Yonggang Yao

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.

137	12,731 citations	57	112
papers		h-index	g-index
147	16,188 ext. citations	16.6	6.47
ext. papers		avg, IF	L-index

#	Paper	IF	Citations
137	Rapid Synthesis of High-Entropy Oxide Microparticles <i>Small</i> , 2022 , e2104761	11	3
136	Multi-principal elemental intermetallic nanoparticles synthesized via a disorder-to-order transition <i>Science Advances</i> , 2022 , 8, eabm4322	14.3	5
135	Sustainable, superfast deconstruction of natural cellulosic aggregates toward intrinsically green, multifunctional gel. <i>Chemical Engineering Journal</i> , 2022 , 435, 134856	14.7	1
134	High-entropy nanoparticles: Synthesis-structure-property relationships and data-driven discovery <i>Science</i> , 2022 , 376, eabn3103	33.3	19
133	A general strategy for overcoming the trade-off between ultrasmall size and high loading of MOF-derived metal nanoparticles by millisecond pyrolysis. <i>Nano Energy</i> , 2022 , 97, 107125	17.1	1
132	Highly efficient, field-assisted water splitting enabled by a bifunctional Ni3Fe magnetized wood carbon. <i>Chemical Engineering Journal</i> , 2022 , 439, 135722	14.7	3
131	Programmable heating and quenching for efficient thermochemical synthesis <i>Nature</i> , 2022 , 605, 470-4	1 756 0.4	3
130	Composition-dependent structure and properties of 5- and 15-element high-entropy alloy nanoparticles. <i>Cell Reports Physical Science</i> , 2021 , 2, 100641	6.1	1
129	Bamboo-inspired, simulation-guided design and 3D printing of light-weight and high-strength mechanical metamaterials. <i>Applied Materials Today</i> , 2021 , 26, 101268	6.6	4
128	Interface Engineering Between multi-elemental alloy Nanoparticles and Carbon Support Toward Stable Catalysts. <i>Advanced Materials</i> , 2021 , e2106436	24	4
127	Solar-driven on-site H2O2 generation and tandem photo-Fenton reaction on a triphase interface for rapid organic pollutant degradation. <i>Chemical Engineering Journal</i> , 2021 , 133168	14.7	5
126	Lightweight, strong, moldable wood via cell wall engineering as a sustainable structural material. <i>Science</i> , 2021 , 374, 465-471	33.3	18
125	Carbon-Supported High-Entropy Oxide Nanoparticles as Stable Electrocatalysts for Oxygen Reduction Reactions. <i>Advanced Functional Materials</i> , 2021 , 31, 2010561	15.6	21
124	Determining the three-dimensional atomic structure of an amorphous solid. <i>Nature</i> , 2021 , 592, 60-64	50.4	57
123	A strong, biodegradable and recyclable lignocellulosic bioplastic. <i>Nature Sustainability</i> , 2021 , 4, 627-635	22.1	74
122	Anisotropic Evaporator with a T-Shape Design for High-Performance Solar-Driven Zero-Liquid Discharge. <i>Small</i> , 2021 , 17, e2100969	11	11
121	Continuous Fly-Through High-Temperature Synthesis of Nanocatalysts. <i>Nano Letters</i> , 2021 , 21, 4517-45	2B 1.5	2

(2020-2021)

120	3D Printed Graphene-Based 3000 K Probe. Advanced Functional Materials, 2021, 31, 2102994	15.6	8	
119	Extreme mixing in nanoscale transition metal alloys. <i>Matter</i> , 2021 , 4, 2340-2353	12.7	30	
118	High-temperature-pulse synthesis of ultrathin-graphene-coated metal nanoparticles. <i>Nano Energy</i> , 2021 , 80, 105536	17.1	5	
117	Denary oxide nanoparticles as highly stable catalysts for methane combustion. <i>Nature Catalysis</i> , 2021 , 4, 62-70	36.5	45	
116	In Situ Lignin Modification toward Photonic Wood. Advanced Materials, 2021, 33, e2001588	24	27	
115	Stamping Flexible Li Alloy Anodes. <i>Advanced Materials</i> , 2021 , 33, e2005305	24	16	
114	Tailoring the Local Environment of Platinum in Single-Atom Pt /CeO Catalysts for Robust Low-Temperature CO Oxidation. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 26054-26062	16.4	15	
113	Strong, robust cellulose composite film for efficient light management in energy efficient building. <i>Chemical Engineering Journal</i> , 2021 , 425, 131469	14.7	9	
112	Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. <i>Nature Communications</i> , 2020 , 11, 6373	17.4	20	
111	Thermal Shock Synthesis of Nanocatalyst by 3D-Printed Miniaturized Reactors. <i>Small</i> , 2020 , 16, e200050	091	9	
110	Computationally aided, entropy-driven synthesis of highly efficient and durable multi-elemental alloy catalysts. <i>Science Advances</i> , 2020 , 6, eaaz0510	14.3	60	
109	Strong and Superhydrophobic Wood with Aligned Cellulose Nanofibers as a Waterproof Structural Material <i>Chinese Journal of Chemistry</i> , 2020 , 38, 823-829	4.9	9	
108	Highly Efficient Water Treatment via a Wood-Based and Reusable Filter 2020 , 2, 430-437		24	
107	Lignin-Based Direct Ink Printed Structural Scaffolds. <i>Small</i> , 2020 , 16, e1907212	11	20	
106	Rapid Laser Pulse Synthesis of Supported Metal Nanoclusters with Kinetically Tunable Size and Surface Density for Electrocatalytic Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2020 , 3, 2959-296	8 5.6	5	
105	Holey three-dimensional wood-based electrode for vanadium flow batteries. <i>Energy Storage Materials</i> , 2020 , 27, 327-332	19.4	27	
104	A Strong, Tough, and Scalable Structural Material from Fast-Growing Bamboo. <i>Advanced Materials</i> , 2020 , 32, e1906308	24	69	
103	Fire-Resistant Structural Material Enabled by an Anisotropic Thermally Conductive Hexagonal Boron Nitride Coating. <i>Advanced Functional Materials</i> , 2020 , 30, 1909196	15.6	37	

102	High-Performance, Scalable Wood-Based Filtration Device with a Reversed-Tree Design. <i>Chemistry of Materials</i> , 2020 , 32, 1887-1895	9.6	29
101	Overcoming immiscibility toward bimetallic catalyst library. Science Advances, 2020, 6, eaaz6844	14.3	42
100	Continuous 2000 K droplet-to-particle synthesis. <i>Materials Today</i> , 2020 , 35, 106-114	21.8	18
99	A General Method for Regenerating Catalytic Electrodes. <i>Joule</i> , 2020 , 4, 2374-2386	27.8	9
98	High-throughput, combinatorial synthesis of multimetallic nanoclusters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 6316-6322	11.5	50
97	Highly efficient decomposition of ammonia using high-entropy alloy catalysts. <i>Nature Communications</i> , 2019 , 10, 4011	17.4	168
96	In situ TEM Observation of Nanoparticles Formation during Carbothermal Shock. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1534-1535	0.5	
95	General, Vertical, Three-Dimensional Printing of Two-Dimensional Materials with Multiscale Alignment. <i>ACS Nano</i> , 2019 , 13, 12653-12661	16.7	49
94	Thermally Conductive Reduced Graphene Oxide Thin Films for Extreme Temperature Sensors. Advanced Functional Materials, 2019 , 29, 1901388	15.6	35
93	Cellulose ionic conductors with high differential thermal voltage for low-grade heat harvesting. <i>Nature Materials</i> , 2019 , 18, 608-613	27	187
92	Fly-through synthesis of nanoparticles on textile and paper substrates. <i>Nanoscale</i> , 2019 , 11, 6174-6181	7.7	11
91	Millisecond synthesis of CoS nanoparticles for highly efficient overall water splitting. <i>Nano Research</i> , 2019 , 12, 2259-2267	10	57
90	Flexible Solid-State Electrolyte with Aligned Nanostructures Derived from Wood 2019 , 1, 354-361		34
89	High temperature shockwave stabilized single atoms. <i>Nature Nanotechnology</i> , 2019 , 14, 851-857	28.7	159
88	Ultrafast, Controllable Synthesis of Sub-Nano Metallic Clusters through Defect Engineering. <i>ACS Applied Materials & Defect Engineering</i> , 11, 29773-29779	9.5	14
87	Transient, in situ synthesis of ultrafine ruthenium nanoparticles for a high-rate Li©O2 battery. Energy and Environmental Science, 2019 , 12, 1100-1107	35.4	77
86	Overcoming Immiscibility via a Milliseconds-Long Bhock Lynthesis toward Alloyed Nanoparticles. <i>Matter</i> , 2019 , 1, 1451-1453	12.7	4
85	Ultrahigh-temperature conversion of biomass to highly conductive graphitic carbon. <i>Carbon</i> , 2019 , 144, 241-248	10.4	28

(2018-2019)

84	A general, highly efficient, high temperature thermal pulse toward high performance solid state electrolyte. <i>Energy Storage Materials</i> , 2019 , 17, 234-241	19.4	30
83	Dramatic Enhancement of CO2 Photoreduction by Biodegradable Light-Management Paper. <i>Advanced Energy Materials</i> , 2018 , 8, 1703136	21.8	24
82	Necklace-Like Silicon Carbide and Carbon Nanocomposites Formed by Steady Joule Heating. <i>Small Methods</i> , 2018 , 2, 1700371	12.8	11
81	Anisotropic, lightweight, strong, and super thermally insulating nanowood with naturally aligned nanocellulose. <i>Science Advances</i> , 2018 , 4, eaar3724	14.3	204
80	Flexible, Scalable, and Highly Conductive Garnet-Polymer Solid Electrolyte Templated by Bacterial Cellulose. <i>Advanced Energy Materials</i> , 2018 , 8, 1703474	21.8	117
79	Thermoelectric properties and performance of flexible reduced graphene oxide films up to 3,000 K. <i>Nature Energy</i> , 2018 , 3, 148-156	62.3	69
78	Anisotropic, Mesoporous Microfluidic Frameworks with Scalable, Aligned Cellulose Nanofibers. <i>ACS Applied Materials & Discourse (Materials & Discourse)</i> , 10, 7362-7370	9.5	33
77	Extrusion-Based 3D Printing of Hierarchically Porous Advanced Battery Electrodes. <i>Advanced Materials</i> , 2018 , 30, e1705651	24	164
76	Tuning the High-Temperature Wetting Behavior of Metals toward Ultrafine Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 2625-2629	16.4	5
75	Tuning the High-Temperature Wetting Behavior of Metals toward Ultrafine Nanoparticles. <i>Angewandte Chemie</i> , 2018 , 130, 2655-2659	3.6	Ο
74	Processing bulk natural wood into a high-performance structural material. <i>Nature</i> , 2018 , 554, 224-228	50.4	558
73	Evolution from successive phase transitions to thorphotropic phase boundary(In BaTiO3-based ferroelectrics. <i>Applied Physics Letters</i> , 2018 , 112, 182903	3.4	14
72	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. <i>Science</i> , 2018 , 359, 1489-1494	33.3	560
71	Hierarchically Porous, Ultrathick, B reathable[Wood-Derived Cathode for Lithium-Oxygen Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1701203	21.8	109
71 70		21.8 9·5	109 49
	Batteries. Advanced Energy Materials, 2018, 8, 1701203 Isotropic Paper Directly from Anisotropic Wood: Top-Down Green Transparent Substrate Toward		
70	Batteries. Advanced Energy Materials, 2018, 8, 1701203 Isotropic Paper Directly from Anisotropic Wood: Top-Down Green Transparent Substrate Toward Biodegradable Electronics. ACS Applied Materials & amp; Interfaces, 2018, 10, 28566-28571 In Situ Chainmail Catalyst (Assembly in Low-Tortuosity, Hierarchical Carbon Frameworks for	9.5	49

66	Catalyst-Free Carbon Nanotube Growth in Confined Space High Temperature Gradient. <i>Research</i> , 2018 , 2018, 1793784	7.8	6
65	Textile Inspired Lithium-Oxygen Battery Cathode with Decoupled Oxygen and Electrolyte Pathways. <i>Advanced Materials</i> , 2018 , 30, 1704907	24	63
64	3D-Printed Graphene Oxide Framework with Thermal Shock Synthesized Nanoparticles for Li-CO2 Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1805899	15.6	95
63	Epitaxial Welding of Carbon Nanotube Networks for Aqueous Battery Current Collectors. <i>ACS Nano</i> , 2018 , 12, 5266-5273	16.7	36
62	All-wood, low tortuosity, aqueous, biodegradable supercapacitors with ultra-high capacitance. <i>Energy and Environmental Science</i> , 2017 , 10, 538-545	35.4	451
61	Design of High Capacity Dissoluble Electrodes for All Transient Batteries. <i>Advanced Functional Materials</i> , 2017 , 27, 1605724	15.6	18
60	A carbon-based 3D current collector with surface protection for Li metal anode. <i>Nano Research</i> , 2017 , 10, 1356-1365	10	139
59	High Temperature Synthesis of Single-Component Metallic Nanoparticles. <i>ACS Central Science</i> , 2017 , 3, 294-301	16.8	26
58	Reducing Interfacial Resistance between Garnet-Structured Solid-State Electrolyte and Li-Metal Anode by a Germanium Layer. <i>Advanced Materials</i> , 2017 , 29, 1606042	24	378
57	Garnet Solid Electrolyte Protected Li-Metal Batteries. <i>ACS Applied Materials & Discourted Solid</i> 18809-18815	9.5	181
56	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metalBulfur batteries. <i>Energy and Environmental Science</i> , 2017 , 10, 1568-1575	35.4	368
55	Highly Conductive, Lightweight, Low-Tortuosity Carbon Frameworks as Ultrathick 3D Current Collectors. <i>Advanced Energy Materials</i> , 2017 , 7, 1700595	21.8	156
54	Mesoporous, Three-Dimensional Wood Membrane Decorated with Nanoparticles for Highly Efficient Water Treatment. <i>ACS Nano</i> , 2017 , 11, 4275-4282	16.7	272
53	Super-Clear Nanopaper from Agro-Industrial Waste for Green Electronics. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600539	6.4	19
52	Toward garnet electrolyte-based Li metal batteries: An ultrathin, highly effective, artificial solid-state electrolyte/metallic Li interface. <i>Science Advances</i> , 2017 , 3, e1601659	14.3	482
51	Anisotropic, Transparent Films with Aligned Cellulose Nanofibers. <i>Advanced Materials</i> , 2017 , 29, 16062	8 4 4	137
50	High Temperature Carbonized Grass as a High Performance Sodium Ion Battery Anode. <i>ACS Applied Materials & Materia</i>	9.5	94
49	Progress in 3D Printing of Carbon Materials for Energy-Related Applications. <i>Advanced Materials</i> , 2017 , 29, 1603486	24	291

(2016-2017)

48	Conformal, Nanoscale ZnO Surface Modification of Garnet-Based Solid-State Electrolyte for Lithium Metal Anodes. <i>Nano Letters</i> , 2017 , 17, 565-571	11.5	416
47	Transient Behavior of the Metal Interface in Lithium Metal-Garnet Batteries. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 14942-14947	16.4	160
46	Tree-Inspired Design for High-Efficiency Water Extraction. Advanced Materials, 2017, 29, 1704107	24	346
45	Transient Behavior of the Metal Interface in Lithium Metal C arnet Batteries. <i>Angewandte Chemie</i> , 2017 , 129, 15138-15143	3.6	10
44	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Liß Batteries. <i>Chemistry of Materials</i> , 2017 , 29, 8037-8041	9.6	67
43	3D-Printed All-Fiber Li-Ion Battery toward Wearable Energy Storage. <i>Advanced Functional Materials</i> , 2017 , 27, 1703140	15.6	184
42	Inverted battery design as ion generator for interfacing with biosystems. <i>Nature Communications</i> , 2017 , 8, 15609	17.4	17
41	Rapid Thermal Annealing of Cathode-Garnet Interface toward High-Temperature Solid State Batteries. <i>Nano Letters</i> , 2017 , 17, 4917-4923	11.5	72
40	Thermally Stable Cellulose Nanocrystals toward High-Performance 2D and 3D Nanostructures. <i>ACS Applied Materials & Description (Control of the Control of th</i>	9.5	39
39	Universal, In Situ Transformation of Bulky Compounds into Nanoscale Catalysts by High-Temperature Pulse. <i>Nano Letters</i> , 2017 , 17, 5817-5822	11.5	23
38	Ultrafine Silver Nanoparticles for Seeded Lithium Deposition toward Stable Lithium Metal Anode. <i>Advanced Materials</i> , 2017 , 29, 1702714	24	374
37	Rich Mesostructures Derived from Natural Woods for Solar Steam Generation. <i>Joule</i> , 2017 , 1, 588-599	27.8	242
36	High temperature thermal management with boron nitride nanosheets. <i>Nanoscale</i> , 2017 , 10, 167-173	7.7	35
35	A Solution-Processed High-Temperature, Flexible, Thin-Film Actuator. <i>Advanced Materials</i> , 2016 , 28, 86	1 <u>8</u> -β62	4 ₄₂
34	Carbon Welding by Ultrafast Joule Heating. <i>Nano Letters</i> , 2016 , 16, 7282-7289	11.5	65
33	Ultra-fast self-assembly and stabilization of reactive nanoparticles in reduced graphene oxide films. <i>Nature Communications</i> , 2016 , 7, 12332	17.4	74
32	Flexible, solid-state, ion-conducting membrane with 3D garnet nanofiber networks for lithium batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 7094-9	11.5	593
31	Isothermal phase transition and the transition temperature limitation in the lead-free (1-x)Bi0.5Na0.5TiO3-xBaTiO3 system. <i>Acta Materialia</i> , 2016 , 103, 746-753	8.4	26

30	Extreme Light Management in Mesoporous Wood Cellulose Paper for Optoelectronics. <i>ACS Nano</i> , 2016 , 10, 1369-77	16.7	133
29	Carbonized-leaf Membrane with Anisotropic Surfaces for Sodium-ion Battery. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 2204-10	9.5	124
28	Nanocarbon Paper: Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper (Adv. Mater. 23/2016). <i>Advanced Materials</i> , 2016 , 28, 4566	24	3
27	Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper. <i>Advanced Materials</i> , 2016 , 28, 4684-91	24	47
26	Highly Anisotropic, Highly Transparent Wood Composites. <i>Advanced Materials</i> , 2016 , 28, 5181-7	24	342
25	Ultra-Thick, Low-Tortuosity, and Mesoporous Wood Carbon Anode for High-Performance Sodium-Ion Batteries. <i>Advanced Energy Materials</i> , 2016 , 6, 1600377	21.8	205
24	Graphene Oxide-Based Electrode Inks for 3D-Printed Lithium-Ion Batteries. <i>Advanced Materials</i> , 2016 , 28, 2587-94	24	443
23	All-Component Transient Lithium-Ion Batteries. Advanced Energy Materials, 2016, 6, 1502496	21.8	37
22	Solvo-thermal microwave-powered two-dimensional material exfoliation. <i>Chemical Communications</i> , 2016 , 52, 5757-60	5.8	23
21	Light management in plasticpaper hybrid substrate towards high-performance optoelectronics. <i>Energy and Environmental Science</i> , 2016 , 9, 2278-2285	35.4	85
20	Reduced Graphene Oxide Films with Ultrahigh Conductivity as Li-Ion Battery Current Collectors. <i>Nano Letters</i> , 2016 , 16, 3616-23	11.5	146
19	Three-Dimensional Printable High-Temperature and High-Rate Heaters. ACS Nano, 2016, 10, 5272-9	16.7	137
18	Transparent and haze wood composites for highly efficient broadband light management in solar cells. <i>Nano Energy</i> , 2016 , 26, 332-339	17.1	149
17	Cut-and-stack nanofiber paper toward fast transient energy storage. <i>Inorganic Chemistry Frontiers</i> , 2016 , 3, 681-688	6.8	10
16	Rapid, in Situ Synthesis of High Capacity Battery Anodes through High Temperature Radiation-Based Thermal Shock. <i>Nano Letters</i> , 2016 , 16, 5553-8	11.5	52
15	Wood Composite as an Energy Efficient Building Material: Guided Sunlight Transmittance and Effective Thermal Insulation. <i>Advanced Energy Materials</i> , 2016 , 6, 1601122	21.8	154
14	A Thermally Conductive Separator for Stable Li Metal Anodes. Nano Letters, 2015, 15, 6149-54	11.5	262
13	Self-Powered Human-Interactive Transparent Nanopaper Systems. <i>ACS Nano</i> , 2015 , 9, 7399-406	16.7	85

LIST OF PUBLICATIONS

12	Transient Rechargeable Batteries Triggered by Cascade Reactions. <i>Nano Letters</i> , 2015 , 15, 4664-71	11.5	60
11	Anatomy of vertical heteroepitaxial interfaces reveals the memristive mechanism in NbDENaNbOI thin films. <i>Scientific Reports</i> , 2015 , 5, 9229	4.9	10
10	Phase transitions and the piezoelectricity around morphotropic phase boundary in Ba(Zr0.2Ti0.8)O3-x(Ba0.7Ca0.3)TiO3 lead-free solid solution. <i>Applied Physics Letters</i> , 2014 , 105, 162908	3.4	108
9	Inverse effect of morphotropic phase boundary on the magnetostriction of ferromagnetic Tb1\(\text{MGdxCo2}. \) Physical Review B, 2014 , 89,	3.3	30
8	Enhanced electrocaloric effect in lead-free BaTi1⊠SnxO3 ceramics near room temperature. <i>Applied Physics Letters</i> , 2014 , 105, 102904	3.4	136
7	Evolution of the tetragonal to rhombohedral transition in (1 -)(BiNa)TiO - BaTiO (17%). <i>Science and Technology of Advanced Materials</i> , 2013 , 14, 035008	7.1	18
6	Large piezoelectricity and dielectric permittivity in BaTiO 3 -xBaSnO 3 system: The role of phase coexisting. <i>Europhysics Letters</i> , 2012 , 98, 27008	1.6	162
5	Ferroelastic and strain glass transition in (1-x)(Bi 0.5 Na 0.5)TiO 3 -xBaTiO 3 solid solution. <i>Europhysics Letters</i> , 2012 , 100, 17004	1.6	14
4	Enthalpy induced phase partition toward hierarchical, nanostructured high-entropy alloys. <i>Nano Research</i> ,1	10	2
3	Tailoring the Local Environment of Platinum in Single-Atom Pt1/CeO2 Catalysts for Robust Low-Temperature CO Oxidation. <i>Angewandte Chemie</i> ,	3.6	1
2	High-entropy alloy stabilized and activated Pt clusters for highly efficient electrocatalysis. SusMat,		7
1	Surface-Decorated High-Entropy Alloy Catalysts with Significantly Boosted Activity and Stability. <i>Advanced Functional Materials</i> ,2204643	15.6	2