Jialiang Wang

List of Publications by Year
in descending order

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99 papers	8,827 citations	66343 42 h-index	40979 93 g-index
99 all docs	99 docs citations	99 times ranked	12270 citing authors

#	Article	IF	Citations
1	Sorting carbon nanotubes by electronic structure using density differentiation. Nature Nanotechnology, 2006, 1, 60-65.	31.5	2,075
2	Integrin Alpha 6 Regulates Glioblastoma Stem Cells. Cell Stem Cell, 2010, 6, 421-432.	11.1	597
3	Notch Promotes Radioresistance of Glioma Stem Cells Â. Stem Cells, 2010, 28, 17-28.	3.2	505
4	c-Myc Is Required for Maintenance of Glioma Cancer Stem Cells. PLoS ONE, 2008, 3, e3769.	2.5	352
5	Targeting Interleukin 6 Signaling Suppresses Glioma Stem Cell Survival and Tumor Growth. Stem Cells, 2009, 27, 2393-2404.	3.2	300
6	Quasi-ballistic carbon nanotube array transistors with current density exceeding Si and GaAs. Science Advances, 2016, 2, e1601240.	10.3	267
7	Inhibition of BET Bromodomain Targets Genetically Diverse Glioblastoma. Clinical Cancer Research, 2013, 19, 1748-1759.	7.0	262
8	Efficiently Harvesting Excitons from Electronic Type-Controlled Semiconducting Carbon Nanotube Films. Nano Letters, 2011, 11, 455-460.	9.1	204
9	Self-assembly of graphene into three-dimensional structures promoted by natural phenolic acids. Journal of Materials Chemistry, 2012, 22, 22459.	6.7	188
10	Light-Driven Reversible Modulation of Doping in Graphene. Nano Letters, 2012, 12, 182-187.	9.1	184
11	Direct oriented growth of armchair graphene nanoribbons on germanium. Nature Communications, 2015, 6, 8006.	12.8	157
12	Highly Stretchable Carbon Nanotube Transistors with Ion Gel Gate Dielectrics. Nano Letters, 2014, 14, 682-686.	9.1	152
13	Aramid nanofiber-functionalized graphene nanosheets for polymer reinforcement. Nanoscale, 2012, 4, 7046.	5.6	144
14	Polyfluorene-Sorted, Carbon Nanotube Array Field-Effect Transistors with Increased Current Density and High On/Off Ratio. ACS Nano, 2014, 8, 11614-11621.	14.6	142
15	Graphene Growth Dynamics on Epitaxial Copper Thin Films. Chemistry of Materials, 2013, 25, 871-877.	6.7	133
16	Dose-Controlled, Floating Evaporative Self-assembly and Alignment of Semiconducting Carbon Nanotubes from Organic Solvents. Langmuir, 2014, 30, 3460-3466.	3.5	130
17	Development of Lead Iodide Perovskite Solar Cells Using Three-Dimensional Titanium Dioxide Nanowire Architectures. ACS Nano, 2015, 9, 564-572.	14.6	125
18	Chemically ubiquitylated PCNA as a probe for eukaryotic translesion DNA synthesis. Nature Chemical Biology, 2010, 6, 270-272.	8.0	119

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19	Dissociating Excitons Photogenerated in Semiconducting Carbon Nanotubes at Polymeric Photovoltaic Heterojunction Interfaces. ACS Nano, 2010, 4, 5657-5664.	14.6	117
20	Materials Science Challenges to Graphene Nanoribbon Electronics. ACS Nano, 2021, 15, 3674-3708.	14.6	108
21	Pump-Probe Spectroscopy of Exciton Dynamics in (6,5) Carbon Nanotubes. Journal of Physical Chemistry C, 2007, 111, 3831-3835.	3.1	105
22	Electronic and Mechanical Properties of Grapheneâ€“Germanium Interfaces Grown by Chemical Vapor Deposition. Nano Letters, 2015, 15, 7414-7420.	9.1	103
23	Recent developments in the photophysics of single-walled carbon nanotubes for their use as active and passive material elements in thin film photovoltaics. Physical Chemistry Chemical Physics, 2013, 15, 14896.	2.8	102
24	Energy transfer pathways in semiconducting carbon nanotubes revealed using two-dimensional white-light spectroscopy. Nature Communications, 2015, 6, 6732.	12.8	91
25	Recent developments of truly stretchable thin film electronic and optoelectronic devices. Nanoscale, 2018, 10, 5764-5792.	5.6	91
26	Gelatin-assisted fabrication of water-dispersible graphene and its inorganic analogues. Journal of Materials Chemistry, 2012, 22, 17619.	6.7	88
27	High performance transistors via aligned polyfluorene-sorted carbon nanotubes. Applied Physics Letters, 2014, 104, .	3.3	79
28	Isolation of Pristine Electronics Grade Semiconducting Carbon Nanotubes by Switching the Rigidity of the Wrapping Polymer Backbone on Demand. ACS Nano, 2015, 9, 10203-10213.	14.6	78
29	1% solar cells derived from ultrathin carbon nanotube photoabsorbing films. Applied Physics Letters, 2013, 102, .	3.3	76
30	Barrierâ€Guided Growth of Microâ€and Nanoâ€Structured Graphene. Advanced Materials, 2012, 24, 1041-1045.	21.0	73
31	Invariance of Water Permeance through Size-Differentiated Graphene Oxide Laminates. ACS Nano, 2018, 12, 7855-7865.	14.6	71
32	Gum arabic assisted exfoliation and fabrication of Agâ€“graphene-based hybrids. Journal of Materials Chemistry, 2012, 22, 13764.	6.7	69
33	Efficient Exciton Relaxation and Charge Generation in Nearly Monochiral (7,5) Carbon Nanotube/C₆₀ Thin-Film Photovoltaics. Journal of Physical Chemistry C, 2013, 117, 2390-2395.	3.1	64
34	Semiconducting carbon nanotube/fullerene blended heterojunctions for photovoltaic near-infrared photon harvesting. Nano Research, 2011, 4, 1174-1179.	10.4	58
35	Enhancing extraction of photogenerated excitons from semiconducting carbon nanotube films as photocurrent. Chemical Physics, 2013, 413, 29-34.	1.9	52
36	Semiconducting Carbon Nanotube Aerogel Bulk Heterojunction Solar Cells. Small, 2014, 10, 3299-3306.	10.0	52

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37	Solvent exfoliated graphene for reinforcement of PMMA composites prepared by in situ polymerization. Materials Chemistry and Physics, 2012, 136, 43-50.	4.0	50
38	Spectroscopic Properties of Nanotubeâ€“Chromophore Hybrids. ACS Nano, 2011, 5, 7767-7774.	14.6	48
39	Unzipped Multiwalled Carbon Nanotube Oxide/Multiwalled Carbon Nanotube Hybrids for Polymer Reinforcement. ACS Applied Materials & Interfaces, 2012, 4, 5956-5965.	8.0	48
40	Kevlar nanofiber-functionalized multiwalled carbon nanotubes forÂpolymer reinforcement. Materials Chemistry and Physics, 2013, 141, 861-868.	4.0	44
41	Photoexcitation Dynamics of Coupled Semiconducting Carbon Nanotube Thin Films. Nano Letters, 2013, 13, 1495-1501.	9.1	43
42	Seed-Initiated Anisotropic Growth of Unidirectional Armchair Graphene Nanoribbon Arrays on Germanium. Nano Letters, 2018, 18, 898-906.	9.1	43
43	Free Carrier Generation and Recombination in Polymer-Wrapped Semiconducting Carbon Nanotube Films and Heterojunctions. Journal of Physical Chemistry Letters, 2013, 4, 3550-3559.	4.6	42
44	Experimental Measurement of the Binding Configuration and Coverage of Chirality-Sorting Polyfluorenes on Carbon Nanotubes. Journal of Physical Chemistry Letters, 2014, 5, 3742-3749.	4.6	41
45	Low-energy room-temperature optical switching in mixed-dimensionality nanoscale perovskite heterojunctions. Science Advances, 2021, 7, .	10.3	41
46	Aligned 2D carbon nanotube liquid crystals for wafer-scale electronics. Science Advances, 2021, 7, eabh0640.	10.3	40
47	Mechanical reinforcement of chitosan using unzipped multiwalled carbon nanotube oxides. Polymer, 2012, 53, 657-664.	3.8	39
48	High-Performance Charge Transport in Semiconducting Armchair Graphene Nanoribbons Grown Directly on Germanium. ACS Nano, 2017, 11, 8924-8929.	14.6	38
49	Substrateâ€Wide Confined Shear Alignment of Carbon Nanotubes for Thin Film Transistors. Advanced Electronic Materials, 2019, 5, 1800593.	5.1	34
50	Diffusion-Assisted Photoexcitation Transfer in Coupled Semiconducting Carbon Nanotube Thin Films. ACS Nano, 2014, 8, 5383-5394.	14.6	33
51	Polymer-Free Electronic-Grade Aligned Semiconducting Carbon Nanotube Array. ACS Applied Materials & Interfaces, 2017, 9, 28859-28867.	8.0	33
52	Nanotube Alignment Mechanism in Floating Evaporative Self-Assembly. Langmuir, 2017, 33, 13407-13414.	3.5	33
53	Ultrafast Exciton Hopping Observed in Bare Semiconducting Carbon Nanotube Thin Films with Two-Dimensional White-Light Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 2024-2031.	4.6	32
54	Trap-limited carrier recombination in single-walled carbon nanotube heterojunctions with fullerene acceptor layers. Physical Review B, 2015, 91, .	3.2	31

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55	Sub-5â€‰nm, globally aligned graphene nanoribbons on Ge(001). Applied Physics Letters, 2016, 108, .	3.3	31
56	Highly stretchable carbon nanotube transistors enabled by buckled ion gel gate dielectrics. Applied Physics Letters, 2015, 107, .	3.3	29
57	Glycidyl methacrylate-modified gum arabic mediated graphene exfoliation and its use for enhancing mechanical performance ofÂhydrogel. Polymer, 2013, 54, 3921-3930.	3.8	28
58	Controlling the density of pinhole defects in monolayer graphene synthesized via chemical vapor deposition on copper. Carbon, 2016, 100, 1-6.	10.3	26
59	Alignment of semiconducting graphene nanoribbons on vicinal Ge(001). Nanoscale, 2019, 11, 4864-4875.	5.6	26
60	Prenatal lipopolysaccharide exposure results in dysfunction of the renal dopamine D1 receptor in offspring. Free Radical Biology and Medicine, 2014, 76, 242-250.	2.9	25
61	Passivation of Germanium by Graphene. ACS Applied Materials & Interfaces, 2017, 9, 17629-17636.	8.0	25
62	Role of Defects as Exciton Quenching Sites in Carbon Nanotube Photovoltaics. Journal of Physical Chemistry C, 2017, 121, 8310-8318.	3.1	24
63	Functionalization of unzipped carbon nanotube via in situ polymerization for mechanical reinforcement of polymer. Journal of Materials Chemistry, 2012, 22, 17663.	6.7	23
64	Boundary-directed epitaxy of block copolymers. Nature Communications, 2020, 11, 4151.	12.8	22
65	Pinhole-seeded lateral epitaxy and exfoliation of GaSb films on graphene-terminated surfaces. Nature Communications, 2022, 13, .	12.8	22
66	Structurally Analogous Degradable Version of Fluoreneâ€“Bipyridine Copolymer with Exceptional Selectivity for Large-Diameter Semiconducting Carbon Nanotubes. ACS Applied Materials & Interfaces, 2017, 9, 40734-40742.	8.0	21
67	Enhancing the signal strength of surface sensitive 2D IR spectroscopy. Journal of Chemical Physics, 2019, 150, 024707.	3.0	21
68	Design length scales for carbon nanotube photoabsorber based photovoltaic materials and devices. Journal of Applied Physics, 2013, 113, 204504.	2.5	17
69	Anisotropic Synthesis of Armchair Graphene Nanoribbon Arrays from Sub-5 nm Seeds at Variable Pitches on Germanium. Journal of Physical Chemistry Letters, 2019, 10, 4266-4272.	4.6	17
70	Epitaxial graphene-encapsulated surface reconstruction of Ge(110). Physical Review Materials, 2018, 2, .	2.4	16
71	Biaxially stretchable carbon nanotube transistors. Journal of Applied Physics, 2017, 122, 124901.	2.5	15
72	Less severe processing improves carbon nanotube photovoltaic performance. APL Materials, 2018, 6, .	5.1	15

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73	Tailoring the Growth Rate and Surface Facet for Synthesis of High-Quality Continuous Graphene Films from CH₄ at 750 Â°C via Chemical Vapor Deposition. Journal of Physical Chemistry C, 2015, 119, 11516-11523.	3.1	14
74	Providing Time to Transfer: Longer Lifetimes Lead to Improved Energy Transfer in Films of Semiconducting Carbon Nanotubes. Journal of Physical Chemistry Letters, 2020, 11, 6016-6024.	4.6	13
75	Non-fullerene Acceptors for Harvesting Excitons from Semiconducting Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 21395-21402.	3.1	12
76	Synthesis of Armchair Graphene Nanoribbons on Germanium-on-Silicon. Journal of Physical Chemistry C, 2019, 123, 18445-18454.	3.1	12
77	Monolayer Sensitivity Enables a 2D IR Spectroscopic Immuno-biosensor for Studying Protein Structures: Application to Amyloid Polymorphs. Journal of Physical Chemistry Letters, 2019, 10, 3836-3842.	4.6	12
78	Passivation of Germanium by Graphene for Stable Graphene/Germanium Heterostructure Devices. ACS Applied Nano Materials, 2019, 2, 4313-4322.	5.0	11
79	A novel ubiquitin binding mode in the S. cerevisiae translesion synthesis DNA polymerase Î·. Molecular BioSystems, 2011, 7, 1874.	2.9	10
80	Evolution, kinetics, energetics, and environmental factors of graphene degradation on silicon dioxide. Nanoscale, 2015, 7, 6093-6103.	5.6	10
81	Removable Nonconjugated Polymers To Debundle and Disperse Carbon Nanotubes. Macromolecules, 2019, 52, 4278-4286.	4.8	10
82	SEMICONDUCTING CARBON NANOTUBE PHOTOVOLTAIC PHOTODETECTORS. International Journal of High Speed Electronics and Systems, 2011, 20, 687-695.	0.7	9
83	Graphene nanoribbons initiated from molecularly derived seeds. Nature Communications, 2022, 13, .	12.8	9
84	CHARACTERIZATION OF CONDUCTION MECHANISMS RELEVANT TO DEVICE PERFORMANCE IN NANOPERFORATED GRAPHENE. International Journal of High Speed Electronics and Systems, 2011, 20, 697-706.	0.7	8
85	Solvent-Mediated Affinity of Polymer-Wrapped Single-Walled Carbon Nanotubes for Chemically Modified Surfaces. Langmuir, 2019, 35, 12492-12500.	3.5	8
86	Exploring driving forces for length growth in graphene nanoribbons during chemical vapor deposition of hydrocarbons on Ge(0Â0Â1) via kinetic Monte Carlo simulations. Applied Surface Science, 2020, 527, 146784.	6.1	8
87	Structure Changes of a Membrane Polypeptide under an Applied Voltage Observed with Surface-Enhanced 2D IR Spectroscopy. Journal of Physical Chemistry Letters, 2021, 12, 1786-1792.	4.6	8
88	Population of Subradiant States in Carbon Nanotube Microcavities in the Ultrastrong Lightâ€“Matter Coupling Regime. Journal of Physical Chemistry C, 2022, 126, 8417-8424.	3.1	8
89	Unexpectedly Fast Phonon-Assisted Exciton Hopping between Carbon Nanotubes. Journal of Physical Chemistry C, 2017, 121, 13084-13091.	3.1	5
90	Rotational self-alignment of graphene seeds for nanoribbon synthesis on Ge(001) via chemical vapor deposition. APL Materials, 2020, 8, .	5.1	5

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91	Cavity-Mediated Hybridization of Bright and Dark Excitons in an Ultrastrongly Coupled Carbon Nanotube Microcavity. ACS Photonics, 2021, 8, 2375-2383.	6.6	5
92	Channel length scaling of over 100% biaxially stretchable carbon nanotube transistors. Applied Physics Letters, 2019, 114, .	3.3	4
93	Effect of Germanium Surface Orientation on Graphene Chemical Vapor Deposition and Graphene-Induced Germanium Nanofaceting. Chemistry of Materials, 2022, 34, 6769-6778.	6.7	4
94	Spectral resolution of states relevant to photoinduced charge transfer in modified pentacene/ZnO field-effect transistors. Applied Physics Letters, 2011, 99, .	3.3	3
95	Tightly Pitched sub-10 nm Graphene Nanoribbon Arrays via Seed Mediated Growth on Ge (001). ECS Transactions, 2019, 93, 121-124.	0.5	3
96	Link among array non-uniformity, threshold voltage, and subthreshold swing degradation in aligned array carbon nanotube field effect transistors. Journal of Applied Physics, 2020, 128, .	2.5	3
97	Synthesis of Semiconducting Graphene Nanoribbons on Ge and Ge/Si via Chemical Vapor Deposition. ECS Transactions, 2019, 93, 129-132.	0.5	2
98	Chemical and topographical patterns combined with solution shear for selective-area deposition of highly-aligned semiconducting carbon nanotubes. Nanoscale Advances, 2021, 3, 1767-1775.	4.6	2
99	A simple simulation-derived descriptor for the deposition of polymer-wrapped carbon nanotubes on functionalized substrates. Soft Matter, 0, , .	2.7	0