Phaedon Avouris

List of Publications by Year
in descending order

212	49,078	2311 98	3021 188
papers	citations	h-index	g-index

217	217	217	36257
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrafast graphene photodetector. Nature Nanotechnology, 2009, 4, 839-843.	15.6	2,748
2	Carbon-based electronics. Nature Nanotechnology, 2007, 2, 605-615.	15.6	2,272
3	Graphene photodetectors for high-speed optical communications. Nature Photonics, 2010, 4, 297-301.	15.6	2,122
4	Engineering Carbon Nanotubes and Nanotube Circuits Using Electrical Breakdown. Science, 2001, 292, 706-709.	6.0	1,605
5	Graphene nano-ribbon electronics. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 228-232.	1.3	1,410
6	Graphene: Electronic and Photonic Properties and Devices. Nano Letters, 2010, 10, 4285-4294.	4.5	1,312
7	Graphene Field-Effect Transistors with High On/Off Current Ratio and Large Transport Band Gap at Room Temperature. Nano Letters, 2010, 10, 715-718.	4.5	1,191
8	Graphene Plasmonics for Terahertz to Mid-Infrared Applications. ACS Nano, 2014, 8, 1086-1101.	7.3	1,165
9	Tunable infrared plasmonic devices using graphene/insulator stacks. Nature Nanotechnology, 2012, 7, 330-334.	15.6	1,097
10	Field-Effect Transistors Based on Single Semiconducting Oxide Nanobelts. Journal of Physical Chemistry B, 2003, 107, 659-663.	1.2	1,049
11	Carbon-nanotube photonics and optoelectronics. Nature Photonics, 2008, 2, 341-350.	15.6	1,033
12	Operation of Graphene Transistors at Gigahertz Frequencies. Nano Letters, 2009, 9, 422-426.	4.5	982
13	Polaritons in layered two-dimensional materials. Nature Materials, 2017, 16, 182-194.	13.3	963
14	Molecular Electronics with Carbon Nanotubes. Accounts of Chemical Research, 2002, 35, 1026-1034.	7.6	913
15	Damping pathways of mid-infrared plasmons in graphene nanostructures. Nature Photonics, 2013, 7, 394-399.	15.6	815
16	High-frequency, scaled graphene transistors on diamond-like carbon. Nature, 2011, 472, 74-78.	13.7	813
17	Wafer-Scale Graphene Integrated Circuit. Science, 2011, 332, 1294-1297.	6.0	812
18	Graphene: synthesis and applications. Materials Today, 2012, 15, 86-97.	8.3	798

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19	The origins and limits of metalâ€“graphene junction resistance. Nature Nanotechnology, 2011, 6, 179-184.	15.6	730
20	Nanotubes for Electronics. Scientific American, 2000, 283, 62-69.	1.0	719
21	Deformation of carbon nanotubes by surface van der Waals forces. Physical Review B, 1998, 58, 13870-13873.	1.1	621
22	The Role of Metalâ^'Nanotube Contact in the Performance of Carbon Nanotube Field-Effect Transistors. Nano Letters, 2005, 5, 1497-1502.	4.5	621
23	Scaling of Excitons in Carbon Nanotubes. Physical Review Letters, 2004, 92, 257402.	2.9	597
24	Carbon nanotube electronics. Chemical Physics, 2002, 281, 429-445.	0.9	574
25	Black Phosphorus Photodetector for Multispectral, High-Resolution Imaging. Nano Letters, 2014, 14, 6414-6417.	4.5	564
26	Photocurrent Imaging and Efficient Photon Detection in a Graphene Transistor. Nano Letters, 2009, 9, 1039-1044.	4.5	543
27	Structure and Electronic Transport in Graphene Wrinkles. Nano Letters, 2012, 12, 3431-3436.	4.5	540
28	Plasmons and Screening in Monolayer and Multilayer Black Phosphorus. Physical Review Letters, 2014, 113, 106802.	2.9	515
29	An Integrated Logic Circuit Assembled on a Single Carbon Nanotube. Science, 2006, 311, 1735-1735.	6.0	514
30	Nonradiative electronic relaxation under collision-free conditions. Chemical Reviews, 1977, 77, 793-833.	23.0	482
31	Thin Film Nanotube Transistors Based on Self-Assembled, Aligned, Semiconducting Carbon Nanotube Arrays. ACS Nano, 2008, 2, 2445-2452.	7.3	472
32	Photoconductivity of biased graphene. Nature Photonics, 2013, 7, 53-59.	15.6	467
33	Chemical Doping and Electronâ^'Hole Conduction Asymmetry in Graphene Devices. Nano Letters, 2009, 9, 388-392.	4.5	458
34	Atomic force microscope tip-induced local oxidation of silicon: kinetics, mechanism, and nanofabrication. Applied Physics Letters, 1997, 71, 285-287.	1.5	443
35	Carrier scattering, mobilities, and electrostatic potential in monolayer, bilayer, and trilayer graphene. Physical Review B, 2009, 80, .	1.1	397
36	State-of-the-Art Graphene High-Frequency Electronics. Nano Letters, 2012, 12, 3062-3067.	4.5	371

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37	Electronic transport and device prospects of monolayer molybdenum disulphide grown by chemical vapour deposition. Nature Communications, 2014, 5, 3087.	5.8	370
38	Strong Suppression of Electrical Noise in Bilayer Graphene Nanodevices. Nano Letters, 2008, 8, 2119-2125.	4.5	365
39	Mechanical Properties of Carbon Nanotubes. , 2001, , 287-327.		357
40	Lightâ€"matter interaction in a microcavity-controlled graphene transistor. Nature Communications, 2012, 3, 906.	5.8	355
41	Manipulation of Individual Carbon Nanotubes and Their Interaction with Surfaces. Journal of Physical Chemistry B, 1998, 102, 910-915.	1.2	353
42	Utilization of a Buffered Dielectric to Achieve High Field-Effect Carrier Mobility in Graphene Transistors. Nano Letters, 2009, 9, 4474-4478.	4.5	341
43	Energy Dissipation in Graphene Field-Effect Transistors. Nano Letters, 2009, 9, 1883-1888.	4.5	339
44	Carbon nanotube electronics and photonics. Physics Today, 2009, 62, 34-40.	0.3	327
45	Bright Infrared Emission from Electrically Induced Excitons in Carbon Nanotubes. Science, 2005, 310, 1171-1174.	6.0	320
46	Electron-Phonon Interaction and Transport in Semiconducting Carbon Nanotubes. Physical Review Letters, 2005, 94, 086802.	2.9	299
47	Electrical and mechanical properties of distorted carbon nanotubes. Physical Review B, 1999, 60, 13824-13830.	1.1	293
48	Photocurrent in graphene harnessed by tunable intrinsic plasmons. Nature Communications, 2013, 4, 1951.	5.8	280
49	Inelastic scattering and current saturation in graphene. Physical Review B, 2010, 81, .	1.1	264
50	Tunable Lightâ€"Matter Interaction and the Role of Hyperbolicity in Grapheneâ€"hBN System. Nano Letters, 2015, 15, 3172-3180.	4.5	260
51	Theoretical Study of Oxygen Adsorption on Graphite and the (8,0) Single-walled Carbon Nanotube. Journal of Physical Chemistry B, 2001, 105, 11227-11232.	1.2	258
52	Radiative Lifetime of Excitons in Carbon Nanotubes. Nano Letters, 2005, 5, 2495-2499.	4.5	249
53	Nanotube electronics and optoelectronics. Materials Today, 2006, 9, 46-54.	8.3	249
54	Thermal infrared emission from biased graphene. Nature Nanotechnology, 2010, 5, 497-501.	15.6	245

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55	Rings of single-walled carbon nanotubes. Nature, 1999, 398, 299-299.	13.7	239
56	Controlling Energy-Level Alignments at Carbon Nanotube/Au Contacts. Nano Letters, 2003, 3, 783-787.	4.5	233
57	Infrared Spectroscopy of Tunable Dirac Terahertz Magneto-Plasmons in Graphene. Nano Letters, 2012, 12, 3766-3771.	4.5	232
58	Effects of Finite Length on the Electronic Structure of Carbon Nanotubes. Journal of Physical Chemistry B, 1999, 103, 641-646.	1.2	223
59	Graphene Plasmon Enhanced Vibrational Sensing of Surface-Adsorbed Layers. Nano Letters, 2014, 14, 1573-1577.	4.5	211
60	Graphene acoustic plasmon resonator for ultrasensitive infrared spectroscopy. Nature Nanotechnology, 2019, 14, 313-319.	15.6	210
61	Electrical observation of subband formation in graphene nanoribbons. Physical Review B, 2008, 78, .	1.1	199
62	Observation of Quantum-Size Effects at Room Temperature on Metal Surfaces With STM. Science, 1994, 264, 942-945.	6.0	196
63	Metal-Semiconductor Nanocontacts: Silicon Nanowires. Physical Review Letters, 2000, 85, 1958-1961.	2.9	188
64	Infrared Spectroscopy of Wafer-Scale Graphene. ACS Nano, 2011, 5, 9854-9860.	7.3	187
65	Graphene applications in electronics and photonics. MRS Bulletin, 2012, 37, 1225-1234.	1.7	186
66	Efficient narrow-band light emission from a single carbon nanotube pâ€"n diode. Nature Nanotechnology, 2010, 5, 27-31.	15.6	181
67	Effect of Exciton-Phonon Coupling in the Calculated Optical Absorption of Carbon Nanotubes. Physical Review Letters, 2005, 94, 027402.	2.9	180
68	Origin of photoresponse in black phosphorus phototransistors. Physical Review B, 2014, 90, .	1.1	178
69	Increased Responsivity of Suspended Graphene Photodetectors. Nano Letters, 2013, 13, 1644-1648.	4.5	171
70	Charge Transfer Induced Polarity Switching in Carbon Nanotube Transistors. Nano Letters, 2005, 5, 555-558.	4.5	169
71	Hot Carrier Electroluminescence from a Single Carbon Nanotube. Nano Letters, 2004, 4, 1063-1066.	4.5	162
72	Mobile Ambipolar Domain in Carbon-Nanotube Infrared Emitters. Physical Review Letters, 2004, 93, 076803.	2.9	153

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73	Three-Terminal Graphene Negative Differential Resistance Devices. ACS Nano, 2012, 6, 2610-2616.	7.3	153
74	Graphene Photonics, Plasmonics, and Optoelectronics. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 72-83.	1.9	153
75	Ring Formation in Single-Wall Carbon Nanotubes. Journal of Physical Chemistry B, 1999, 103, 7551-7556.	1.2	150
76	Controllable p-n Junction Formation in Monolayer Graphene Using Electrostatic Substrate Engineering. Nano Letters, 2010, 10, 4634-4639.	4.5	148
77	Photoconductivity Spectra of Single-Carbon Nanotubes:â€‰ Implications on the Nature of Their Excited States. Nano Letters, 2005, 5, 749-752.	4.5	143
78	Molecular Interactions in One-Dimensional Organic Nanostructures. Journal of the American Chemical Society, 2004, 126, 5234-5242.	6.6	140
79	Self-aligned carbon nanotube transistors with charge transfer doping. Applied Physics Letters, 2005, 86, 123108.	1.5	136
80	Silicon Nitride Gate Dielectrics and Band Gap Engineering in Graphene Layers. Nano Letters, 2010, 10, 3572-3576.	4.5	136
81	Field-Effect Transistors Assembled from Functionalized Carbon Nanotubes. Nano Letters, 2006, 6, 906-910.	4.5	135
82	The effect of structural distortions on the electronic structure of carbon nanotubes. Chemical Physics Letters, 1998, 297, 45-50.	1.2	130
83	Tunable Phonon-Induced Transparency in Bilayer Graphene Nanoribbons. Nano Letters, 2014, 14, 4581-4586.	4.5	129
84	Dual-Gate Graphene FETs With f_{T} of 50 GHz. IEEE Electron Device Letters, 2010, 31, 68-70.	2.2	126
85	Nanomaterialâ€Based Plasmonâ€Enhanced Infrared Spectroscopy. Advanced Materials, 2018, 30, e1704896.	11.1	124
86	Low-Frequency Current Fluctuations in Individual Semiconducting Single-Wall Carbon Nanotubes. Nano Letters, 2006, 6, 930-936.	4.5	122
87	Exciton Ionization, Franzâ˘Keldysh, and Stark Effects in Carbon Nanotubes. Nano Letters, 2007, 7, 609-613.	4.5	121
88	Imaging of the Schottky Barriers and Charge Depletion in Carbon Nanotube Transistors. Nano Letters, 2007, 7, 2037-2042.	4.5	121
89	Ambipolar-to-Unipolar Conversion of Carbon Nanotube Transistors by Gate Structure Engineering. Nano Letters, 2004, 4, 947-950.	4.5	119
90	Behavior of a chemically doped graphene junction. Applied Physics Letters, 2009, 94, .	1.5	115

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91	Phonon populations and electrical power dissipation in carbon nanotube transistors. Nature Nanotechnology, 2009, 4, 320-324.	15.6	111
92	An Essential Mechanism of Heat Dissipation in Carbon Nanotube Electronics. Nano Letters, 2009, 9, 1850-1855.	4.5	110
93	Carbon Nanotube Electronics and Optoelectronics. MRS Bulletin, 2004, 29, 403-410.	1.7	109
94	Relaxation of optically excited carriers in graphene. Physical Review B, 2011, 84, .	1.1	107
95	Ultimate RF Performance Potential of Carbon Electronics. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2739-2750.	2.9	107
96	Externally Assembled Gate-All-Around Carbon Nanotube Field-Effect Transistor. IEEE Electron Device Letters, 2008, 29, 183-185.	2.2	104
97	Graphene Electronics: Materials, Devices, and Circuits. Proceedings of the IEEE, 2013, 101, 1620-1637.	16.4	104
98	Ultrasensitive Plasmonic Detection of Molecules with Graphene. ACS Photonics, 2016, 3, 553-557.	3.2	104
99	Phonon and Electronic Nonradiative Decay Mechanisms of Excitons in Carbon Nanotubes. Physical Review Letters, 2008, 101, 057401.	2.9	102
100	The Grapheneâ€“Gold Interface and Its Implications for Nanoelectronics. Nano Letters, 2011, 11, 3833-3837.	4.5	101
101	Cooling of photoexcited carriers in graphene by internal and substrate phonons. Physical Review B, 2012, 86, .	1.1	100
102	Wafer-scale epitaxial graphene growth on the Si-face of hexagonal SiC (0001) for high frequency transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 985-992.	0.6	95
103	High-frequency performance of scaled carbon nanotube array field-effect transistors. Applied Physics Letters, 2012, 101, 053123.	1.5	94
104	The Interaction of Light and Graphene: Basics, Devices, and Applications. Proceedings of the IEEE, 2013, 101, 1717-1731.	16.4	94
105	Tunable Graphene Metasurface Reflectarray for Cloaking, Illusion, and Focusing. Physical Review Applied, 2018, 9, .	1.5	93
106	The Effects of Substrate Phonon Mode Scattering on Transport in Carbon Nanotubes. Nano Letters, 2009, 9, 312-316.	4.5	88
107	Nanophotonic biosensors harnessing van der Waals materials. Nature Communications, 2021, 12, 3824.	5.8	88
108	Variations in homogeneous fluorescence linewidth and electronâ€“phonon coupling within an inhomogeneous spectral profile. Journal of Chemical Physics, 1977, 67, 3397-3398.	1.2	85

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109	A microcavity-controlled, current-driven, on-chip nanotube emitter at infrared wavelengths. Nature Nanotechnology, 2008, 3, 609-613.	15.6	85
110	Graphene field-effect transistors with self-aligned gates. Applied Physics Letters, 2010, 97, 013103.	1.5	84
111	A theoretical study of the initial stages of Si(111)â€“7Ã—7 oxidation. I. The molecular precursor. Journal of Chemical Physics, 1993, 98, 7593-7605.	1.2	81
112	Enhanced Performance in Epitaxial Graphene FETs With Optimized Channel Morphology. IEEE Electron Device Letters, 2011, 32, 1343-1345.	2.2	80
113	Progress in Carbon Nanotube Electronics and Photonics. MRS Bulletin, 2010, 35, 306-313.	1.7	79
114	Quantum Behavior of Graphene Transistors near the Scaling Limit. Nano Letters, 2012, 12, 1417-1423.	4.5	77
115	Impact excitation by hot carriers in carbon nanotubes. Physical Review B, 2006, 74, .	1.1	73
116	EXCITED STATE INTERACTIONS OF 7-AZAINDOLE WITH ALCOHOL AND WATER. Photochemistry and Photobiology, 1976, 24, 211-216.	1.3	71
117	Epitaxial Graphene Nanoribbon Array Fabrication Using BCP-Assisted Nanolithography. ACS Nano, 2012, 6, 6786-6792.	7.3	68
118	Plasmonics of coupled graphene micro-structures. New Journal of Physics, 2012, 14, 125001.	1.2	68
119	Chemically Assisted Directed Assembly of Carbon Nanotubes for the Fabrication of Large-Scale Device Arrays. Journal of the American Chemical Society, 2007, 129, 11964-11968.	6.6	66
120	Electrically Excited, Localized Infrared Emission from Single Carbon Nanotubes. Nano Letters, 2006, 6, 1425-1433.	4.5	64
121	Raman and Photocurrent Imaging of Electrical Stress-Induced pâ€“n Junctions in Graphene. ACS Nano, 2011, 5, 5848-5854.	7.3	64
122	Self-assembly of 1-D organic semiconductor nanostructures. Physical Chemistry Chemical Physics, 2007, 9, 1515.	1.3	62
123	Charge trapping and scattering in epitaxial graphene. Physical Review B, 2011, 84, .	1.1	62
124	Electrical Transport Through Single-Wall Carbon Nanotubes. , 2001, , 147-171.		61
125	Dynamics of double proton transfer in the excited state of 7â€azaindole hydrogen bonded dimer. A timeâ€resolved fluorescence study. Journal of Chemical Physics, 1975, 62, 2499-2500.	1.2	57
126	Switching behavior of semiconducting carbon nanotubes under an external electric field. Applied Physics Letters, 2001, 78, 2521-2523.	1.5	57

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127	Novel Midinfrared Plasmonic Properties of Bilayer Graphene. Physical Review Letters, 2014, 112, 116801.	2.9	56
128	Image polaritons in boron nitride for extreme polariton confinement with low losses. Nature Communications, 2020, 11, 3649.	5.8	56
129	Gate-Variable Light Absorption and Emission in a Semiconducting Carbon Nanotube. Nano Letters, 2009, 9, 3477-3481.	4.5	55
130	Multiphoton ionization and twoâ€photon fluorescence excitation spectroscopy of triethylenediamine. Journal of Chemical Physics, 1979, 71, 1241-1246.	1.2	53
131	Multicarrier transport in epitaxial multilayer graphene. Applied Physics Letters, 2010, 97, 112107.	1.5	50
132	Multiphoton ionization spectra of two caged amines. Chemical Physics Letters, 1978, 53, 515-520.	1.2	49
133	Mobility in Semiconducting Carbon Nanotubes at Finite Carrier Density. Nano Letters, 2006, 6, 205-208.	4.5	49
134	How does the substrate affect the Raman and excited state spectra of a carbon nanotube?. Applied Physics A: Materials Science and Processing, 2009, 96, 271-282.	1.1	49
135	An Ambipolar Virtual-Source-Based Charge-Current Compact Model for Nanoscale Graphene Transistors. IEEE Nanotechnology Magazine, 2014, 13, 1005-1013.	1.1	49
136	Impact of oxide substrate on electrical and optical properties of carbon nanotube devices. Nanotechnology, 2007, 18, 295202.	1.3	47
137	Current-induced local oxidation of metal films: Mechanism and quantum-size effects. Applied Physics Letters, 1998, 73, 2173-2175.	1.5	46
138	Device modeling of long-channel nanotube electro-optical emitter. Applied Physics Letters, 2005, 86, 263108.	1.5	46
139	Electrical Switching in Ï€-Resonant 1D Intermolecular Channels. Nano Letters, 2002, 2, 877-880.	4.5	45
140	Quantum Size Effects in Carbon Nanotube Intramolecular Junctions. Nano Letters, 2002, 2, 253-256.	4.5	45
141	Carbon Nanotube Photo- and Electroluminescence in Longitudinal Electric Fields. ACS Nano, 2009, 3, 3744-3748.	7.3	44
142	Effects of optical and surface polar phonons on the optical conductivity of doped graphene. Physical Review B, 2013, 87, .	1.1	44
143	Graphene radio frequency devices on flexible substrate. Applied Physics Letters, 2013, 102, .	1.5	44
144	The polarized carbon nanotube thin film LED. Optics Express, 2010, 18, 25738.	1.7	43

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145	Plasmonâ€"Plasmon Hybridization and Bandwidth Enhancement in Nanostructured Graphene. Nano Letters, 2015, 15, 2582-2587.	4.5	43
146	Strong and Broadly Tunable Plasmon Resonances in Thick Films of Aligned Carbon Nanotubes. Nano Letters, 2017, 17, 5641-5645.	4.5	42
147	Electronics with carbon nanotubes. Physics World, 2007, 20, 40-45.	0.0	41
148	Intersubband Decay of 1-D Exciton Resonances in Carbon Nanotubes. Nano Letters, 2008, 8, 87-91.	4.5	41
149	Coherent Plasmon and Phonon-Plasmon Resonances in Carbon Nanotubes. Physical Review Letters, 2017, 118, 257401.	2.9	41
150	1/f Noise in Carbon Nanotube Devicesâ€"On the Impact of Contacts and Device Geometry. IEEE Nanotechnology Magazine, 2007, 6, 368-373.	1.1	38
151	Electrically Excited Infrared Emission from InN Nanowire Transistors. Nano Letters, 2007, 7, 2276-2280.	4.5	38
152	Antenna-Enhanced Photocurrent Microscopy on Single-Walled Carbon Nanotubes at 30 nm Resolution. ACS Nano, 2012, 6, 6416-6421.	7.3	38
153	Electron Interference Effects on the Conductance of Doped Carbon Nanotubes. Journal of Physical Chemistry A, 2000, 104, 9807-9811.	1.1	37
154	Scanning photovoltage microscopy of potential modulations in carbon nanotubes. Applied Physics Letters, 2007, 91, .	1.5	36
155	Intrinsically ultrastrong plasmonâ€"exciton interactions in crystallized films of carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12662-12667.	3.3	36
156	A theoretical study of the initial stages of Si(111)â€"7Ã—7 oxidation. II. The dissociated state and formation of SiO4. Journal of Chemical Physics, 1993, 98, 7606-7612.	1.2	33
157	Substrate-Sensitive Mid-infrared Photoresponse in Graphene. ACS Nano, 2014, 8, 8350-8356.	7.3	30
158	Graphene-enabled and directed nanomaterial placement from solution for large-scale device integration. Nature Communications, 2018, 9, 4095.	5.8	30
159	Electronic bandâ€shape calculations in ammonia. Journal of Chemical Physics, 1981, 74, 5516-5520.	1.2	29
160	Phonon assisted site-to-site electronic energy transfer between Eu3+ ions in an amorphous solid. Chemical Physics Letters, 1977, 50, 9-13.	1.2	27
161	Electrical transport and noise in semiconducting carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 72-77.	1.3	27
162	Spatially Resolved Electrostatic Potential and Photocurrent Generation in Carbon Nanotube Array Devices. ACS Nano, 2012, 6, 7303-7310.	7.3	25

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163	Plasmonic Gas Sensing with Graphene Nanoribbons. Physical Review Applied, 2020, 13, .	1.5	25
164	Effects of Coadsorption on the Conductance of Molecular Wires. Nano Letters, 2002, 2, 1047-1050.	4.5	23
165	Interaction of solid organic acids with carbon nanotube field effect transistors. Chemical Physics Letters, 2006, 430, 75-79.	1.2	22
166	Development of graphene FETs for high frequency electronics. , 2009, , .		22
167	Impact of gate resistance in graphene radio frequency transistors. Applied Physics Letters, 2012, 101, .	1.5	21
168	Carbon-Nanotube Optoelectronics. Topics in Applied Physics, 2007, , 423-454.	0.4	19
169	Oxygen Atom Reactions with Circumtrindene and Related Molecules:â€‰ Analogues for the Oxidation of Nanotube Caps. Journal of Physical Chemistry A, 2002, 106, 2572-2579.	1.1	18
170	Carbon-based electronics. , 2009, , 174-184.		17
171	Infrared laser multiple photon ionization. Journal of Chemical Physics, 1980, 72, 3522-3527.	1.2	15
172	Understanding the Variation of the Electrostatic Potential along a Biased Molecular Wire. Nano Letters, 2003, 3, 737-740.	4.5	15
173	Power Dissipation and Electrical Breakdown in Black Phosphorus. Nano Letters, 2015, 15, 6785-6788.	4.5	14
174	Layer Number Determination and Thickness-Dependent Properties of Graphene Grown on SiC. IEEE Nanotechnology Magazine, 2011, 10, 1196-1201.	1.1	12
175	The infraredâ€laser multipleâ€photon ionization of nitromethane. Journal of Chemical Physics, 1979, 70, 5315-5317.	1.2	11
176	Graphene Nanophotonics. IEEE Photonics Journal, 2011, 3, 293-295.	1.0	10
177	Plasmon coupling in extended structures: Graphene superlattice nanoribbon arrays. Physical Review B, 2016, 93, .	1.1	10
178	Accessing the Exceptional Points in a Graphene Plasmonâ€"Vibrational Mode Coupled System. ACS Photonics, 2021, 8, 3241-3248.	3.2	10
179	Theoretical Overview of Black Phosphorus. , 2017, , 381-412.		9
180	Studies of confined states and quantum size effects with scanning tunneling microscopy. Solid State Communications, 1994, 92, 11-18.	0.9	8

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181	Computational Study of Exciton Generation in Suspended Carbon Nanotube Transistors. Nano Letters, 2008, 8, 1596-1601.	4.5	8
182	Twisted Two-Dimensional Material Stacks for Polarization Optics. Physical Review Letters, 2022, 128, .	2.9	8
183	Hot Spot Dynamics in Carbon Nanotube Array Devices. Nano Letters, 2015, 15, 2127-2131.	4.5	7
184	Optical Properties of Graphene. , 2017, , 38-51.		7
185	Gate Work Function Engineering for Nanotube-Based Circuits. Digest of Technical Papers - IEEE International Solid-State Circuits Conference, 2007, , .	0.0	6
186	Local measurement of charge density in carbon nanotubes by Raman spectroscopy. Physica Status Solidi (B): Basic Research, 2008, 245, 2216-2220.	0.7	6
187	Electron transport and excitations in graphene. Procedia Chemistry, 2011, 3, 352-362.	0.7	5
188	Effect of dual gate control on the alternating current performance of graphene radio frequency device. Journal of Applied Physics, 2013, 114, 044307.	1.1	5
189	Energy dependence of the nonradiative electronic relaxation in camphorquinone vapor. Journal of Chemical Physics, 1977, 66, 1376-1377.	1.2	4
190	Luminescence and intersystem crossing processes in camphoroquinone crystals. Chemical Physics, 1977, 19, 147-154.	0.9	3
191	Carbon nanotubes and optical confinement: controlling light emission in nanophotonic devices. Proceedings of SPIE, 2008, , .	0.8	3
192	Anisotropic Properties of Black Phosphorus. , 0, , 413-434.		3
193	Fast graphene-based electronics and optoelectronics. , 2010, , .		2
194	Electrical Properties of Carbon Nanotubes: Spectroscopy Localization and Electrical Breakdown. , 2002, , 223-237.		1
195	Molecular Electronics with Carbon Nanotubes. ChemInform, 2003, 34, no.	0.1	1
196	Photocurrent imaging of the potential profiles in a graphene transistor. , 2008, , .		1
197	Cavity-controlled, electrically-induced infrared emission from a single single-wall carbon nanotube (SWCT). , 2008, , .		1
198	Current transport, gate dielectrics and band gap engineering in graphene devices. , 2010, , .		1

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199	Graphene nanophotonics. , 2010, , .		1
200	Electrical characterization of wafer-scale epitaxial graphene and its RF applications. , 2011, , .		1
201	Graphene technology for RF and THz applications. , 2013, , .		1
202	Graphene Plasmonics. , 2017, , 104-140.		1
203	Oxide-Induced Noise in Carbon Nanotube Devices. Device Research Conference, IEEE Annual, 2007, , .	0.0	0
204	Optoelectronics of Single Carbon Nanotubes. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
205	Graphene and carbon nanotube photonics. , 2009, , .		0
206	Zero-dark current operation of a metal-graphene-metal photodetector at 10 Gbit/s data rate. , 2010, , .		0
207	Graphene Electronics. , 0, , 159-179.		0
208	Grapheneâ€“BN Heterostructures. , 0, , 219-237.		0
209	Optical Properties and Optoelectronic Applications of Black Phosphorus. , 0, , 435-457.		0
210	Excited states and electroluminescence of carbon nanotubes. , 2006, , .		0
211	Valence and Core-Excitations of Adsorbates: Spectroscopy and Relaxation Dynamics. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1984, , 297-311.	0.2	0
212	Theoretical Studies of the Electronic Structure and Spectra of NhS 3 +. , 1985, , 875-893.		0