

# Conductance-Controlled Point Functionalization of Sing

Science

315, 77-81

DOI: [10.1126/science.1135303](https://doi.org/10.1126/science.1135303)

Citation Report

#	ARTICLE	IF	CITATIONS
1	A Review of Metrology for Nanoelectronics. IEEE Transactions on Semiconductor Manufacturing, 2007, 20, 542-548.	1.4	4
2	Scaffolding Carbon Nanotubes into Single-Molecule Circuitry. Materials Research Society Symposia Proceedings, 2007, 1018, 1.	0.1	0
3	Tuning the conductance of carbon nanotubes with encapsulated molecules. Nanotechnology, 2007, 18, 424032.	1.3	4
4	Electrochemistry of Carbon Nanotubes. Topics in Applied Physics, 2007, , 567-604.	0.4	20
5	Process Analytical Chemistry. Analytical Chemistry, 2007, 79, 4345-4364.	3.2	43
6	Carbon Nanotubes and Electrochemistry. Zeitschrift Fur Physikalische Chemie, 2007, 221, 1161-1173.	1.4	17
7	Carbon Nanotubes for Electronic and Electrochemical Detection of Biomolecules. Advanced Materials, 2007, 19, 3214-3228.	11.1	460
8	Electrochemically modified single-walled carbon nanotubes. Physica Status Solidi (B): Basic Research, 2007, 244, 4021-4025.	0.7	10
9	Strong p-Type Doping of Individual Carbon Nanotubes by Prussian Blue Functionalization. Small, 2008, 4, 1671-1675.	5.2	37
10	Electrochemical functionalization of SWNT bundles in acid and salt media as observed by Raman and X-ray photoelectron spectroscopy. Physica Status Solidi (B): Basic Research, 2008, 245, 1967-1970.	0.7	16
11	Processing Energy and Signals by Molecular and Supramolecular Systems. Chemistry - A European Journal, 2008, 14, 26-39.	1.7	120
12	Mechanism-Guided Improvements to the Single Molecule Oxidation of Carbon Nanotube Sidewalls. ChemPhysChem, 2008, 9, 1053-1056.	1.0	17
13	Processing Energy and Signals by Molecular and Supramolecular Systems. , 0, , 23-45.		0
15	Effect of the electronic structure of carbon nanotubes on the selectivity of electrochemical functionalization. Physical Chemistry Chemical Physics, 2008, 10, 2256.	1.3	17
16	Engineered Nanostructures for Multifunctional Single-Walled Carbon Nanotube Reinforced Silicon Nitride Nanocomposites. Journal of the American Ceramic Society, 2008, 91, 3129-3137.	1.9	61
17	Monitoring Single-Molecule Reactivity on a Carbon Nanotube. Nano Letters, 2008, 8, 189-194.	4.5	62
18	Advanced Carbon Electrode Materials for Molecular Electrochemistry. Chemical Reviews, 2008, 108, 2646-2687.	23.0	2,327
19	Understanding structures and electronic/spintronic properties of single molecules, nanowires, nanotubes, and nanoribbons towards the design of nanodevices. Journal of Materials Chemistry, 2008, 18, 4510.	6.7	59

#	ARTICLE	IF	CITATIONS
20	Nanotubes. Annual Reports on the Progress of Chemistry Section A, 2008, 104, 379.	0.8	3
22	Electrochemically functionalized carbon nanotubes for device applications. Journal of Materials Chemistry, 2008, 18, 3071.	6.7	97
23	High temperature resistance of small diameter, metallic single-walled carbon nanotube devices. Applied Physics Letters, 2008, 92, 083506.	1.5	9
24	Doping of carbon nanotubes with nitrogen improves protein coverage whilst retaining correct conformation. Nanotechnology, 2008, 19, 384001.	1.3	16
25	Synthesis and Characterization of Monolithic Carbon Aerogel Nanocomposites Containing Double-Walled Carbon Nanotubes. Langmuir, 2008, 24, 9763-9766.	1.6	110
26	Carbon-based resistive memory. , 2008, , .		26
27	High Levels of Electrochemical Doping of Carbon Nanotubes: Evidence for a Transition from Double-Layer Charging to Intercalation and Functionalization. Journal of Physical Chemistry B, 2008, 112, 5368-5373.	1.2	28
28	Effect of Dialysis on the Electrochemical Properties of Acid-Oxidized Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2008, 112, 14131-14138.	1.5	10
29	Cycloadditions to Control Bond Breaking in Naphthalenes, Fullerenes, and Carbon Nanotubes: A First-Principles Study. Journal of Physical Chemistry C, 2008, 112, 4480-4485.	1.5	22
30	Effect of Acid Treatment on the Structure and Electrical Properties of Nitrogen-Doped Multiwalled Carbon Nanotubes. Journal of Physical Chemistry C, 2008, 112, 1908-1912.	1.5	13
31	Effects of boron nitride impurities on the elastic properties of carbon nanotubes. Nanotechnology, 2008, 19, 445703.	1.3	24
32	QMC Assessments of Weak-interaction Described by DFT within various XC approximations / Effects of Carbon Nanotube Oxidation on Molecular Interactions. Materials Research Society Symposia Proceedings, 2008, 1084, 50301.	0.1	0
33	Quantum electron transport in toroidal carbon nanotubes with metallic leads. Molecular Simulation, 2008, 34, 9-16.	0.9	5
34	Scaffolding carbon nanotubes into single-molecule circuitry. Journal of Materials Research, 2008, 23, 1197-1201.	1.2	4
35	Motion of Gold Atoms on Carbon in the Aberration-Corrected STEM. Microscopy and Microanalysis, 2008, 14, 89-97.	0.2	76
36	The fabrication of nanoelectrodes based on a single carbon nanotube. Nanotechnology, 2009, 20, 245307.	1.3	20
37	Coherent anti-Stokes generation from single nanostructures. Proceedings of SPIE, 2009, , .	0.8	2
38	Conductance through a single impurity in the metallic zigzag carbon nanotube. Applied Physics Letters, 2009, 95, .	1.5	5

#	ARTICLE	IF	CITATIONS
39	Material and doping transitions in single GaAs-based nanowires probed by Kelvin probe force microscopy. <i>Nanotechnology</i> , 2009, 20, 385702.	1.3	38
40	Impurity-induced conductance anomaly in zigzag carbon nanotubes. <i>Journal of Physics: Conference Series</i> , 2009, 150, 022007.	0.3	2
41	Single-Molecule Electrocatalysis by Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2009, 9, 3968-3973.	4.5	105
42	Selective Electrochemical Etching of Single-Walled Carbon Nanotubes. <i>Advanced Functional Materials</i> , 2009, 19, 3618-3624.	7.8	30
43	Functional Covalent Chemistry of Carbon Nanotube Surfaces. <i>Advanced Materials</i> , 2009, 21, 625-642.	11.1	238
44	Carbon Nanotube Docking Stations: A New Concept in Catalysis. <i>Catalysis Letters</i> , 2009, 129, 39-45.	1.4	62
45	Bionanoelectronics with 1D materials. <i>Materials Today</i> , 2009, 12, 22-31.	8.3	36
46	Water-Soluble DNA-Wrapped Single-Walled Carbon-Nanotube/Quantum-Dot Complexes. <i>Small</i> , 2009, 5, 2149-2155.	5.2	38
47	Electrochemical preparation of metal-melanin functionalized graphite surfaces. <i>Electrochimica Acta</i> , 2009, 54, 1589-1596.	2.6	8
48	The effects of grafted amine groups on the elastic properties of single-walled carbon nanotubes. <i>Carbon</i> , 2009, 47, 713-721.	5.4	22
49	Bio-nano interaction of proteins adsorbed on single-walled carbon nanotubes. <i>Carbon</i> , 2009, 47, 967-973.	5.4	72
50	Effects of vacancy defect reconstruction on the elastic properties of carbon nanotubes. <i>Carbon</i> , 2009, 47, 1526-1533.	5.4	64
51	Conformation-Induced Electrostatic Gating of the Conduction of Spiropyran-Coated Organic Thin-Film Transistors. <i>Journal of Physical Chemistry C</i> , 2009, 113, 10807-10812.	1.5	64
52	Bending and Twisting of Suspended Single-Walled Carbon Nanotubes in Solution. <i>Nano Letters</i> , 2009, 9, 1609-1614.	4.5	21
53	Effect of the Chemical Functionalization on Charge Transport in Carbon Nanotubes at the Mesoscopic Scale. <i>Nano Letters</i> , 2009, 9, 940-944.	4.5	118
54	Application of quantum chemistry to nanotechnology: electron and spin transport in molecular devices. <i>Chemical Society Reviews</i> , 2009, 38, 2319.	18.7	119
55	A DFT Study of the Adhesion of Pd Clusters on ZnO SWNTs and Adsorption of Gas Molecules on Pd/ZnO SWNTs. <i>Journal of Physical Chemistry C</i> , 2009, 113, 21338-21341.	1.5	24
56	Ionic Screening of Charged-Impurity Scattering in Graphene. <i>Nano Letters</i> , 2009, 9, 1621-1625.	4.5	144

#	ARTICLE	IF	CITATIONS
57	InAs Nanowire Transistors as Gas Sensor and the Response Mechanism. Nano Letters, 2009, 9, 4348-4351.	4.5	130
58	Effect of localized oxygen functionalization on the conductance of metallic carbon nanotubes. Physical Review B, 2009, 79, .	1.1	21
59	Graphitic Electrical Contacts to Metallic Single-Walled Carbon Nanotubes Using Pt Electrodes. Nano Letters, 2009, 9, 3586-3591.	4.5	35
60	Dynamical screening of the exciton resonance in conjugated polymers/carbon nanotubes composites. Physical Review B, 2010, 81, .	1.1	6
61	Shape-controlled synthesis of Mn <sub>3</sub> O <sub>4</sub> nanocrystals and their catalysis of the degradation of methylene blue. Nano Research, 2010, 3, 235-243.	5.8	166
62	Quantum transport properties of chemically functionalized long semiconducting carbon nanotubes. Nano Research, 2010, 3, 288-295.	5.8	48
63	A comparison between powders and thin films of single-walled carbon nanotubes for the adsorption behaviors of phenylalanine and glycine by XANES study. Science China: Physics, Mechanics and Astronomy, 2010, 53, 1449-1452.	2.0	0
64	Surface Energy Generator of Single-Walled Carbon Nanotubes and Usage in a Self-Powered System. Advanced Materials, 2010, 22, 999-1003.	11.1	67
66	Carbon Nanomaterials in Biosensors: Should You Use Nanotubes or Graphene?. Angewandte Chemie - International Edition, 2010, 49, 2114-2138.	7.2	1,301
67	The point-defect of carbon nanotubes anchoring Au nanoparticles. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1746-1750.	1.3	18
68	Chemical functionalization of single-walled carbon nanotube field-effect transistors as switches and sensors. Coordination Chemistry Reviews, 2010, 254, 1101-1116.	9.5	96
69	A light-driven reversible conductance switch based on a few-walled carbon nanotube/azobenzene hybrid linked by a flexible spacer. Carbon, 2010, 48, 3091-3096.	5.4	37
70	Functionalization of multiwalled carbon nanotubes with polyesters via bergman cyclization and grafting from strategy. Journal of Polymer Science Part A, 2010, 48, 5541-5548.	2.5	19
71	Sensitivity of point defects in one dimensional nanocircuits. , 2010, , .		0
72	Atomistic Oxidation Mechanism of a Carbon Nanotube in Nitric Acid. Physical Review Letters, 2010, 104, 066401.	2.9	52
73	Electro-oxidized Epitaxial Graphene Channel Field-Effect Transistors with Single-Walled Carbon Nanotube Thin Film Gate Electrode. Journal of the American Chemical Society, 2010, 132, 14429-14436.	6.6	38
74	Modulation of bonding between noble metal monomers and CNTs by B-, N-doping. Computational Materials Science, 2010, 48, 621-625.	1.4	14
75	Functionalized Metallic Single-Walled Carbon Nanotubes as a High-Performance Single-Molecule Organic Field Effect Transistor: An ab Initio Study. Journal of Physical Chemistry C, 2010, 114, 15816-15822.	1.5	13

#	ARTICLE	IF	CITATIONS
76	Ordering phthalocyanine- $C_{60}$ fullerene conjugates on individual carbon nanotubes. <i>Chemical Communications</i> , 2010, 46, 4692.	2.2	15
77	Synthesis, Growth Mechanism, and Properties of Open-Hexagonal and Nanoporous-Wall Ceria Nanotubes Fabricated via Alkaline Hydrothermal Route. <i>Crystal Growth and Design</i> , 2010, 10, 1833-1841.	1.4	33
78	Scanning Electrochemical Microscopy of Individual Single-Walled Carbon Nanotubes. <i>Analytical Chemistry</i> , 2010, 82, 1605-1607.	3.2	55
79	Modeling the Electrostatic Signature of Single Enzyme Activity. <i>Journal of Physical Chemistry B</i> , 2010, 114, 3330-3333.	1.2	12
80	Single-molecule nanoscale electrocatalysis. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 6555.	1.3	37
81	Hydrogen Sensing and Sensitivity of Palladium-Decorated Single-Walled Carbon Nanotubes with Defects. <i>Nano Letters</i> , 2010, 10, 896-901.	4.5	81
82	Noise and bandwidth performance of single-molecule biosensors. , 2011, , .		4
83	Charge sensing using point-functionalized carbonnanotube transistors for single-molecule detection. , 2011, , .		1
84	Chemical defect generation and propagation on carbon nanotubes. , 2011, , .		0
85	Chemically reactive species remain alive inside carbon nanotubes: a density functional theory study. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 337-346.	1.3	17
86	Ultra-sensitive carbon nanotubes for single-molecule detection of DNA hybridization kinetics using conductance-based correlation spectroscopy. , 2011, , .		2
87	Atomic vacancy defects in the electronic properties of semi-metallic carbon nanotubes. <i>Journal of Applied Physics</i> , 2011, 109, 083716.	1.1	14
88	Ab Initio Study on the Size and Chirality Effects on the Encapsulation of Tetrafluorotetracyano- <i>p</i> -quinodimethane inside Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5280-5285.	1.5	4
89	Scanning Gate Spectroscopy and Its Application to Carbon Nanotube Defects. <i>Nano Letters</i> , 2011, 11, 1055-1060.	4.5	22
90	Optical and Electrical Properties of Inner Tubes in Outer Wall-Selectively Functionalized Double-Wall Carbon Nanotubes. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1577-1582.	2.1	37
91	Ultra-sensitive and wide-dynamic-range sensors based on dense arrays of carbon nanotube tips. <i>Nanoscale</i> , 2011, 3, 4854.	2.8	34
92	Confined propagation of covalent chemical reactions on single-walled carbon nanotubes. <i>Nature Communications</i> , 2011, 2, 382.	5.8	67
93	Biomimetic Chemical Sensors Using Nanoelectronic Readout of Olfactory Receptor Proteins. <i>ACS Nano</i> , 2011, 5, 5408-5416.	7.3	173

#	ARTICLE	IF	CITATIONS
95	Debye Screening in Single-Molecule Carbon Nanotube Field-Effect Sensors. <i>Nano Letters</i> , 2011, 11, 3739-3743.	4.5	88
96	Gold-Substrate-Enhanced Scanning Electron Microscopy of Functionalized Single-Wall Carbon Nanotubes. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 885-888.	2.1	11
97	Switchable Conductance in Functionalized Carbon Nanotubes <i>via</i> Reversible Sidewall Bond Cleavage. <i>ACS Nano</i> , 2011, 5, 4455-4465.	7.3	11
98	Label-Free Detection of DNA by Field-Effect Devices. <i>IEEE Sensors Journal</i> , 2011, 11, 3153-3160.	2.4	48
99	A Density Functional Theory Study of Chemical Functionalization of Carbon Nanotubes; Toward Site Selective Functionalization. , 0, , .		0
100	Label-free single-molecule detection of DNA-hybridization kinetics with a carbon nanotube field-effect transistor. <i>Nature Nanotechnology</i> , 2011, 6, 126-132.	15.6	360
101	Electron transport through molecular junctions. <i>Physics Reports</i> , 2011, 509, 1-87.	10.3	161
102	Vibrational analysis and thermodynamic properties of C120 nanotorus: a DFT study. <i>Journal of Nanoparticle Research</i> , 2011, 13, 6649-6659.	0.8	5
103	Functionalized Carbon Nanotube Networks with Field-Tunable Bandgaps. <i>Advanced Materials</i> , 2011, 23, 3075-3079.	11.1	4
105	Single-Molecule Detection of Proteins Using Aptamer-Functionalized Molecular Electronic Devices. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2496-2502.	7.2	100
106	A simple route to fabricate high sensibility gas sensors based on erbium doped ZnO nanocrystals. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 384, 580-584.	2.3	24
107	Conformal MnO <sub>2</sub> electrodeposition onto defect-free graphitic carbons. <i>Electrochemistry Communications</i> , 2011, 13, 590-592.	2.3	12
108	Single-molecule electronic detection using nanoscale field-effect devices. , 2011, , .		2
110	Resistive Switching in Al/Graphene Oxide/Al Structure. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 070110.	0.8	30
111	Four-wave mixing microscopy with electronic contrast of individual carbon nanotubes. <i>Physical Review B</i> , 2012, 86, .	1.1	8
112	Scanning Electrochemical Microscopic Imaging. , 2012, , 64-85.		3
113	Advances in the chemical modification of epitaxial graphene. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 154009.	1.3	103
114	Carbon nanomaterials field-effect-transistor-based biosensors. <i>NPG Asia Materials</i> , 2012, 4, e23-e23.	3.8	212

#	ARTICLE	IF	CITATIONS
115	Electrical Characteristics of Carbon Nanotube Devices Prepared with Single Oxidative Point Defects. Journal of Physical Chemistry C, 2012, 116, 1961-1965.	1.5	8
116	Tailored SWCNT functionalization optimized for compatibility with epoxy matrices. Nanotechnology, 2012, 23, 285701.	1.3	19
117	Synthesis and properties of graphene oxide/graphene nanostructures. Journal of the Korean Physical Society, 2012, 60, 1789-1793.	0.3	19
118	<i>Ab-initio</i> calculations for a realistic sensor: A study of CO sensors based on nitrogen-rich carbon nanotubes. AIP Advances, 2012, 2, .	0.6	10
119	Modeling of Chemical Reactivity of Carbon Nanotubes: A Review. , 2012, , 173-208.		0
120	A nanomechanical mass sensor with yoctogram resolution. Nature Nanotechnology, 2012, 7, 301-304.	15.6	855
121	Role of Adsorbed Surfactant in the Reaction of Aryl Diazonium Salts with Single-Walled Carbon Nanotubes. Langmuir, 2012, 28, 1309-1321.	1.6	37
122	The merger of electrochemistry and molecular electronics. Chemical Record, 2012, 12, 149-163.	2.9	30
123	Single-Molecule Lysozyme Dynamics Monitored by an Electronic Circuit. Science, 2012, 335, 319-324.	6.0	215
124	Distinguishing carbon nanotube defect chemistry using scanning gate spectroscopy. Physical Review B, 2012, 85, .	1.1	14
125	Investigating bioconjugation by atomic force microscopy. Journal of Nanobiotechnology, 2013, 11, 25.	4.2	19
126	Origins of the Helical Wrapping of Phenyleneethynylene Polymers about Single-Walled Carbon Nanotubes. Journal of Physical Chemistry B, 2013, 117, 12953-12965.	1.2	35
127	Determination of the Diameter-Dependent Onset Potential for the Oxygenation of SWCNTs. Chemistry - an Asian Journal, 2013, 8, 2680-2684.	1.7	8
128	Propagative Exfoliation of High Quality Graphene. Chemistry of Materials, 2013, 25, 4487-4496.	3.2	26
129	Transport Properties of Molecular Junctions. Springer Tracts in Modern Physics, 2013, , .	0.1	22
130	Single molecule recordings of lysozyme activity. Physical Chemistry Chemical Physics, 2013, 15, 14879.	1.3	9
131	Carbon nanomaterials for electronics, optoelectronics, photovoltaics, and sensing. Chemical Society Reviews, 2013, 42, 2824-2860.	18.7	1,105
132	Confinement effects and why carbon nanotube bundles can work as gas sensors. Nanoscale, 2013, 5, 2798.	2.8	25



#	ARTICLE	IF	CITATIONS
133	Clothing polymer fibers with well-aligned and high-aspect ratio carbon nanotubes. <i>Nanoscale</i> , 2013, 5, 2870.	2.8	37
134	Single-Molecule Electrical Biosensors Based on Single-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2013, 25, 3397-3408.	11.1	104
135	Molecular dynamics modeling and simulations of graphene-nanoribbon-resonator-based nanobalance as yoctogram resolution detector. <i>Computational Materials Science</i> , 2013, 67, 329-333.	1.4	38
136	Covalently Functionalized Double-Walled Carbon Nanotubes Combine High Sensitivity and Selectivity in the Electrical Detection of Small Molecules. <i>Journal of the American Chemical Society</i> , 2013, 135, 2306-2312.	6.6	67
137	Electronic properties of pristine and modified single-walled carbon nanotubes. <i>Physics-Uspexhi</i> , 2013, 56, 1047-1073.	0.8	34
138	Single cell in-vivo carbon nanotube device with multimodal sensing potential. <i>AIP Advances</i> , 2013, 3, 032122.	0.6	0
139	Electronic effects of defects in one-dimensional channels. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
140	Interfacing CMOS electronics to biological systems: from single molecules to cellular communities. , 2014, , .		1
141	Metal Oxide Nanosensors Using Polymeric Membranes, Enzymes and Antibody Receptors as Ion and Molecular Recognition Elements. <i>Sensors</i> , 2014, 14, 8605-8632.	2.1	27
142	MoS <sub>2</sub> Field-Effect Transistor for Next-Generation Label-Free Biosensors. <i>ACS Nano</i> , 2014, 8, 3992-4003.	7.3	870
143	Nanoscale semiconductor devices as new biomaterials. <i>Biomaterials Science</i> , 2014, 2, 619-626.	2.6	25
144	Study of Bio-nano Interaction Outlook of Amino Acids on Single-walled Carbon Nanotubes. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2014, 22, 595-603.	1.0	6
145	Highly Reliable Carbon Nanotube-Based Composite Fibers Cross-Linked by a 3D Polymer Network. <i>Advanced Engineering Materials</i> , 2014, 16, 961-965.	1.6	11
146	Mapping Nanoscale Electrochemistry of Individual Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2014, 14, 220-224.	4.5	83
147	Electrochemical Charge-Transfer Resistance in Carbon Nanotube Composites. <i>Nano Letters</i> , 2014, 14, 1329-1336.	4.5	39
148	Stochastic Events in Nanoelectrochemical Systems. , 2015, , 256-307.		0
149	Single-molecule bioelectronics. , 0, , 66-85.		1
150	Radiation Induced Single Ion Surface Effects in Nanoelectronic Circuits. <i>IEEE Transactions on Nuclear Science</i> , 2015, 62, 2926-2932.	1.2	2

#	ARTICLE	IF	CITATIONS
151	A nanotube/polymer composite biosensing thin-film transistor platform for C-reactive protein detection. , 2015, , .		4
152	Selective Breakdown of Metallic Pathways in Double-Walled Carbon Nanotube Networks. Small, 2015, 11, 96-102.	5.2	10
153	Single-molecule bioelectronics. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2015, 7, 475-493.	3.3	19
154	Graft-Induced Midgap States in Functionalized Carbon Nanotubes. ACS Nano, 2015, 9, 2626-2634.	7.3	13
155	Progress of new label-free techniques for biosensors: a review. Critical Reviews in Biotechnology, 2016, 36, 1-17.	5.1	159
156	Networks of Semiconducting SWNTs: Contribution of Midgap Electronic States to the Electrical Transport. Accounts of Chemical Research, 2015, 48, 2270-2279.	7.6	37
157	One-Dimensional Poole-Frenkel Conduction in the Single Defect Limit. Nano Letters, 2015, 15, 5248-5253.	4.5	5
158	Recent progress in atomistic simulation of electrical current DNA sequencing. Biosensors and Bioelectronics, 2015, 69, 186-198.	5.3	48
159	InAs Nanowire Devices with Strong Gate Tunability: Fundamental Electron Transport Properties and Application Prospects: A Review. Journal of Materials Science and Technology, 2015, 31, 542-555.	5.6	10
160	An on-chip electrical transport spectroscopy approach for in situ monitoring electrochemical interfaces. Nature Communications, 2015, 6, 7867.	5.8	64
161	Real-time electrochemical monitoring of covalent bond formation in solution via nanoparticle-electrode collisions. Chemical Communications, 2015, 51, 16349-16352.	2.2	15
162	Single Molecule Bioelectronics and Their Application to Amplification-Free Measurement of DNA Lengths. Biosensors, 2016, 6, 29.	2.3	12
163	Landauer's formula with finite-time relaxation: Kramers' crossover in electronic transport. Scientific Reports, 2016, 6, 24514.	1.6	34
164	Micro/Nano Material-Based Biosensors. , 2016, , 151-185.		0
167	A DFT study of adsorption of glycine onto the surface of BC <sub>2</sub> N nanotube. Applied Surface Science, 2016, 384, 230-236.	3.1	21
168	Electrical Monitoring of $sp^3$ Defect Formation in Individual Carbon Nanotubes. Journal of Physical Chemistry C, 2016, 120, 1971-1976.	1.5	40
169	Carbon Nanotube Based Gas Sensors toward Breath Analysis. ChemPlusChem, 2016, 81, 1248-1265.	1.3	70
170	Heat-Initiated Chemical Functionalization of Graphene. Scientific Reports, 2016, 6, 20034.	1.6	62

#	ARTICLE	IF	CITATIONS
171	Single-Molecule Reaction Chemistry in Patterned Nanowells. <i>Nano Letters</i> , 2016, 16, 4679-4685.	4.5	38
172	Graphene Functionalization for Biosensor Applications. , 2016, , 85-141.		43
173	Complementary Metal-Oxide-Semiconductor Integrated Carbon Nanotube Arrays: Toward Wide-Bandwidth Single-Molecule Sensing Systems. <i>Nano Letters</i> , 2016, 16, 2674-2679.	4.5	7
174	Solvent-Free Process to Produce Three Dimensional Graphene Network with High Electrochemical Stability. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3062-3069.	1.5	16
175	Classical Molecular Dynamics Simulations. , 2017, , 49-139.		1
176	Single-Molecule Electrical Detection with Real-Time Label-Free Capability and Ultrasensitivity. <i>Small Methods</i> , 2017, 1, 1700071.	4.6	36
177	Electrostatic melting in a single-molecule field-effect transistor with applications in genomic identification. <i>Nature Communications</i> , 2017, 8, 15450.	5.8	30
178	Application of Carbon-Based Nanomaterials as Biosensor. , 2017, , 87-127.		7
179	Energetic Basis of Single-Wall Carbon Nanotube Enantiomer Recognition by Single-Stranded DNA. <i>Journal of Physical Chemistry C</i> , 2017, 121, 17479-17487.	1.5	12
180	Photo-regulated conductivity of polycaprolactone honeycomb-patterned porous films containing azobenzene-functionalized reduced graphene oxide. <i>Macromolecular Research</i> , 2017, 25, 849-855.	1.0	8
181	Porous lightweight composites reinforced with fibrous structures. , 2017, , .		4
182	Single-Molecule Plasmon Sensing: Current Status and Future Prospects. <i>ACS Sensors</i> , 2017, 2, 1103-1122.	4.0	266
183	Towards Novel Graphene-Enabled Diagnostic Assays with Improved Signal-to-Noise Ratio. <i>MRS Advances</i> , 2017, 2, 3733-3739.	0.5	8
184	Communication: Relaxation-limited electronic currents in extended reservoir simulations. <i>Journal of Chemical Physics</i> , 2017, 147, 141102.	1.2	19
185	Room-Temperature Carbon Nanotube Circuit Soldering by Thionin-Based Dip-Pen Nanolithography. <i>ECS Journal of Solid State Science and Technology</i> , 2017, 6, M125-M129.	0.9	0
186	Chemical in situ modulation of doping interactions between oligoanilines and nanocarbon films. <i>Surface Science</i> , 2018, 676, 61-70.	0.8	12
187	Review on water quality sensors. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 203002.	1.3	91
188	The 88-Inch Cyclotron: A one-stop facility for electronics radiation and detector testing. Measurement: <i>Journal of the International Measurement Confederation</i> , 2018, 127, 580-587.	2.5	11

#	ARTICLE	IF	CITATIONS
189	Memristive Systems Based on Two-Dimensional Materials. , 0, , .		2
190	Strength loss of carbon nanotube fibers explained in a three-level hierarchical model. Carbon, 2018, 138, 134-142.	5.4	56
191	Room temperature optical mass sensor with an artificial molecular structure based on surface plasmon optomechanics. Photonics Research, 2018, 6, 867.	3.4	15
192	2D Materials for Field-Effect Transistor-Based Biosensors. , 2019, , 329-377.		0
193	Electrochemical Doping of Graphene with H2SO4 Electrolyte. Journal of the Korean Physical Society, 2019, 74, 132-135.	0.3	7
194	Controlling the optical properties of carbon nanotubes with organic colour-centre quantum defects. Nature Reviews Chemistry, 2019, 3, 375-392.	13.8	124
195	Modification of electron structure on the semiconducting single-walled carbon nanotubes for effectively electrosensing guanine and adenine. Analytica Chimica Acta, 2019, 1079, 86-93.	2.6	14
196	Critical Knowledge Gaps in Mass Transport through Single-Digit Nanopores: A Review and Perspective. Journal of Physical Chemistry C, 2019, 123, 21309-21326.	1.5	234
197	Proximity-Induced Colossal Conductivity Modulation in Phosphorene. Physical Review Applied, 2019, 11, .	1.5	21
198	Effects of Proton Radiation-Induced Defects on Optoelectronic Properties of MoS2. IEEE Transactions on Nuclear Science, 2019, 66, 413-419.	1.2	7
199	Methods for dispersing carbon nanotubes for nanotechnology applications: liquid nanocrystals, suspensions, polyelectrolytes, colloids and organization control. International Nano Letters, 2019, 9, 31-49.	2.3	56
200	Single-Molecule Nanotechnologies: An Evolution in Biological Dynamics Detection. ACS Applied Bio Materials, 2020, 3, 68-85.	2.3	24
201	Perfectly imperfect: a review of chemical tools for exciton engineering in single-walled carbon nanotubes. Materials Horizons, 2020, 7, 2860-2881.	6.4	35
202	Carbon Related Materials. , 2021, , .		5
203	Electroluminescence from 4-nitroaryl organic color centers in semiconducting single-wall carbon nanotubes. Journal of Applied Physics, 2021, 129, .	1.1	12
204	Theoretical assessments on the interaction between amino acids and the g-Mg<sub>3</sub>N<sub>2</sub> monolayer: dispersion corrected DFT and DFT-MD simulations. Physical Chemistry Chemical Physics, 2021, 23, 17440-17452.	1.3	43
205	Single Wall Carbon Nanotube Gas Sensors. Armenian Journal of Physics, 0, , 74-84.	0.0	1
206	Guiding Students to Understand the Nanoscale Charge Transport by the Mechanically Controllable Break Junction Technique. Journal of Chemical Education, 2021, 98, 2430-2439.	1.1	2

#	ARTICLE	IF	CITATIONS
207	Improvement of floxuridine anti-cancer adsorption on boron carbonitride nanotubes with iron doping: a theoretical study. <i>Theoretical Chemistry Accounts</i> , 2021, 140, 1.	0.5	3
209	Electrochemical DNA Biosensors Based on Carbon Nanomaterials. , 2021, , 209-247.		2
210	Multiplex Single-Molecule Kinetics of Nanopore-Coupled Polymerases. <i>ACS Nano</i> , 2021, 15, 489-502.	7.3	10
212	Redox Reaction Investigation of Graphene Nanoribbon. <i>Applied Science and Convergence Technology</i> , 2018, 27, 35-37.	0.3	3
213	Resistive Switching in Al/Graphene Oxide/Al Structure. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 070110.	0.8	41
214	Physical and chemical properties of carbon nanotubes in view of mechanistic neuroscience investigations. Some outlook from condensed matter, materials science and physical chemistry. <i>Materials Science and Engineering C</i> , 2021, 131, 112480.	3.8	16
215	Material and Doping Contrast in III/V Nanowires Probed by Kelvin Probe Force Microscopy. <i>Nanoscience and Technology</i> , 2012, , 185-206.	1.5	0
216	Electrochemical Construction and Optical Properties of Ordered Micro/ Nano-Structured Arrays Based on Colloidal Monolayer. , 2012, , 305-353.		0
217	Biomedicine Applications of Nanomaterials. , 2012, , 565-592.		0
218	Nanoelectronic Applications of Molecular Junctions. <i>Springer Tracts in Modern Physics</i> , 2013, , 231-272.	0.1	0
219	What Happens When Molecules Meet Nanostructures: The Convergence of Chemistry and Electronics at the Nanoscale. <i>Nanostructure Science and Technology</i> , 2015, , 217-235.	0.1	0
220	Photoelectrochemistry with Nanostructured Semiconductors. , 2015, , 160-195.		0
221	Carbon Nanotube-Based Aerogels as Preformed Porous Fibrous Network for Reinforcing Lightweight Composites. , 2017, , 245-266.		0
222	Surface and Electrical Characterization of Electrochemically Oxidized Graphene. <i>Applied Science and Convergence Technology</i> , 2019, 28, 51-54.	0.3	2
224	Đ“Đ°Đ-Đ¾Đ²Ñ«Đµ Đ, Đ±Đ,Đ¾⁄-ÑĐµĐ½ÑĐ¾ÑÑ« Đ,Đ· Đ¾⁄Đ°ÑĐ,Đ¾⁄Đ² Đ¼⁄ĐµÑ,Đ°Đ»Đ»Đ¾⁄Đ², Đ»ĐµĐ³Đ,Ñ«Đ¾⁄Đ²Đ°Đ¹⁄Đ¹⁄²Ñ«Ñ..		
225	Gas- and Biosensors Made from Metal Oxides Doped with Carbon Nanotubes. <i>Journal of Contemporary Physics</i> , 2022, 57, 54-75.	0.1	5
226	Photomemristor Structures Based on 2D Crystals for Biocompatible Information Sensor Systems. <i>Nanobiotechnology Reports</i> , 2021, 16, 706-721.	0.2	0
227	Light Control over Chirality Selective Functionalization of Substrate Supported Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2022, 126, 9803-9812.	1.5	1

#	ARTICLE	IF	CITATIONS
228	A Critical Review on the Sensing, Control, and Manipulation of Single Molecules on Optofluidic Devices. <i>Micromachines</i> , 2022, 13, 968.	1.4	3
229	Pseudo-Hermitian Dirac operator on the torus for massless fermions under the action of external fields. <i>International Journal of Modern Physics A</i> , 2022, 37, .	0.5	2
230	Composites of Polybenzimidazole with SWCNTs – Temperature Dependences of Resistance. , 2022, , .		0
231	Curvature as an external field in mechanical antiferromagnets. <i>Physical Review Materials</i> , 2022, 6, .	0.9	1
232	Overview of Engineering Carbon Nanomaterials Such As Carbon Nanotubes (CNTs), Carbon Nanofibers (CNFs), Graphene and Nanodiamonds and Other Carbon Allotropes inside Porous Anodic Alumina (PAA) Templates. <i>Nanomaterials</i> , 2023, 13, 260.	1.9	2
233	Electrochemistry of Carbon Materials: Progress in Raman Spectroscopy, Optical Absorption Spectroscopy, and Applications. <i>Nanomaterials</i> , 2023, 13, 640.	1.9	4