Michael S Strano

List of Publications by Year
in descending order

202 papers	46,682 citations	11651 70 h-index	2629 194 g-index
204 all docs	204 docs citations	204 times ranked	45724 citing authors

#	Article	IF	Citations
1	Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. Nature Nanotechnology, 2012, 7, 699-712.	31.5	13,346
2	Band Gap Fluorescence from Individual Single-Walled Carbon Nanotubes. Science, 2002, 297, 593-596.	12.6	3,582
3	Liquid Exfoliation of Layered Materials. Science, 2013, 340, .	12.6	3,109
4	Structure-Assigned Optical Spectra of Single-Walled Carbon Nanotubes. Science, 2002, 298, 2361-2366.	12.6	2,826
5	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	14.6	2,069
6	Structure-Based Carbon Nanotube Sorting by Sequence-Dependent DNA Assembly. Science, 2003, 302, 1545-1548.	12.6	1,547
7	Individually Suspended Single-Walled Carbon Nanotubes in Various Surfactants. Nano Letters, 2003, 3, 1379-1382.	9.1	1,532
8	High-resolution electrohydrodynamic jetÂprinting. Nature Materials, 2007, 6, 782-789.	27.5	1,231
9	Near-infrared optical sensors based on single-walled carbon nanotubes. Nature Materials, 2004, 4, 86-92.	27.5	889
10	Plant nanobionics approach to augment photosynthesis and biochemical sensing. Nature Materials, 2014, 13, 400-408.	27.5	841
11	Anomalously Large Reactivity of Single Graphene Layers and Edges toward Electron Transfer Chemistries. Nano Letters, 2010, 10, 398-405.	9.1	482
12	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
13	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732.	13.6	463
14	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
15	Enhanced Charge Carrier Mobility in Twoâ€Dimensional High Dielectric Molybdenum Oxide. Advanced Materials, 2013, 25, 109-114.	21.0	355
16	Reversible, Band-Gap-Selective Protonation of Single-Walled Carbon Nanotubes in Solution. Journal of Physical Chemistry B, 2003, 107, 6979-6985.	2.6	345
17	Carbon nanotubes as optical biomedical sensors. Advanced Drug Delivery Reviews, 2013, 65, 1933-1950.	13.7	324
18	In vivo biosensing via tissue-localizable near-infrared-fluorescent single-walled carbon nanotubes. Nature Nanotechnology, 2013, 8, 873-880.	31.5	320

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19	Breakdown in the Wetting Transparency of Graphene. Physical Review Letters, 2012, 109, 176101.	7.8	313
20	Twoâ€Dimensional Transition Metal Dichalcogenides in Biosystems. Advanced Functional Materials, 2015, 25, 5086-5099.	14.9	306
21	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
22	Multimodal optical sensing and analyte specificity using single-walled carbon nanotubes. Nature Nanotechnology, 2009, 4, 114-120.	31.5	284
23	Molecular recognition using corona phase complexes made of synthetic polymers adsorbed on carbon nanotubes. Nature Nanotechnology, 2013, 8, 959-968.	31.5	282
24	Covalent Electron Transfer Chemistry of Graphene with Diazonium Salts. Accounts of Chemical Research, 2013, 46, 160-170.	15.6	277
25	Chemically driven carbon-nanotube-guided thermopower waves. Nature Materials, 2010, 9, 423-429.	27.5	276
26	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
27	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.	6.5	250
28	Observation of extreme phase transition temperatures of water confined inside isolated carbon nanotubes. Nature Nanotechnology, 2017, 12, 267-273.	31.5	249
29	Coherence Resonance in a Single-Walled Carbon Nanotube Ion Channel. Science, 2010, 329, 1320-1324.	12.6	241
30	Wetting translucency of graphene. Nature Materials, 2013, 12, 866-869.	27.5	241
31	The rational design of nitric oxide selectivity in single-walled carbon nanotube near-infrared fluorescence sensors for biological detection. Nature Chemistry, 2009, 1, 473-481.	13.6	238
32	Nitroaromatic detection and infrared communication from wild-type plants using plantÂnanobionics. Nature Materials, 2017, 16, 264-272.	27.5	234
33	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
34	Detection of single-molecule H2O2 signalling from epidermal growth factor receptor using fluorescent single-walled carbon nanotubes. Nature Nanotechnology, 2010, 5, 302-309.	31.5	228
35	Lipid Exchange Envelope Penetration (LEEP) of Nanoparticles for Plant Engineering: A Universal Localization Mechanism. Nano Letters, 2016, 16, 1161-1172.	9.1	213
36	Solvatochromism in single-walled carbon nanotubes. Applied Physics Letters, 2007, 90, 223114.	3.3	193

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37	Protein-targeted corona phase molecular recognition. Nature Communications, 2016, 7, 10241.	12.8	193
38	Generalized Mechanistic Model for the Chemical Vapor Deposition of 2D Transition Metal Dichalcogenide Monolayers. ACS Nano, 2016, 10, 4330-4344.	14.6	190
39	Protein functionalized carbon nanomaterials for biomedical applications. Carbon, 2015, 95, 767-779.	10.3	186
40	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.	13.7	177
41	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
42	Highâ€Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100.	14.9	164
43	Single-layer graphene membranes by crack-free transfer for gas mixture separation. Nature Communications, 2018, 9, 2632.	12.8	160
44	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
45	Real-time detection of wound-induced H2O2 signalling waves in plants with optical nanosensors. Nature Plants, 2020, 6, 404-415.	9.3	157
46	Mechanisms of Gas Permeation through Single Layer Graphene Membranes. Langmuir, 2012, 28, 16671-16678.	3.5	148
47	Nearâ€Infrared Fluorescent Sensors based on Singleâ€Walled Carbon Nanotubes for Life Sciences Applications. ChemSusChem, 2011, 4, 848-863.	6.8	146
48	Reversible Control of Carbon Nanotube Aggregation for a Glucose Affinity Sensor. Angewandte Chemie - International Edition, 2006, 45, 8138-8141.	13.8	137
49	A Ratiometric Sensor Using Single Chirality Nearâ€Infrared Fluorescent Carbon Nanotubes: Application to In Vivo Monitoring. Small, 2015, 11, 3973-3984.	10.0	135
50	Nanosensor Technology Applied to Living Plant Systems. Annual Review of Analytical Chemistry, 2017, 10, 113-140.	5.4	133
51	Diameter-dependent ion transport through the interior of isolated single-walled carbon nanotubes. Nature Communications, 2013, 4, 2397.	12.8	131
52	Dynamics of Surfactant-Suspended Single-Walled Carbon Nanotubes in a Centrifugal Field. Langmuir, 2008, 24, 1790-1795.	3.5	130
53	Layered and scrolled nanocomposites with aligned semi-infinite graphene inclusions at the platelet limit. Science, 2016, 353, 364-367.	12.6	125
54	Current and future directions in electron transfer chemistry of graphene. Chemical Society Reviews, 2017, 46, 4530-4571.	38.1	125

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55	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
56	Glucose-responsive insulin by molecular and physical design. Nature Chemistry, 2017, 9, 937-944.	13.6	106
57	Emerging Trends in Micro- and Nanoscale Technologies in Medicine: From Basic Discoveries to Translation. ACS Nano, 2017, 11, 5195-5214.	14.6	104
58	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
59	A Structureâˆ’Reactivity Relationship for Single Walled Carbon Nanotubes Reacting with 4-Hydroxybenzene Diazonium Salt. Journal of the American Chemical Society, 2007, 129, 3946-3954.	13.7	99
60	Application of Nanoparticle Antioxidants to Enable Hyperstable Chloroplasts for Solar Energy Harvesting. Advanced Energy Materials, 2013, 3, 881-893.	19.5	99
61	A Nanobionic Light-Emitting Plant. Nano Letters, 2017, 17, 7951-7961.	9.1	93
62	Spatiotemporal Intracellular Nitric Oxide Signaling Captured Using Internalized, Near-Infrared Fluorescent Carbon Nanotube Nanosensors. Nano Letters, 2014, 14, 4887-4894.	9.1	91
63	Rational Design Principles for the Transport and Subcellular Distribution of Nanomaterials into Plant Protoplasts. Small, 2018, 14, e1802086.	10.0	89
64	Label-Free, Single Protein Detection on a Near-Infrared Fluorescent Single-Walled Carbon Nanotube/Protein Microarray Fabricated by Cell-Free Synthesis. Nano Letters, 2011, 11, 2743-2752.	9.1	88
65	Nanophotonic biosensors harnessing van der Waals materials. Nature Communications, 2021, 12, 3824.	12.8	88
66	Stochastic Analysis of Stepwise Fluorescence Quenching Reactions on Single-Walled Carbon Nanotubes: Single Molecule Sensors. Nano Letters, 2008, 8, 4299-4304.	9.1	82
67	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
68	Modulation of Single-Walled Carbon Nanotube Photoluminescence by Hydrogel Swelling. ACS Nano, 2009, 3, 3869-3877.	14.6	79
69	Chirality dependent corona phase molecular recognition of DNA-wrapped carbon nanotubes. Carbon, 2016, 97, 147-153.	10.3	78
70	Insulin Detection Using a Corona Phase Molecular Recognition Site on Single-Walled Carbon Nanotubes. ACS Sensors, 2018, 3, 367-377.	7.8	78
71	Carbon science perspective in 2020: Current research and future challenges. Carbon, 2020, 161, 373-391.	10.3	77
72	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

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73	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
74	Plant Nanobionic Sensors for Arsenic Detection. Advanced Materials, 2021, 33, e2005683.	21.0	75
75	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
76	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
77	Excess Thermopower and the Theory of Thermopower Waves. ACS Nano, 2013, 7, 6533-6544.	14.6	72
78	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
79	Single-Molecule Detection of H₂O₂ Mediating Angiogenic Redox Signaling on Fluorescent Single-Walled Carbon Nanotube Array. ACS Nano, 2011, 5, 7848-7857.	14.6	70
80	Recent Advances in Molecular Recognition Based on Nanoengineered Platforms. Accounts of Chemical Research, 2014, 47, 979-988.	15.6	70
81	The Emergence of Plant Nanobionics and Living Plants as Technology. Advanced Materials Technologies, 2020, 5, 1900657.	5.8	70
82	Banning carbon nanotubes would be scientifically unjustified and damaging to innovation. Nature Nanotechnology, 2020, 15, 164-166.	31.5	69
83	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
84	Species-independent analytical tools for next-generation agriculture. Nature Plants, 2020, 6, 1408-1417.	9.3	63
85	Disorder Imposed Limits of Mono- and Bilayer Graphene Electronic Modification Using Covalent Chemistry. Nano Letters, 2013, 13, 809-817.	9.1	62
86	Prediction of protein corona on nanomaterials by machine learning using novel descriptors. NanoImpact, 2020, 17, 100207.	4.5	62
87	Emerging trends in 2D nanotechnology that are redefining our understanding of â€œNanocompositesâ€ Nano Today, 2018, 21, 18-40.	11.9	59
88	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
89	Surface Water Dependent Properties of Sulfur-Rich Molybdenum Sulfides: Electrolyteless Gas Phase Water Splitting. ACS Nano, 2017, 11, 6782-6794.	14.6	57
90	Addressing the isomer cataloguing problem for nanopores in two-dimensional materials. Nature Materials, 2019, 18, 129-135.	27.5	57

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91	Mechanism of Immobilized Protein A Binding to Immunoglobulin G on Nanosensor Array Surfaces. Analytical Chemistry, 2015, 87, 8186-8193.	6.5	56
92	Autoperforation of 2D materials for generating two-terminal memristive Janus particles. Nature Materials, 2018, 17, 1005-1012.	27.5	56
93	Stable, Temperature-Dependent Gas Mixture Permeation and Separation through Suspended Nanoporous Single-Layer Graphene Membranes. Nano Letters, 2018, 18, 5057-5069.	9.1	56
94	Transduction of Glycanâ€“Lectin Binding Using Near-Infrared Fluorescent Single-Walled Carbon Nanotubes for Glycan Profiling. Journal of the American Chemical Society, 2011, 133, 17923-17933.	13.7	55
95	Persistent drought monitoring using a microfluidic-printed electro-mechanical sensor of stomata <i>in planta</i>. Lab on A Chip, 2017, 17, 4015-4024.	6.0	55
96	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
97	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
98	Colloidal nanoelectronic state machines based on 2D materials for aerosolizable electronics. Nature Nanotechnology, 2018, 13, 819-827.	31.5	50
99	Experimental Tools to Study Molecular Recognition within the Nanoparticle Corona. Sensors, 2014, 14, 16196-16211.	3.8	49
100	Large-area synthesis of 2D MoO _{3âˆ' <i>x</i>} for enhanced optoelectronic applications. 2D Materials, 2019, 6, 035031.	4.4	48
101	Direct Electricity Generation Mediated by Molecular Interactions with Low Dimensional Carbon Materialsâ€”A Mechanistic Perspective. Advanced Energy Materials, 2018, 8, 1802212.	19.5	47
102	Quantitative Tissue Spectroscopy of Near Infrared Fluorescent Nanosensor Implants. Journal of Biomedical Nanotechnology, 2016, 12, 1035-1047.	1.1	46
103	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
104	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
105	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
106	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.	13.7	43
107	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
108	Competitive Binding in Mixed Surfactant Systems for Single-Walled Carbon Nanotube Separation. Journal of Physical Chemistry C, 2015, 119, 22737-22745.	3.1	43

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109	Low Dimensional Carbon Materials for Applications in Mass and Energy Transport. Chemistry of Materials, 2014, 26, 172-183.	6.7	42
110	A study of bilayer phosphorene stability under MoS ₂ -passivation. 2D Materials, 2017, 4, 025091.	4.4	42
111	Irreversible synthesis of an ultrastrong two-dimensional polymeric material. Nature, 2022, 602, 91-95.	27.8	42
112	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
113	A Pharmacokinetic Model of a Tissue Implantable Insulin Sensor. Advanced Healthcare Materials, 2015, 4, 87-97.	7.6	39
114	Fabrication, Pressure Testing, and Nanopore Formation of Single-Layer Graphene Membranes. Journal of Physical Chemistry C, 2017, 121, 14312-14321.	3.1	39
115	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
116	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
117	A graphene-based physiometer array for the analysis of single biological cells. Scientific Reports, 2014, 4, 6865.	3.3	36
118	Implanted Nanosensors in Marine Organisms for Physiological Biologging: Design, Feasibility, and Species Variability. ACS Sensors, 2019, 4, 32-43.	7.8	36
119	Nanocarriers for Transgene Expression in Pollen as a Plant Biotechnology Tool. , 2020, 2, 1057-1066.		33
120	Analysis of Multiplexed Nanosensor Arrays Based on Near-Infrared Fluorescent Single-Walled Carbon Nanotubes. ACS Nano, 2018, 12, 3769-3779.	14.6	32
121	Nanosensor Detection of Synthetic Auxins <i>In Planta</i> using Corona Phase Molecular Recognition. ACS Sensors, 2021, 6, 3032-3046.	7.8	32
122	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
123	High-Resolution Nanoparticle Sizing with Maximum <i>A Posteriori</i> Nanoparticle Tracking Analysis. ACS Nano, 2019, 13, 3940-3952.	14.6	30
124	Predicting Gas Separation through Graphene Nanopore Ensembles with Realistic Pore Size Distributions. ACS Nano, 2021, 15, 1727-1740.	14.6	28
125	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
126	Gas Separations using Nanoporous Atomically Thin Membranes: Recent Theoretical, Simulation, and Experimental Advances. Advanced Materials, 2022, 34, e2201472.	21.0	28

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127	Analysis of Time-Varying, Stochastic Gas Transport through Graphene Membranes. ACS Nano, 2016, 10, 786-795.	14.6	27
128	A wavelength-induced frequency filtering method for fluorescent nanosensors in vivo. Nature Nanotechnology, 2022, 17, 643-652.	31.5	27
129	Understanding and Analyzing Freezing-Point Transitions of Confined Fluids within Nanopores. Langmuir, 2015, 31, 10113-10118.	3.5	26
130	A Pharmacokinetic Model of a Tissue Implantable Cortisol Sensor. Advanced Healthcare Materials, 2016, 5, 3004-3015.	7.6	25
131	Polymethacrylamide and Carbon Composites that Grow, Strengthen, and Selfâ€Repair using Ambient Carbon Dioxide Fixation. Advanced Materials, 2018, 30, e1804037.	21.0	25
132	Lowâ€Temperature Growth of Carbon Nanotubes Catalyzed by Sodiumâ€Based Ingredients. Angewandte Chemie - International Edition, 2019, 58, 9204-9209.	13.8	25
133	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
134	Observation of the Marcus Inverted Region of Electron Transfer from Asymmetric Chemical Doping of Pristine (<i>n</i>,<i>m</i>) Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2017, 139, 15328-15336.	13.7	23
135	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
136	A Fiber Optic Interface Coupled to Nanosensors: Applications to Protein Aggregation and Organic Molecule Quantification. ACS Nano, 2020, 14, 10141-10152.	14.6	21
137	Sustainable power sources based on high efficiency thermopower wave devices. Energy and Environmental Science, 2016, 9, 1290-1298.	30.8	20
138	Measuring the Accessible Surface Area within the Nanoparticle Corona Using Molecular Probe Adsorption. Nano Letters, 2019, 19, 7712-7724.	9.1	20
139	Immobilization and Function of nIR-Fluorescent Carbon Nanotube Sensors on Paper Substrates for Fluidic Manipulation. Analytical Chemistry, 2020, 92, 916-923.	6.5	20
140	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
141	Diameter Dependence of Water Filling in Lithographically Segmented Isolated Carbon Nanotubes. ACS Nano, 2021, 15, 2778-2790.	14.6	20
142	Carbon Nanotubes as Molecular Conduits: Advances and Challenges for Transport through Isolated Sub-2 nm Pores. Journal of Physical Chemistry Letters, 2011, 2, 2892-2896.	4.6	19
143	Electrical Energy Generation via Reversible Chemical Doping on Carbon Nanotube Fibers. Advanced Materials, 2016, 28, 9752-9757.	21.0	19
144	A bright future for defects. Nature Chemistry, 2013, 5, 812-813.	13.6	18

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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	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
147	DNAâ€"SWCNT Biosensors Allow Real-Time Monitoring of Therapeutic Responses in Pancreatic Ductal Adenocarcinoma. Cancer Research, 2019, 79, 4515-4523.	0.9	17
148	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
149	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
150	Cellular lensing and near infrared fluorescent nanosensor arrays to enable chemical efflux cytometry. Nature Communications, 2021, 12, 3079.	12.8	16
151	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
152	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
153	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
154	Solvent-induced electrochemistry at an electrically asymmetric carbon Janus particle. Nature Communications, 2021, 12, 3415.	12.8	14
155	Buckling, crumpling, and tumbling of semiflexible sheets in simple shear flow. Soft Matter, 2021, 17, 4707-4718.	2.7	14
156	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
157	The double-resonance Raman spectra in single-chirality (n, m) carbon nanotubes. Carbon, 2017, 117, 41-45.	10.3	13
158	Singleâ€Particle Tracking for Understanding Polydisperse Nanoparticle Dispersions. Small, 2019, 15, 1901468.	10.0	13
159	Atomically Precise Control of Carbon Insertion into hBN Monolayer Point Vacancies using a Focused Electron Beam Guide. Small, 2021, 17, e2100693.	10.0	13
160	Augmenting the living plant mesophyll into a photonic capacitor. Science Advances, 2021, 7, eabe9733.	10.3	13
161	A conceptual advance that gives microrobots legs. Nature, 2020, 584, 530-531.	27.8	13
162	Endotoxinâ€Free Preparation of Graphene Oxide and Grapheneâ€Based Materials for Biological Applications. Current Protocols in Chemical Biology, 2018, 10, e51.	1.7	12

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163	Noble-gas-infused neoprene closed-cell foams achieving ultra-low thermal conductivity fabrics. RSC Advances, 2018, 8, 21389-21398.	3.6	12
164	Connecting Rodent and Human Pharmacokinetic Models for the Design and Translation of Glucose-Responsive Insulin. Diabetes, 2020, 69, 1815-1826.	0.6	12
165	Characterization of Protein Aggregation Using Hydrogel-Encapsulated nIR Fluorescent Nanoparticle Sensors. ACS Sensors, 2020, 5, 327-337.	7.8	12
166	Engineering two-dimensional nanomaterials to enable structure-activity relationship studies in nanosafety research. NanoImpact, 2020, 18, 100226.	4.5	11
167	Biological Impacts of Reduced Graphene Oxide Affected by Protein Corona Formation. Chemical Research in Toxicology, 2022, 35, 1244-1256.	3.3	11
168	Rational Design of Glucoseâ€Responsive Insulin Using Pharmacokinetic Modeling. Advanced Healthcare Materials, 2017, 6, 1700601.	7.6	10
169	Transcutaneous Measurement of Essential Vitamins Using Nearâ€Infrared Fluorescent Singleâ€Walled Carbon Nanotube Sensors. Small, 2021, 17, e2100540.	10.0	10
170	Biotransformations and cytotoxicity of graphene and inorganic two-dimensional nanomaterials using simulated digestions coupled with a triculture <i>in vitro</i> model of the human gastrointestinal epithelium. Environmental Science: Nano, 2021, 8, 3233-3249.	4.3	10
171	A Quantitative and Predictive Model of Electromigration-Induced Breakdown of Metal Nanowires. Journal of Physical Chemistry C, 2013, 117, 12373-12378.	3.1	9
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