Engineering the shape and structure of materials by fractal cut. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17390-17395.	7.1	265
53	Large plasticity in magnesium mediated by pyramidal dislocations. Science, 2019, 365, 73-75.	12.6	264
54	Theoretical evaluation of hydrogen storage capacity in pure carbon nanostructures. Journal of Chemical Physics, 2003, 119, 2376-2385.	3.0	263

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55	Liquid-like pseudoelasticity of sub-10-nm crystalline silver particles. Nature Materials, 2014, 13, 1007-1012.	27.5	255
56	Slurryless Li₂S/Reduced Graphene Oxide Cathode Paper for High-Performance Lithium Sulfur Battery. Nano Letters, 2015, 15, 1796-1802.	9.1	252
57	Gradient Li-rich oxide cathode particles immunized against oxygen release by a molten salt treatment. Nature Energy, 2019, 4, 1049-1058.	39.5	248
58	Atomistic modeling of finite-temperature properties of crystalline Î²-SiC. Journal of Nuclear Materials, 1998, 255, 139-152.	2.7	244
59	A Transforming Metal Nanocomposite with Large Elastic Strain, Low Modulus, and High Strength. Science, 2013, 339, 1191-1194.	12.6	241
60	Cytoskeletal dynamics of human erythrocyte. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4937-4942.	7.1	234
61	In situ observation of graphene sublimation and multi-layer edge reconstructions. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10103-10108.	7.1	232
62	Yield point of metallic glass. Acta Materialia, 2006, 54, 4293-4298.	7.9	231
63	Nitrogen-Doped Carbon for Sodium-Ion Battery Anode by Self-Etching and Graphitization of Bimetallic MOF-Based Composite. CheM, 2017, 3, 152-163.	11.7	228
64	Predictive modeling of nanoindentation-induced homogeneous dislocation nucleation in copper. Journal of the Mechanics and Physics of Solids, 2004, 52, 691-724.	4.8	227
65	Piezoelectricity in two-dimensional group-III monochalcogenides. Nano Research, 2015, 8, 3796-3802.	10.4	219
66	The Nanostructured Origin of Deformation Twinning. Nano Letters, 2012, 12, 887-892.	9.1	218
67	Structure-property relationships from universal signatures of plasticity in disordered solids. Science, 2017, 358, 1033-1037.	12.6	218
68	Energy landscape of deformation twinning in bcc and fcc metals. Physical Review B, 2005, 71, .	3.2	215
69	Elastic strain engineering for unprecedented materials properties. MRS Bulletin, 2014, 39, 108-114.	3.5	214
70	Orientation-Dependent Interfacial Mobility Governs the Anisotropic Swelling in Lithiated Silicon Nanowires. Nano Letters, 2012, 12, 1953-1958.	9.1	212
71	Boosting photocatalytic hydrogen production from water by photothermally induced biphase systems. Nature Communications, 2021, 12, 1343.	12.8	209
72	Phase transitions in 2D materials. Nature Reviews Materials, 2021, 6, 829-846.	48.7	205

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73	FSI-inspired solvent and â€œfull fluorosulfonylâ€•electrolyte for 4 V class lithium-metal batteries. Energy and Environmental Science, 2020, 13, 212-220.	30.8	198
74	Parallel Stitching of 2D Materials. Advanced Materials, 2016, 28, 2322-2329.	21.0	195
75	Electrochemically-mediated selective capture of heavy metal chromium and arsenic oxyanions from water. Nature Communications, 2018, 9, 4701.	12.8	193
76	Atomistic Study of Dislocation Loop Emission from a Crack Tip. Physical Review Letters, 2004, 93, 025503.	7.8	192
77	Molecularly based analysis of deformation of spectrin network and human erythrocyte. Materials Science and Engineering C, 2006, 26, 1232-1244.	7.3	190
78	Periodic stacking of 2D charged sheets: Self-assembled superlattice of Niâ€“Al layered double hydroxide (LDH) and reduced graphene oxide. Nano Energy, 2016, 20, 185-193.	16.0	188
79	Periodic image effects in dislocation modelling. Philosophical Magazine, 2003, 83, 539-567.	1.6	185
80	Stress generation during lithiation of high-capacity electrode particles in lithium ion batteries. Acta Materialia, 2013, 61, 4354-4364.	7.9	183
81	Strain-Engineering of Band Gaps in Piezoelectric Boron Nitride Nanoribbons. Nano Letters, 2012, 12, 1224-1228.	9.1	181
82	Interactions between Lithium Growths and Nanoporous Ceramic Separators. Joule, 2018, 2, 2434-2449.	24.0	180
83	In-Plane Optical Anisotropy of Layered Gallium Telluride. ACS Nano, 2016, 10, 8964-8972.	14.6	179
84	Highly Active Pt₃Pb and Coreâ€“Shell Pt₃Pbâ€“Pt Electrocatalysts for Formic Acid Oxidation. ACS Nano, 2012, 6, 2818-2825.	14.6	177
85	Lithium Manganese Spinel Cathodes for Lithiumâ€ion Batteries. Advanced Energy Materials, 2021, 11, 2000997.	19.5	177
86	Electrical Percolation Behavior in Silver Nanowireâ€“Polystyrene Composites: Simulation and Experiment. Advanced Functional Materials, 2010, 20, 2709-2716.	14.9	173
87	A high-performance sodium-ion battery enhanced by macadamia shell derived hard carbon anode. Nano Energy, 2017, 39, 489-498.	16.0	172
88	Anion-redox nanolithia cathodes for Li-ion batteries. Nature Energy, 2016, 1, .	39.5	171
89	Leapfrog Cracking and Nanoamorphization of ZnO Nanowires during In Situ Electrochemical Lithiation. Nano Letters, 2011, 11, 4535-4541.	9.1	169
90	Approaching the ideal elastic strain limit in silicon nanowires. Science Advances, 2016, 2, e1501382.	10.3	169

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91	Electrospinningâ€Based Strategies for Battery Materials. Advanced Energy Materials, 2021, 11, 2000845.	19.5	169
92	Origin of Two-Dimensional Vertical Ferroelectricity in WTe₂ Bilayer and Multilayer. Journal of Physical Chemistry Letters, 2018, 9, 7160-7164.	4.6	168
93	Interplay of Lithium Intercalation and Plating on a Single Graphite Particle. Joule, 2021, 5, 393-414.	24.0	168
94	Variable Nanoparticle-Cell Adhesion Strength Regulates Cellular Uptake. Physical Review Letters, 2010, 105, 138101.	7.8	166
95	Does p-type ohmic contact exist in WSe₂â€“metal interfaces?. Nanoscale, 2016, 8, 1179-1191.	5.6	166
96	Emergence of strain-rate sensitivity in Cu nanopillars: Transition from dislocation multiplication to dislocation nucleation. Acta Materialia, 2011, 59, 5627-5637.	7.9	162
97	Electrical Wind Forceâ€“Driven and Dislocation-Templated Amorphization in Phase-Change Nanowires. Science, 2012, 336, 1561-1566.	12.6	162
98	Twinning-like lattice reorientation without a crystallographic twinning plane. Nature Communications, 2014, 5, 3297.	12.8	154
99	Conductive graphene oxide-polyacrylic acid (GOPAA) binder for lithium-sulfur battery. Nano Energy, 2017, 31, 568-574.	16.0	147
100	Roll-to-roll prelithiation of Sn foil anode suppresses gassing and enables stable full-cell cycling of lithium ion batteries. Energy and Environmental Science, 2019, 12, 2991-3000.	30.8	147
101	Poor Stability of Li₂CO₃ in the Solid Electrolyte Interphase of a Lithiumâ€Metal Anode Revealed by Cryoâ€Electron Microscopy. Advanced Materials, 2021, 33, e2100404.	21.0	147
102	Fast Mass Transport Through Carbon Nanotube Membranes. Small, 2007, 3, 1996-2004.	10.0	146
103	Additive manufacturing for energy: A review. Applied Energy, 2021, 282, 116041.	10.1	146
104	The interaction of dislocations and hydrogen-vacancy complexes and its importance for deformation-induced proto nano-voids formation in Ï±-Fe. International Journal of Plasticity, 2015, 74, 175-191.	8.8	144
105	Electrochemomechanical degradation of high-capacity battery electrode materials. Progress in Materials Science, 2017, 89, 479-521.	32.8	144
106	The Mechanics and Physics of Defect Nucleation. MRS Bulletin, 2007, 32, 151-159.	3.5	139
107	Coupling and Stacking Order of ReS₂ Atomic Layers Revealed by Ultralow-Frequency Raman Spectroscopy. Nano Letters, 2016, 16, 1404-1409.	9.1	139
108	Mechanism of Thermal Transport in Dilute Nanocolloids. Physical Review Letters, 2007, 98, 028302.	7.8	136

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109	In situ study of the initiation of hydrogen bubbles at the aluminium metal/oxide interface. Nature Materials, 2015, 14, 899-903.	27.5	134
110	Revitalizing interface in protonic ceramic cells by acid etch. Nature, 2022, 604, 479-485.	27.8	132
111	Hydrogenated vacancies lock dislocations in aluminium. Nature Communications, 2016, 7, 13341.	12.8	131
112	Computing the viscosity of supercooled liquids. Journal of Chemical Physics, 2009, 130, 224504.	3.0	128
113	Is graphite lithiophobic or lithiophilic?. National Science Review, 2020, 7, 1208-1217.	9.5	126
114	Ferroelasticity and domain physics in two-dimensional transition metal dichalcogenide monolayers. Nature Communications, 2016, 7, 10843.	12.8	125
115	Synthesis of Highâ€Quality Largeâ€Area Homogenous 1Tâ€² MoTe₂ from Chemical Vapor Deposition. Advanced Materials, 2016, 28, 9526-9531.	21.0	125
116	Atomistic simulation of shear localization in Cuâ€“Zr bulk metallic glass. Intermetallics, 2006, 14, 1033-1037.	3.9	124
117	Mechanistic aspects and atomic-level consequences of elastic instabilities in homogeneous crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 317, 236-240.	5.6	123
118	Electrochemically driven mechanical energy harvesting. Nature Communications, 2016, 7, 10146.	12.8	123
119	Colloidal synthesis of 1T' phase dominated WS2 towards endurable electrocatalysis. Nano Energy, 2018, 50, 176-181.	16.0	123
120	Lithiation-Induced Embrittlement of Multiwalled Carbon Nanotubes. ACS Nano, 2011, 5, 7245-7253.	14.6	122
121	Engineering Catalytic Contacts and Thermal Stability: Gold/Iron Oxide Binary Nanocrystal Superlattices for CO Oxidation. Journal of the American Chemical Society, 2013, 135, 1499-1505.	13.7	122
122	Toward a Safer Battery Management System: A Critical Review on Diagnosis and Prognosis of Battery Short Circuit. IScience, 2020, 23, 101010.	4.1	122
123	Dislocation Core Effects on Mobility. Dislocations in Solids, 2004, 12, 1-80.	1.6	120
124	Size-Dependent Brittle-to-Ductile Transition in Silica Glass Nanofibers. Nano Letters, 2016, 16, 105-113.	9.1	120
125	Coupling continuum to molecular-dynamics simulation: Reflecting particle method and the field estimator. Physical Review E, 1998, 57, 7259-7267.	2.1	119
126	In Situ Atomicâ€Scale Imaging of Phase Boundary Migration in FePO₄ Microparticles During Electrochemical Lithiation. Advanced Materials, 2013, 25, 5461-5466.	21.0	119

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127	Gradient-morph LiCoO₂ single crystals with stabilized energy density above 3400 W h L^{â˜'1}. Energy and Environmental Science, 2020, 13, 1865-1878.	30.8	118
128	Lithium Plating Mechanism, Detection, and Mitigation in Lithium-Ion Batteries. Progress in Energy and Combustion Science, 2021, 87, 100953.	31.2	117
129	Atomistic modeling of mechanical behavior. Acta Materialia, 2003, 51, 5711-5742.	7.9	115
130	Unexpected High-Temperature Stability of Î²-Zn₄Sb₃ Opens the Door to Enhanced Thermoelectric Performance. Journal of the American Chemical Society, 2014, 136, 1497-1504.	13.7	115
131	Stress-dependent molecular pathways of silicaâ€“water reaction. Journal of the Mechanics and Physics of Solids, 2005, 53, 1597-1623.	4.8	114
132	Ripplocations in van der Waals Layers. Nano Letters, 2015, 15, 1302-1308.	9.1	114
133	Plasticity of a scandium-based nanoglass. Scripta Materialia, 2015, 98, 40-43.	5.2	114
134	Reducing deformation anisotropy to achieve ultrahigh strength and ductility in Mg at the nanoscale. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13289-13293.	7.1	111
135	Sample size matters for Al88Fe7Gd5 metallic glass: Smaller is stronger. Acta Materialia, 2012, 60, 5370-5379.	7.9	110
136	Controlled Rejuvenation of Amorphous Metals with Thermal Processing. Scientific Reports, 2015, 5, 10545.	3.3	110
137	Ti3+-free three-phase Li4Ti5O12/TiO2 for high-rate lithium ion batteries: Capacity and conductivity enhancement by phase boundaries. Nano Energy, 2017, 32, 294-301.	16.0	110
138	Lithium titanate hydrates with superfast and stable cycling in lithium ion batteries. Nature Communications, 2017, 8, 627.	12.8	110
139	A Surface Seâ€Substituted LiCo[O_{2â˜'}_{Î´}Se_{Î´}] Cathode with Ultrastable Highâ€Voltage Cycling in Pouch Fullâ€Cells. Advanced Materials, 2020, 32, e2005182.	21.0	110
140	Multiple stiffening effects of nanoscale knobs on human red blood cells infected with Plasmodium falciparum malaria parasite. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6068-6073.	7.1	108
141	Patterning of graphene. Nanoscale, 2012, 4, 4883.	5.6	107
142	Unveiling Nickel Chemistry in Stabilizing Highâ€Voltage Cobaltâ€Rich Cathodes for Lithiumâ€Ion Batteries. Advanced Functional Materials, 2020, 30, 1907903.	14.9	107
143	One-particle-thick, solvent-free, coarse-grained model for biological and biomimetic fluid membranes. Physical Review E, 2010, 82, 011905.	2.1	106
144	Quantitative Fracture Strength and Plasticity Measurements of Lithiated Silicon Nanowires by In Situ TEM Tensile Experiments. ACS Nano, 2012, 6, 9425-9432.	14.6	106

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145	Core energy and Peierls stress of a screw dislocation in bcc molybdenum: A periodic-cell tight-binding study. Physical Review B, 2004, 70, .	3.2	105
146	Mechanics of Ultra-Strength Materials. MRS Bulletin, 2009, 34, 167-172.	3.5	105
147	In Situ Observation of Random Solid Solution Zone in LiFePO₄ Electrode. Nano Letters, 2014, 14, 4005-4010.	9.1	104
148	Anisotropic Elastic Interactions of a Periodic Dislocation Array. Physical Review Letters, 2001, 86, 5727-5730.	7.8	102
149	Radiation-Induced Helium Nanobubbles Enhance Ductility in Submicron-Sized Single-Crystalline Copper. Nano Letters, 2016, 16, 4118-4124.	9.1	102
150	Extreme mixing in nanoscale transition metal alloys. Matter, 2021, 4, 2340-2353.	10.0	102
151	Ultra-large suspended graphene as a highly elastic membrane for capacitive pressure sensors. Nanoscale, 2016, 8, 3555-3564.	5.6	100
152	Gravimetric and volumetric energy densities of lithium-sulfur batteries. Current Opinion in Electrochemistry, 2017, 6, 92-99.	4.8	100
153	Superelasticity in bcc nanowires by a reversible twinning mechanism. Physical Review B, 2010, 82, .	3.2	99
154	In situ transmission electron microscopy of electrochemical lithiation, delithiation and deformation of individual graphene nanoribbons. Carbon, 2012, 50, 3836-3844.	10.3	98
155	Transitions from Near-Surface to Interior Redox upon Lithiation in Conversion Electrode Materials. Nano Letters, 2015, 15, 1437-1444.	9.1	97
156	Charging/Discharging Nanomorphology Asymmetry and Rate-Dependent Capacity Degradation in Liâ€“Oxygen Battery. Nano Letters, 2015, 15, 8260-8265.	9.1	97
157	Nanowire liquid pumps. Nature Nanotechnology, 2013, 8, 277-281.	31.5	96
158	Nanovoid Formation and Annihilation in Gallium Nanodroplets under Lithiationâ€“Delithiation Cycling. Nano Letters, 2013, 13, 5212-5217.	9.1	96
159	Achieving large uniform tensile elasticity in microfabricated diamond. Science, 2021, 371, 76-78.	12.6	95
160	The gap-tooth method in particle simulations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 316, 190-195.	2.1	94
161	Size effects on the onset of plastic deformation during nanoindentation of thin films and patterned lines. Journal of Applied Physics, 2003, 94, 6050-6058.	2.5	94
162	Theoretical assessment of the elastic constants and hydrogen storage capacity of some metal-organic framework materials. Journal of Chemical Physics, 2006, 125, 084714.	3.0	94

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163	A thin multifunctional coating on a separator improves the cyclability and safety of lithium sulfur batteries. Chemical Science, 2017, 8, 6619-6625.	7.4	94
164	Superior electrochemical performance of sodium-ion full-cell using poplar wood derived hard carbon anode. Energy Storage Materials, 2019, 18, 269-279.	18.0	94
165	Double-oxide sulfur host for advanced lithium-sulfur batteries. Nano Energy, 2017, 38, 12-18.	16.0	93
166	Organic Thiocarboxylate Electrodes for a Roomâ€Temperature Sodiumâ€Ion Battery Delivering an Ultrahigh Capacity. Angewandte Chemie - International Edition, 2017, 56, 15334-15338.	13.8	91
167	Liquid-Like, Self-Healing Aluminum Oxide during Deformation at Room Temperature. Nano Letters, 2018, 18, 2492-2497.	9.1	91
168	Quasiatomic orbitals forab initiotight-binding analysis. Physical Review B, 2008, 78, .	3.2	90
169	Atomistic modeling of finite-temperature properties of Î²-SiC. I. Lattice vibrations, heat capacity, and thermal expansion. Journal of Nuclear Materials, 1997, 246, 53-59.	2.7	89
170	Size dependence of rate-controlling deformation mechanisms in nanotwinned copper. Scripta Materialia, 2009, 60, 1062-1066.	5.2	88
171	Double-inverse grain size dependence of deformation twinning in nanocrystalline Cu. Physical Review B, 2010, 81, .	3.2	88
172	Origin of Size Dependency in Coherent-Twin-Propagation-Mediated Tensile Deformation of Noble Metal Nanowires. Nano Letters, 2013, 13, 5112-5116.	9.1	88
173	High temperature ferromagnetism in Ï€-conjugated two-dimensional metalâ€“organic frameworks. Chemical Science, 2017, 8, 2859-2867.	7.4	86
174	Strain-engineered diffusive atomic switching in two-dimensional crystals. Nature Communications, 2016, 7, 11983.	12.8	85
175	A new regime for mechanical annealing and strong sample-size strengthening in body centred cubic molybdenum. Nature Communications, 2011, 2, 547.	12.8	84
176	Stabilizing electrodeâ€“electrolyte interfaces to realize high-voltage Li||LiCoO₂ batteries by a sulfonamide-based electrolyte. Energy and Environmental Science, 2021, 14, 6030-6040.	30.8	84
177	Thermochemical and Mechanical Stabilities of the Oxide Scale of ZrB₂+SiC and Oxygen Transport Mechanisms. Journal of the American Ceramic Society, 2008, 91, 1475-1480.	3.8	83
178	Sliding ferroelectricity in 2D van der Waals materials: Related physics and future opportunities. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	83
179	Ad hoc solid electrolyte on acidized carbon nanotube paper improves cycle life of lithiumâ€“sulfur batteries. Energy and Environmental Science, 2017, 10, 2544-2551.	30.8	82
180	Protonic solid-state electrochemical synapse for physical neural networks. Nature Communications, 2020, 11, 3134.	12.8	82

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181	Proximity-Driven Enhanced Magnetic Order at Ferromagnetic-Insulatorâ€“Magnetic-Topological-Insulator Interface. Physical Review Letters, 2015, 115, 087201.	7.8	81
182	Screw dislocation mobility in BCC metals: the role of the compact core on double-kink nucleation. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 085008.	2.0	80
183	Lithium fiber growth on the anode in a nanowire lithium ion battery during charging. Applied Physics Letters, 2011, 98, .	3.3	80
184	Simulations and generalized model of the effect of filler size dispersity on electrical percolation in rod networks. Physical Review B, 2012, 86, .	3.2	80
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542	Understanding the Interplay between Li Intercalation and Li Plating Using Single Graphite Particle Electrochemistry. ECS Meeting Abstracts, 2020, MA2020-01, 447-447.	0.0	0
543	(Invited) Controlling the Size and Dispersion of Exsolved Catalyst Particles By Electrochemistry and By Strain. ECS Meeting Abstracts, 2020, MA2020-01, 1473-1473.	0.0	0
544	Flexible Ferroelectrics: Periodic Wrinkleâ€Patterned Singleâ€Crystalline Ferroelectric Oxide Membranes with Enhanced Piezoelectricity (Adv. Mater. 50/2020). Advanced Materials, 2020, 32, 2070377.	21.0	0
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547	Atomistic Calculation of Mechanical Behavior. , 2005, , 773-792.		0