

# Jiaping Wang

## List of Publications by Citations

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115  
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119  
ext. papers

6,734  
ext. citations

9.6  
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5.66  
L-index

#	Paper	IF	Citations
115	Superaligned carbon nanotube arrays, films, and yarns: a road to applications. <i>Advanced Materials</i> , <b>2011</b> , 23, 1154-61	24	349
114	Conformal Fe <sub>3</sub> O <sub>4</sub> sheath on aligned carbon nanotube scaffolds as high-performance anodes for lithium ion batteries. <i>Nano Letters</i> , <b>2013</b> , 13, 818-23	11.5	268
113	Sulfur nanocrystals confined in carbon nanotube network as a binder-free electrode for high-performance lithium sulfur batteries. <i>Nano Letters</i> , <b>2014</b> , 14, 4044-9	11.5	244
112	Binder-free LiCoO <sub>2</sub> /carbon nanotube cathodes for high-performance lithium ion batteries. <i>Advanced Materials</i> , <b>2012</b> , 24, 2294-8	24	243
111	Ultrathin MnO <sub>2</sub> /Graphene Oxide/Carbon Nanotube Interlayer as Efficient Polysulfide-Trapping Shield for High-Performance LiS Batteries. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1606663	15.6	228
110	Super-Aligned Carbon Nanotube Films as Current Collectors for Lightweight and Flexible Lithium Ion Batteries. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 846-853	15.6	223
109	Scratch-resistant, highly conductive, and high-strength carbon nanotube-based composite yarns. <i>ACS Nano</i> , <b>2010</b> , 4, 5827-34	16.7	217
108	Carbon nanotube yarns with high tensile strength made by a twisting and shrinking method. <i>Nanotechnology</i> , <b>2010</b> , 21, 045708	3.4	192
107	Sulfur Embedded in a Mesoporous Carbon Nanotube Network as a Binder-Free Electrode for High-Performance Lithium-Sulfur Batteries. <i>ACS Nano</i> , <b>2016</b> , 10, 1300-8	16.7	176
106	Carbon nanotube/epoxy composites fabricated by resin transfer molding. <i>Carbon</i> , <b>2010</b> , 48, 260-266	10.4	175
105	High-performance, low-voltage, and easy-operable bending actuator based on aligned carbon nanotube/polymer composites. <i>ACS Nano</i> , <b>2011</b> , 5, 1588-93	16.7	170
104	Room-temperature soldering with nanostructured foils. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 3987-3989	3.4	167
103	Joining of stainless-steel specimens with nanostructured Al/Ni foils. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 248-256	2.5	160
102	Reactive nanostructured foil used as a heat source for joining titanium. <i>Journal of Applied Physics</i> , <b>2004</b> , 96, 2336-2342	2.5	151
101	Reversibility of Noble Metal-Catalyzed Aprotic Li-O <sub>2</sub> Batteries. <i>Nano Letters</i> , <b>2015</b> , 15, 8084-90	11.5	139
100	Multifunctional Interlayer Based on Molybdenum Diphosphide Catalyst and Carbon Nanotube Film for Lithium-Sulfur Batteries. <i>Small</i> , <b>2018</b> , 14, 1702853	11	108
99	Super-aligned carbon nanotube/graphene hybrid materials as a framework for sulfur cathodes in high performance lithium sulfur batteries. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 5305-5312	13	106

98	New insight in understanding oxygen reduction and evolution in solid-state lithium-oxygen batteries using an in situ environmental scanning electron microscope. <i>Nano Letters</i> , <b>2014</b> , 14, 4245-9	11.5	91
97	Highly Nitridated Graphene//Li <sub>2</sub> S Cathodes with Stable Modulated Cycles. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1501369	21.8	87
96	Enhanced performance of lithium-sulfur batteries with an ultrathin and lightweight MoS <sub>2</sub> /carbon nanotube interlayer. <i>Journal of Power Sources</i> , <b>2018</b> , 389, 169-177	8.9	85
95	Flexible and transparent strain sensors based on super-aligned carbon nanotube films. <i>Nanoscale</i> , <b>2017</b> , 9, 6716-6723	7.7	80
94	Investigating the effect of applied pressure on reactive multilayer foil joining. <i>Acta Materialia</i> , <b>2004</b> , 52, 5265-5274	8.4	78
93	Fabrication and properties of aligned multiwalled carbon nanotube-reinforced epoxy composites. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 2975-2983	2.5	74
92	Development of an ultra-thin film comprised of a graphene membrane and carbon nanotube vein support. <i>Nature Communications</i> , <b>2013</b> , 4, 2920	17.4	64
91	Binder-free polymer encapsulated sulfur/carbon nanotube composite cathodes for high performance lithium batteries. <i>Carbon</i> , <b>2016</b> , 96, 1053-1059	10.4	59
90	Mesoporous Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> nanoclusters as high performance negative electrodes for lithium ion batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 248, 265-272	8.9	59
89	Mn <sub>3</sub> O <sub>4</sub> nanoparticles anchored on continuous carbon nanotube network as superior anodes for lithium ion batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 249, 463-469	8.9	59
88	MnO <sub>2</sub> nanoparticles anchored on carbon nanotubes with hybrid supercapacitor-battery behavior for ultrafast lithium storage. <i>Carbon</i> , <b>2018</b> , 139, 145-155	10.4	58
87	Self-assembly of 3D Carbon Nanotube Sponges: A Simple and Controllable Way to Build Macroscopic and Ultralight Porous Architectures. <i>Advanced Materials</i> , <b>2017</b> , 29, 1603549	24	58
86	Auxetic materials with large negative Poisson's ratios based on highly oriented carbon nanotube structures. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 253111	3.4	54
85	Self-assembly of mesoporous ZnCo <sub>2</sub> O <sub>4</sub> nanomaterials: density functional theory calculation and flexible all-solid-state energy storage. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 568-577	13	53
84	Multifunctional super-aligned carbon nanotube/polyimide composite film heaters and actuators. <i>Carbon</i> , <b>2018</b> , 139, 1136-1143	10.4	53
83	Direct identification of metallic and semiconducting single-walled carbon nanotubes in scanning electron microscopy. <i>Nano Letters</i> , <b>2012</b> , 12, 4095-101	11.5	53
82	Effects of physical properties of components on reactive nanolayer joining. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 114307	2.5	53
81	Bonding silicon wafers with reactive multilayer foils. <i>Sensors and Actuators A: Physical</i> , <b>2008</b> , 141, 476-483	3.9	50

80	Ultra-stretchable conductors based on buckled super-aligned carbon nanotube films. <i>Nanoscale</i> , <b>2015</b> , 7, 10178-85	7.7	48
79	Three-Dimensional Flexible Complementary Metal-Oxide-Semiconductor Logic Circuits Based On Two-Layer Stacks of Single-Walled Carbon Nanotube Networks. <i>ACS Nano</i> , <b>2016</b> , 10, 2193-202	16.7	47
78	Progress and challenges of flexible lithium ion batteries. <i>Journal of Power Sources</i> , <b>2020</b> , 454, 227932	8.9	46
77	Enhanced rate capabilities of Co <sub>3</sub> O <sub>4</sub> /carbon nanotube anodes for lithium ion battery applications. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 11121	13	46
76	Experimental evidence of two-stage formation of Al <sub>3</sub> Ni in reactive Ni/Al multilayer foils. <i>Scripta Materialia</i> , <b>2007</b> , 56, 1055-1058	5.6	46
75	Heating graphene to incandescence and the measurement of its work function by the thermionic emission method. <i>Nano Research</i> , <b>2014</b> , 7, 553-560	10	45
74	Growing highly pure semiconducting carbon nanotubes by electrotwisting the helicity. <i>Nature Catalysis</i> , <b>2018</b> , 1, 326-331	36.5	42
73	Hybrid super-aligned carbon nanotube/carbon black conductive networks: A strategy to improve both electrical conductivity and capacity for lithium ion batteries. <i>Journal of Power Sources</i> , <b>2013</b> , 233, 209-215	8.9	42
72	Flexible, transparent and highly sensitive SERS substrates with cross-nanoporous structures for fast on-site detection. <i>Nanoscale</i> , <b>2018</b> , 10, 15195-15204	7.7	42
71	Amorphous MoS <sub>2</sub> Photodetector with Ultra-Broadband Response. <i>ACS Applied Electronic Materials</i> , <b>2019</b> , 1, 1314-1321	4	39
70	Applications of carbon nanotubes in high performance lithium ion batteries. <i>Frontiers of Physics</i> , <b>2014</b> , 9, 351-369	3.7	39
69	Carbon-nanotube sponges enabling highly efficient and reliable cell inactivation by low-voltage electroporation. <i>Environmental Science: Nano</i> , <b>2017</b> , 4, 2010-2017	7.1	39
68	Microstructural study of an oscillatory formation reaction in nanostructured reactive multilayer foils. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 153108	3.4	38
67	Mesoporous Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> nanoclusters anchored on super-aligned carbon nanotubes as high performance electrodes for lithium ion batteries. <i>Nanoscale</i> , <b>2016</b> , 8, 617-25	7.7	37
66	Entrapping electrode materials within ultrathin carbon nanotube network for flexible thin film lithium ion batteries. <i>RSC Advances</i> , <b>2014</b> , 4, 20010-20016	3.7	37
65	Ultrastretchable carbon nanotube composite electrodes for flexible lithium-ion batteries. <i>Nanoscale</i> , <b>2018</b> , 10, 19972-19978	7.7	37
64	CO <sub>2</sub> oxidation of carbon nanotubes for lithium-sulfur batteries with improved electrochemical performance. <i>Carbon</i> , <b>2018</b> , 132, 370-379	10.4	36
63	Highly entangled carbon nanoflakes on Li <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> microrods for improved lithium storage performance. <i>RSC Advances</i> , <b>2013</b> , 3, 1297-1301	3.7	32

62	True-color real-time imaging and spectroscopy of carbon nanotubes on substrates using enhanced Rayleigh scattering. <i>Nano Research</i> , <b>2015</b> , 8, 2721-2732	10	31
61	Periodically striped films produced from super-aligned carbon nanotube arrays. <i>Nanotechnology</i> , <b>2009</b> , 20, 335705	3.4	31
60	Load characteristics of a suspended carbon nanotube film heater and the fabrication of a fast-response thermochromic display prototype. <i>ACS Nano</i> , <b>2015</b> , 9, 3753-9	16.7	30
59	Cycle and rate performance of chemically modified super-aligned carbon nanotube electrodes for lithium ion batteries. <i>Carbon</i> , <b>2014</b> , 69, 444-451	10.4	27
58	Effects of porosity on the measured fracture energy of brittle materials. <i>Philosophical Magazine</i> , <b>2004</b> , 84, 3689-3704	1.6	27
57	Vapor-condensation-assisted optical microscopy for ultralong carbon nanotubes and other nanostructures. <i>Nano Letters</i> , <b>2014</b> , 14, 3527-33	11.5	26
56	Highly catalytic cross-stacked superaligned carbon nanotube sheets for iodine-free dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 22756		26
55	Exothermic reactions in cold-rolled Ni/Al reactive multilayer foils. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 367-375	2.5	26
54	High areal capacity flexible sulfur cathode based on multi-functionalized super-aligned carbon nanotubes. <i>Nano Research</i> , <b>2019</b> , 12, 1105-1113	10	25
53	Combustion Synthesis Reactions in Cold-Rolled Ni/Al and Ti/Al Multilayers. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2009</b> , 40, 1541-1546	2.3	25
52	Fabrication of air-stable n-type carbon nanotube thin-film transistors on flexible substrates using bilayer dielectrics. <i>Nanoscale</i> , <b>2015</b> , 7, 17693-701	7.7	24
51	Mesoporous carbon nanotube aerogel-sulfur cathodes: A strategy to achieve ultrahigh areal capacity for lithium-sulfur batteries via capillary action. <i>Carbon</i> , <b>2020</b> , 166, 183-192	10.4	24
50	Observation of Charge Generation and Transfer during CVD Growth of Carbon Nanotubes. <i>Nano Letters</i> , <b>2016</b> , 16, 4102-9	11.5	23
49	Free-Standing, Binder-Free Titania/Super-Aligned Carbon Nanotube Anodes for Flexible and Fast-Charging Li-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 3426-3433	8.3	22
48	Evaluating bandgap distributions of carbon nanotubes via scanning electron microscopy imaging of the Schottky barriers. <i>Nano Letters</i> , <b>2013</b> , 13, 5556-62	11.5	22
47	Long-term stability of nanostructured systems with negative heats of mixing. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 104315	2.5	22
46	Highly Sensitive, Uniform, and Reproducible Surface-Enhanced Raman Spectroscopy Substrate with Nanometer-Scale Quasi-periodic Nanostructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 32369-32376 <sup>21</sup>	9.5	21
45	Aligned carbon nanotube coating on polyethylene surface formed by microwave radiation. <i>Composites Science and Technology</i> , <b>2011</b> , 72, 85-90	8.6	20

44	Stable 4 V-class bicontinuous cathodes by hierarchically porous carbon coating on Li <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> nanospheres. <i>Nanoscale</i> , <b>2014</b> , 6, 12426-33	7.7	19
43	Super-aligned carbon nanotube films with a thin metal coating as highly conductive and ultralight current collectors for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2017</b> , 351, 160-168	8.9	18
42	Ultrathin HfO <sub>2</sub> -modified carbon nanotube films as efficient polysulfide barriers for Li-S batteries. <i>Carbon</i> , <b>2018</b> , 139, 896-905	10.4	18
41	Epitaxial Growth of Aligned and Continuous Carbon Nanofibers from Carbon Nanotubes. <i>ACS Nano</i> , <b>2017</b> , 11, 1257-1263	16.7	17
40	Radiation effects and radiation hardness solutions for single-walled carbon nanotube-based thin film transistors and logic devices. <i>Carbon</i> , <b>2016</b> , 108, 363-371	10.4	17
39	Influence of Asymmetric Contact Form on Contact Resistance and Schottky Barrier, and Corresponding Applications of Diode. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 18945-18955	9.5	16
38	Ultrasensitive, Low-Voltage Operational, and Asymmetric Ionic Sensing Hydrogel for Multipurpose Applications. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909616	15.6	16
37	Cross-stacked carbon nanotube film as an additional built-in current collector and adsorption layer for high-performance lithium sulfur batteries. <i>Nanotechnology</i> , <b>2016</b> , 27, 075401	3.4	16
36	Sub-10 nm Monolayer MoS Transistors Using Single-Walled Carbon Nanotubes as an Evaporating Mask. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 11612-11617	9.5	15
35	Metal-film-assisted ultra-clean transfer of single-walled carbon nanotubes. <i>Nano Research</i> , <b>2014</b> , 7, 981-989		15
34	TiO <sub>2</sub> -Nanocoated Black Phosphorus Electrodes with Improved Electrochemical Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 36058-36066	9.5	15
33	Macroscopic Carbon Nanotube Structures for Lithium Batteries. <i>Small</i> , <b>2020</b> , 16, e1902719	11	14
32	Flexible and free-standing hetero-electrocatalyst of high-valence-cation doped MoS <sub>2</sub> /MoO <sub>2</sub> /CNT foam with synergistically enhanced hydrogen evolution reaction catalytic activity. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 14944-14954	13	13
31	Three-Dimensional Carbon Nanotube/Transition-Metal Oxide Sponges as Composite Electrodes with Enhanced Electrochemical Performance. <i>ACS Applied Nano Materials</i> , <b>2018</b> , 1, 2997-3005	5.6	13
30	Interface dipole enhancement effect and enhanced Rayleigh scattering. <i>Nano Research</i> , <b>2015</b> , 8, 303-319	10	11
29	Boosting the Oxidative Potential of Polyethylene Glycol-Based Polymer Electrolyte to 4.36V by Spatially Restricting Hydroxyl Groups for High-Voltage Flexible Lithium-Ion Battery Applications. <i>Advanced Science</i> , <b>2021</b> , 8, e2100736	13.6	11
28	Scanning electron microscopy imaging of single-walled carbon nanotubes on substrates. <i>Nano Research</i> , <b>2017</b> , 10, 1804-1818	10	10
27	Sandwich-structured cathodes with cross-stacked carbon nanotube films as conductive layers for high-performance lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 4047-4057	13	9

26	Self-Expansion Construction of Ultralight Carbon Nanotube Aerogels with a 3D and Hierarchical Cellular Structure. <i>Small</i> , <b>2017</b> , 13, 1700966	11	9
25	Continuous, Ultra-lightweight, and Multipurpose Super-aligned Carbon Nanotube Tapes Viable over a Wide Range of Temperatures. <i>Nano Letters</i> , <b>2019</b> , 19, 6756-6764	11.5	9
24	Study of Carbon Nanotubes as Etching Masks and Related Applications in the Surface Modification of GaAs-based Light-Emitting Diodes. <i>Small</i> , <b>2015</b> , 11, 4111-6	11	8
23	Self-standing carbon nanotube aerogels with amorphous carbon coating as stable host for lithium anodes. <i>Carbon</i> , <b>2021</b> , 177, 181-188	10.4	8
22	Inverse Hysteresis and Ultrasmall Hysteresis Thin-Film Transistors Fabricated Using Sputtered Dielectrics. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1600483	6.4	7
21	Large area nanoscale metal meshes for use as transparent conductive layers. <i>Nanoscale</i> , <b>2015</b> , 7, 16508-16517	11.5	7
20	Emission Enhancement from CdSe/ZnS Quantum Dots Induced by Strong Localized Surface Plasmonic Resonances without Damping. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 2113-2120	6.4	6
19	Broadband omnidirectional perfect absorber based on carbon nanotube films. <i>Carbon</i> , <b>2020</b> , 161, 510-516	10.4	6
18	Spray coating of a perfect absorber based on carbon nanotube multiscale composites. <i>Carbon</i> , <b>2021</b> , 178, 616-624	10.4	6
17	Freestanding macroscopic metal-oxide nanotube films derived from carbon nanotube film templates. <i>Nano Research</i> , <b>2015</b> , 8, 2024-2032	10	4
16	Preparation and enhanced photoelectrocatalytic properties of a three-dimensional TiO <sub>2</sub> -Au porous structure fabricated using superaligned carbon nanotube films. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 31963-31975	6.7	4
15	Interfacial Gated Graphene Photodetector with Broadband Response. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 22796-22805	9.5	4
14	Superaligned arrays, films, and yarns of carbon nanotubes: a road toward applications. <i>Scientia Sinica: Physica, Mechanica Et Astronomica</i> , <b>2011</b> , 41, 390-403	1.5	3
13	Ultra-stretchable supercapacitors based on biaxially pre-strained super-aligned carbon nanotube films. <i>Nanoscale</i> , <b>2020</b> , 12, 24259-24265	7.7	2
12	Lithium Storage Mechanism and Application of Micron-Sized Lattice-Reversible Binary Intermetallic Compounds as High-Performance Flexible Lithium-Ion Battery Anodes. <i>Small</i> , <b>2021</b> , e2105172	11	2
11	Li-S Batteries: Ultrathin MnO <sub>2</sub> /Graphene Oxide/Carbon Nanotube Interlayer as Efficient Polysulfide-Trapping Shield for High-Performance LiS Batteries (Adv. Funct. Mater. 18/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27,	15.6	1
10	Ionic Sensing Hydrogels: Ultrasensitive, Low-Voltage Operational, and Asymmetric Ionic Sensing Hydrogel for Multipurpose Applications (Adv. Funct. Mater. 12/2020). <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2070080	15.6	1
9	Demonstration of nonvolatile multilevel memory in ambipolar carbon nanotube thin-film transistors. <i>Applied Physics Express</i> , <b>2015</b> , 8, 065101	2.4	1

8	Synergistic effect of manganese oxide nanoparticles and graphene nanosheets in composite anodes for lithium ion batteries. <i>Materials Research Express</i> , <b>2015</b> , 2, 015503	1.7	1
7	Enhanced Visible-Light Absorption and Photocurrent Generation of Three-Dimensional Metal-Dielectric Hybrid-Structured Films. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 10542-10552	6.1	1
6	Efficient polysulfide trapping in lithium-sulfur batteries using ultrathin and flexible BaTiO <sub>3</sub> /graphene oxide/carbon nanotube layers. <i>Nanoscale</i> , <b>2021</b> , 13, 6863-6870	7.7	1
5	High-temperature epitaxial graphite deposition on macroscopic superaligned carbon nanotube structures by a one-step self-heating method. <i>Carbon</i> , <b>2021</b> , 171, 837-844	10.4	0
4	Substrate Engineering-Tailored Fabrication of Aligned Graphene Nanoribbon Arrays: Implications for Graphene Electronic Devices. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 13838-13847	5.6	0
3	Nanocarbon/Metal Oxide Hybrids for Lithium Ion Batteries <b>2015</b> , 87-118		
2	Iodide-substitution-induced phase transition of chemical-vapor-deposited MoS <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , <b>2022</b> , 10, 1638-1644	7.1	
1	Systematic study and effective improvement of voltammetry for accurate electrochemical window measurement of solid electrolytes. <i>Electrochimica Acta</i> , <b>2022</b> , 414, 140210	6.7	