Sheng Wang

List of Publications by Year
in descending order

110 papers	5,200 citations	87888 38 h-index	91884 69 g-index
113 all docs	113 docs citations	113 times ranked	5803 citing authors

#	Article	IF	Citations
1	Branched Anion-Conducting Poly(arylene alkylene)s for Alkaline Membrane Fuel Cells. ACS Applied Energy Materials, 2022, 5, 2462-2473.	5.1	27
2	Selfâ€Reporting Activated Esterâ€Amine Reaction for Enantioselective Multiâ€Channel Visual Detection of Chiral Amines. Angewandte Chemie - International Edition, 2022, 61, .	13.8	34
3	Allosteryâ€Mimicking Selfâ€assembly of Helical Poly(phenylacetylene) Block Copolymers and the Chirality Transfer. Angewandte Chemie - International Edition, 2021, 60, 9686-9692.	13.8	51
4	Allosteryâ€Mimicking Selfâ€assembly of Helical Poly(phenylacetylene) Block Copolymers and the Chirality Transfer. Angewandte Chemie, 2021, 133, 9772-9778.	2.0	10
5	Field-effect at electrical contacts to two-dimensional materials. Nano Research, 2021, 14, 4894-4900.	10.4	11
6	Brightening up Circularly Polarized Luminescence of Monosubstituted Polyacetylene by Conformation Control: Mechanism, Switching, and Sensing. Angewandte Chemie, 2021, 133, 22089-22097.	2.0	20
7	Brightening up Circularly Polarized Luminescence of Monosubstituted Polyacetylene by Conformation Control: Mechanism, Switching, and Sensing. Angewandte Chemie - International Edition, 2021, 60, 21918-21926.	13.8	82
8	Hf-Contacted High-Performance Air-Stable n-Type Carbon Nanotube Transistors. ACS Applied Electronic Materials, 2021, 3, 4623-4629.	4.3	10
9	Photodetector based on heterostructure of two-dimensional WSe₂/In₂Se₃. Nanotechnology, 2020, 31, 065203.	2.6	41
10	Silicon-Waveguide-Integrated Carbon Nanotube Optoelectronic System on a Single Chip. ACS Nano, 2020, 14, 7191-7199.	14.6	30
11	Doublet Chirality Transfer and Reversible Helical Transition in Poly(3,5â€disubstituted) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 1 570-576.	4.9	9
12	Tunable Cis-cisoid Helical Conformation of Poly(3,5-disubstibuted phenylacetylene)s Stabilized by nâ†'Ï€* Interaction. Chinese Journal of Polymer Science (English Edition), 2020, 38, 685-695.	3.8	8
13	Polymerization-Induced Self-Assembly of Conjugated Block Copoly(phenylacetylene)s. Macromolecules, 2020, 53, 1638-1644.	4.8	41
14	Improving the Performance and Uniformity of Carbon-Nanotube-Network-Based Photodiodes via Yttrium Oxide Coating and Decoating. ACS Applied Materials & Interfaces, 2019, 11, 11736-11742.	8.0	26
15	Carbon nanotube-based photovoltaic receiver with open-circuit voltage larger than 10â€¯V. Nano Energy, 2019, 57, 241-247.	16.0	4
16	Cis-Cisoid Helical Structures of Poly(3,5-disubstituted phenylacetylene)s Stabilized by Intramolecular n â†' Ï€* Interactions. Macromolecules, 2018, 51, 1251-1259.	4.8	34
17	Switching Vertical to Horizontal Graphene Growth Using Faraday Cageâ€Assisted PECVD Approach for Highâ€Performance Transparent Heating Device. Advanced Materials, 2018, 30, 1704839.	21.0	62
18	Amphiphilic Rodâ€“Rod Block Copolymers Based on Phenylacetylene and 3,5-Disubstituted Phenylacetylene: Synthesis, Helical Conformation, and Self-Assembly. Macromolecules, 2018, 51, 7500-7508.	4.8	24

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19	Plasmonâ€Induced Enhancement of Infrared Detection Using a Carbon Nanotube Diode. Advanced Optical Materials, 2017, 5, 1600865.	7.3	9
20	Microcavity-Controlled Chirality-Sorted Carbon Nanotube Film Infrared Light Emitters. ACS Photonics, 2017, 4, 435-442.	6.6	14
21	Planar-to-Axial Chirality Transfer in the Polymerization of Phenylacetylenes. ACS Macro Letters, 2017, 6, 205-209.	4.8	14
22	Conformation Shift Switches the Chiral Amplification of Helical Copoly(phenylacetylene)s from Abnormal to Normal â€œSergeants-and-Soldiersâ€•Effect. Macromolecules, 2017, 50, 4610-4615.	4.8	63
23	Carbon nanotube-based three-dimensional monolithic optoelectronic integrated system. Nature Communications, 2017, 8, 15649.	12.8	57
24	Plasmonic Enhanced Performance of an Infrared Detector Based on Carbon Nanotube Films. ACS Applied Materials & Interfaces, 2017, 9, 12743-12749.	8.0	28
25	Asymmetric Light Excitation for Photodetectors Based on Nanoscale Semiconductors. ACS Nano, 2017, 11, 549-557.	14.6	10
26	Electrically driven monolithic subwavelength plasmonic interconnect circuits. Science Advances, 2017, 3, e1701456.	10.3	34
27	Performance improvement induced by asymmetric Y2O3-coated device structure to carbon-nanotube-film based photodetectors. Applied Physics Letters, 2017, 111, .	3.3	5
28	Electrostatics and quantum efficiency simulations of asymmetrically contacted carbon nanotube photodetector. AIP Advances, 2017, 7, 105111.	1.3	0
29	Toward Highâ€Performance Carbon Nanotube Photovoltaic Devices. Advanced Energy Materials, 2016, 6, 1600522.	19.5	28
30	Microcavity-Integrated Carbon Nanotube Photodetectors. ACS Nano, 2016, 10, 6963-6971.	14.6	36
31	Acoustic-assisted assembly of an individual monochromatic ultralong carbon nanotube for high on-current transistors. Science Advances, 2016, 2, e1601572.	10.3	32
32	On-chip polarized light emitters based on (6,5) chirality-sorted carbon nanotube aligned arrays. Applied Physics Letters, 2016, 108, .	3.3	9
33	Photovoltaic Devices: Toward High-Performance Carbon Nanotube Photovoltaic Devices (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /Ov	19.5	0
34	Contact-dominated transport in carbon nanotube thin films: toward large-scale fabrication of high performance photovoltaic devices. Nanoscale, 2016, 8, 17122-17130.	5.6	11
35	High Conversion Efficiency Carbon Nanotube-Based Barrier-Free Bipolar-Diode Photodetector. ACS Nano, 2016, 10, 9595-9601.	14.6	23
36	Reversible Cis-Cisoid to Cis-Transoid Helical Structure Transition in Poly(3,5-disubstituted phenylacetylene)s. Macromolecules, 2016, 49, 8407-8417.	4.8	59

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37	Nanoscale color sensors made on semiconducting multi-wall carbon nanotubes. Nano Research, 2016, 9, 1470-1479.	10.4	6
38	Room Temperature Broadband Infrared Carbon Nanotube Photodetector with High Detectivity and Stability. Advanced Optical Materials, 2016, 4, 238-245.	7.3	90
39	Photodetectors: Room Temperature Broadband Infrared Carbon Nanotube Photodetector with High Detectivity and Stability (Advanced Optical Materials 2/2016). Advanced Optical Materials, 2016, 4, 188-188.	7.3	2
40	Controllable Sliding Transfer of Waferâ€Size Graphene. Advanced Science, 2016, 3, 1600006.	11.2	25
41	Solid state carbon nanotube device for controllable trion electroluminescence emission. Nanoscale, 2016, 8, 6761-6769.	5.6	20
42	Flexible Light-Emitting Devices Based on Chirality-Sorted Semiconducting Carbon Nanotube Films. ACS Applied Materials & Interfaces, 2015, 7, 3462-3467.	8.0	19
43	Room temperature infrared imaging sensors based on highly purified semiconducting carbon nanotubes. Nanoscale, 2015, 7, 6805-6812.	5.6	16
44	Electroluminescence from Serpentine Carbon Nanotube Based Lightâ€Emitting Diodes on Quartz. Small, 2014, 10, 1050-1056.	10.0	13
45	Scalable Fabrication of Ambipolar Transistors and Radioâ€Frequency Circuits Using Aligned Carbon Nanotube Arrays. Advanced Materials, 2014, 26, 645-652.	21.0	30
46	Modularized Construction of General Integrated Circuits on Individual Carbon Nanotubes. Nano Letters, 2014, 14, 3102-3109.	9.1	28
47	Growth of Semiconducting Single-Walled Carbon Nanotubes by Using Ceria as Catalyst Supports. Nano Letters, 2014, 14, 512-517.	9.1	80
48	Carbon nanotube electronics: recent advances. Materials Today, 2014, 17, 433-442.	14.2	267
49	Length Scaling of Carbon Nanotube Electric and Photo Diodes down to Sub-50 nm. Nano Letters, 2014, 14, 5382-5389.	9.1	25
50	Carbon nanotube light sensors with linear dynamic range of over 120â€‰dB. Applied Physics Letters, 2014, 105, .	3.3	29
51	Photoelectric Characteristics of Self-Assembled Semiconducting Carbon Nanotube Thin Films. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2014, 30, 1377-1383.	4.9	0
52	Breakdown of Richardson's Law in Electron Emission from Individual Self-Joule-Heated Carbon Nanotubes. Scientific Reports, 2014, 4, 5102.	3.3	28
53	Batch-fabricated high-performance graphene Hall elements. Scientific Reports, 2013, 3, 1207.	3.3	72
54	Plasmonic enhancement of photocurrent in carbon nanotube by Au nanoparticles. Applied Physics Letters, 2013, 102, .	3.3	34

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55	Carbon Nanotube Photoelectronic and Photovoltaic Devices and their Applications in Infrared Detection. Small, 2013, 9, 1225-1236.	10.0	92
56	Surface modification effect on photoluminescence of individual ZnO nanorods with different diameters. Nanoscale, 2013, 5, 4443.	5.6	30
57	Direct observation of substrate induced exciton in carbon nanotube. Applied Physics Letters, 2013, 103, .	3.3	1
58	Carbon Nanotube Based Multifunctional Ambipolar Transistors for AC Applications. Advanced Functional Materials, 2013, 23, 446-450.	14.9	11
59	Helicity-dependent single-walled carbon nanotube alignment on graphite for helical angle and handedness recognition. Nature Communications, 2013, 4, 2205.	12.8	45
60	High-mobility graphene on liquid p-block elements by ultra-low-loss CVD growth. Scientific Reports, 2013, 3, 2670.	3.3	75
61	CMOS-based carbon nanotube pass-transistor logic integrated circuits. Nature Communications, 2012, 3, 677.	12.8	145
62	Electrical transport properties of individual WS2 nanotubes and their dependence on water and oxygen absorption. Applied Physics Letters, 2012, 101, .	3.3	42
63	A doping-free approach to carbon nanotube electronics and optoelectronics. AIP Advances, 2012, 2, .	1.3	25
64	Carbon nanotube arrays based high-performance infrared photodetector [Invited]. Optical Materials Express, 2012, 2, 839.	3.0	93
65	Carbon Nanotube Field-Effect Transistors for Use as Pass Transistors in Integrated Logic Gates and Full Subtractor Circuits. ACS Nano, 2012, 6, 4013-4019.	14.6	22
66	Contact length scaling in graphene field-effect transistors. Applied Physics Letters, 2012, 100, 103501.	3.3	32
67	High-performance photodetectors for visible and near-infrared lights based on individual WS2 nanotubes. Applied Physics Letters, 2012, 100, .	3.3	111
68	Channel-Length-Dependent Transport and Photovoltaic Characteristics of Carbon-Nanotube-Based, Barrier-Free Bipolar Diode. ACS Applied Materials & Interfaces, 2012, 4, 1154-1157.	8.0	9
69	Carbon nanotube based ultra-low voltage integrated circuits: Scaling down to 0.4â€‰V. Applied Physics Letters, 2012, 100, 263116.	3.3	61
70	High-performance doping-free carbon-nanotube-based CMOS devices and integrated circuits. Science Bulletin, 2012, 57, 135-148.	1.7	14
71	Doping-free carbon nanotube optoelectronic devices. Science Bulletin, 2012, 57, 149-156.	1.7	23
72	Doping-free fabrication of carbon nanotube thin-film diodes and their photovoltaic characteristics. Nano Research, 2012, 5, 33-42.	10.4	12

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73	Structure and optical properties of individual hierarchical ZnS nanobelt/ZnO nanorod heterostructures. CrystEngComm, 2011, 13, 6774.	2.6	14
74	High-Performance Carbon Nanotube Light-Emitting Diodes with Asymmetric Contacts. Nano Letters, 2011, 11, 23-29.	9.1	91
75	Electronic transport in single-walled carbon nanotube/graphene junction. Applied Physics Letters, 2011, 99, .	3.3	48
76	Rational design of a binary metal alloy for chemical vapour deposition growth of uniform single-layer graphene. Nature Communications, 2011, 2, 522.	12.8	223
77	Top-Gated Graphene Field-Effect Transistors with High Normalized Transconductance and Designable Dirac Point Voltage. ACS Nano, 2011, 5, 5031-5037.	14.6	96
78	Self-Aligned U-Gate Carbon Nanotube Field-Effect Transistor with Extremely Small Parasitic Capacitance and Drain-Induced Barrier Lowering. ACS Nano, 2011, 5, 2512-2519.	14.6	32
79	Emission Red Shift and Temperature Increase in Electrically Powered ZnO Nanowires. Journal of Physical Chemistry C, 2011, 115, 8283-8287.	3.1	5
80	Quantum Capacitance Limited Vertical Scaling of Graphene Field-Effect Transistor. ACS Nano, 2011, 5, 2340-2347.	14.6	128
81	Efficient photovoltage multiplication in carbon nanotubes. Nature Photonics, 2011, 5, 672-676.	31.4	133
82	Hysteresis-free HfO2 film grown by atomic layer deposition at low temperature. Thin Solid Films, 2011, 519, 7723-7726.	1.8	6
83	Temperature Performance of Dopingâ€Free Topâ€Gate CNT Fieldâ€Effect Transistors: Potential for Lowâ€and Highâ€Temperature Electronics. Advanced Functional Materials, 2011, 21, 1843-1849.	14.9	24
84	Ultrahigh secondary electron emission of carbon nanotubes. Applied Physics Letters, 2010, 96, .	3.3	22
85	Growth and Performance of Yttrium Oxide as an Ideal High-Î¹ Gate Dielectric for Carbon-Based Electronics. Nano Letters, 2010, 10, 2024-2030.	9.1	137
86	Large Signal Operation of Small Band-Gap Carbon Nanotube-Based Ambipolar Transistor: A High-Performance Frequency Doubler. Nano Letters, 2010, 10, 3648-3655.	9.1	36
87	A high-performance top-gate graphene field-effect transistor based frequency doubler. Applied Physics Letters, 2010, 96, .	3.3	113
88	Y-Contacted High-Performance n-Type Single-Walled Carbon Nanotube Field-Effect Transistors: Scaling and Comparison with Sc-Contacted Devices. Nano Letters, 2009, 9, 4209-4214.	9.1	150
89	Towards Entireâ€Carbonâ€Nanotube Circuits: The Fabrication of Singleâ€Walledâ€Carbonâ€Nanotube Fieldâ€Effect Transistors with Local Multiwalledâ€Carbonâ€Nanotube Interconnects. Advanced Materials, 2009, 21, 1339-1343.	21.0	31
90	Almost Perfectly Symmetric SWCNT-Based CMOS Devices and Scaling. ACS Nano, 2009, 3, 3781-3787.	14.6	100

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91	Photovoltaic Effects in Asymmetrically Contacted CNT Barrier-Free Bipolar Diode. Journal of Physical Chemistry C, 2009, 113, 6891-6893.	3.1	45
92	A Dopingâ€Free Carbon Nanotube CMOS Inverterâ€Based Bipolar Diode and Ambipolar Transistor. Advanced Materials, 2008, 20, 3258-3262.	21.0	66
93	Self-Aligned Ballistic n-Type Single-Walled Carbon Nanotube Field-Effect Transistors with Adjustable Threshold Voltage. Nano Letters, 2008, 8, 3696-3701.	9.1	154
94	Measuring the electrical characteristics of individual junctions in the SnO2 capped ZnO nanowire arrays on Zn substrate. Applied Physics Letters, 2008, 92, 033102.	3.3	8
95	Self-Retracting Motion of Graphite Microflakes. Physical Review Letters, 2008, 100, 067205.	7.8	193
96	High-performance n-type carbon nanotube field-effect transistors with estimated sub-10-ps gate delay. Applied Physics Letters, 2008, 92, 133117.	3.3	67
97	A Comparative Study on SWCNT and DWCNT Field-Effect Transistors. Journal of Nanoscience and Nanotechnology, 2007, 7, 1568-1572.	0.9	9
98	Fabrication of high performance top-gate complementary inverter using a single carbon nanotube and via a simple process. Applied Physics Letters, 2007, 90, 223116.	3.3	21
99	Doping-Free Fabrication of Carbon Nanotube Based Ballistic CMOS Devices and Circuits. Nano Letters, 2007, 7, 3603-3607.	9.1	319
100	Optical and Electrical Performance of SnO₂ Capped ZnO Nanowire Arrays. Nano Letters, 2007, 7, 3559-3563.	9.1	113
101	High-field electrical transport and breakdown behavior of double-walled carbon nanotube field-effect transistors. Carbon, 2007, 45, 760-765.	10.3	9
102	Establishing Ohmic contacts forin situcurrentâ€“voltage characteristic measurements on a carbon nanotube inside the scanning electron microscope. Nanotechnology, 2006, 17, 1087-1098.	2.6	79
103	Near-Infrared Electrochromic and Electroluminescent Polymers Containing Pendant Ruthenium Complex Groups. Macromolecules, 2006, 39, 7502-7507.	4.8	67
104	Carbon nanotube as the core of conical carbon fiber: fabrication, characterization and field emission property. Applied Physics A: Materials Science and Processing, 2006, 86, 171-175.	2.3	13
105	Conical Carbon Fibers with Carbon Nanotubes as Their Cores: Fabrication, Characterization and Field Emission. , 2006, , .		0
106	Wetting and Contact Properties Studied Using the Nanoprobe System. Materials Science Forum, 2005, 475-479, 4081-4084.	0.3	0
107	Field-Effect Characteristics and Screening in Double-Walled Carbon Nanotube Field-Effect Transistors. Journal of Physical Chemistry B, 2005, 109, 17361-17365.	2.6	50
108	Formation energetics of n-member rings at the end of small zigzag carbon nanotubes. Chemical Physics Letters, 2002, 358, 103-109.	2.6	2

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109	High-mobility graphene on liquid p-block elements by ultra-low-loss CVD growth. , 0, .		1
110	Selfâ€Reporting Activated Esterâ€Amine Reaction for Enantioselective Multiâ€Channel Visual Detection of Chiral Amines. Angewandte Chemie, 0, , .	2.0	10