Ming Zheng

List of Publications by Year
in descending order

100	10,977	56860	57558
papers	citations	44 h-index	83 g-index

104	104	104	8136
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	(Invited) Purification of Enantiomeric Pairs of DNA-Wrapped Carbon Nanotubes and Their Use in Bilateral Chiral Sensing. ECS Meeting Abstracts, 2024, MA2024-01, 833-833.	0.0	0
2	Signatures of Chemical Dopants in Simulated Resonance Raman Spectroscopy of Carbon Nanotubes. Journal of Physical Chemistry Letters, 2023, 14, 1182-1191.	4.9	12
3	DNA-Surfactant Exchange and Quantifying Interactions of Pure (n,m) Single-Enantiomer SWCNTs Towards Biohybrid Self-Assembly. ECS Meeting Abstracts, 2023, MA2023-01, 1222-1222.	0.0	0
4	(Invited) The Impact of Carbon Nanotube Length and Diameter on Their Global Alignment by Dead-End Filtration. ECS Meeting Abstracts, 2023, MA2023-01, 1198-1198.	0.0	0
5	Guanine Functionalization for Improved ssDNA-Nanotube Colloidal Stability. ECS Meeting Abstracts, 2023, MA2023-01, 1160-1160.	0.0	0
6	(Invited) Carbon Nanotube Photoluminescence for Cancer Research and Diagnosis. ECS Meeting Abstracts, 2023, MA2023-01, 1228-1228.	0.0	0
7	(Invited) Recent Progress in Carbon Nanotube Sorting by DNA. ECS Meeting Abstracts, 2023, MA2023-01, 1232-1232.	0.0	0
8	Machine Learning-Guided Systematic Search of DNA Sequences for Sorting Carbon Nanotubes. ACS Nano, 2022, 16, 4705-4713.	15.3	14
9	Detection of ovarian cancer via the spectral fingerprinting of quantum-defect-modified carbon nanotubes in serum by machine learning. Nature Biomedical Engineering, 2022, 6, 267-275.	22.4	88
10	Machine Learning for Carbon Nanotube Optical Sensors. ECS Meeting Abstracts, 2022, MA2022-01, 714-714.	0.0	0
11	Carbon Nanotube Quantum Defect Photoluminescence Modulation for Biosensors. ECS Meeting Abstracts, 2022, MA2022-01, 686-686.	0.0	0
12	(Invited) Developing Optical Nanosensors for the Early Detection of Gynecologic Cancers. ECS Meeting Abstracts, 2022, MA2022-01, 689-689.	0.0	1
13	(Invited) Bio-Templated Carbon Nanotube Electronics. ECS Meeting Abstracts, 2022, MA2022-01, 752-752.	0.0	0
14	(Invited) DNA-Controlled Carbon Nanotube Functionalization. ECS Meeting Abstracts, 2022, MA2022-01, 729-729.	0.0	0
15	(Invited) Machine Learning for DNA/SWCNT Based Molecular Perceptron: Finding Sequences and Training Sensor Arrays. ECS Meeting Abstracts, 2022, MA2022-01, 687-687.	0.0	0
16	Photochemical spin-state control of binding configuration for tailoring organic color center emission in carbon nanotubes. Nature Communications, 2022, 13, .	13.2	11
17	Developing Ovarian Cancer Sensors Using Molecular Perceptron. ECS Meeting Abstracts, 2021, MA2021-01, 538-538.	0.0	0
18	Beyond Color: The New Carbon Ink. Advanced Materials, 2021, 33, e2005890.	24.3	21

#	Article	IF	Citations
19	(Invited) Organic Color Center Photoluminescence Modulation for Biomedical Applications. ECS Meeting Abstracts, 2021, MA2021-01, 560-560.	0.0	0
20	(Invited) Machine Learning for DNA/SWCNT Based Molecular Perceptron: Finding Sequences and Training Sensor Arrays. ECS Meeting Abstracts, 2021, MA2021-01, 567-567.	0.0	0
21	(Invited) Exploration of Short DNA Sequences Toward Complete Resolution of Single-Chirality SWCNTs. ECS Meeting Abstracts, 2021, MA2021-01, 579-579.	0.0	0
22	Development of Single-Walled Carbon Nanotube-Based Optical Sensors Via Data Analytics. ECS Meeting Abstracts, 2021, MA2021-01, 523-523.	0.0	0
23	(Invited) Stereoselective Photoluminescent Properties of DNA-Carbon Nanotubes: A Primer for Molecular Perceptron. ECS Meeting Abstracts, 2021, MA2021-01, 509-509.	0.0	0
24	Organic Color Center Platform for Cancer Diagnosis. ECS Meeting Abstracts, 2021, MA2021-01, 562-562.	0.0	0
25	(Invited) DNA-Directed High-Precision Assembly of High-Performance CNT FETs. ECS Meeting Abstracts, 2021, MA2021-01, 585-585.	0.0	0
26	Single-Chirality Near-Infrared Carbon Nanotube Sub-Cellular Imaging and FRET Probes. Nano Letters, 2021, 21, 6441-6448.	9.5	30
27	Band structure dependent electronic localization in macroscopic films of single-chirality single-wall carbon nanotubes. Carbon, 2021, 183, 774-779.	10.7	5
28	Optical Detection of Stereoselective Interactions with DNA-Wrapped Single-Wall Carbon Nanotubes. Journal of the American Chemical Society, 2021, 143, 20628-20632.	14.6	16
29	A perception-based nanosensor platform to detect cancer biomarkers. Science Advances, 2021, 7, eabj0852.	10.9	54
30	Separation of Specific Single-Enantiomer Single-Wall Carbon Nanotubes in the Large-Diameter Regime. ACS Nano, 2020, 14, 948-963.	15.3	84
31	Chirality Pure Carbon Nanotubes: Growth, Sorting, and Characterization. Chemical Reviews, 2020, 120, 2693-2758.	51.4	312
32	Hidden Fine Structure of Quantum Defects Revealed by Single Carbon Nanotube Magneto-Photoluminescence. ACS Nano, 2020, 14, 3451-3460.	15.3	14
33	Label-Free and Ultrasensitive Electrochemical DNA Biosensor Based on Urchinlike Carbon Nanotube-Gold Nanoparticle Nanoclusters. Analytical Chemistry, 2020, 92, 4780-4787.	6.8	90
34	Pathway-Dependent Structures of DNA-Wrapped Carbon Nanotubes: Direct Sonication vs Surfactant/DNA Exchange. Journal of Physical Chemistry C, 2020, 124, 9045-9055.	3.3	22
35	Organizing End-Site-Specific SWCNTs in Specific Loci Using DNA. Journal of the American Chemical Society, 2019, 141, 11923-11928.	14.6	49
36	Mod(n-m,3) Dependence of Defect-State Emission Bands in Aryl-Functionalized Carbon Nanotubes. Nano Letters, 2019, 19, 8503-8509.	9.5	22

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37	Broadening of van Hove Singularities Measured by Photoemission Spectroscopy of Single- and Mixed-Chirality Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 26683-26694.	3.3	5
38	Learning to predict single-wall carbon nanotube-recognition DNA sequences. Npj Computational Materials, 2019, 5, .	9.1	33
39	Sorting Carbon Nanotubes. Topics in Current Chemistry Collections, 2019, , 129-164.	0.0	6
40	Toward Complete Resolution of DNA/Carbon Nanotube Hybrids by Aqueous Two-Phase Systems. Journal of the American Chemical Society, 2019, 141, 20177-20186.	14.6	50
41	Quantification of DNA/SWCNT Solvation Differences by Aqueous Two-Phase Separation. Langmuir, 2018, 34, 1834-1843.	3.7	13
42	Alkane Encapsulation Induces Strain in Small-Diameter Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2018, 122, 11577-11585.	3.3	13
43	An optical nanoreporter of endolysosomal lipid accumulation reveals enduring effects of diet on hepatic macrophages in vivo. Science Translational Medicine, 2018, 10, .	13.4	87
44	Narrow-band single-photon emission through selective aryl functionalization of zigzag carbon nanotubes. Nature Chemistry, 2018, 10, 1089-1095.	14.3	82
45	Mapping Structure-Property Relationships of Organic Color Centers. CheM, 2018, 4, 2180-2191.	12.2	36
46	Structure-Defined DNA-Carbon Nanotube Hybrids and Their Applications. ECS Transactions, 2018, 85, 511-517.	0.6	6
47	Sorting Carbon Nanotubes. Topics in Current Chemistry, 2017, 375, 13.	6.1	66
48	Chirality-Controlled Synthesis and Applications of Single-Wall Carbon Nanotubes. ACS Nano, 2017, 11, 31-53.	15.3	180
49	Carbon Nanotubeâ€Quantum Dot Nanohybrids: Coupling with Singleâ€Particle Control in Aqueous Solution. Small, 2017, 13, 1603042.	11.2	23
50	A Low Energy Route to DNA-Wrapped Carbon Nanotubes via Replacement of Bile Salt Surfactants. Analytical Chemistry, 2017, 89, 10496-10503.	6.8	40
51	Nanotube chemistry tunes light. Nature Photonics, 2017, 11, 535-537.	23.1	12
52	Energetic Basis of Single-Wall Carbon Nanotube Enantiomer Recognition by Single-Stranded DNA. Journal of Physical Chemistry C, 2017, 121, 17479-17487.	3.3	14
53	Site-Specific One-to-One Click Coupling of Single Proteins to Individual Carbon Nanotubes: A Single-Molecule Approach. Journal of the American Chemical Society, 2017, 139, 17834-17840.	14.6	30
54	Differentiating Left- and Right-Handed Carbon Nanotubes by DNA. Journal of the American Chemical Society, 2016, 138, 16677-16685.	14.6	168

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55	Characterizing the Effect of Salt and Surfactant Concentration on the Counterion Atmosphere around Surfactant Stabilized SWCNTs Using Analytical Ultracentrifugation. Langmuir, 2016, 32, 3926-3936.	3.7	22
56	Intensity Ratio of Resonant Raman Modes for (n,m) Enriched Semiconducting Carbon Nanotubes. ACS Nano, 2016, 10, 5252-5259.	15.3	48
57	Two-color spectroscopy of UV excited ssDNA complex with a single-wall nanotube photoluminescence probe: Fast relaxation by nucleobase autoionization mechanism. Nano Research, 2016, 9, 571-583.	10.6	7
58	A facile and low-cost length sorting of single-wall carbon nanotubes by precipitation and applications for thin-film transistors. Nanoscale, 2016, 8, 3467-3473.	5.8	32
59	Solution-Processable Carbon Nanoelectrodes for Single-Molecule Investigations. Journal of the American Chemical Society, 2016, 138, 2905-2908.	14.6	26
60	Directed Assembly of Single Wall Carbon Nanotube Field Effect Transistors. ACS Nano, 2016, 10, 2975-2981.	15.3	39
61	Asymmetric excitation profiles in the resonance Raman response of armchair carbon nanotubes. Physical Review B, 2015, 91, .	3.3	24
62	Isolation of >1 nm Diameter Single-Wall Carbon Nanotube Species Using Aqueous Two-Phase Extraction. ACS Nano, 2015, 9, 5377-5390.	15.3	144
63	Redox Sorting of Carbon Nanotubes. Nano Letters, 2015, 15, 1642-1646.	9.5	88
64	Directed Assembly of End-Functionalized Single Wall Carbon Nanotube Segments. Nano Letters, 2015, 15, 6547-6552.	9.5	29
65	Re-growth of single-walled carbon nanotube by hot-wall and cold-wall chemical vapor deposition. Carbon, 2015, 95, 497-502.	10.7	15
66	Preparation and Separation of DNAâ€Wrapped Carbon Nanotubes. Current Protocols in Chemical Biology, 2015, 7, 43-51.	1.2	17
67	Diameter dependence of TO phonon frequencies and the Kohn anomaly in armchair single-wall carbon nanotubes. Physical Review B, 2014, 90, .	3.3	5
68	Single-Step Total Fractionation of Single-Wall Carbon Nanotubes by Countercurrent Chromatography. Analytical Chemistry, 2014, 86, 3980-3984.	6.8	47
69	Isolation of Specific Smallâ€Diameter Singleâ€Wall Carbon Nanotube Species via Aqueous Twoâ€Phase Extraction. Advanced Materials, 2014, 26, 2800-2804.	24.3	226
70	DNA-Controlled Partition of Carbon Nanotubes in Polymer Aqueous Two-Phase Systems. Journal of the American Chemical Society, 2014, 136, 10383-10392.	14.6	173
71	High-Resolution Length Fractionation of Surfactant-Dispersed Carbon Nanotubes. Analytical Chemistry, 2013, 85, 1382-1388.	6.8	52
72	Chirality-Dependent Vapor-Phase Epitaxial Growth and Termination of Single-Wall Carbon Nanotubes. Nano Letters, 2013, 13, 4416-4421.	9.5	78

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73	Fundamental optical processes in armchair carbon nanotubes. Nanoscale, 2013, 5, 1411.	5.8	56
74	Analyzing Surfactant Structures on Length and Chirality Resolved (6,5) Single-Wall Carbon Nanotubes by Analytical Ultracentrifugation. ACS Nano, 2013, 7, 3373-3387.	15.3	84
75	Spontaneous Partition of Carbon Nanotubes in Polymer-Modified Aqueous Phases. Journal of the American Chemical Society, 2013, 135, 6822-6825.	14.6	310
76	Controlled Formation of Carbon Nanotube Junctions via Linker-Induced Assembly in Aqueous Solution. Journal of the American Chemical Society, 2013, 135, 8440-8443.	14.6	30
77	Protective Roles of Singleâ€Wall Carbon Nanotubes in Ultrasonicationâ€Induced DNA Base Damage. Small, 2013, 9, 205-208.	11.2	32
78	Quantum Interference between the Third and Fourth Exciton States in Semiconducting Carbon Nanotubes Using Resonance Raman Spectroscopy. Physical Review Letters, 2012, 108, 117404.	8.0	20
79	Chirality-controlled synthesis of single-wall carbon nanotubes using vapour-phase epitaxy. Nature Communications, 2012, 3, 1199.	13.2	159
80	Concentration Measurement of Length-Fractionated Colloidal Single-Wall Carbon Nanotubes. Analytical Chemistry, 2012, 84, 8733-8739.	6.8	22
81	Chiral Index Dependence of the G⁺ and G^{â€“} Raman Modes in Semiconducting Carbon Nanotubes. ACS Nano, 2012, 6, 904-911.	15.3	86
82	Molecular-Crowding-Induced Clustering of DNA-Wrapped Carbon Nanotubes for Facile Length Fractionation. ACS Nano, 2011, 5, 8258-8266.	15.3	58
83	Violation of the Condon Approximation in Semiconducting Carbon Nanotubes. ACS Nano, 2011, 5, 5233-5241.	15.3	53
84	Evolution of DNA Sequences Toward Recognition of Metallic Armchair Carbon Nanotubes. Journal of the American Chemical Society, 2011, 133, 12998-13001.	14.6	79
85	Recognition Ability of DNA for Carbon Nanotubes Correlates with Their Binding Affinity. Langmuir, 2011, 27, 8282-8293.	3.7	97
86	DNA sequence motifs for structure-specific recognition and separation of carbon nanotubes. Nature, 2009, 460, 250-253.	36.2	1,018
87	A Scanning Probe Microscopy Based Assay for Single-Walled Carbon Nanotube Metallicity. Nano Letters, 2009, 9, 1668-1672.	9.5	59
88	Optical Characterizations and Electronic Devices of Nearly Pure (10,5) Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2009, 131, 2454-2455.	14.6	64
89	Measurement of Electrostatic Properties of DNA-Carbon Nanotube Hybrids by Capillary Electrophoresis. Journal of Physical Chemistry C, 2009, 113, 13616-13621.	3.3	36
90	A DNA-based approach to the carbon nanotube sorting problem. Nano Research, 2008, 1, 185-194.	10.6	143

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91	Fluorescence Efficiency of Individual Carbon Nanotubes. Nano Letters, 2007, 7, 3698-3703.	9.5	116
92	Enrichment of Single Chirality Carbon Nanotubes. Journal of the American Chemical Society, 2007, 129, 6084-6085.	14.6	229
93	Racemic Single-Walled Carbon Nanotubes Exhibit Circular Dichroism When Wrapped with DNA. Journal of the American Chemical Society, 2006, 128, 9004-9005.	14.6	124
94	Photoinduced Charge Transfer Mediated by DNA-Wrapped Carbon Nanotubes. Journal of the American Chemical Society, 2006, 128, 7702-7703.	14.6	44
95	Theory of Structure-Based Carbon Nanotube Separations by Ion-Exchange Chromatography of DNA/CNT Hybrids. Journal of Physical Chemistry B, 2005, 109, 2559-2566.	2.7	136
96	High-Resolution Length Sorting and Purification of DNA-Wrapped Carbon Nanotubes by Size-Exclusion Chromatography. Analytical Chemistry, 2005, 77, 6225-6228.	6.8	245
97	Understanding the Nature of the DNA-Assisted Separation of Single-Walled Carbon Nanotubes Using Fluorescence and Raman Spectroscopy. Nano Letters, 2004, 4, 543-550.	9.5	192
98	Solution Redox Chemistry of Carbon Nanotubes. Journal of the American Chemical Society, 2004, 126, 15490-15494.	14.6	298
99	DNA-assisted dispersion and separation of carbon nanotubes. Nature Materials, 2003, 2, 338-342.	26.6	2,598
100	Structure-Based Carbon Nanotube Sorting by Sequence-Dependent DNA Assembly. Science, 2003, 302, 1545-1548.	20.9	1,556