Yang-Tse Cheng

List of Publications by Year
in descending order

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224 papers	14,921 citations	18482 62 h-index	20358 116 g-index

233 all docs	233 docs citations	233 times ranked	11658 citing authors

#	Article	IF	Citations
1	Scaling, dimensional analysis, and indentation measurements. Materials Science and Engineering Reports, 2004, 44, 91-149.	31.8	878
2	Is the lotus leaf superhydrophobic?. Applied Physics Letters, 2005, 86, 144101.	3.3	533
3	Relationships between hardness, elastic modulus, and the work of indentation. Applied Physics Letters, 1998, 73, 614-616.	3.3	520
4	When is thermodynamics relevant to ion-induced atomic rearrangements in metals?. Nuclear Instruments & Methods in Physics Research B, 1985, 7-8, 657-665.	1.4	435
5	Effects of micro- and nano-structures on the self-cleaning behaviour of lotus leaves. Nanotechnology, 2006, 17, 1359-1362.	2.6	414
6	Evolution of stress within a spherical insertion electrode particle under potentiostatic and galvanostatic operation. Journal of Power Sources, 2009, 190, 453-460.	7.8	404
7	Synergetic Effects of Inorganic Components in Solid Electrolyte Interphase on High Cycle Efficiency of Lithium Ion Batteries. Nano Letters, 2016, 16, 2011-2016.	9.1	320
8	Scaling approach to conical indentation in elastic-plastic solids with work hardening. Journal of Applied Physics, 1998, 84, 1284-1291.	2.5	317
9	Battery Cycle Life Prediction with Coupled Chemical Degradation and Fatigue Mechanics. Journal of the Electrochemical Society, 2012, 159, A1730-A1738.	2.9	286
10	Thermodynamic and fractal geometric aspects of ion-solid interactions. Materials Science and Engineering Reports, 1990, 5, 45-97.	5.8	273
11	Modeling diffusion-induced stress in nanowire electrode structures. Journal of Power Sources, 2010, 195, 5081-5088.	7.8	260
12	The influence of surface mechanics on diffusion induced stresses within spherical nanoparticles. Journal of Applied Physics, 2008, 104, .	2.5	259
13	Crack Pattern Formation in Thin Film Lithium-Ion Battery Electrodes. Journal of the Electrochemical Society, 2011, 158, A689.	2.9	242
14	Can stressâ€“strain relationships be obtained from indentation curves using conical and pyramidal indenters?. Journal of Materials Research, 1999, 14, 3493-3496.	2.6	237
15	Revealing Tripleâ€Shape Memory Effect by Polymer Bilayers. Macromolecular Rapid Communications, 2009, 30, 1823-1827.	3.9	234
16	Scaling relationships in conical indentation of elastic-perfectly plastic solids. International Journal of Solids and Structures, 1999, 36, 1231-1243.	2.7	194
17	Diffusion-Induced Stress, Interfacial Charge Transfer, and Criteria for Avoiding Crack Initiation of Electrode Particles. Journal of the Electrochemical Society, 2010, 157, A508.	2.9	191
18	Influence of chemical driving forces in ion mixing of metallic bilayers. Applied Physics Letters, 1984, 45, 185-187.	3.3	186

#	Article	IF	Citations
19	Remote Controlled Multishape Polymer Nanocomposites with Selective Radiofrequency Actuations. Advanced Materials, 2011, 23, 3192-3196.	21.0	186
20	Electrode Side Reactions, Capacity Loss and Mechanical Degradation in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A2026-A2035.	2.9	165
21	Effects of the ratio of hardness to Youngâ€™s modulus on the friction and wear behavior of bilayer coatings. Applied Physics Letters, 2004, 85, 4028-4030.	3.3	163
22	Microscopic observations of condensation of water on lotus leaves. Applied Physics Letters, 2005, 87, 194112.	3.3	163
23	Scaling relationships for indentation measurements. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 1821-1829.	0.6	158
24	Structural, electrochemical and Li-ion transport properties of Zr-modified LiNi0.8Co0.1Mn0.1O2 positive electrode materials for Li-ion batteries. Journal of Power Sources, 2019, 410-411, 45-52.	7.8	156
25	Self-healable graphene polymer composites. Journal of Materials Chemistry, 2010, 20, 3508.	6.7	154
26	Voltage hysteresis of lithium ion batteries caused by mechanical stress. Physical Chemistry Chemical Physics, 2016, 18, 4721-4727.	2.8	152
27	What is indentation hardness?. Surface and Coatings Technology, 2000, 133-134, 417-424.	4.8	147
28	Effects of Concentration-Dependent Elastic Modulus on Diffusion-Induced Stresses for Battery Applications. Journal of the Electrochemical Society, 2010, 157, A967.	2.9	145
29	Liquid Metal Alloys as Self-Healing Negative Electrodes for Lithium Ion Batteries. Journal of the Electrochemical Society, 2011, 158, A845.	2.9	144
30	General method to predict voltage-dependent ionic conduction in a solid electrolyte coating on electrodes. Physical Review B, 2015, 91, .	3.2	141
31	Stress and Strain-Energy Distributions within Diffusion-Controlled Insertion-Electrode Particles Subjected to Periodic Potential Excitations. Journal of the Electrochemical Society, 2009, 156, A927.	2.9	126
32	Effects of 'sinking in' and 'piling up' on estimating the contact area under load in indentation. Philosophical Magazine Letters, 1998, 78, 115-120.	1.2	122
33	Recovery of microindents in a nickelâ€“titanium shape-memory alloy: A â€œself-healingâ€•effect. Applied Physics Letters, 2002, 80, 3310-3312.	3.3	120
34	Potentiostatic Intermittent Titration Technique for Electrodes Governed by Diffusion and Interfacial Reaction. Journal of Physical Chemistry C, 2012, 116, 1472-1478.	3.1	119
35	Dominant moving species in the formation of amorphous NiZr by solidâ€state reaction. Applied Physics Letters, 1985, 47, 800-802.	3.3	114
36	Diffusion Induced Stresses and Strain Energy in a Phase-Transforming Spherical Electrode Particle. Journal of the Electrochemical Society, 2011, 158, A718-A724.	2.9	112

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37	Microscopic superelastic behavior of a nickel-titanium alloy under complex loading conditions. Applied Physics Letters, 2003, 82, 2811-2813.	3.3	111
38	Aligned TiO2 Nanotube Arrays As Durable Lithium-Ion Battery Negative Electrodes. Journal of Physical Chemistry C, 2012, 116, 18669-18677.	3.1	111
39	Further analysis of indentation loading curves: Effects of tip rounding on mechanical property measurements. Journal of Materials Research, 1998, 13, 1059-1064.	2.6	106
40	Electrochemical Study of Functionalized Carbon Nano-Onions for High-Performance Supercapacitor Electrodes. Journal of Physical Chemistry C, 2012, 116, 15068-15075.	3.1	105
41	Epitaxial growth of aluminum nitride on Si(111) by reactive sputtering. Applied Physics Letters, 1991, 59, 2097-2099.	3.3	102
42	Improving Ionic Conductivity with Bimodal-Sized Li₇La₃Zr₂O₁₂ Fillers for Composite Polymer Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 12467-12475.	8.0	100
43	Tribological behavior of diamond-like-carbon (DLC) coatings against aluminum alloys at elevated temperatures. Surface and Coatings Technology, 2006, 201, 3229-3234.	4.8	90
44	On the initial unloading slope in indentation of elastic-plastic solids by an indenter with an axisymmetric smooth profile. Applied Physics Letters, 1997, 71, 2623-2625.	3.3	87
45	Relationships between initial unloading slope, contact depth, and mechanical properties for conical indentation in linear viscoelastic solids. Journal of Materials Research, 2005, 20, 1046-1053.	2.6	87
46	The behavior of an elasticâ€“perfectly plastic sinusoidal surface under contact loading. Wear, 2006, 261, 145-154.	3.1	86
47	Determining constitutive models from conical indentation: Sensitivity analysis. Journal of Materials Research, 2003, 18, 827-832.	2.6	85
48	Atomic Layered Coating Enabling Ultrafast Surface Kinetics at Silicon Electrodes in Lithium Ion Batteries. Journal of Physical Chemistry Letters, 2013, 4, 3387-3391.	4.6	84
49	Solvent-free dry powder coating process for low-cost manufacturing of LiNi1/3Mn1/3Co1/3O2 cathodes in lithium-ion batteries. Journal of Power Sources, 2017, 352, 187-193.	7.8	83
50	Mesopores inside electrode particles can change the Li-ion transport mechanism and diffusion-induced stress. Journal of Materials Research, 2010, 25, 1433-1440.	2.6	82
51	Stress-induced growth of bismuth nanowires. Applied Physics Letters, 2002, 81, 3248-3250.	3.3	79
52	Wear of thermal spray deposited low carbon steel coatings on aluminum alloys. Wear, 2001, 251, 1023-1033.	3.1	75
53	Correlation between cohesive energy and mixing rate in ion mixing of metallic bilayers. Applied Physics Letters, 1985, 46, 610-612.	3.3	74
54	High Capacity Silicon Electrodes with Nafion as Binders for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2016, 163, A401-A405.	2.9	74

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55	Preparation and characterization of Pd/Ni thin films for hydrogen sensing. Sensors and Actuators B: Chemical, 1996, 30, 11-16.	7.8	73
56	Scaling relationships in indentation of power-law creep solids using self-similar indenters. Philosophical Magazine Letters, 2001, 81, 9-16.	1.2	73
57	Toward High Cycle Efficiency of Siliconâ€Based Negative Electrodes by Designing the Solid Electrolyte Interphase. Advanced Energy Materials, 2015, 5, 1401398.	19.5	72
58	Title is missing!. Tribology Letters, 2003, 15, 241-248.	2.6	71
59	An energy-based method for analyzing instrumented spherical indentation experiments. Journal of Materials Research, 2004, 19, 149-157.	2.6	71
60	A comparison of five categories of carbon-based tool coatings for dry drilling of aluminum. Surface and Coatings Technology, 2006, 200, 2970-2977.	4.8	69
61	Hydrogen diffusion and solubility in palladium thin films. International Journal of Hydrogen Energy, 1996, 21, 281-291.	7.1	65
62	Elevated temperature tribological behavior of non-hydrogenated diamond-like carbon coatings against 319 aluminum alloy. Surface and Coatings Technology, 2006, 200, 3996-4005.	4.8	65
63	Low-Temperature Treated Lignin as Both Binder and Conductive Additive for Silicon Nanoparticle Composite Electrodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 32341-32348.	8.0	65
64	Analysis of indentation loading curves obtained using conical indenters. Philosophical Magazine Letters, 1998, 77, 39-47.	1.2	63
65	Microscopic shape memory and superelastic effects under complex loading conditions. Surface and Coatings Technology, 2004, 177-178, 512-517.	4.8	63
66	Effect of thermodynamics on ion mixing. Applied Physics Letters, 1987, 50, 1485-1487.	3.3	61
67	Unravelling the Impact of Reaction Paths on Mechanical Degradation of Intercalation Cathodes for Lithium-Ion Batteries. Journal of the American Chemical Society, 2015, 137, 13732-13735.	13.7	61
68	Disordered Materials: A Survey of Amorphous Solids. Science, 1987, 235, 997-1002.	12.6	60
69	Delamination mechanism maps for a strong elastic coating on an elasticâ€“plastic substrate subjected to contact loading. International Journal of Solids and Structures, 2007, 44, 3685-3699.	2.7	60
70	A nanoindentation study of the viscoplastic behavior of pure lithium. Scripta Materialia, 2017, 130, 191-195.	5.2	60
71	A variable temperature mechanical analysis of ZDDP-derived antiwear films formed on 52100 steel. Wear, 2007, 262, 461-470.	3.1	59
72	Effects of stress on lithium transport in amorphous silicon electrodes for lithium-ion batteries. Nano Energy, 2015, 13, 192-199.	16.0	58

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73	Influence of annealing atmosphere on Li2ZrO3-coated LiNi0.6Co0.2Mn0.2O2 and its high-voltage cycling performance. Electrochimica Acta, 2019, 300, 36-44.	5.2	57
74	Correlation between the cohesive energy and the onset of radiationâ€enhanced diffusion in ion mixing. Journal of Applied Physics, 1986, 60, 2615-2617.	2.5	55
75	Friction anisotropy at Ni(100)/(100) interfaces:â€ƒMolecular dynamics studies. Physical Review B, 2002, 66, .	3.2	55
76	Unveiling the Critical Role of Polymeric Binders for Silicon Negative Electrodes in Lithium-Ion Full Cells. ACS Applied Materials & Interfaces, 2017, 9, 3562-3569.	8.0	55
77	Role of polymeric binders on mechanical behavior and cracking resistance of silicon composite electrodes during electrochemical cycling. Journal of Power Sources, 2018, 387, 9-15.	7.8	55
78	Novel layered tribological coatings using a superelastic NiTi interlayer. Wear, 2005, 259, 842-848.	3.1	54
79	Relationships between initial unloading slope, contact depth, and mechanical properties for spherical indentation in linear viscoelastic solids. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 409, 93-99.	5.6	54
80	Effects of Cobalt Deficiency on Nickel-Rich Layered LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Positive Electrode Materials for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 982-989.	8.0	54
81	Potentiostatic intermittent titration technique (PITT) for spherical particles with finite interfacial kinetics. Electrochimica Acta, 2012, 75, 56-61.	5.2	53
82	Design of Nanostructured Heterogeneous Solid Ionic Coatings through a Multiscale Defect Model. ACS Applied Materials & Interfaces, 2016, 8, 5687-5693.	8.0	53
83	Application of Hasselmanâ€™s Crack Propagation Model to Insertion Electrodes. Electrochemical and Solid-State Letters, 2010, 13, A128.	2.2	52
84	From Cascade to Spikeâ€”a Fractal-Geometry Approach. Physical Review Letters, 1987, 58, 2083-2086.	7.8	51
85	Zinc-dialkyl-dithiophosphate antiwear films: dependence on contact pressure and sliding speed. Wear, 2005, 258, 789-799.	3.1	51
86	Effect of test atmosphere on the tribological behaviour of the non-hydrogenated diamond-like carbon coatings against 319 aluminum alloy and tungsten carbide. Surface and Coatings Technology, 2005, 200, 1783-1791.	4.8	51
87	In situ measurement of mechanical property and stress evolution in a composite silicon electrode. Journal of Power Sources, 2017, 366, 80-85.	7.8	51
88	Mechanical Property Evolution of Silicon Composite Electrodes Studied by Environmental Nanoindentation. Advanced Energy Materials, 2018, 8, 1702578.	19.5	51
89	High Depthâ€ofâ€Discharge Zinc Rechargeability Enabled by a Selfâ€Assembled Polymeric Coating. Advanced Energy Materials, 2021, 11, 2101594.	19.5	51
90	Determining the Instantaneous Modulus of Viscoelastic Solids Using Instrumented Indentation Measurements. Journal of Materials Research, 2005, 20, 3061-3071.	2.6	50

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91	Asymmetric Rate Behavior of Si Anodes for Lithiumâ€ion Batteries: Ultrafast Deâ€Lithiation versus Sluggish Lithiation at High Current Densities. Advanced Energy Materials, 2015, 5, 1401627.	19.5	50
92	Hardness obtained from conical indentations with various cone angles. Journal of Materials Research, 2000, 15, 2830-2835.	2.6	49
93	Nonlinear Analysis of Oscillatory Indentation in Elastic and Viscoelastic Solids. Physical Review Letters, 2006, 97, 075506.	7.8	47
94	A multi-technique characterization of ZDDP antiwear films formed on Al (Si) alloy (A383) under various conditions. Tribology Letters, 2007, 26, 103-117.	2.6	46
95	Stress evolution in elastic-plastic electrodes during electrochemical processes: A numerical method and its applications. Journal of the Mechanics and Physics of Solids, 2018, 116, 403-415.	4.8	46
96	Influence of polymeric binders on mechanical properties and microstructure evolution of silicon composite electrodes during electrochemical cycling. Journal of Power Sources, 2019, 425, 170-178.	7.8	46
97	Transfer of 319 Al alloy to titanium diboride and titanium nitride based (TiAlN, TiCN, TiN) coatings: effects of sliding speed, temperature and environment. Surface and Coatings Technology, 2005, 200, 2260-2270.	4.8	45
98	Shape memory surfaces. Applied Physics Letters, 2006, 89, 041912.	3.3	45
99	Phase separation during co-deposition of Alâ€“Ge thin films. Journal of Materials Research, 1992, 7, 653-666.	2.6	44
100	Amorphous Laî—¸Ni thin film electrodes. Journal of Alloys and Compounds, 1995, 223, 6-12.	5.5	44
101	Effects of the Mixing Sequence on Making Lithium Ion Battery Electrodes. Journal of the Electrochemical Society, 2020, 167, 100518.	2.9	44
102	Dry sliding behaviour of non-hydrogenated DLC coatings against Al, Cu and Ti in ambient air and argon. Diamond and Related Materials, 2006, 15, 939-943.	3.9	42
103	Linking lignin source with structural and electrochemical properties of lignin-derived carbon materials. RSC Advances, 2018, 8, 38721-38732.	3.6	42
104	Influence of indenter tip roundness on hardness behavior in nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 445-446, 323-327.	5.6	41
105	Vacuum tribological behavior of the non-hydrogenated diamond-like carbon coatings against aluminum: Effect of running-in in ambient air. Wear, 2005, 259, 795-799.	3.1	40
106	Lithium Ion Battery Electrodes Made Using Dimethyl Sulfoxide (DMSO)â€”A Green Solvent. ACS Sustainable Chemistry and Engineering, 2020, 8, 11046-11051.	6.7	40
107	On two indentation hardness definitions. Surface and Coatings Technology, 2002, 154, 124-130.	4.8	39
108	General relationship between contact stiffness, contact depth, and mechanical properties for indentation in linear viscoelastic solids using axisymmetric indenters of arbitrary profiles. Applied Physics Letters, 2005, 87, 111914.	3.3	39

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109	Experimental and Theoretical Characterization of Electrode Materials that Undergo Large Volume Changes and Application to the Lithiumâ€“Silicon System. Journal of Physical Chemistry C, 2015, 119, 5341-5349.	3.1	39
110	The effect of free-machining elements on dry machining of B319 aluminum alloy. Journal of Materials Processing Technology, 2009, 209, 4638-4644.	6.3	38
111	High performance binder-free SiOx/C composite LIB electrode made of SiOx and lignin. Journal of Power Sources, 2017, 362, 236-242.	7.8	37
112	Epitaxial growth of Î±â€Fe films on Si(111) substrates. Applied Physics Letters, 1991, 59, 953-955.	3.3	36
113	Stress Distribution within Spherical Particles Undergoing Electrochemical Insertion and Extraction. ECS Transactions, 2008, 16, 127-139.	0.5	36
114	Effects of adhesion and cohesion on the electrochemical performance and durability of silicon composite electrodes. Journal of Power Sources, 2018, 397, 223-230.	7.8	36
115	The Influence of Polyvinylidene Fluoride (PVDF) Binder Properties on LiNi_{0.33}Co_{0.33}Mn_{0.33}O₂ (NMC) Electrodes Made by a Dry-Powder-Coating Process. Journal of the Electrochemical Society, 2019, 166, A2151-A2157.	2.9	36
116	Ternary composites of delaminated-MnO₂/PDDA/functionalized-CNOs for high-capacity supercapacitor electrodes. Journal of Materials Chemistry A, 2014, 2, 20367-20373.	10.3	35
117	Layerâ€byâ€Layer Synthesis of Thick Mesoporous TiO₂ Films with Vertically Oriented Accessible Nanopores and Their Application for Lithiumâ€Ion Battery Negative Electrodes. Advanced Functional Materials, 2018, 28, 1801849.	14.9	35
118	Obtaining shear relaxation modulus and creep compliance of linear viscoelastic materials from instrumented indentation using axisymmetric indenters of power-law profiles. Journal of Materials Research, 2009, 24, 3013-3017.	2.6	34
119	Effects of polymeric binders on the cracking behavior of silicon composite electrodes during electrochemical cycling. Journal of Power Sources, 2019, 438, 226938.	7.8	34
120	Influence of ion mixing, ion beam-induced roughness and temperature on the depth resolution of sputter depth profiling of metallic bilayer interfaces. Surface and Interface Analysis, 1990, 15, 337-343.	1.8	32
121	The Role of Hydrogen Atmosphere on the Tribological Behavior of Non-Hydrogenated DLC Coatings against Aluminum. Tribology Transactions, 2007, 50, 178-186.	2.0	32
122	Condensed water on superhydrophobic carbon films. Journal of Materials Research, 2008, 23, 2174-2178.	2.6	32
123	Spherical indentation of NiTi-based shape memory alloys. Journal of Alloys and Compounds, 2015, 651, 724-730.	5.5	30
124	Binder-free lithium ion battery electrodes made of silicon and pyrolized lignin. RSC Advances, 2016, 6, 29308-29313.	3.6	29
125	Improved bending fatigue and corrosion properties of a Mgâ€“Alâ€“Mn alloy by super vacuum die casting. Scripta Materialia, 2012, 67, 879-882.	5.2	28
126	Freeze-dried low-tortuous graphite electrodes with enhanced capacity utilization and rate capability. Carbon, 2020, 159, 133-139.	10.3	28

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127	Nanoscale Wear and Machining Behavior of Nanolayer Interfaces. Nano Letters, 2005, 5, 1992-1996.	9.1	27
128	Indentation stress dependence of the temperature range of microscopic superelastic behavior of nickel-titanium thin films. Journal of Applied Physics, 2005, 98, 033505.	2.5	26
129	Wear resistant self-healing tribological surfaces by using hard coatings on NiTi shape memory alloys. Surface and Coatings Technology, 2006, 201, 1053-1057.	4.8	26
130	Whisker formation on a thin film tin lithium-ion battery anode. Journal of Power Sources, 2011, 196, 1474-1477.	7.8	25
131	Methods of obtaining instantaneous modulus of viscoelastic solids using displacement-controlled instrumented indentation with axisymmetric indenters of arbitrary smooth profiles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 2-7.	5.6	24
132	Indentation-based rate-dependent plastic deformation of polycrystalline pure magnesium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 716, 63-71.	5.6	24
133	Studies of Metal Hydride Electrodes Using an Electrochemical Quartz Crystal Microbalance. Journal of the Electrochemical Society, 1996, 143, 120-124.	2.9	22
134	Variable magnetic field magnetic force microscopy of the magnetization reversal in epitaxial iron (111) thin films. Journal of Magnetism and Magnetic Materials, 1998, 190, 60-70.	2.3	22
135	Novel tribological systems using shape memory alloys and thin films. Surface and Coatings Technology, 2007, 202, 998-1002.	4.8	22
136	Mechanical behavior of electroplated mossy lithium at room temperature studied by flat punch indentation. Applied Physics Letters, 2019, 115, .	3.3	22
137	Modeling conical indentation in homogeneous materials and in hard films on soft substrates. Journal of Materials Research, 2005, 20, 521-528.	2.6	21
138	Chemically stable artificial SEI for Li-ion battery electrodes. Applied Physics Letters, 2017, 110, .	3.3	21
139	Sliding wear of non-hydrogenated diamond-like carbon coatings against magnesium. Surface and Coatings Technology, 2006, 201, 4352-4356.	4.8	20
140	Nonstoichiometry and Liâ€ion transport in lithium zirconate: The role of oxygen vacancies. Journal of the American Ceramic Society, 2018, 101, 4053-4065.	3.8	20
141	Spatial Molecular Layer Deposition of Ultrathin Polyamide To Stabilize Silicon Anodes in Lithium-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 4135-4143.	5.1	20
142	Relationships between cohesive energy, Debye temperature, and the onset of temperature-dependent ion mixing. Physical Review B, 1989, 40, 7403-7405.	3.2	19
143	The effect of humidity on the sliding wear of plasma transfer wire arc thermal sprayed low carbon steel coatings. Surface and Coatings Technology, 2001, 146-147, 571-577.	4.8	19
144	Finite element modeling of indentation-induced superelastic effect using a three-dimensional constitutive model for shape memory materials with plasticity. Journal of Applied Physics, 2007, 101, 053507.	2.5	19

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145	Mass and geometry effects on the anisotropic transport in ion mixing. Applied Physics Letters, 1991, 58, 586-588.	3.3	18
146	Formation of twins during epitaxial growth of Î±-iron films on silicon (111). Physical Review B, 1993, 48, 14729-14732.	3.2	18
147	Systematic Investigation of the Alucone-Coating Enhancement on Silicon Anodes. ACS Applied Materials & Interfaces, 2017, 9, 40143-40150.	8.0	18
148	Effect of ion mixing on the depth resolution of sputter depth profiling. Applied Physics Letters, 1988, 53, 1346-1348.	3.3	17
149	Preparation and characterization of amorphous and crystalline LaNi5 thin film electrodes. Journal of Alloys and Compounds, 1994, 209, 7-13.	5.5	17
150	Two-way indent depth recovery in a NiTi shape memory alloy. Applied Physics Letters, 2006, 88, 131904.	3.3	17
151	Influence of contact geometry on hardness behavior in nano-indentation. Vacuum, 2009, 84, 315-320.	3.5	17
152	Surface form memory in NiTi shape memory alloys by laser shock indentation. Journal of Materials Science, 2012, 47, 2088-2094.	3.7	16
153	A non-destructive method for measuring the mechanical properties of ultrathin films prepared by atomic layer deposition. Applied Physics Letters, 2014, 105, .	3.3	16
154	Communicationâ€”Fracture Behavior of Single LiNi_{0.33}Mn_{0.33}Co_{0.33}O₂ Particles Studied by Flat Punch Indentation. Journal of the Electrochemical Society, 2019, 166, A2749-A2751.	2.9	16
155	Transition from lateral to transverse phase separation during film coâ€deposition. Applied Physics Letters, 1991, 59, 2535-2537.	3.3	15
156	Understanding indentation-induced two-way shape memory effect. Journal of Materials Research, 2007, 22, 2851-2855.	2.6	15
157	Stacked-cup-type MWCNTs as highly stable lithium-ion battery anodes. Journal of Applied Electrochemistry, 2014, 44, 179-187.	2.9	15
158	Relationship between contact stiffness, contact depth, and mechanical properties for indentation in linear viscoelastic solids using axisymmetric indenters. Structural Control and Health Monitoring, 2006, 13, 561-569.	4.0	14
159	Effect of tribological media on tribological properties of multilayer Cr(N)/C(DLC) coatings. Surface and Coatings Technology, 2006, 201, 4341-4347.	4.8	14
160	Indentation-induced two-way shape memory surfaces. Journal of Materials Research, 2009, 24, 823-830.	2.6	14
161	Cohesive energy effects on anisotropic transport in ion mixing. Nuclear Instruments & Methods in Physics Research B, 1991, 59-60, 504-508.	1.4	13
162	The influence of superelastic NiTi interlayers on tribological properties of CrN hard coatings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 710-713.	5.6	13

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163	Charge Transport in Electronicâ€“Ionic Composites. Journal of Physical Chemistry Letters, 2017, 8, 5385-5389.	4.6	13
164	Examining the validity of Stoney-equation for in-situ stress measurements in thin film electrodes using a large-deformation finite-element procedure. Journal of Power Sources, 2018, 387, 126-134.	7.8	13
165	Rapid Characterization of Local Shape Memory Properties through Indentation. Scientific Reports, 2017, 7, 14827.	3.3	12
166	The effects of elevated temperature on sputter depth profiles of silver/nickel bilayers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 1477-1481.	2.1	11
167	Structure and mechanical properties of electroplated mossy lithium: Effects of current density and electrolyte. Energy Storage Materials, 2020, 26, 276-282.	18.0	11
168	Influence of ion mixing on the depth resolution of sputter depth profiling. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 1641-1645.	2.1	10
169	Lithium Substituted Poly(acrylic acid) as a Mechanically Robust Binder for Low-Cost Silicon Microparticle Electrodes. ACS Applied Energy Materials, 2020, 3, 10940-10949.	5.1	10
170	Scaling relationships for indentation measurements. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 1821-1829.	0.6	10
171	Microstructures and tribological characteristics of electron-beam co-deposited Ag/Mo thin film coatings. Wear, 1993, 162-164, 763-772.	3.1	9
172	Analysis on elasticâ€“plastic spherical contact and its deformation regimes, the one parameter regime and two parameter regime, by finite element simulation. Vacuum, 2011, 85, 898-903.	3.5	9
173	Application of Cross-Linked Polyborosiloxanes and Organically Modified Boron Silicate Binders in Silicon-Containing Anodes for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2018, 165, A731-A735.	2.9	9
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