Michael S Strano

List of Publications by Year
in descending order

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202	46,682	11651 70	2629 194
papers	citations	h-index	g-index

204	204	204	45724
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.	2.7	2
2	Size Selective Corona Interactions from Selfâ€Assembled Rosette and Singleâ€Walled Carbon Nanotubes. Small, 2022, 18, e2104951.	10.0	2
3	Irreversible synthesis of an ultrastrong two-dimensional polymeric material. Nature, 2022, 602, 91-95.	27.8	42
4	Emerging investigator series: linking nanoparticle infiltration and stomatal dynamics for plant nanobionics. Environmental Science: Nano, 2022, 9, 1236-1246.	4.3	4
5	Gas Separations using Nanoporous Atomically Thin Membranes: Recent Theoretical, Simulation, and Experimental Advances. Advanced Materials, 2022, 34, e2201472.	21.0	28
6	Approximate Corona Phase Hamiltonian for Individual Cylindrical Nanoparticleâ€“Polymer Interactions. Journal of Physical Chemistry B, 2022, 126, 347-354.	2.6	2
7	Memristor Circuits for Colloidal Robotics: Temporal Access to Memory, Sensing, and Actuation. Advanced Intelligent Systems, 2022, 4, .	6.1	8
8	Differential modulation of endothelial cytoplasmic protrusions after exposure to graphene-family nanomaterials. NanoImpact, 2022, 26, 100401.	4.5	3
9	A wavelength-induced frequency filtering method for fluorescent nanosensors in vivo. Nature Nanotechnology, 2022, 17, 643-652.	31.5	27
10	Biological Impacts of Reduced Graphene Oxide Affected by Protein Corona Formation. Chemical Research in Toxicology, 2022, 35, 1244-1256.	3.3	11
11	Machine learning for the discovery of molecular recognition based on single-walled carbon nanotube corona-phases. Npj Computational Materials, 2022, 8, .	8.7	7
12	(Invited) Using Cell Lensing and Nanosensor Chemical Cytometry to Characterize Immune Cell Populations. ECS Meeting Abstracts, 2022, MA2022-01, 695-695.	0.0	0
13	An Algorithmic Approach for Developing Single-Walled Carbon Nanotube Optical Sensors Against Adulterants in Aquaculture. ECS Meeting Abstracts, 2022, MA2022-01, 717-717.	0.0	0
14	(Digital Presentation) High Energy Density Picoliter Zn-Air Batteries for Colloidal Robots and State Machines. ECS Meeting Abstracts, 2022, MA2022-01, 566-566.	0.0	0
15	Autoperforation of two-dimensional materials to generate colloidal state machines capable of locomotion. Faraday Discussions, 2021, 227, 213-232.	3.2	7
16	Plant Nanobionic Sensors for Arsenic Detection. Advanced Materials, 2021, 33, e2005683.	21.0	75
17	A mathematical analysis of carbon fixing materials that grow, reinforce, and self-heal from atmospheric carbon dioxide. Green Chemistry, 2021, 23, 5556-5570.	9.0	2
18	Predicting Gas Separation through Graphene Nanopore Ensembles with Realistic Pore Size Distributions. ACS Nano, 2021, 15, 1727-1740.	14.6	28

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19	Diameter Dependence of Water Filling in Lithographically Segmented Isolated Carbon Nanotubes. ACS Nano, 2021, 15, 2778-2790.	14.6	20
20	A virucidal face mask based on the reverseâ€flow reactor concept for thermal inactivation of SARSâ€CoV â€2. AICHE Journal, 2021, 67, e17250.	3.6	14
21	SynCells: A 60 Ã— 60 Î¼m² Electronic Platform with Remote Actuation for Sensing Applications in Constrained Environments. ACS Nano, 2021, 15, 8803-8812.	14.6	4
22	Cellular lensing and near infrared fluorescent nanosensor arrays to enable chemical efflux cytometry. Nature Communications, 2021, 12, 3079.	12.8	16
23	Chemical kinetic mechanisms and scaling of two-dimensional polymers via irreversible solution-phase reactions. Journal of Chemical Physics, 2021, 154, 194901.	3.0	6
24	Atomically Precise Control of Carbon Insertion into hBN Monolayer Point Vacancies using a Focused Electron Beam Guide. Small, 2021, 17, e2100693.	10.0	13
25	Transcutaneous Measurement of Essential Vitamins Using Nearâ€Infrared Fluorescent Singleâ€Walled Carbon Nanotube Sensors. Small, 2021, 17, e2100540.	10.0	10
26	Nanophotonic biosensors harnessing van der Waals materials. Nature Communications, 2021, 12, 3824.	12.8	88
27	Solvent-induced electrochemistry at an electrically asymmetric carbon Janus particle. Nature Communications, 2021, 12, 3415.	12.8	14
28	Nanosensor Chemical Cytometry for Characterizing the Efflux Heterogeneity of Nitric Oxide from Macrophages. ACS Nano, 2021, 15, 13683-13691.	14.6	5
29	Nanosensor Detection of Synthetic Auxins In Planta using Corona Phase Molecular Recognition. ACS Sensors, 2021, 6, 3032-3046.	7.8	32
30	Augmenting the living plant mesophyll into a photonic capacitor. Science Advances, 2021, 7, eabe9733.	10.3	13
31	Direct Chemical Vapor Deposition Synthesis of Porous Singleâ€Layer Graphene Membranes with High Gas Permeances and Selectivities. Advanced Materials, 2021, 33, e2104308.	21.0	28
32	Biomedical applications: general discussion. Faraday Discussions, 2021, 227, 245-258.	3.2	2
33	Buckling, crumpling, and tumbling of semiflexible sheets in simple shear flow. Soft Matter, 2021, 17, 4707-4718.	2.7	14
34	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.	4.3	10
35	Antibody-Free Rapid Detection of SARS-CoV-2 Proteins Using Corona Phase Molecular Recognition to Accelerate Development Time. Analytical Chemistry, 2021, 93, 14685-14693.	6.5	25
36	Impedance of Thermal Conduction from Nanoconfined Water in Carbon Nanotube Single-Digit Nanopores. Journal of Physical Chemistry C, 2021, 125, 25717-25728.	3.1	2

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37	Hygroscopic Micro/Nanolenses along Carbon Nanotube Ion Channels. Nano Letters, 2020, 20, 812-819.	9.1	3
38	The Emergence of Plant Nanobionics and Living Plants as Technology. Advanced Materials Technologies, 2020, 5, 1900657.	5.8	70
39	Immobilization and Function of nIR-Fluorescent Carbon Nanotube Sensors on Paper Substrates for Fluidic Manipulation. Analytical Chemistry, 2020, 92, 916-923.	6.5	20
40	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.	7.1	16
41	A Fiber Optic Interface Coupled to Nanosensors: Applications to Protein Aggregation and Organic Molecule Quantification. ACS Nano, 2020, 14, 10141-10152.	14.6	21
42	Species-independent analytical tools for next-generation agriculture. Nature Plants, 2020, 6, 1408-1417.	9.3	63
43	Nanocarriers for Transgene Expression in Pollen as a Plant Biotechnology Tool. , 2020, 2, 1057-1066.		33
44	Implantable Nanosensors for Human Steroid Hormone Sensing In Vivo Using a Selfâ€Templating Corona Phase Molecular Recognition. Advanced Healthcare Materials, 2020, 9, e2000429.	7.6	45
45	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.	10.0	20
46	Banning carbon nanotubes would be scientifically unjustified and damaging to innovation. Nature Nanotechnology, 2020, 15, 164-166.	31.5	69
47	Towards low-loss photonics. Nature Photonics, 2020, 14, 197-198.	31.4	1
48	Connecting Rodent and Human Pharmacokinetic Models for the Design and Translation of Glucose-Responsive Insulin. Diabetes, 2020, 69, 1815-1826.	0.6	12
49	Highly Ordered Two-Dimensional MoS2 Archimedean Scroll Bragg Reflectors as Chromatically Adaptive Fibers. Nano Letters, 2020, 20, 3067-3078.	9.1	6
50	Carbon science perspective in 2020: Current research and future challenges. Carbon, 2020, 161, 373-391.	10.3	77
51	Prediction of protein corona on nanomaterials by machine learning using novel descriptors. NanoImpact, 2020, 17, 100207.	4.5	62
52	Characterization of Protein Aggregation Using Hydrogel-Encapsulated nIR Fluorescent Nanoparticle Sensors. ACS Sensors, 2020, 5, 327-337.	7.8	12
53	Engineering two-dimensional nanomaterials to enable structure-activity relationship studies in nanosafety research. NanoImpact, 2020, 18, 100226.	4.5	11
54	Real-time detection of wound-induced H2O2 signalling waves in plants with optical nanosensors. Nature Plants, 2020, 6, 404-415.	9.3	157

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55	A conceptual advance that gives microrobots legs. Nature, 2020, 584, 530-531.	27.8	13
56	DNAâ€“SWCNT Biosensors Allow Real-Time Monitoring of Therapeutic Responses in Pancreatic Ductal Adenocarcinoma. Cancer Research, 2019, 79, 4515-4523.	0.9	17
57	Singleâ€Particle Tracking for Understanding Polydisperse Nanoparticle Dispersions. Small, 2019, 15, 1901468.	10.0	13
58	Analytical Prediction of Gas Permeation through Graphene Nanopores of Varying Sizes: Understanding Transitions across Multiple Transport Regimes. ACS Nano, 2019, 13, 11809-11824.	14.6	46
59	Measuring the Accessible Surface Area within the Nanoparticle Corona Using Molecular Probe Adsorption. Nano Letters, 2019, 19, 7712-7724.	9.1	20
60	Can Fish and Cell Phones Teach Us about Our Health?. ACS Sensors, 2019, 4, 2566-2570.	7.8	2
61	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.	9.1	39
62	Lowâ€Temperature Growth of Carbon Nanotubes Catalyzed by Sodiumâ€Based Ingredients. Angewandte Chemie, 2019, 131, 9302-9307.	2.0	2
63	Lowâ€Temperature Growth of Carbon Nanotubes Catalyzed by Sodiumâ€Based Ingredients. Angewandte Chemie - International Edition, 2019, 58, 9204-9209.	13.8	25
64	Critical Knowledge Gaps in Mass Transport through Single-Digit Nanopores: A Review and Perspective. Journal of Physical Chemistry C, 2019, 123, 21309-21326.	3.1	234
65	Large-area synthesis of 2D MoO _{3â^' x} for enhanced optoelectronic applications. 2D Materials, 2019, 6, 035031.	4.4	48
66	High-Resolution Nanoparticle Sizing with Maximum A Posteriori Nanoparticle Tracking Analysis. ACS Nano, 2019, 13, 3940-3952.	14.6	30
67	Chloroplast-selective gene delivery and expression in planta using chitosan-complexed single-walled carbon nanotube carriers. Nature Nanotechnology, 2019, 14, 447-455.	31.5	364
68	Addressing the isomer cataloguing problem for nanopores in two-dimensional materials. Nature Materials, 2019, 18, 129-135.	27.5	57
69	Energy harvesting techniques mediated by molecular interactions with nanostructured carbon materials. , 2019, , 389-424.		4
70	Synthetic Cells: Colloidal-sized state machines. , 2019, , 361-386.		2
71	Implanted Nanosensors in Marine Organisms for Physiological Biologging: Design, Feasibility, and Species Variability. ACS Sensors, 2019, 4, 32-43.	7.8	36
72	Persistent energy harvesting in the harsh desert environment using a thermal resonance device: Design, testing, and analysis. Applied Energy, 2019, 235, 1514-1523.	10.1	18

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73	Analysis of Multiplexed Nanosensor Arrays Based on Near-Infrared Fluorescent Single-Walled Carbon Nanotubes. ACS Nano, 2018, 12, 3769-3779.	14.6	32
74	Insulin Detection Using a Corona Phase Molecular Recognition Site on Single-Walled Carbon Nanotubes. ACS Sensors, 2018, 3, 367-377.	7.8	78
75	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.	4.6	55
76	Endotoxinâ€Free Preparation of Graphene Oxide and Grapheneâ€Based Materials for Biological Applications. Current Protocols in Chemical Biology, 2018, 10, e51.	1.7	12
77	Polymethacrylamide and Carbon Composites that Grow, Strengthen, and Selfâ€Repair using Ambient Carbon Dioxide Fixation. Advanced Materials, 2018, 30, e1804037.	21.0	25
78	Direct Electricity Generation Mediated by Molecular Interactions with Low Dimensional Carbon Materialsâ€”A Mechanistic Perspective. Advanced Energy Materials, 2018, 8, 1802212.	19.5	47
79	Autoperforation of 2D materials for generating two-terminal memristive Janus particles. Nature Materials, 2018, 17, 1005-1012.	27.5	56
80	Rational Design Principles for the Transport and Subcellular Distribution of Nanomaterials into Plant Protoplasts. Small, 2018, 14, e1802086.	10.0	89
81	Emerging trends in 2D nanotechnology that are redefining our understanding of â€œNanocompositesâ€• Nano Today, 2018, 21, 18-40.	11.9	59
82	Colloidal nanoelectronic state machines based on 2D materials for aerosolizable electronics. Nature Nanotechnology, 2018, 13, 819-827.	31.5	50
83	Stable, Temperature-Dependent Gas Mixture Permeation and Separation through Suspended Nanoporous Single-Layer Graphene Membranes. Nano Letters, 2018, 18, 5057-5069.	9.1	56
84	Single-layer graphene membranes by crack-free transfer for gas mixture separation. Nature Communications, 2018, 9, 2632.	12.8	160
85	The Exterior of Single-Walled Carbon Nanotubes as a Millimeter-Long Cation-Preferring Nanochannel. Chemistry of Materials, 2018, 30, 5184-5193.	6.7	6
86	Noble-gas-infused neoprene closed-cell foams achieving ultra-low thermal conductivity fabrics. RSC Advances, 2018, 8, 21389-21398.	3.6	12
87	Electrokinetic Transport of Methanol and Lithium Ions Through a 2.25-nm-Diameter Carbon Nanotube Nanopore. Journal of Physical Chemistry C, 2017, 121, 2005-2013.	3.1	15
88	Single-molecule detection of protein efflux from microorganisms using fluorescent single-walled carbon nanotube sensor arrays. Nature Nanotechnology, 2017, 12, 368-377.	31.5	172
89	The double-resonance Raman spectra in single-chirality (n, m) carbon nanotubes. Carbon, 2017, 117, 41-45.	10.3	13
90	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.	7.1	158

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91	A study of bilayer phosphorene stability under MoS ₂ -passivation. 2D Materials, 2017, 4, 025091.	4.4	42
92	Current and future directions in electron transfer chemistry of graphene. Chemical Society Reviews, 2017, 46, 4530-4571.	38.1	125
93	Emerging Trends in Micro- and Nanoscale Technologies in Medicine: From Basic Discoveries to Translation. ACS Nano, 2017, 11, 5195-5214.	14.6	104
94	Fabrication, Pressure Testing, and Nanopore Formation of Single-Layer Graphene Membranes. Journal of Physical Chemistry C, 2017, 121, 14312-14321.	3.1	39
95	Nanosensor Technology Applied to Living Plant Systems. Annual Review of Analytical Chemistry, 2017, 10, 113-140.	5.4	133
96	Surface Water Dependent Properties of Sulfur-Rich Molybdenum Sulfides: Electrolyteless Gas Phase Water Splitting. ACS Nano, 2017, 11, 6782-6794.	14.6	57
97	Quantitative Modeling of MoS₂â€“Solvent Interfaces: Predicting Contact Angles and Exfoliation Performance using Molecular Dynamics. Journal of Physical Chemistry C, 2017, 121, 9022-9031.	3.1	81
98	Experimental Observation of Real Time Molecular Dynamics Using Electromigrated Tunnel Junctions. Journal of Physical Chemistry C, 2017, 121, 22550-22558.	3.1	3
99	Ionic Strength-Mediated Phase Transitions of Surface-Adsorbed DNA on Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2017, 139, 16791-16802.	13.7	74
100	Rational Design of Glucoseâ€Responsive Insulin Using Pharmacokinetic Modeling. Advanced Healthcare Materials, 2017, 6, 1700601.	7.6	10
101	Glucose-responsive insulin by molecular and physical design. Nature Chemistry, 2017, 9, 937-944.	13.6	106
102	Transport of Amino Acid Cations through a 2.25-nm-Diameter Carbon Nanotube Nanopore: Electrokinetic Motion and Trapping/Desorption. Journal of Physical Chemistry C, 2017, 121, 27709-27720.	3.1	6
103	A Nanobionic Light-Emitting Plant. Nano Letters, 2017, 17, 7951-7961.	9.1	93
104	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.	13.7	23
105	Persistent drought monitoring using a microfluidic-printed electro-mechanical sensor of stomata in planta. Lab on A Chip, 2017, 17, 4015-4024.	6.0	55
106	Mechanism and Prediction of Gas Permeation through Sub-Nanometer Graphene Pores: Comparison of Theory and Simulation. ACS Nano, 2017, 11, 7974-7987.	14.6	103
107	Nitroaromatic detection and infrared communication from wild-type plants using plantÂnanobionics. Nature Materials, 2017, 16, 264-272.	27.5	234
108	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.	14.7	37

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109	Observation of extreme phase transition temperatures of water confined inside isolated carbon nanotubes. Nature Nanotechnology, 2017, 12, 267-273.	31.5	249
110	Highâ€Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100.	14.9	164
111	Generalized Mechanistic Model for the Chemical Vapor Deposition of 2D Transition Metal Dichalcogenide Monolayers. ACS Nano, 2016, 10, 4330-4344.	14.6	190
112	Sustainable power sources based on high efficiency thermopower wave devices. Energy and Environmental Science, 2016, 9, 1290-1298.	30.8	20
113	Quantitative Tissue Spectroscopy of Near Infrared Fluorescent Nanosensor Implants. Journal of Biomedical Nanotechnology, 2016, 12, 1035-1047.	1.1	46
114	Chirality dependent corona phase molecular recognition of DNA-wrapped carbon nanotubes. Carbon, 2016, 97, 147-153.	10.3	78
115	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.	14.6	63
116	Electrical Energy Generation via Reversible Chemical Doping on Carbon Nanotube Fibers. Advanced Materials, 2016, 28, 9752-9757.	21.0	19
117	A Dynamic, Mathematical Model for Quantitative Glycoprofiling Using Label-Free Lectin Microarrays. ACS Sensors, 2016, 1, 987-996.	7.8	2
118	Layered and scrolled nanocomposites with aligned semi-infinite graphene inclusions at the platelet limit. Science, 2016, 353, 364-367.	12.6	125
119	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.	14.6	13
120	A Pharmacokinetic Model of a Tissue Implantable Cortisol Sensor. Advanced Healthcare Materials, 2016, 5, 3004-3015.	7.6	25
121	Lipid Exchange Envelope Penetration (LEEP) of Nanoparticles for Plant Engineering: A Universal Localization Mechanism. Nano Letters, 2016, 16, 1161-1172.	9.1	213
122	Analysis of Time-Varying, Stochastic Gas Transport through Graphene Membranes. ACS Nano, 2016, 10, 786-795.	14.6	27
123	Protein-targeted corona phase molecular recognition. Nature Communications, 2016, 7, 10241.	12.8	193
124	Twoâ€Dimensional Transition Metal Dichalcogenides in Biosystems. Advanced Functional Materials, 2015, 25, 5086-5099.	14.9	306
125	Generating Selective Saccharide Binding Affinity of Phenyl Boronic Acids by using Singleâ€Walled Carbon Nanotube Corona Phases. Chemistry - A European Journal, 2015, 21, 4523-4528.	3.3	16
126	A Ratiometric Sensor Using Single Chirality Nearâ€Infrared Fluorescent Carbon Nanotubes: Application to In Vivo Monitoring. Small, 2015, 11, 3973-3984.	10.0	135

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127	In Vivo Delivery of Nitric Oxideâ€Sensing, Singleâ€Walled Carbon Nanotubes. Current Protocols in Chemical Biology, 2015, 7, 93-102.	1.7	8
128	2D Equation-of-State Model for Corona Phase Molecular Recognition on Single-Walled Carbon Nanotube and Graphene Surfaces. Langmuir, 2015, 31, 628-636.	3.5	22
129	A Mathematical Formulation and Solution of the CoPhMoRe Inverse Problem for Helically Wrapping Polymer Corona Phases on Cylindrical Substrates. Journal of Physical Chemistry C, 2015, 119, 13876-13886.	3.1	40
130	Molecular valves for controlling gas phase transport made from discrete Ã¥ngstrÃ¶m-sized pores in graphene. Nature Nanotechnology, 2015, 10, 785-790.	31.5	122
131	Mechanism of Immobilized Protein A Binding to Immunoglobulin G on Nanosensor Array Surfaces. Analytical Chemistry, 2015, 87, 8186-8193.	6.5	56
132	Comparative Dynamics and Sequence Dependence of DNA and RNA Binding to Single Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2015, 119, 10048-10058.	3.1	75
133	Competitive Binding in Mixed Surfactant Systems for Single-Walled Carbon Nanotube Separation. Journal of Physical Chemistry C, 2015, 119, 22737-22745.	3.1	43
134	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	14.6	2,069
135	Understanding and Analyzing Freezing-Point Transitions of Confined Fluids within Nanopores. Langmuir, 2015, 31, 10113-10118.	3.5	26
136	Protein functionalized carbon nanomaterials for biomedical applications. Carbon, 2015, 95, 767-779.	10.3	186
137	A Pharmacokinetic Model of a Tissue Implantable Insulin Sensor. Advanced Healthcare Materials, 2015, 4, 87-97.	7.6	39
138	Experimental Tools to Study Molecular Recognition within the Nanoparticle Corona. Sensors, 2014, 14, 16196-16211.	3.8	49
139	CVD Growth of Carbon Nanostructures from Zirconia: Mechanisms and a Method for Enhancing Yield. Journal of the American Chemical Society, 2014, 136, 17808-17817.	13.7	30
140	Plant nanobionics approach to augment photosynthesis and biochemical sensing. Nature Materials, 2014, 13, 400-408.	27.5	841
141	Neurotransmitter Detection Using Corona Phase Molecular Recognition on Fluorescent Single-Walled Carbon Nanotube Sensors. Journal of the American Chemical Society, 2014, 136, 713-724.	13.7	288
142	Recent Advances in Molecular Recognition Based on Nanoengineered Platforms. Accounts of Chemical Research, 2014, 47, 979-988.	15.6	70
143	Low Dimensional Carbon Materials for Applications in Mass and Energy Transport. Chemistry of Materials, 2014, 26, 172-183.	6.7	42
144	Spatiotemporal Intracellular Nitric Oxide Signaling Captured Using Internalized, Near-Infrared Fluorescent Carbon Nanotube Nanosensors. Nano Letters, 2014, 14, 4887-4894.	9.1	91

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145	Selective Assembly of DNA-Conjugated Single-Walled Carbon Nanotubes from the Vascular Secretome. ACS Nano, 2014, 8, 9126-9136.	14.6	18
146	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.	7.6	76
147	A graphene-based physiometer array for the analysis of single biological cells. Scientific Reports, 2014, 4, 6865.	3.3	36
148	Carbon nanotubes as optical biomedical sensors. Advanced Drug Delivery Reviews, 2013, 65, 1933-1950.	13.7	324
149	Emergent Properties of Nanosensor Arrays: Applications for Monitoring IgG Affinity Distributions, Weakly Affined Hypermannosylation, and Colony Selection for Biomanufacturing. ACS Nano, 2013, 7, 7472-7482.	14.6	45
150	A Kinetic Model for the Deterministic Prediction of Gel-Based Single-Chirality Single-Walled Carbon Nanotube Separation. ACS Nano, 2013, 7, 1779-1789.	14.6	73
151	Excess Thermopower and the Theory of Thermopower Waves. ACS Nano, 2013, 7, 6533-6544.	14.6	72
152	In vivo biosensing via tissue-localizable near-infrared-fluorescent single-walled carbon nanotubes. Nature Nanotechnology, 2013, 8, 873-880.	31.5	320
153	Molecular recognition using corona phase complexes made of synthetic polymers adsorbed on carbon nanotubes. Nature Nanotechnology, 2013, 8, 959-968.	31.5	282
154	Liquid Exfoliation of Layered Materials. Science, 2013, 340, .	12.6	3,109
155	Evolution of Physical and Electronic Structures of Bilayer Graphene upon Chemical Functionalization. Journal of the American Chemical Society, 2013, 135, 18866-18875.	13.7	43
156	Diameter-dependent ion transport through the interior of isolated single-walled carbon nanotubes. Nature Communications, 2013, 4, 2397.	12.8	131
157	A bright future for defects. Nature Chemistry, 2013, 5, 812-813.	13.6	18
158	Wetting translucency of graphene. Nature Materials, 2013, 12, 866-869.	27.5	241
159	Application of Nanoparticle Antioxidants to Enable Hyperstable Chloroplasts for Solar Energy Harvesting. Advanced Energy Materials, 2013, 3, 881-893.	19.5	99
160	Enhanced Charge Carrier Mobility in Twoâ€Dimensional High Dielectric Molybdenum Oxide. Advanced Materials, 2013, 25, 109-114.	21.0	355
161	Stochastic Pore Blocking and Gating in PDMSâ€“Glass Nanopores from Vaporâ€“Liquid Phase Transitions. Journal of Physical Chemistry C, 2013, 117, 9641-9651.	3.1	15
162	Disorder Imposed Limits of Mono- and Bilayer Graphene Electronic Modification Using Covalent Chemistry. Nano Letters, 2013, 13, 809-817.	9.1	62

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163	A Quantitative and Predictive Model of Electromigration-Induced Breakdown of Metal Nanowires. Journal of Physical Chemistry C, 2013, 117, 12373-12378.	3.1	9
164	Covalent Electron Transfer Chemistry of Graphene with Diazonium Salts. Accounts of Chemical Research, 2013, 46, 160-170.	15.6	277
165	Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. Nature Nanotechnology, 2012, 7, 699-712.	31.5	13,346
166	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732.	13.6	463
167	Observation of Oscillatory Surface Reactions of Riboflavin, Trolox, and Singlet Oxygen Using Single Carbon Nanotube Fluorescence Spectroscopy. ACS Nano, 2012, 6, 10632-10645.	14.6	58
168	Breakdown in the Wetting Transparency of Graphene. Physical Review Letters, 2012, 109, 176101.	7.8	313
169	Boronic Acid Library for Selective, Reversible Near-Infrared Fluorescence Quenching of Surfactant Suspended Single-Walled Carbon Nanotubes in Response to Glucose. ACS Nano, 2012, 6, 819-830.	14.6	71
170	Mechanisms of Gas Permeation through Single Layer Graphene Membranes. Langmuir, 2012, 28, 16671-16678.	3.5	148
171	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.	9.1	256
172	Understanding Surfactant/Graphene Interactions Using a Graphene Field Effect Transistor: Relating Molecular Structure to Hysteresis and Carrier Mobility. Langmuir, 2012, 28, 8579-8586.	3.5	53
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