Jialiang Wang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3806554/publications.pdf

Version: 2024-02-01

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	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
2	Graphene nanoribbons initiated from molecularly derived seeds. Nature Communications, 2022, 13, .	12.8	9
3	Pinhole-seeded lateral epitaxy and exfoliation of GaSb films on graphene-terminated surfaces. Nature Communications, 2022, 13, .	12.8	22
4	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
5	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
6	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
7	Materials Science Challenges to Graphene Nanoribbon Electronics. ACS Nano, 2021, 15, 3674-3708.	14.6	108
8	Low-energy room-temperature optical switching in mixed-dimensionality nanoscale perovskite heterojunctions. Science Advances, 2021, 7, .	10.3	41
9	Cavity-Mediated Hybridization of Bright and Dark Excitons in an Ultrastrongly Coupled Carbon Nanotube Microcavity. ACS Photonics, 2021, 8, 2375-2383.	6.6	5
10	Aligned 2D carbon nanotube liquid crystals for wafer-scale electronics. Science Advances, 2021, 7, eabh0640.	10.3	40
11	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
12	Boundary-directed epitaxy of block copolymers. Nature Communications, 2020, 11, 4151.	12.8	22
13	Rotational self-alignment of graphene seeds for nanoribbon synthesis on Ge(001) via chemical vapor deposition. APL Materials, 2020, 8, .	5.1	5
14	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
15	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
16	Non-fullerene Acceptors for Harvesting Excitons from Semiconducting Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 21395-21402.	3.1	12
17	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
18	Synthesis of Armchair Graphene Nanoribbons on Germanium-on-Silicon. Journal of Physical Chemistry C, 2019, 123, 18445-18454.	3.1	12

#	Article	IF	Citations
19	Solvent-Mediated Affinity of Polymer-Wrapped Single-Walled Carbon Nanotubes for Chemically Modified Surfaces. Langmuir, 2019, 35, 12492-12500.	3.5	8
20	Enhancing the signal strength of surface sensitive 2D IR spectroscopy. Journal of Chemical Physics, 2019, 150, 024707.	3.0	21
21	Passivation of Germanium by Graphene for Stable Graphene/Germanium Heterostructure Devices. ACS Applied Nano Materials, 2019, 2, 4313-4322.	5.0	11
22	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
23	Removable Nonconjugated Polymers To Debundle and Disperse Carbon Nanotubes. Macromolecules, 2019, 52, 4278-4286.	4.8	10
24	Channel length scaling of over 100% biaxially stretchable carbon nanotube transistors. Applied Physics Letters, 2019, 114, .	3.3	4
25	Alignment of semiconducting graphene nanoribbons on vicinal Ge(001). Nanoscale, 2019, 11, 4864-4875.	5.6	26
26	Tightly Pitched sub-10 nm Graphene Nanoribbon Arrays via Seed Mediated Growth on Ge (001). ECS Transactions, 2019, 93, 121-124.	0.5	3
27	Synthesis of Semiconducting Graphene Nanoribbons on Ge and Ge/Si via Chemical Vapor Deposition. ECS Transactions, 2019, 93, 129-132.	0.5	2
28	Substrateâ€Wide Confined Shear Alignment of Carbon Nanotubes for Thin Film Transistors. Advanced Electronic Materials, 2019, 5, 1800593.	5.1	34
29	Recent developments of truly stretchable thin film electronic and optoelectronic devices. Nanoscale, 2018, 10, 5764-5792.	5.6	91
30	Seed-Initiated Anisotropic Growth of Unidirectional Armchair Graphene Nanoribbon Arrays on Germanium. Nano Letters, 2018, 18, 898-906.	9.1	43
31	Less severe processing improves carbon nanotube photovoltaic performance. APL Materials, 2018, 6, .	5.1	15
32	Invariance of Water Permeance through Size-Differentiated Graphene Oxide Laminates. ACS Nano, 2018, 12, 7855-7865.	14.6	71
33	Epitaxial graphene-encapsulated surface reconstruction of Ge(110). Physical Review Materials, 2018, 2, .	2.4	16
34	Role of Defects as Exciton Quenching Sites in Carbon Nanotube Photovoltaics. Journal of Physical Chemistry C, 2017, 121, 8310-8318.	3.1	24
35	Unexpectedly Fast Phonon-Assisted Exciton Hopping between Carbon Nanotubes. Journal of Physical Chemistry C, 2017, 121, 13084-13091.	3.1	5
36	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

#	Article	IF	Citations
37	Biaxially stretchable carbon nanotube transistors. Journal of Applied Physics, 2017, 122, 124901.	2.5	15
38	High-Performance Charge Transport in Semiconducting Armchair Graphene Nanoribbons Grown Directly on Germanium. ACS Nano, 2017, 11, 8924-8929.	14.6	38
39	Polymer-Free Electronic-Grade Aligned Semiconducting Carbon Nanotube Array. ACS Applied Materials & Interfaces, 2017, 9, 28859-28867.	8.0	33
40	Nanotube Alignment Mechanism in Floating Evaporative Self-Assembly. Langmuir, 2017, 33, 13407-13414.	3.5	33
41	Passivation of Germanium by Graphene. ACS Applied Materials & Interfaces, 2017, 9, 17629-17636.	8.0	25
42	Sub-5â€‰nm, globally aligned graphene nanoribbons on Ge(001). Applied Physics Letters, 2016, 108, .	3.3	31
43	Quasi-ballistic carbon nanotube array transistors with current density exceeding Si and GaAs. Science Advances, 2016, 2, e1601240.	10.3	267
44	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
45	Controlling the density of pinhole defects in monolayer graphene synthesized via chemical vapor deposition on copper. Carbon, 2016, 100, 1-6.	10.3	26
46	Trap-limited carrier recombination in single-walled carbon nanotube heterojunctions with fullerene acceptor layers. Physical Review B, 2015, 91, .	3.2	31
47	Development of Lead Iodide Perovskite Solar Cells Using Three-Dimensional Titanium Dioxide Nanowire Architectures. ACS Nano, 2015, 9, 564-572.	14.6	125
48	Evolution, kinetics, energetics, and environmental factors of graphene degradation on silicon dioxide. Nanoscale, 2015, 7, 6093-6103.	5.6	10
49	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
50	Energy transfer pathways in semiconducting carbon nanotubes revealed using two-dimensional white-light spectroscopy. Nature Communications, 2015, 6, 6732.	12.8	91
51	Electronic and Mechanical Properties of Grapheneâ€“Germanium Interfaces Grown by Chemical Vapor Deposition. Nano Letters, 2015, 15, 7414-7420.	9.1	103
52	Direct oriented growth of armchair graphene nanoribbons on germanium. Nature Communications, 2015, 6, 8006.	12.8	157
53	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
54	Highly stretchable carbon nanotube transistors enabled by buckled ion gel gate dielectrics. Applied Physics Letters, 2015, 107, .	3.3	29

#	Article	IF	Citations
55	High performance transistors via aligned polyfluorene-sorted carbon nanotubes. Applied Physics Letters, 2014, 104, .	3.3	79
56	Dose-Controlled, Floating Evaporative Self-assembly and Alignment of Semiconducting Carbon Nanotubes from Organic Solvents. Langmuir, 2014, 30, 3460-3466.	3.5	130
57	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
58	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
59	Diffusion-Assisted Photoexcitation Transfer in Coupled Semiconducting Carbon Nanotube Thin Films. ACS Nano, 2014, 8, 5383-5394.	14.6	33
60	Highly Stretchable Carbon Nanotube Transistors with Ion Gel Gate Dielectrics. Nano Letters, 2014, 14, 682-686.	9.1	152
61	Semiconducting Carbon Nanotube Aerogel Bulk Heterojunction Solar Cells. Small, 2014, 10, 3299-3306.	10.0	52
62	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
63	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
64	Kevlar nanofiber-functionalized multiwalled carbon nanotubes forÂpolymer reinforcement. Materials Chemistry and Physics, 2013, 141, 861-868.	4.0	44
65	Glycidyl methacrylate-modified gum arabic mediated graphene exfoliation and its use for enhancing mechanical performance ofÂhydrogel. Polymer, 2013, 54, 3921-3930.	3.8	28
66	Graphene Growth Dynamics on Epitaxial Copper Thin Films. Chemistry of Materials, 2013, 25, 871-877.	6.7	133
67	Enhancing extraction of photogenerated excitons from semiconducting carbon nanotube films as photocurrent. Chemical Physics, 2013, 413, 29-34.	1.9	52
68	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
69	Photoexcitation Dynamics of Coupled Semiconducting Carbon Nanotube Thin Films. Nano Letters, 2013, 13, 1495-1501.	9.1	43
70	Design length scales for carbon nanotube photoabsorber based photovoltaic materials and devices. Journal of Applied Physics, 2013, 113, 204504.	2.5	17
71	1% solar cells derived from ultrathin carbon nanotube photoabsorbing films. Applied Physics Letters, 2013, 102, .	3.3	76
72	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

#	Article	IF	Citations
73	Inhibition of BET Bromodomain Targets Genetically Diverse Glioblastoma. Clinical Cancer Research, 2013, 19, 1748-1759.	7.0	262
74	Functionalization of unzipped carbon nanotube via in situ polymerization for mechanical reinforcement of polymer. Journal of Materials Chemistry, 2012, 22, 17663.	6.7	23
75	Self-assembly of graphene into three-dimensional structures promoted by natural phenolic acids. Journal of Materials Chemistry, 2012, 22, 22459.	6.7	188
76	Gelatin-assisted fabrication of water-dispersible graphene and its inorganic analogues. Journal of Materials Chemistry, 2012, 22, 17619.	6.7	88
77	Gum arabic assisted exfoliation and fabrication of Agâ€“graphene-based hybrids. Journal of Materials Chemistry, 2012, 22, 13764.	6.7	69
78	Aramid nanofiber-functionalized graphene nanosheets for polymer reinforcement. Nanoscale, 2012, 4, 7046.	5.6	144
79	Solvent exfoliated graphene for reinforcement of PMMA composites prepared by in situ polymerization. Materials Chemistry and Physics, 2012, 136, 43-50.	4.0	50
80	Unzipped Multiwalled Carbon Nanotube Oxide/Multiwalled Carbon Nanotube Hybrids for Polymer Reinforcement. ACS Applied Materials & Interfaces, 2012, 4, 5956-5965.	8.0	48
81	Light-Driven Reversible Modulation of Doping in Graphene. Nano Letters, 2012, 12, 182-187.	9.1	184
82	Mechanical reinforcement of chitosan using unzipped multiwalled carbon nanotube oxides. Polymer, 2012, 53, 657-664.	3.8	39
83	Barrierâ€Guided Growth of Microâ€and Nanoâ€Structured Graphene. Advanced Materials, 2012, 24, 1041-1045.	21.0	73
84	A novel ubiquitin binding mode in the S. cerevisiae translesion synthesis DNA polymerase Î·. Molecular BioSystems, 2011, 7, 1874.	2.9	10
85	Efficiently Harvesting Excitons from Electronic Type-Controlled Semiconducting Carbon Nanotube Films. Nano Letters, 2011, 11, 455-460.	9.1	204
86	Spectroscopic Properties of Nanotubeâ€“Chromophore Hybrids. ACS Nano, 2011, 5, 7767-7774.	14.6	48
87	Semiconducting carbon nanotube/fullerene blended heterojunctions for photovoltaic near-infrared photon harvesting. Nano Research, 2011, 4, 1174-1179.	10.4	58
88	Spectral resolution of states relevant to photoinduced charge transfer in modified pentacene/ZnO field-effect transistors. Applied Physics Letters, 2011, 99, .	3.3	3
89	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
90	SEMICONDUCTING CARBON NANOTUBE PHOTOVOLTAIC PHOTODETECTORS. International Journal of High Speed Electronics and Systems, 2011, 20, 687-695.	0.7	9

#	Article	IF	Citations
91	Notch Promotes Radioresistance of Glioma Stem Cells Â. Stem Cells, 2010, 28, 17-28.	3.2	505
92	Dissociating Excitons Photogenerated in Semiconducting Carbon Nanotubes at Polymeric Photovoltaic Heterojunction Interfaces. ACS Nano, 2010, 4, 5657-5664.	14.6	117
93	Chemically ubiquitylated PCNA as a probe for eukaryotic translesion DNA synthesis. Nature Chemical Biology, 2010, 6, 270-272.	8.0	119
94	Integrin Alpha 6 Regulates Glioblastoma Stem Cells. Cell Stem Cell, 2010, 6, 421-432.	11.1	597
95	Targeting Interleukin 6 Signaling Suppresses Glioma Stem Cell Survival and Tumor Growth. Stem Cells, 2009, 27, 2393-2404.	3.2	300
96	c-Myc Is Required for Maintenance of Glioma Cancer Stem Cells. PLoS ONE, 2008, 3, e3769.	2.5	352
97	Pump-Probe Spectroscopy of Exciton Dynamics in (6,5) Carbon Nanotubes. Journal of Physical Chemistry C, 2007, 111, 3831-3835.	3.1	105
98	Sorting carbon nanotubes by electronic structure using density differentiation. Nature Nanotechnology, 2006, 1, 60-65.	31.5	2,075
99	A simple simulation-derived descriptor for the deposition of polymer-wrapped carbon nanotubes on functionalized substrates. Soft Matter, 0, , .	2.7	0