Albert Tianxiang Liu

List of Publications by Year
in descending order

203	39,671	16791 66	2896 196
papers	citations	h-index	g-index

207	207	207	49519
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermally fluctuating, semiflexible sheets in simple shear flow. Soft Matter, 2022, 18, 768-782.	1.2	2
2	Size Selective Corona Interactions from Selfâ€Assembled Rosette and Singleâ€Walled Carbon Nanotubes. Small, 2022, 18, e2104951.	5.2	2
3	Irreversible synthesis of an ultrastrong two-dimensional polymeric material. Nature, 2022, 602, 91-95.	13.7	42
4	Emerging investigator series: linking nanoparticle infiltration and stomatal dynamics for plant nanobionics. Environmental Science: Nano, 2022, 9, 1236-1246.	2.2	4
5	Gas Separations using Nanoporous Atomically Thin Membranes: Recent Theoretical, Simulation, and Experimental Advances. Advanced Materials, 2022, 34, e2201472.	11.1	28
6	Approximate Corona Phase Hamiltonian for Individual Cylindrical Nanoparticleâ€“Polymer Interactions. Journal of Physical Chemistry B, 2022, 126, 347-354.	1.2	2
7	Memristor Circuits for Colloidal Robotics: Temporal Access to Memory, Sensing, and Actuation. Advanced Intelligent Systems, 2022, 4, .	3.3	8
8	A wavelength-induced frequency filtering method for fluorescent nanosensors in vivo. Nature Nanotechnology, 2022, 17, 643-652.	15.6	27
9	Biological Impacts of Reduced Graphene Oxide Affected by Protein Corona Formation. Chemical Research in Toxicology, 2022, 35, 1244-1256.	1.7	11
10	Machine learning for the discovery of molecular recognition based on single-walled carbon nanotube corona-phases. Npj Computational Materials, 2022, 8, .	3.5	7
11	Autoperforation of two-dimensional materials to generate colloidal state machines capable of locomotion. Faraday Discussions, 2021, 227, 213-232.	1.6	7
12	Plant Nanobionic Sensors for Arsenic Detection. Advanced Materials, 2021, 33, e2005683.	11.1	75
13	A mathematical analysis of carbon fixing materials that grow, reinforce, and self-heal from atmospheric carbon dioxide. Green Chemistry, 2021, 23, 5556-5570.	4.6	2
14	Predicting Gas Separation through Graphene Nanopore Ensembles with Realistic Pore Size Distributions. ACS Nano, 2021, 15, 1727-1740.	7.3	28
15	Diameter Dependence of Water Filling in Lithographically Segmented Isolated Carbon Nanotubes. ACS Nano, 2021, 15, 2778-2790.	7.3	20
16	High Thermal Effusivity Nanocarbon Materials for Resonant Thermal Energy Harvesting. Small, 2021, 17, e2006752.	5.2	16
17	SynCells: A 60 Ã— 60 Î¼m² Electronic Platform with Remote Actuation for Sensing Applications in Constrained Environments. ACS Nano, 2021, 15, 8803-8812.	7.3	4
18	Cellular lensing and near infrared fluorescent nanosensor arrays to enable chemical efflux cytometry. Nature Communications, 2021, 12, 3079.	5.8	16

#	Article	IF	Citations
19	Chemical kinetic mechanisms and scaling of two-dimensional polymers via irreversible solution-phase reactions. Journal of Chemical Physics, 2021, 154, 194901.	1.2	6
20	Transcutaneous Measurement of Essential Vitamins Using Nearâ€Infrared Fluorescent Singleâ€Walled Carbon Nanotube Sensors. Small, 2021, 17, e2100540.	5.2	10
21	Nanophotonic biosensors harnessing van der Waals materials. Nature Communications, 2021, 12, 3824.	5.8	88
22	Solvent-induced electrochemistry at an electrically asymmetric carbon Janus particle. Nature Communications, 2021, 12, 3415.	5.8	14
23	Nanosensor Chemical Cytometry for Characterizing the Efflux Heterogeneity of Nitric Oxide from Macrophages. ACS Nano, 2021, 15, 13683-13691.	7.3	5
24	Augmenting the living plant mesophyll into a photonic capacitor. Science Advances, 2021, 7, eabe9733.	4.7	13
25	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. Advanced Energy Materials, 2021, 11, 2101221.	10.2	20
26	Direct Chemical Vapor Deposition Synthesis of Porous Singleâ€Layer Graphene Membranes with High Gas Permeances and Selectivities. Advanced Materials, 2021, 33, e2104308.	11.1	28
27	Buckling, crumpling, and tumbling of semiflexible sheets in simple shear flow. Soft Matter, 2021, 17, 4707-4718.	1.2	14
28	Biotransformations and cytotoxicity of graphene and inorganic two-dimensional nanomaterials using simulated digestions coupled with a triculture in vitro model of the human gastrointestinal epithelium. Environmental Science: Nano, 2021, 8, 3233-3249.	2.2	10
29	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3% (Adv. Energy Mater. 38/2021). Advanced Energy Materials, 2021, 11, 2170150.	10.2	1
30	Antibody-Free Rapid Detection of SARS-CoV-2 Proteins Using Corona Phase Molecular Recognition to Accelerate Development Time. Analytical Chemistry, 2021, 93, 14685-14693.	3.2	25
31	Impedance of Thermal Conduction from Nanoconfined Water in Carbon Nanotube Single-Digit Nanopores. Journal of Physical Chemistry C, 2021, 125, 25717-25728.	1.5	2
32	Estimates for energy expenditure in freeâ€living animals using acceleration proxies: A reappraisal. Journal of Animal Ecology, 2020, 89, 161-172.	1.3	148
33	Hygroscopic Micro/Nanolenses along Carbon Nanotube Ion Channels. Nano Letters, 2020, 20, 812-819.	4.5	3
34	The Emergence of Plant Nanobionics and Living Plants as Technology. Advanced Materials Technologies, 2020, 5, 1900657.	3.0	70
35	Immobilization and Function of nIR-Fluorescent Carbon Nanotube Sensors on Paper Substrates for Fluidic Manipulation. Analytical Chemistry, 2020, 92, 916-923.	3.2	20
36	Controlling Photoluminescence Enhancement and Energy Transfer in WS₂:hBN:WS₂ Vertical Stacks by Precise Interlayer Distances. Small, 2020, 16, e1905985.	5.2	26

#	Article	IF	Citations
37	A synthetic mimic of phosphodiesterase type 5 based on corona phase molecular recognition of single-walled carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26616-26625.	3.3	16
38	Persistent, single-polarity energy harvesting from ambient thermal fluctuations using a thermal resonance device with thermal diodes. Applied Energy, 2020, 280, 115881.	5.1	8
39	A Fiber Optic Interface Coupled to Nanosensors: Applications to Protein Aggregation and Organic Molecule Quantification. ACS Nano, 2020, 14, 10141-10152.	7.3	21
40	Species-independent analytical tools for next-generation agriculture. Nature Plants, 2020, 6, 1408-1417.	4.7	63
41	Multiâ€source ambient energy harvester based on RF and thermal energy: Design, testing, and IoT application. Energy Science and Engineering, 2020, 8, 3883-3897.	1.9	12
42	Nanocarriers for Transgene Expression in Pollen as a Plant Biotechnology Tool. , 2020, 2, 1057-1066.		33
43	Implantable Nanosensors for Human Steroid Hormone Sensing In Vivo Using a Selfâ€Templating Corona Phase Molecular Recognition. Advanced Healthcare Materials, 2020, 9, e2000429.	3.9	45
44	Synthesis and Physicochemical Transformations of Sizeâ€Sorted Graphene Oxide during Simulated Digestion and Its Toxicological Assessment against an In Vitro Model of the Human Intestinal Epithelium. Small, 2020, 16, e1907640.	5.2	20
45	Banning carbon nanotubes would be scientifically unjustified and damaging to innovation. Nature Nanotechnology, 2020, 15, 164-166.	15.6	69
46	Towards low-loss photonics. Nature Photonics, 2020, 14, 197-198.	15.6	1
47	Connecting Rodent and Human Pharmacokinetic Models for the Design and Translation of Glucose-Responsive Insulin. Diabetes, 2020, 69, 1815-1826.	0.3	12
48	Highly Ordered Two-Dimensional MoS2 Archimedean Scroll Bragg Reflectors as Chromatically Adaptive Fibers. Nano Letters, 2020, 20, 3067-3078.	4.5	6
49	Characterization of Protein Aggregation Using Hydrogel-Encapsulated nIR Fluorescent Nanoparticle Sensors. ACS Sensors, 2020, 5, 327-337.	4.0	12
50	Real-time detection of wound-induced H2O2 signalling waves in plants with optical nanosensors. Nature Plants, 2020, 6, 404-415.	4.7	157
51	A conceptual advance that gives microrobots legs. Nature, 2020, 584, 530-531.	13.7	13
52	DNAâ€“SWCNT Biosensors Allow Real-Time Monitoring of Therapeutic Responses in Pancreatic Ductal Adenocarcinoma. Cancer Research, 2019, 79, 4515-4523.	0.4	17
53	Singleâ€Particle Tracking for Understanding Polydisperse Nanoparticle Dispersions. Small, 2019, 15, 1901468.	5.2	13
54	Analytical Prediction of Gas Permeation through Graphene Nanopores of Varying Sizes: Understanding Transitions across Multiple Transport Regimes. ACS Nano, 2019, 13, 11809-11824.	7.3	46

#	Article	IF	Citations
55	Measuring the Accessible Surface Area within the Nanoparticle Corona Using Molecular Probe Adsorption. Nano Letters, 2019, 19, 7712-7724.	4.5	20
56	Can Fish and Cell Phones Teach Us about Our Health?. ACS Sensors, 2019, 4, 2566-2570.	4.0	2
57	Liquids with Lower Wettability Can Exhibit Higher Friction on Hexagonal Boron Nitride: The Intriguing Role of Solidâ€“Liquid Electrostatic Interactions. Nano Letters, 2019, 19, 1539-1551.	4.5	39
58	Lowâ€Temperature Growth of Carbon Nanotubes Catalyzed by Sodiumâ€Based Ingredients. Angewandte Chemie, 2019, 131, 9302-9307.	1.6	2
59	Lowâ€Temperature Growth of Carbon Nanotubes Catalyzed by Sodiumâ€Based Ingredients. Angewandte Chemie - International Edition, 2019, 58, 9204-9209.	7.2	25
60	Large-area synthesis of 2D MoO _{3â^' x} for enhanced optoelectronic applications. 2D Materials, 2019, 6, 035031.	2.0	48
61	High-Resolution Nanoparticle Sizing with Maximum A Posteriori Nanoparticle Tracking Analysis. ACS Nano, 2019, 13, 3940-3952.	7.3	30
62	Chloroplast-selective gene delivery and expression in planta using chitosan-complexed single-walled carbon nanotube carriers. Nature Nanotechnology, 2019, 14, 447-455.	15.6	364
63	Addressing the isomer cataloguing problem for nanopores in two-dimensional materials. Nature Materials, 2019, 18, 129-135.	13.3	57
64	Synthetic Cells: Colloidal-sized state machines. , 2019, , 361-386.		2
65	Persistent energy harvesting in the harsh desert environment using a thermal resonance device: Design, testing, and analysis. Applied Energy, 2019, 235, 1514-1523.	5.1	18
66	Analysis of Multiplexed Nanosensor Arrays Based on Near-Infrared Fluorescent Single-Walled Carbon Nanotubes. ACS Nano, 2018, 12, 3769-3779.	7.3	32
67	Determining the Optimized Interlayer Separation Distance in Vertical Stacked 2D WS₂:hBN:MoS₂ Heterostructures for Exciton Energy Transfer. Small, 2018, 14, e1703727.	5.2	54
68	Ultra-high thermal effusivity materials for resonant ambient thermal energy harvesting. Nature Communications, 2018, 9, 664.	5.8	118
69	Dual Phase Change Thermal Diodes for Enhanced Rectification Ratios: Theory and Experiment. Advanced Energy Materials, 2018, 8, 1702692.	10.2	45
70	Ab Initio Molecular Dynamics and Lattice Dynamics-Based Force Field for Modeling Hexagonal Boron Nitride in Mechanical and Interfacial Applications. Journal of Physical Chemistry Letters, 2018, 9, 1584-1591.	2.1	55
71	Plant Protoplasts: Rational Design Principles for the Transport and Subcellular Distribution of Nanomaterials into Plant Protoplasts (Small 44/2018). Small, 2018, 14, 1870202.	5.2	2
72	Polymethacrylamide and Carbon Composites that Grow, Strengthen, and Selfâ€Repair using Ambient Carbon Dioxide Fixation. Advanced Materials, 2018, 30, e1804037.	11.1	25

#	Article	IF	Citations
73	Direct Electricity Generation Mediated by Molecular Interactions with Low Dimensional Carbon Materialsâ€"A Mechanistic Perspective. Advanced Energy Materials, 2018, 8, 1802212.	10.2	47
74	Autoperforation of 2D materials for generating two-terminal memristive Janus particles. Nature Materials, 2018, 17, 1005-1012.	13.3	56
75	Rational Design Principles for the Transport and Subcellular Distribution of Nanomaterials into Plant Protoplasts. Small, 2018, 14, e1802086.	5.2	89
76	Emerging trends in 2D nanotechnology that are redefining our understanding of â€œNanocompositesâ€• Nano Today, 2018, 21, 18-40.	6.2	59
77	Colloidal nanoelectronic state machines based on 2D materials for aerosolizable electronics. Nature Nanotechnology, 2018, 13, 819-827.	15.6	50
78	Stable, Temperature-Dependent Gas Mixture Permeation and Separation through Suspended Nanoporous Single-Layer Graphene Membranes. Nano Letters, 2018, 18, 5057-5069.	4.5	56
79	Single-layer graphene membranes by crack-free transfer for gas mixture separation. Nature Communications, 2018, 9, 2632.	5.8	160
80	The Exterior of Single-Walled Carbon Nanotubes as a Millimeter-Long Cation-Preferring Nanochannel. Chemistry of Materials, 2018, 30, 5184-5193.	3.2	6
81	Noble-gas-infused neoprene closed-cell foams achieving ultra-low thermal conductivity fabrics. RSC Advances, 2018, 8, 21389-21398.	1.7	12
82	Single-molecule detection of protein efflux from microorganisms using fluorescent single-walled carbon nanotube sensor arrays. Nature Nanotechnology, 2017, 12, 368-377.	15.6	172
83	High-resolution imaging of cellular dopamine efflux using a fluorescent nanosensor array. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1789-1794.	3.3	158
84	Microscale solid-state thermal diodes enabling ambient temperature thermal circuits for energy applications. Physical Chemistry Chemical Physics, 2017, 19, 13172-13181.	1.3	35
85	A study of bilayer phosphorene stability under MoS ₂ -passivation. 2D Materials, 2017, 4, 025091.	2.0	42
86	Nanosensor Technology Applied to Living Plant Systems. Annual Review of Analytical Chemistry, 2017, 10, 113-140.	2.8	133
87	Surface Water Dependent Properties of Sulfur-Rich Molybdenum Sulfides: Electrolyteless Gas Phase Water Splitting. ACS Nano, 2017, 11, 6782-6794.	7.3	57
88	Experimental Observation of Real Time Molecular Dynamics Using Electromigrated Tunnel Junctions. Journal of Physical Chemistry C, 2017, 121, 22550-22558.	1.5	3
89	Ionic Strength-Mediated Phase Transitions of Surface-Adsorbed DNA on Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2017, 139, 16791-16802.	6.6	74
90	Rational Design of Glucoseâ€Responsive Insulin Using Pharmacokinetic Modeling. Advanced Healthcare Materials, 2017, 6, 1700601.	3.9	10

#	Article	IF	Citations
91	Glucose-responsive insulin by molecular and physical design. Nature Chemistry, 2017, 9, 937-944.	6.6	106
92	A Nanobionic Light-Emitting Plant. Nano Letters, 2017, 17, 7951-7961.	4.5	93
93	Observation of the Marcus Inverted Region of Electron Transfer from Asymmetric Chemical Doping of Pristine (n,m) Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2017, 139, 15328-15336.	6.6	23
94	Persistent drought monitoring using a microfluidic-printed electro-mechanical sensor of stomata in planta. Lab on A Chip, 2017, 17, 4015-4024.	3.1	55
95	Mechanism and Prediction of Gas Permeation through Sub-Nanometer Graphene Pores: Comparison of Theory and Simulation. ACS Nano, 2017, 11, 7974-7987.	7.3	103
96	Nitroaromatic detection and infrared communication from wild-type plants using plantÂnanobionics. Nature Materials, 2017, 16, 264-272.	13.3	234
97	Understanding the colloidal dispersion stability of 1D and 2D materials: Perspectives from molecular simulations and theoretical modeling. Advances in Colloid and Interface Science, 2017, 244, 36-53.	7.0	37
98	Observation of extreme phase transition temperatures of water confined inside isolated carbon nanotubes. Nature Nanotechnology, 2017, 12, 267-273.	15.6	249
99	Toward Ambient Armor: Can New Materials Change Longstanding Concepts of Projectile Protection?. Advanced Functional Materials, 2016, 26, 943-954.	7.8	18
100	Oxidative Chemical Vapor Deposition of Neutral Hole Transporting Polymer for Enhanced Solar Cell Efficiency and Lifetime. Advanced Materials, 2016, 28, 6399-6404.	11.1	23
101	An Analytical Solution for Exciton Generation, Reaction, and Diffusion in Nanotube and Nanowire-Based Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 2683-2688.	2.1	7
102	A general, modular method for the catalytic asymmetric synthesis of alkylboronate esters. Science, 2016, 354, 1265-1269.	6.0	200
103	Highâ€Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100.	7.8	164
104	Generalized Mechanistic Model for the Chemical Vapor Deposition of 2D Transition Metal Dichalcogenide Monolayers. ACS Nano, 2016, 10, 4330-4344.	7.3	190
105	Sustainable power sources based on high efficiency thermopower wave devices. Energy and Environmental Science, 2016, 9, 1290-1298.	15.6	20
106	Quantitative Tissue Spectroscopy of Near Infrared Fluorescent Nanosensor Implants. Journal of Biomedical Nanotechnology, 2016, 12, 1035-1047.	0.5	46
107	Observation of Switchable Photoresponse of a Monolayer WSe₂â€“MoS₂ Lateral Heterostructure via Photocurrent Spectral Atomic Force Microscopic Imaging. Nano Letters, 2016, 16, 3571-3577.	4.5	86
108	Dominance of Dispersion Interactions and Entropy over Electrostatics in Determining the Wettability and Friction of Two-Dimensional MoS₂ Surfaces. ACS Nano, 2016, 10, 9145-9155.	7.3	63

#	Article	IF	Citations
109	Electrical Energy Generation via Reversible Chemical Doping on Carbon Nanotube Fibers. Advanced Materials, 2016, 28, 9752-9757.	11.1	19
110	Layered and scrolled nanocomposites with aligned semi-infinite graphene inclusions at the platelet limit. Science, 2016, 353, 364-367.	6.0	125
111	Persistently Auxetic Materials: Engineering the Poisson Ratio of 2D Self-Avoiding Membranes under Conditions of Non-Zero Anisotropic Strain. ACS Nano, 2016, 10, 7542-7549.	7.3	13
112	A Pharmacokinetic Model of a Tissue Implantable Cortisol Sensor. Advanced Healthcare Materials, 2016, 5, 3004-3015.	3.9	25
113	Computationally Guided Synthesis of SSZ-52: A Zeolite for Engine Exhaust Clean-up. Chemistry of Materials, 2016, 28, 708-711.	3.2	72
114	Lipid Exchange Envelope Penetration (LEEP) of Nanoparticles for Plant Engineering: A Universal Localization Mechanism. Nano Letters, 2016, 16, 1161-1172.	4.5	213
115	Observation and analysis of the Coulter effect through carbon nanotube and graphene nanopores. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150357.	1.6	12
116	Protein-targeted corona phase molecular recognition. Nature Communications, 2016, 7, 10241.	5.8	193
117	Analysis of Thermal Diodes Enabled by Junctions of Phase Change Materials. Advanced Energy Materials, 2015, 5, 1500921.	10.2	43
118	Twoâ€Dimensional Transition Metal Dichalcogenides in Biosystems. Advanced Functional Materials, 2015, 25, 5086-5099.	7.8	306
119	A Ratiometric Sensor Using Single Chirality Nearâ€Infrared Fluorescent Carbon Nanotubes: Application to In Vivo Monitoring. Small, 2015, 11, 3973-3984.	5.2	135
120	The Structubent: A Nanocomposite Solution to Compressed Natural Gas Storage. Advanced Engineering Materials, 2015, 17, 383-391.	1.6	0
121	In Vivo Delivery of Nitric Oxideâ€Sensing, Singleâ€Walled Carbon Nanotubes. Current Protocols in Chemical Biology, 2015, 7, 93-102.	1.7	8
122	Molecular valves for controlling gas phase transport made from discrete Ã¥ngstrÃ¶m-sized pores in graphene. Nature Nanotechnology, 2015, 10, 785-790.	15.6	122
123	Mechanism of Immobilized Protein A Binding to Immunoglobulin G on Nanosensor Array Surfaces. Analytical Chemistry, 2015, 87, 8186-8193.	3.2	56
124	Comparative Dynamics and Sequence Dependence of DNA and RNA Binding to Single Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2015, 119, 10048-10058.	1.5	75
125	Layer Number Dependence of MoS₂ Photoconductivity Using Photocurrent Spectral Atomic Force Microscopic Imaging. ACS Nano, 2015, 9, 2843-2855.	7.3	84
126	Competitive Binding in Mixed Surfactant Systems for Single-Walled Carbon Nanotube Separation. Journal of Physical Chemistry C, 2015, 119, 22737-22745.	1.5	43

#	Article	IF	Citations
127	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	7.3	2,069
128	Understanding and Analyzing Freezing-Point Transitions of Confined Fluids within Nanopores. Langmuir, 2015, 31, 10113-10118.	1.6	26
129	Nanolithography Based on Metalized DNA Templates for Graphene Patterning. Current Protocols in Chemical Biology, 2014, 6, 53-64.	1.7	1
130	Experimental Tools to Study Molecular Recognition within the Nanoparticle Corona. Sensors, 2014, 14, 16196-16211.	2.1	49
131	Relaxation dynamics of carbon nanotubes of enriched chiralities. Physical Review B, 2014, 90, .	1.1	8
132	Plant nanobionics approach to augment photosynthesis and biochemical sensing. Nature Materials, 2014, 13, 400-408.	13.3	841
133	Deterministic modelling of carbon nanotube near-infrared solar cells. Energy and Environmental Science, 2014, 7, 3769-3781.	15.6	12
134	Superadiabaticity in reaction waves as a mechanism for energy concentration. Energy and Environmental Science, 2014, 7, 3391-3402.	15.6	11
135	Conformational Preferences of N,N-Dimethylsuccinamate as a Function of Alkali and Alkaline Earth Metal Salts: Experimental Studies in DMSO and Water As Determined by ¹H NMR Spectroscopy. Journal of Physical Chemistry A, 2014, 118, 1965-1970.	1.1	1
136	Spatiotemporal Intracellular Nitric Oxide Signaling Captured Using Internalized, Near-Infrared Fluorescent Carbon Nanotube Nanosensors. Nano Letters, 2014, 14, 4887-4894.	4.5	91
137	Formation of High-Aspect-Ratio Helical Nanorods via Chiral Self-Assembly of Fullerodendrimers. Journal of Physical Chemistry Letters, 2014, 5, 929-934.	2.1	3
138	Selective Assembly of DNA-Conjugated Single-Walled Carbon Nanotubes from the Vascular Secretome. ACS Nano, 2014, 8, 9126-9136.	7.3	18
139	Tuning Onâ€“Off Current Ratio and Field-Effect Mobility in a MoS₂â€“Graphene Heterostructure via Schottky Barrier Modulation. ACS Nano, 2014, 8, 5790-5798.	7.3	240
140	Analytical solution for transient partitioning and reaction of a condensing vapor species in a droplet. Atmospheric Environment, 2014, 89, 651-654.	1.9	7
141	A Rapid, Direct, Quantitative, and Labelâ€Free Detector of Cardiac Biomarker Troponin T Using Nearâ€Infrared Fluorescent Singleâ€Walled Carbon Nanotube Sensors. Advanced Healthcare Materials, 2014, 3, 412-423.	3.9	76
142	A graphene-based physiometer array for the analysis of single biological cells. Scientific Reports, 2014, 4, 6865.	1.6	36
143	Carbon nanotubes as optical biomedical sensors. Advanced Drug Delivery Reviews, 2013, 65, 1933-1950.	6.6	324
144	A Kinetic Model for the Deterministic Prediction of Gel-Based Single-Chirality Single-Walled Carbon Nanotube Separation. ACS Nano, 2013, 7, 1779-1789.	7.3	73

#	Article	IF	Citations
145	Excess Thermopower and the Theory of Thermopower Waves. ACS Nano, 2013, 7, 6533-6544.	7.3	72
146	Molecular interactions of polyimides with single-walled carbon nanotubes. Polymer Chemistry, 2013, 4, 290-295.	1.9	12
147	Molecular recognition using corona phase complexes made of synthetic polymers adsorbed on carbon nanotubes. Nature Nanotechnology, 2013, 8, 959-968.	15.6	282
148	Liquid Exfoliation of Layered Materials. Science, 2013, 340, .	6.0	3,109
149	Energy generation using thermopower waves: Experimental and analytical progress. AICHE Journal, 2013, 59, 3333-3341.	1.8	6
150	Diameter-dependent ion transport through the interior of isolated single-walled carbon nanotubes. Nature Communications, 2013, 4, 2397.	5.8	131
151	Effect of Reductive Dithiothreitol and Trolox on Nitric Oxide Quenching of Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2013, 117, 593-602.	1.5	39
152	Application of Nanoparticle Antioxidants to Enable Hyperstable Chloroplasts for Solar Energy Harvesting. Advanced Energy Materials, 2013, 3, 881-893.	10.2	99
153	Conformational Equilibria of N,N-Dimethylsuccinamic Acid and Its Lithium Salt as a Function of Solvent. Organic Letters, 2013, 15, 760-763.	2.4	5
154	A Quantitative and Predictive Model of Electromigration-Induced Breakdown of Metal Nanowires. Journal of Physical Chemistry C, 2013, 117, 12373-12378.	1.5	9
155	Enhanced Charge Carrier Mobility in Twoâ€Dimensional High Dielectric Molybdenum Oxide (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Ov	11.1	9
156	MnO₂-Based Thermopower Wave Sources with Exceptionally Large Output Voltages. Journal of Physical Chemistry C, 2013, 117, 9137-9142.	1.5	71
157	Substituent Effects on Energetics of Peptide-Carboxylate Hydrogen Bonds as Studied by ¹H NMR Spectroscopy: Implications for Enzyme Catalysis. Journal of Organic Chemistry, 2013, 78, 11765-11771.	1.7	16
158	Conformational analysis of N,N,Nâ€Trimethylâ€(3,3â€dimethylbutyl)ammonium iodide by NMR spectroscopy: a sterically hindered transâ€standard. Magnetic Resonance in Chemistry, 2013, 51, 701-704.	1.1	2
159	Fieldâ€Effect Transistors: Subâ€10 nm Graphene Nanoribbon Array Fieldâ€Effect Transistors Fabricated by Block Copolymer Lithography (Adv. Mater. 34/2013). Advanced Materials, 2013, 25, 4682-4682.	11.1	1
160	Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. Nature Nanotechnology, 2012, 7, 699-712.	15.6	13,346
161	Functional DNA Origami Devices. Science, 2012, 338, 890-891.	6.0	13
162	Analysing the photoluminescence intensities of singleâ€walled carbon nanotubes. Physica Status Solidi (B): Basic Research, 2012, 249, 2473-2478.	0.7	3

#	Article	IF	Citations
163	ZnO based thermopower wave sources. Chemical Communications, 2012, 48, 7462.	2.2	75
164	M13 Phage-Functionalized Single-Walled Carbon Nanotubes As Nanoprobes for Second Near-Infrared Window Fluorescence Imaging of Targeted Tumors. Nano Letters, 2012, 12, 1176-1183.	4.5	256
165	Polymerâ€Free Nearâ€Infrared Photovoltaics with Single Chirality (6,5) Semiconducting Carbon Nanotube Active Layers. Advanced Materials, 2012, 24, 4436-4439.	11.1	171
166	Dynamics of Simultaneous, Single Ion Transport through Two Single-Walled Carbon Nanotubes: Observation of a Three-State System. Journal of the American Chemical Society, 2011, 133, 203-205.	6.6	43
167	Applicability of Birthâ€“Death Markov Modeling for Single-Molecule Counting Using Single-Walled Carbon Nanotube Fluorescent Sensor Arrays. Journal of Physical Chemistry Letters, 2011, 2, 1690-1694.	2.1	11
168	A Compositional Window of Kinetic Stability for Amphiphilic Polymers and Colloidal Nanorods. Journal of Physical Chemistry C, 2011, 115, 7164-7170.	1.5	7
169	Single Molecule Detection of Nitric Oxide Enabled by d(AT)₁₅ DNA Adsorbed to Near Infrared Fluorescent Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2011, 133, 567-581.	6.6	177
170	Wavefront Velocity Oscillations of Carbon-Nanotube-Guided Thermopower Waves: Nanoscale Alternating Current Sources. ACS Nano, 2011, 5, 367-375.	7.3	40
171	Synthesis and Energy Release of Nitrobenzene-Functionalized Single-Walled Carbon Nanotubes. Chemistry of Materials, 2011, 23, 4557-4562.	3.2	29
172	Biomimetic strategies for solar energy conversion: a technical perspective. Energy and Environmental Science, 2011, 4, 3834.	15.6	69
173	New concepts in molecular and energy transport within carbon nanotubes: Thermopower waves and stochastically resonant ion channels. Physica Status Solidi (B): Basic Research, 2011, 248, 2445-2448.	0.7	9
174	Semiconducting Singleâ€Walled Carbon Nanotubes as Radical Photoinitiators. Macromolecular Chemistry and Physics, 2011, 212, 1469-1473.	1.1	12
175	Oscillatory Thermopower Waves Based on Bi₂Te₃ Films. Advanced Functional Materials, 2011, 21, 2072-2079.	7.8	58
176	Nanostructured Tungsten Oxide â€“ Properties, Synthesis, and Applications. Advanced Functional Materials, 2011, 21, 2175-2196.	7.8	1,198
177	The chemical engineering of lowâ€dimensional materials. AICHE Journal, 2011, 57, 1104-1118.	1.8	8
178	Nearâ€Infrared Fluorescent Sensors based on Singleâ€Walled Carbon Nanotubes for Life Sciences Applications. ChemSusChem, 2011, 4, 848-863.	3.6	146
179	Carbon nanotube-guided thermopower waves. Materials Today, 2010, 13, 22-33.	8.3	66
180	Photoelectrochemical complexes for solar energy conversion that chemically and autonomously regenerate. Nature Chemistry, 2010, 2, 929-936.	6.6	126

#	Article	IF	Citations
181	Coherence Resonance in a Single-Walled Carbon Nanotube Ion Channel. Science, 2010, 329, 1320-1324.	6.0	241
182	Analytical Solution to Coupled Chemical Reaction and Thermally Diffusing Systems: Applicability to Self-Propagating Thermopower Waves. Journal of Physical Chemistry Letters, 2010, 1, 3514-3519.	2.1	26
183	Chemically driven carbon-nanotube-guided thermopower waves. Nature Materials, 2010, 9, 423-429.	13.3	276
184	Synthesis of Atomically Thin WO₃ Sheets from Hydrated Tungsten Trioxide. Chemistry of Materials, 2010, 22, 5660-5666.	3.2	215
185	Structureâ^'Reactivity Relationships for Graphene Nanoribbons. Journal of Physical Chemistry C, 2009, 113, 14771-14777.	1.5	54
186	Controlling Single-Walled Carbon Nanotube Surface Adsorption with Covalent and Noncovalent Functionalization. Journal of Physical Chemistry C, 2009, 113, 12443-12453.	1.5	27
187	Modulation of Single-Walled Carbon Nanotube Photoluminescence by Hydrogel Swelling. ACS Nano, 2009, 3, 3869-3877.	7.3	79
188	Where is it Heading? Single-Particle Tracking of Single-Walled Carbon Nanotubes. ACS Nano, 2008, 2, 1749-1752.	7.3	27
189	Synthesis of Nickelâ^'Nitrilotriacetic Acid Coupled Single-Walled Carbon Nanotubes for Directed Self-Assembly with Polyhistidine-Tagged Proteins. Chemistry of Materials, 2008, 20, 1824-1829.	3.2	50
190	Stochastic Analysis of Stepwise Fluorescence Quenching Reactions on Single-Walled Carbon Nanotubes: Single Molecule Sensors. Nano Letters, 2008, 8, 4299-4304.	4.5	82
191	Solvatochromism in single-walled carbon nanotubes. Applied Physics Letters, 2007, 90, 223114.	1.5	193
192	A Structureâ^'Reactivity Relationship for Single Walled Carbon Nanotubes Reacting with 4-Hydroxybenzene Diazonium Salt. Journal of the American Chemical Society, 2007, 129, 3946-3954.	6.6	99
193	In Vivo Fluorescence Detection of Glucose Using a Single-Walled Carbon Nanotube Optical Sensor:Â Design, Fluorophore Properties, Advantages, and Disadvantages. Analytical Chemistry, 2005, 77, 7556-7562.	3.2	250
194	Near-infrared optical sensors based on single-walled carbon nanotubes. Nature Materials, 2004, 4, 86-92.	13.3	889
195	Solution Casting and Transfer Printing Single-Walled Carbon Nanotube Films. Nano Letters, 2004, 4, 1643-1647.	4.5	447
196	Assignment of (n, m) Raman and Optical Features of Metallic Single-Walled Carbon Nanotubes. Nano Letters, 2003, 3, 1091-1096.	4.5	250
197	Reversible, Band-Gap-Selective Protonation of Single-Walled Carbon Nanotubes in Solution. Journal of Physical Chemistry B, 2003, 107, 6979-6985.	1.2	345
198	Structure-Based Carbon Nanotube Sorting by Sequence-Dependent DNA Assembly. Science, 2003, 302, 1545-1548.	6.0	1,547

#	Article	IF	Citations
199	Capillary Electrophoresis Separations of Bundled and Individual Carbon Nanotubes. Journal of Physical Chemistry B, 2003, 107, 6063-6069.	1.2	107
200	The Role of Surfactant Adsorption during Ultrasonication in the Dispersion of Single-Walled Carbon Nanotubes. Journal of Nanoscience and Nanotechnology, 2003, 3, 81-86.	0.9	466
201	Band Gap Fluorescence from Individual Single-Walled Carbon Nanotubes. Science, 2002, 297, 593-596.	6.0	3,582
202	Design Rules for Chemostrictive Materials as Selective Molecular Barriers. Advanced Engineering Materials, 0, , 2101112.	1.6	1
203	Atomically Thin 2D Interfaces as Sensors for Molecular Permeability through Cellular Layers and Thin Tissues. Advanced Functional Materials, 0, , 2109598.	7.8	0