Zhenhai Xia

List of Publications by Year
in descending order

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163	23,569	31949 53	7511 151
papers	citations	h-index	g-index

179	179	179	23289
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nitrogen-Doped Carbon Nanotube Arrays with High Electrocatalytic Activity for Oxygen Reduction. Science, 2009, 323, 760-764.	6.0	6,535
2	A metal-free bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. Nature Nanotechnology, 2015, 10, 444-452.	15.6	2,782
3	Mechanisms of Oxygen Reduction Reaction on Nitrogen-Doped Graphene for Fuel Cells. Journal of Physical Chemistry C, 2011, 115, 11170-11176.	1.5	1,235
4	BCN Graphene as Efficient Metalâ€Free Electrocatalyst for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2012, 51, 4209-4212.	7.2	1,119
5	Carbon Nanotube Arrays with Strong Shear Binding-On and Easy Normal Lifting-Off. Science, 2008, 322, 238-242.	6.0	674
6	Carbon-based electrocatalysts for advanced energy conversion and storage. Science Advances, 2015, 1, e1500564.	4.7	567
7	Edgeâ€Selectively Sulfurized Graphene Nanoplatelets as Efficient Metalâ€Free Electrocatalysts for Oxygen Reduction Reaction: The Electron Spin Effect. Advanced Materials, 2013, 25, 6138-6145.	11.1	537
8	N-doped graphene as catalysts for oxygen reduction and oxygen evolution reactions: Theoretical considerations. Journal of Catalysis, 2014, 314, 66-72.	3.1	537
9	In Situ Exfoliated, Edgeâ€Rich, Oxygenâ€Functionalized Graphene from Carbon Fibers for Oxygen Electrocatalysis. Advanced Materials, 2017, 29, 1606207.	11.1	532
10	Design Principles for Heteroatomâ€Doped Carbon Nanomaterials as Highly Efficient Catalysts for Fuel Cells and Metalâ€“Air Batteries. Advanced Materials, 2015, 27, 6834-6840.	11.1	490
11	Strain and structure heterogeneity in MoS2 atomic layers grown by chemical vapour deposition. Nature Communications, 2014, 5, 5246.	5.8	453
12	Direct observation of toughening mechanisms in carbon nanotube ceramic matrix composites. Acta Materialia, 2004, 52, 931-944.	3.8	430
13	Creating coordinatively unsaturated metal sites in metal-organic-frameworks as efficient electrocatalysts for the oxygen evolution reaction: Insights into the active centers. Nano Energy, 2017, 41, 417-425.	8.2	386
14	Catalytic Mechanisms of Sulfur-Doped Graphene as Efficient Oxygen Reduction Reaction Catalysts for Fuel Cells. Journal of Physical Chemistry C, 2014, 118, 3545-3553.	1.5	373
15	Covalent Organic Framework Electrocatalysts for Clean Energy Conversion. Advanced Materials, 2018, 30, 1703646.	11.1	309
16	Facile, scalable synthesis of edge-halogenated graphene nanoplatelets as efficient metal-free eletrocatalysts for oxygen reduction reaction. Scientific Reports, 2013, 3, 1810.	1.6	300
17	Effect of Microstructure of Nitrogen-Doped Graphene on Oxygen Reduction Activity in Fuel Cells. Langmuir, 2012, 28, 7542-7550.	1.6	279
18	Harnessing the interplay of Feâ€“Ni atom pairs embedded in nitrogen-doped carbon for bifunctional oxygen electrocatalysis. Nano Energy, 2020, 71, 104597.	8.2	231

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19	Damage detection of carbon fiber reinforced polymer composites via electrical resistance measurement. Composites Part B: Engineering, 2011, 42, 77-86.	5.9	199
20	Role of lattice defects in catalytic activities of graphene clusters for fuel cells. Physical Chemistry Chemical Physics, 2015, 17, 16733-16743.	1.3	181
21	Design Principles for Dual-Element-Doped Carbon Nanomaterials as Efficient Bifunctional Catalysts for Oxygen Reduction and Evolution Reactions. ACS Catalysis, 2016, 6, 1553-1558.	5.5	179
22	Rationally designed graphene-nanotube 3D architectures with a seamless nodal junction for efficient energy conversion and storage. Science Advances, 2015, 1, e1400198.	4.7	176
23	Design Principles for Covalent Organic Frameworks as Efficient Electrocatalysts in Clean Energy Conversion and Green Oxidizer Production. Advanced Materials, 2017, 29, 1606635.	11.1	167
24	Catalytic Mechanisms and Design Principles for Singleâ€Atom Catalysts in Highly Efficient CO₂ Conversion. Advanced Energy Materials, 2019, 9, 1902625.	10.2	167
25	Synthesis, mechanistic investigation, and application of photoluminescent sulfur and nitrogen co-doped carbon dots. Journal of Materials Chemistry C, 2015, 3, 9885-9893.	2.7	154
26	Highâ€Performance, Longâ€Life, Rechargeable Liâ€“CO₂ Batteries based on a 3D Holey Graphene Cathode Implanted with Single Iron Atoms. Advanced Materials, 2020, 32, e1907436.	11.1	133
27	Robust self-cleaning and micromanipulation capabilities of gecko spatulae and their bio-mimics. Nature Communications, 2015, 6, 8949.	5.8	124
28	A Pyrolysisâ€Free Covalent Organic Polymer for Oxygen Reduction. Angewandte Chemie - International Edition, 2018, 57, 12567-12572.	7.2	120
29	Membranes of Vertically Aligned Superlong Carbon Nanotubes. Langmuir, 2011, 27, 8437-8443.	1.6	119
30	Guiding Principles for Designing Highly Efficient Metalâ€Free Carbon Catalysts. Advanced Materials, 2019, 31, e1805252.	11.1	110
31	Enhancing Mechanical Properties of Multiwall Carbon Nanotubes viasp3Interwall Bridging. Physical Review Letters, 2007, 98, 245501.	2.9	108
32	Origins of Boosted Charge Storage on Heteroatomâ€Doped Carbons. Angewandte Chemie - International Edition, 2020, 59, 7928-7933.	7.2	102
33	Multiscale modeling of failure in metal matrix composites. Acta Materialia, 2001, 49, 273-287.	3.8	92
34	A new method to evaluate the fracture toughness of thin films. Acta Materialia, 2004, 52, 3507-3517.	3.8	88
35	Biomimetic self-cleaning surfaces: synthesis, mechanism and applications. Journal of the Royal Society Interface, 2016, 13, 20160300.	1.5	86
36	Shear-lag versus finite element models for stress transfer in fiber-reinforced composites. Composites Science and Technology, 2002, 62, 1141-1149.	3.8	78

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37	Dynamic self-cleaning in gecko setae via digital hyperextension. Journal of the Royal Society Interface, 2012, 9, 2781-2790.	1.5	78
38	Anomalous Capacitive Behaviors of Graphene Oxide Based Solid-State Supercapacitors. Nano Letters, 2014, 14, 1938-1943.	4.5	78
39	Tough-to-brittle transitions in ceramic-matrix composites with increasing interfacial shear stress. Acta Materialia, 2000, 48, 4879-4892.	3.8	71
40	Quantitative damage detection in CFRP composites. Composites Science and Technology, 2003, 63, 1411-1422.	3.8	71
41	Reducedâ€Grapheneâ€Oxideâ€Guided Directional Growth of Planar Lithium Layers. Advanced Materials, 2020, 32, e1907079.	11.1	70
42	Transforming active sites in nickelâ€“nitrogenâ€“carbon catalysts for efficient electrochemical CO2 reduction to CO. Nano Energy, 2020, 78, 105213.	8.2	69
43	Designing Undercoordinated Niâ€“N_x and Feâ€“N_x on Holey Graphene for Electrochemical CO₂ Conversion to Syngas. ACS Nano, 2021, 15, 12006-12018.	7.3	68
44	A self-healing hydrogel with pressure sensitive photoluminescence for remote force measurement and healing assessment. Materials Horizons, 2019, 6, 703-710.	6.4	66
45	Energy density-enhancement mechanism and design principles for heteroatom-doped carbon supercapacitors. Nano Energy, 2020, 72, 104666.	8.2	65
46	Metal Charge Transfer Doped Carbon Dots with Reversibly Switchable, Ultra-High Quantum Yield Photoluminescence. ACS Applied Nano Materials, 2018, 1, 1886-1893.	2.4	64
47	N-doping induced tensile-strained Pt nanoparticles ensuring an excellent durability of the oxygen reduction reaction. Journal of Catalysis, 2020, 382, 247-255.	3.1	61
48	The activity origin of coreâ€“shell and alloy AgCu bimetallic nanoparticles for the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 7043-7054.	5.2	60
49	Mechanism of Horizontally Aligned Growth of Single-Wall Carbon Nanotubes on R-Plane Sapphire. Journal of Physical Chemistry B, 2006, 110, 22676-22680.	1.2	58
50	Insights of Heteroatoms Dopingâ€Enhanced Bifunctionalities on Carbon Based Energy Storage and Conversion. Advanced Functional Materials, 2021, 31, 2009109.	7.8	58
51	Hydrogen evolution: Guiding principles. Nature Energy, 2016, 1, .	19.8	56
52	Fe, V-co-doped C2N for electrocatalytic N2-to-NH3 conversion. Journal of Energy Chemistry, 2021, 53, 303-308.	7.1	55
53	Green's function vs. shear-lag models of damage and failure in fiber composites. Composites Science and Technology, 2002, 62, 1279-1288.	3.8	54
54	Advanced gecko-foot-mimetic dry adhesives based on carbon nanotubes. Nanoscale, 2013, 5, 475-486.	2.8	54

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55	Fracture Toughness of Highly Ordered Carbon Nanotube/Alumina Nanocomposites. Journal of Engineering Materials and Technology, Transactions of the ASME, 2004, 126, 238-244.	0.8	52
56	Modeling of mechanical damage detection in CFRPs via electrical resistance. Composites Science and Technology, 2007, 67, 1518-1529.	3.8	52
57	In vitro and in vivo mechanical properties of human ulnar and median nerves. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2718-2725.	2.1	52
58	Singleâ^'sided fluorineâ€"functionalized graphene: A metalâ€"free electrocatalyst with high efficiency for oxygen reduction reaction. Carbon, 2016, 104, 56-63.	5.4	51
59	Catalytic Activity Origin and Design Principles of Graphitic Carbon Nitride Electrocatalysts for Hydrogen Evolution. Frontiers in Materials, 2019, 6, .	1.2	50
60	Tailoring nanoprecipitates for ultra-strong high-entropy alloys via machine learning and prestrain aging. Journal of Materials Science and Technology, 2021, 69, 156-167.	5.6	48
61	Growth of junctions in 3D carbon nanotube-graphene nanostructures: A quantum mechanical molecular dynamic study. Carbon, 2014, 67, 627-634.	5.4	46
62	Rational Design and Nanofabrication of Geckoâ€Inspired Fibrillar Adhesives. Small, 2012, 8, 2464-2468.	5.2	44
63	Static and dynamic responses of polyelectrolyte brushes under external electric field. Nanotechnology, 2009, 20, 195703.	1.3	43
64	Electron Transfer and Catalytic Mechanism of Organic Molecule-Adsorbed Graphene Nanoribbons as Efficient Catalysts for Oxygen Reduction and Evolution Reactions. Journal of Physical Chemistry C, 2016, 120, 2166-2175.	1.5	42
65	Electrical Resistance as a Nondestructive Evaluation Technique for SiC/SiC Ceramic Matrix Composites Under Creepâ€Rupture Loading. International Journal of Applied Ceramic Technology, 2011, 8, 298-307.	1.1	41
66	Enhancing both selectivity and activity of CO2 conversion by breaking scaling relations with bimetallic active sites anchored in covalent organic frameworks. Journal of Catalysis, 2020, 390, 126-134.	3.1	41
67	Voltage-controlled flow regulating in nanofluidic channels with charged polymer brushes. Microfluidics and Nanofluidics, 2010, 9, 915-922.	1.0	40
68	Multiscale modeling of damage and failure in aluminum-matrix composites. Composites Science and Technology, 2001, 61, 2247-2257.	3.8	39
69	Development of CVD Ti-containing films. Progress in Materials Science, 2013, 58, 1490-1533.	16.0	38
70	Catalytic mechanism and design principles for heteroatom-doped graphene catalysts in dye-sensitized solar cells. Nano Energy, 2018, 49, 193-199.	8.2	38
71	Friction and Adhesion of Hierarchical Carbon Nanotube Structures for Biomimetic Dry Adhesives: Multiscale Modeling. ACS Applied Materials & Interfaces, 2010, 2, 2570-2578.	4.0	37
72	Effect of various Ca content on microstructure and fracture toughness of extruded Mg-2Zn alloys. Journal of Alloys and Compounds, 2018, 742, 1019-1030.	2.8	35

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73	Metal Coordinationâ€Mediated Functional Grading and Selfâ€Healing in Mussel Byssus Cuticle. Advanced Science, 2019, 6, 1902043.	5.6	35
74	Damage detection via electrical resistance in CFRP composites under cyclic loading. Composites Science and Technology, 2008, 68, 2526-2534.	3.8	33
75	Highly efficient and selective electrocatalytic hydrogen peroxide production on Co-O-C active centers on graphene oxide. Communications Chemistry, 2022, 5, .	2.0	33
76	Strong Adhesion and Friction Coupling in Hierarchical Carbon Nanotube Arrays for Dry Adhesive Applications. ACS Applied Materials & Interfaces, 2012, 4, 1972-1980.	4.0	32
77	Molecular Dynamics Simulations of Interfacial Sliding in Carbonâ€Nanotube/Diamond Nanocomposites. Journal of the American Ceramic Society, 2009, 92, 2331-2336.	1.9	31
78	Wettability of nanotextured metallic glass surfaces. Scripta Materialia, 2013, 69, 732-735.	2.6	31
79	Dynamic Adhesion Forces between Microparticles and Substrates in Water. Langmuir, 2014, 30, 11103-11109.	1.6	31
80	Enhanced fracture toughness in carbon-nanotube-reinforced amorphous silicon nitride nanocomposite coatings. Acta Materialia, 2012, 60, 3333-3339.	3.8	29
81	Core effect of local atomic configuration and design principles in AlxCoCrFeNi high-entropy alloys. Scripta Materialia, 2020, 178, 181-186.	2.6	29
82	Dynamic Enhancement in Adhesion Forces of Microparticles on Substrates. Langmuir, 2013, 29, 13743-13749.	1.6	28
83	A universal descriptor based on p_z-orbitals for the catalytic activity of multi-doped carbon bifunctional catalysts for oxygen reduction and evolution. Nanoscale, 2020, 12, 19375-19382.	2.8	28
84	CrN-Encapsulated Hollow Cr-N-C Capsules Boosting Oxygen Reduction Catalysis in PEMFC. CCS Chemistry, 2021, 3, 208-218.	4.6	28
85	Capacitive Enhancement Mechanisms and Design Principles of Highâ€Performance Graphene Oxideâ€Based Allâ€Solidâ€State Supercapacitors. Advanced Functional Materials, 2018, 28, 1706721.	7.8	27
86	Preaddition of Cations to Electrolytes for Aqueous 2.2 V High Voltage Hybrid Supercapacitor with Superlong Cycling Life and Its Energy Storage Mechanism. ACS Applied Materials & Interfaces, 2020, 12, 17659-17668.	4.0	27
87	Two-Dimensional Layered Oxide Structures Tailored by Self-Assembled Layer Stacking via Interfacial Strain. ACS Applied Materials & Interfaces, 2016, 8, 16845-16851.	4.0	26
88	A Pyrolysisâ€Free Covalent Organic Polymer for Oxygen Reduction. Angewandte Chemie, 2018, 130, 12747-12752.	1.6	26
89	Catalytic mechanism and design principle of coordinately unsaturated single metal atom-doped covalent triazine frameworks with high activity and selectivity for CO₂ electroreduction. Journal of Materials Chemistry A, 2021, 9, 3555-3566.	5.2	26
90	Catalytic origin and universal descriptors of heteroatom-doped photocatalysts for solar fuel production. Nano Energy, 2019, 63, 103819.	8.2	25

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91	Optimizing load transfer in multiwall nanotubes through interwall coupling: Theory and simulation. Acta Materialia, 2010, 58, 6324-6333.	3.8	24
92	Plasma Treated Multi-Walled Carbon Nanotubes (MWCNTs) for Epoxy Nanocomposites. Polymers, 2011, 3, 2142-2155.	2.0	24
93	Molecular dynamic simulation of nanocrystal formation and tensile deformation of TiAl alloy. RSC Advances, 2017, 7, 48315-48323.	1.7	21
94	Tough Reversible Adhesion Properties of a Dry Self-Cleaning Biomimetic Surface. ACS Applied Materials & Interfaces, 2018, 10, 26787-26794.	4.0	21
95	Correlating Electrical Resistance Change with Mechanical Damage in Woven <scp><scp>SiC</scp></scp>/<scp><scp>SiC</scp></scp> Composites: Experiment and Modeling. Journal of the American Ceramic Society, 2014, 97, 2936-2942.	1.9	20
96	Atomic simulations of twist grain boundary structures and deformation behaviors in aluminum. AIP Advances, 2017, 7, .	0.6	20
97	A Tough Reversible Biomimetic Transparent Adhesive Tape with Pressure-Sensitive and Wet-Cleaning Properties. ACS Nano, 2021, 15, 19194-19201.	7.3	20
98	Fabrication of laminated metalâ€“intermetallic composites by interlayer in-situ reaction. Journal of Materials Science, 1999, 34, 3731-3735.	1.7	19
99	Charge transfer induced activity of graphene for oxygen reduction. Nanotechnology, 2016, 27, 185402.	1.3	19
100	Ag, Co/graphene interactions and its effect on electrocatalytic oxygen reduction in alkaline media. Journal of Power Sources, 2017, 370, 1-13.	4.0	19
101	Synthesis, properties and applications of 3D carbon nanotubeâ€“graphene junctions. Journal Physics D: Applied Physics, 2016, 49, 443001.	1.3	18
102	Functionally Graded Gecko Setae and the Biomimics with Robust Adhesion and Durability. ACS Applied Polymer Materials, 2020, 2, 2658-2666.	2.0	18
103	The effect of local atomic configuration in high-entropy alloys on the dislocation behaviors and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 815, 141253.	2.6	18
104	Eutectic dual-phase microstructure modulated porous high-entropy alloys as high-performance bifunctional electrocatalysts for water splitting. Journal of Materials Chemistry A, 2022, 10, 11110-11120.	5.2	18
105	Fabrication of fiber-reinforced metal-matrix composites by variable pressure infiltration. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1992, 23, 295-302.	1.0	16
106	Finite element modelling of fatigue crack initiation in SiC-fibre reinforced titanium alloys. Composites Part A: Applied Science and Manufacturing, 2000, 31, 1031-1037.	3.8	16
107	Multiscale modeling of ductile-fiber-reinforced composites. Composites Science and Technology, 2009, 69, 1887-1895.	3.8	16
108	Electrochemical Oxygen Reduction Reaction in Alkaline Solution at a Low Overpotential on (220)-Textured Ag Surface. ACS Applied Energy Materials, 2018, 1, 4385-4394.	2.5	16

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109	Deformation mechanism in Al_{0.1}CoCrFeNi Î£3(111)[11Ì„0] high entropy alloys â€“ molecular dynamics simulations. RSC Advances, 2020, 10, 27688-27696.	1.7	16
110	Disperse Multimetal Atom-Doped Carbon as Efficient Bifunctional Electrocatalysts for Oxygen Reduction and Evolution Reactions: Design Strategies. Journal of Physical Chemistry C, 2020, 124, 27387-27395.	1.5	16
111	Design principles of pseudocapacitive carbon anode materials for ultrafast sodium and potassium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 7756-7764.	5.2	16
112	Shell Buckling of Imperfect Multiwalled Carbon Nanotubesâ€”Experiments and Analysis. Experimental Mechanics, 2007, 47, 153-161.	1.1	15
113	Growth mechanisms and mechanical properties of 3D carbon nanotubeâ€“graphene junctions: molecular dynamic simulations. RSC Advances, 2014, 4, 33848-33854.	1.7	15
114	Phase stability of an high-entropy Al-Cr-Fe-Ni-V alloy with exceptional mechanical properties: First-principles and APT investigations. Computational Materials Science, 2019, 170, 109161.	1.4	15
115	Life prediction of titanium MMCs under low-cycle fatigue. Acta Materialia, 2001, 49, 1633-1646.	3.8	14
116	Synthetic hierarchical nanostructures: growth of carbon nanofibers on microfibers by chemical vapor deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 166, 190-195.	1.7	14
117	Nanomanufacturing of Non-Noble Amorphous Alloys for Electrocatalysis. ACS Applied Energy Materials, 2020, 3, 12099-12107.	2.5	14
118	Self-Assembly of Metallo-Supramolecules under Kinetic or Thermodynamic Control: Characterization of Positional Isomers Using Scanning Tunneling Spectroscopy. Journal of the American Chemical Society, 2020, 142, 9809-9817.	6.6	14
119	Carbon-supported layered double hydroxide nanodots for efficient oxygen evolution: Active site identification and activity enhancement. Nano Research, 2021, 14, 3329-3336.	5.8	14
120	Rational design of boron-containing co-doped graphene as highly efficient electro-catalysts for the nitrogen reduction reaction. Journal of Materials Chemistry A, 2021, 9, 24590-24599.	5.2	14
121	First-principles screening visible-light active delafossite ABO2 structures for photocatalytic application. International Journal of Hydrogen Energy, 2018, 43, 17271-17282.	3.8	11
122	Electronic coupling strategy to boost water oxidation efficiency based on the modelling of trimetallic hydroxides Ni1-x-yFexCry(OH)2: From theory to experiment. Chemical Engineering Journal, 2020, 402, 126144.	6.6	11
123	New Theoretical Strategy for the Correlation of Oxygen Evolution Performance and Metal Catalysts Adsorption at BiVO₄ Surfaces. Journal of Physical Chemistry C, 2018, 122, 25195-25203.	1.5	10
124	Coordination-Dependent Catalytic Activity and Design Principles of Metalâ€“Organic Frameworks as Efficient Electrocatalysts for Clean Energy Conversion. Journal of Physical Chemistry C, 2019, 123, 214-221.	1.5	10
125	Multiscale Manufacturing of Amorphous Alloys by a Facile Electrodeposition Approach and Their Property Dependence on the Local Atomic Order. ACS Applied Materials & Interfaces, 2021, 13, 9260-9271.	4.0	10
126	Mechanical behavior of anodic alumina coatings reinforced with carbon nanofibers. Journal of Materials Science, 2009, 44, 6020-6027.	1.7	9

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127	Molecular Dynamics Simulation of Nanoimprinting Under a High-Frequency Vibration Perturbation. Journal of Computational and Theoretical Nanoscience, 2012, 9, 35-40.	0.4	9
128	Modeling of electromechanical behavior of woven SiC/SiC composites. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1730-1737.	3.8	9
129	Fabrication of TiO₂â€“graphene composite for the enhanced performance of lithium batteries. RSC Advances, 2016, 6, 66971-66977.	1.7	9
130	Hydrogen oxidation reaction response of noble-metal based bulk metallic glasses. Electrochimica Acta, 2020, 353, 136616.	2.6	9
131	Measurement of Interfacial Energy and Friction Between Carbon Nanotubes and Polymer Matrix by a Micro-Pullout Test. Science of Advanced Materials, 2012, 4, 888-892.	0.1	9
132	Unraveling the Structural Statistics and Its Relationship with Mechanical Properties in Metallic Glasses. Nano Letters, 2021, 21, 9108-9114.	4.5	9
133	Coupled thermalâ€“mechanical modeling of carbon fibers reinforced polymer composites for damage detection. Composites Part B: Engineering, 2012, 43, 1631-1636.	5.9	8
134	Temperature-induced tunable adhesion of gecko setae/spatulae and their biomimics. Materials Today: Proceedings, 2018, 5, 25879-25893.	0.9	8
135	Graphene-covered transition metal halide molecules as efficient and durable electrocatalysts for oxygen reduction and evolution reactions. Physical Chemistry Chemical Physics, 2019, 21, 23094-23101.	1.3	8
136	Novel insights into l-cysteine adsorption on transition metal doped graphene: influences of the dopant and the vacancy. RSC Advances, 2016, 6, 29830-29839.	1.7	7
137	Controlled Surface Elemental Distribution Enhances Catalytic Activity and Stability. Matter, 2019, 1, 1447-1449.	5.0	7
138	Highly Switchable Adhesion of N-Doped Graphene Interfaces for Robust Micromanipulation. ACS Applied Materials & Interfaces, 2019, 11, 5544-5553.	4.0	7
139	Fracture and toughening mechanisms in SiC nanofiber reinforced SiC matrix nanocomposites with amorphous carbon coatings. Computational Materials Science, 2014, 83, 255-260.	1.4	6
140	Rapid Water Harvesting and Nonthermal Drying in Humid Air by N-Doped Graphene Micropads. Langmuir, 2019, 35, 12389-12399.	1.6	6
141	Detrimental Effects and Prevention of Acidic Electrolytes on Oxygen Reduction Reaction Catalytic Performance of Heteroatom-Doped Graphene Catalysts. Frontiers in Materials, 2019, 6, .	1.2	6
142	Fabrication of Y-junction Metal Nanowires by AAO Template-assisted AC Electrodeposition. Nano-Micro Letters, 2010, 2, 290-295.	14.4	5
143	Hyperelastic Multi-Scale Modeling of a Thermoplastic Polyurethane Elastomer Using Molecular Mechanics. , 2015, , .		5
144	Self-Cleaning and Controlled Adhesion of Gecko Feet and Their Bioinspired Micromanipulators. MRS Advances, 2018, 3, 1641-1646.	0.5	5

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145	Rational design of efficient transition metal coreâ€“shell electrocatalysts for oxygen reduction and evolution reactions. RSC Advances, 2019, 9, 536-542.	1.7	5
146	Design of FiberCoating Systems for High Strength in Ceramic Matrix Composites. , 0, , 371-378.		4
147	Role of interfaces in mechanical properties of ceramic matrix composites. , 2018, , 355-374.		3
148	Atomistic simulations on nanoimprinting of copper by aligned carbon nanotube arrays under a high-frequency mechanical vibration. Nanotechnology, 2020, 31, 045303.	1.3	3
149	Interactions between Dopants in Dual-Doped Graphene Nanoribbons as Metal-Free Bifunctional Catalysts for Fuel Cell and Metal-Air Batteries. MRS Advances, 2016, 1, 421-425.	0.5	2
150	Template-directed growth and mechanical properties of carbon nanotubeâ€“graphene junctions with nano-fillets: molecular dynamic simulation. RSC Advances, 2016, 6, 56077-56082.	1.7	2
151	Hole-punching for enhancing electrocatalytic activities of 2D graphene electrodes: Less is more. Journal of Chemical Physics, 2020, 153, 074701.	1.2	2
152	Editorial: Catalysts for Clean Energy Conversion and Storage. Frontiers in Materials, 2020, 7, .	1.2	2
153	Bioinspired Smart Materials With Externally-Stimulated Switchable Adhesion. Frontiers in Nanotechnology, 2021, 3, .	2.4	2
154	Multiscale Modeling of Carbon Nanotube Adhesion for Dry Adhesives. Materials Research Society Symposia Proceedings, 2006, 975, 1.	0.1	2
155	Multiscale Modeling of Tensile Failure in Fiber-Reinforced Composites. , 2008, , 37-82.		1
156	Mussel Byssus Cuticle: Metal Coordinationâ€Mediated Functional Grading and Selfâ€Healing in Mussel Byssus Cuticle (Adv. Sci. 23/2019). Advanced Science, 2019, 6, 1970138.	5.6	1
157	Controllable growth of two-dimensional iron carbide in steels under accumulation deformation. Micron, 2020, 132, 102794.	1.1	1
158	Fabrication of Y-junction metal nanowires by AAO template-assisted AC electrodeposition. Nano-Micro Letters, 2011, 2, 290.	14.4	1
159	Syntheses, mechanisms, and applications of bio-inspired self-cleaning surfaces. , 2022, , 367-392.		1
160	Multiscale Modeling of Frictional Behavior of Highly-Ordered Carbon Nanotube/Ceramic Nanocomposites. Materials Research Society Symposia Proceedings, 2006, 978, .	0.1	0
161	Synthesis and Properties of Cobalt Nanowires. , 2007, , .		0
162	Modeling of Nanoimprinting of Metals by Nanotube Arrays. Materials Research Society Symposia Proceedings, 2008, 1137, 101301.	0.1	0

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163	Core Effect of Local Atomic Configuration and Design Principles of Al _xCoCrFeNi High-Entropy Alloys. SSRN Electronic Journal, 0, , .	0.4	0