

Phaedon Avouris

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201
papers

42,241
citations

93
h-index

205
g-index

217
ext. papers

46,112
ext. citations

10.9
avg, IF

7.84
L-index

#	Paper	IF	Citations
201	Ultrafast graphene photodetector. <i>Nature Nanotechnology</i> , 2009 , 4, 839-43	28.7	2309
200	Carbon-based electronics. <i>Nature Nanotechnology</i> , 2007 , 2, 605-15	28.7	2020
199	Graphene photodetectors for high-speed optical communications. <i>Nature Photonics</i> , 2010 , 4, 297-301	33.9	1782
198	Engineering carbon nanotubes and nanotube circuits using electrical breakdown. <i>Science</i> , 2001 , 292, 706-9	33.3	1428
197	Graphene nano-ribbon electronics. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007 , 40, 228-232	3	1272
196	Graphene: electronic and photonic properties and devices. <i>Nano Letters</i> , 2010 , 10, 4285-94	11.5	1107
195	Graphene field-effect transistors with high on/off current ratio and large transport band gap at room temperature. <i>Nano Letters</i> , 2010 , 10, 715-8	11.5	1034
194	Field-Effect Transistors Based on Single Semiconducting Oxide Nanobelts. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 659-663	3.4	973
193	Tunable infrared plasmonic devices using graphene/insulator stacks. <i>Nature Nanotechnology</i> , 2012 , 7, 330-4	28.7	935
192	Graphene plasmonics for terahertz to mid-infrared applications. <i>ACS Nano</i> , 2014 , 8, 1086-101	16.7	909
191	Operation of graphene transistors at gigahertz frequencies. <i>Nano Letters</i> , 2009 , 9, 422-6	11.5	891
190	Carbon-nanotube photonics and optoelectronics. <i>Nature Photonics</i> , 2008 , 2, 341-350	33.9	869
189	Molecular electronics with carbon nanotubes. <i>Accounts of Chemical Research</i> , 2002 , 35, 1026-34	24.3	843
188	Wafer-scale graphene integrated circuit. <i>Science</i> , 2011 , 332, 1294-7	33.3	730
187	High-frequency, scaled graphene transistors on diamond-like carbon. <i>Nature</i> , 2011 , 472, 74-8	50.4	727
186	Damping pathways of mid-infrared plasmons in graphene nanostructures. <i>Nature Photonics</i> , 2013 , 7, 394-399	33.9	682
185	Polaritons in layered two-dimensional materials. <i>Nature Materials</i> , 2017 , 16, 182-194	27	665

184	Graphene: synthesis and applications. <i>Materials Today</i> , 2012 , 15, 86-97	21.8	663
183	The origins and limits of metal-graphene junction resistance. <i>Nature Nanotechnology</i> , 2011 , 6, 179-84	28.7	640
182	Nanotubes for electronics. <i>Scientific American</i> , 2000 , 283, 62-9	0.5	587
181	Deformation of carbon nanotubes by surface van der Waals forces. <i>Physical Review B</i> , 1998 , 58, 13870-13873	3.7	578
180	Scaling of excitons in carbon nanotubes. <i>Physical Review Letters</i> , 2004 , 92, 257402	7.4	563
179	The role of metal-nanotube contact in the performance of carbon nanotube field-effect transistors. <i>Nano Letters</i> , 2005 , 5, 1497-502	11.5	551
178	Black phosphorus photodetector for multispectral, high-resolution imaging. <i>Nano Letters</i> , 2014 , 14, 6414-17	11.5	495
177	Photocurrent imaging and efficient photon detection in a graphene transistor. <i>Nano Letters</i> , 2009 , 9, 1039-44	11.5	486
176	Structure and electronic transport in graphene wrinkles. <i>Nano Letters</i> , 2012 , 12, 3431-6	11.5	463
175	An integrated logic circuit assembled on a single carbon nanotube. <i>Science</i> , 2006 , 311, 1735	33.3	459
174	Nonradiative electronic relaxation under collision-free conditions. <i>Chemical Reviews</i> , 1977 , 77, 793-833	68.1	446
173	Chemical doping and electron-hole conduction asymmetry in graphene devices. <i>Nano Letters</i> , 2009 , 9, 388-92	11.5	427
172	Thin film nanotube transistors based on self-assembled, aligned, semiconducting carbon nanotube arrays. <i>ACS Nano</i> , 2008 , 2, 2445-52	16.7	424
171	Plasmons and screening in monolayer and multilayer black phosphorus. <i>Physical Review Letters</i> , 2014 , 113, 106802	7.4	405
170	Atomic force microscope tip-induced local oxidation of silicon: kinetics, mechanism, and nanofabrication. <i>Applied Physics Letters</i> , 1997 , 71, 285-287	3.4	401
169	Photoconductivity of biased graphene. <i>Nature Photonics</i> , 2013 , 7, 53-59	33.9	382
168	Carrier scattering, mobilities, and electrostatic potential in monolayer, bilayer, and trilayer graphene. <i>Physical Review B</i> , 2009 , 80,	3.3	343
167	Strong suppression of electrical noise in bilayer graphene nanodevices. <i>Nano Letters</i> , 2008 , 8, 2119-25	11.5	328

166	Electronic transport and device prospects of monolayer molybdenum disulphide grown by chemical vapour deposition. <i>Nature Communications</i> , 2014 , 5, 3087	17.4	327
165	State-of-the-art graphene high-frequency electronics. <i>Nano Letters</i> , 2012 , 12, 3062-7	11.5	318
164	Mechanical Properties of Carbon Nanotubes 2001 , 287-327		316
163	Utilization of a buffered dielectric to achieve high field-effect carrier mobility in graphene transistors. <i>Nano Letters</i> , 2009 , 9, 4474-8	11.5	310
162	Manipulation of Individual Carbon Nanotubes and Their Interaction with Surfaces. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 910-915	3.4	310
161	Energy dissipation in graphene field-effect transistors. <i>Nano Letters</i> , 2009 , 9, 1883-8	11.5	304
160	Light-matter interaction in a microcavity-controlled graphene transistor. <i>Nature Communications</i> , 2012 , 3, 906	17.4	297
159	Bright infrared emission from electrically induced excitons in carbon nanotubes. <i>Science</i> , 2005 , 310, 1171-4	17.4	289
158	Electron-phonon interaction and transport in semiconducting carbon nanotubes. <i>Physical Review Letters</i> , 2005 , 94, 086802	7.4	275
157	Carbon nanotube electronics and photonics. <i>Physics Today</i> , 2009 , 62, 34-40	0.9	274
156	Electrical and mechanical properties of distorted carbon nanotubes. <i>Physical Review B</i> , 1999 , 60, 13824-13830	13.3	271
155	Carbon nanotube electronics. <i>Chemical Physics</i> , 2002 , 281, 429-445	2.3	255
154	Theoretical Study of Oxygen Adsorption on Graphite and the (8,0) Single-walled Carbon Nanotube. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 11227-11232	3.4	245
153	Photocurrent in graphene harnessed by tunable intrinsic plasmons. <i>Nature Communications</i> , 2013 , 4, 1951	17.4	242
152	Radiative lifetime of excitons in carbon nanotubes. <i>Nano Letters</i> , 2005 , 5, 2495-9	11.5	233
151	Inelastic scattering and current saturation in graphene. <i>Physical Review B</i> , 2010 , 81,	3.3	230
150	Controlling Energy-Level Alignments at Carbon Nanotube/Au Contacts. <i>Nano Letters</i> , 2003 , 3, 783-787	11.5	216
149	Rings of single-walled carbon nanotubes. <i>Nature</i> , 1999 , 398, 299-299	50.4	216

148	Nanotube electronics and optoelectronics. <i>Materials Today</i> , 2006 , 9, 46-54	21.8	214
147	Effects of Finite Length on the Electronic Structure of Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 641-646	3.4	209
146	Thermal infrared emission from biased graphene. <i>Nature Nanotechnology</i> , 2010 , 5, 497-501	28.7	205
145	Infrared spectroscopy of tunable Dirac terahertz magneto-plasmons in graphene. <i>Nano Letters</i> , 2012 , 12, 3766-71	11.5	198
144	Tunable Light-Matter Interaction and the Role of Hyperbolicity in Graphene-hBN System. <i>Nano Letters</i> , 2015 , 15, 3172-80	11.5	194
143	Electrical observation of subband formation in graphene nanoribbons. <i>Physical Review B</i> , 2008 , 78,	3.3	182
142	Observation of Quantum-Size Effects at Room Temperature on Metal Surfaces With STM. <i>Science</i> , 1994 , 264, 942-5	33.3	180
141	Metal-semiconductor nanocontacts: silicon nanowires. <i>Physical Review Letters</i> , 2000 , 85, 1958-61	7.4	178
140	Graphene plasmon enhanced vibrational sensing of surface-adsorbed layers. <i>Nano Letters</i> , 2014 , 14, 1573-1575	11.5	174
139	Effect of exciton-phonon coupling in the calculated optical absorption of carbon nanotubes. <i>Physical Review Letters</i> , 2005 , 94, 027402	7.4	162
138	Infrared spectroscopy of wafer-scale graphene. <i>ACS Nano</i> , 2011 , 5, 9854-60	16.7	159
137	Charge transfer induced polarity switching in carbon nanotube transistors. <i>Nano Letters</i> , 2005 , 5, 555-8	11.5	157
136	Efficient narrow-band light emission from a single carbon nanotube p-n diode. <i>Nature Nanotechnology</i> , 2010 , 5, 27-31	28.7	155
135	Origin of photoresponse in black phosphorus phototransistors. <i>Physical Review B</i> , 2014 , 90,	3.3	154
134	Increased responsivity of suspended graphene photodetectors. <i>Nano Letters</i> , 2013 , 13, 1644-8	11.5	148
133	Graphene applications in electronics and photonics. <i>MRS Bulletin</i> , 2012 , 37, 1225-1234	3.2	144
132	Hot Carrier Electroluminescence from a Single Carbon Nanotube. <i>Nano Letters</i> , 2004 , 4, 1063-1066	11.5	139
131	Controllable p-n junction formation in monolayer graphene using electrostatic substrate engineering. <i>Nano Letters</i> , 2010 , 10, 4634-9	11.5	138

130	Ring Formation in Single-Wall Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 7551-7556	3.4	134
129	Molecular interactions in one-dimensional organic nanostructures. <i>Journal of the American Chemical Society</i> , 2004 , 126, 5234-42	16.4	133
128	Three-terminal graphene negative differential resistance devices. <i>ACS Nano</i> , 2012 , 6, 2610-6	16.7	131
127	Mobile ambipolar domain in carbon-nanotube infrared emitters. <i>Physical Review Letters</i> , 2004 , 93, 076803	3.4	126
126	Graphene acoustic plasmon resonator for ultrasensitive infrared spectroscopy. <i>Nature Nanotechnology</i> , 2019 , 14, 313-319	28.7	125
125	Graphene Photonics, Plasmonics, and Optoelectronics. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014 , 20, 72-83	3.8	125
124	Photoconductivity spectra of single-carbon nanotubes: implications on the nature of their excited States. <i>Nano Letters</i> , 2005 , 5, 749-52	11.5	125
123	Field-effect transistors assembled from functionalized carbon nanotubes. <i>Nano Letters</i> , 2006 , 6, 906-10	11.5	123
122	Self-aligned carbon nanotube transistors with charge transfer doping. <i>Applied Physics Letters</i> , 2005 , 86, 123108	3.4	123
121	The effect of structural distortions on the electronic structure of carbon nanotubes. <i>Chemical Physics Letters</i> , 1998 , 297, 45-50	2.5	122
120	Silicon nitride gate dielectrics and band gap engineering in graphene layers. <i>Nano Letters</i> , 2010 , 10, 3572-6	11.5	121
119	Dual-Gate Graphene FETs With f_{T} of 50 GHz. <i>IEEE Electron Device Letters</i> , 2010 , 31, 68-70	4.4	118
118	Imaging of the Schottky barriers and charge depletion in carbon nanotube transistors. <i>Nano Letters</i> , 2007 , 7, 2037-42	11.5	116
117	Tunable phonon-induced transparency in bilayer graphene nanoribbons. <i>Nano Letters</i> , 2014 , 14, 4581-6	11.5	109
116	Exciton ionization, Franz-Keldysh, and Stark effects in carbon nanotubes. <i>Nano Letters</i> , 2007 , 7, 609-13	11.5	107
115	Low-frequency current fluctuations in individual semiconducting single-wall carbon nanotubes. <i>Nano Letters</i> , 2006 , 6, 930-6	11.5	106
114	Behavior of a chemically doped graphene junction. <i>Applied Physics Letters</i> , 2009 , 94, 213106	3.4	104
113	Phonon populations and electrical power dissipation in carbon nanotube transistors. <i>Nature Nanotechnology</i> , 2009 , 4, 320-4	28.7	101

112	Ambipolar-to-Unipolar Conversion of Carbon Nanotube Transistors by Gate Structure Engineering. <i>Nano Letters</i> , 2004 , 4, 947-950	11.5	101
111	An essential mechanism of heat dissipation in carbon nanotube electronics. <i>Nano Letters</i> , 2009 , 9, 1850-51.5	11.5	96
110	Carbon Nanotube Electronics and Optoelectronics. <i>MRS Bulletin</i> , 2004 , 29, 403-410	3.2	96
109	Relaxation of optically excited carriers in graphene. <i>Physical Review B</i> , 2011 , 84,	3.3	95
108	The graphene-gold interface and its implications for nanoelectronics. <i>Nano Letters</i> , 2011 , 11, 3833-7	11.5	90
107	Nanomaterial-Based Plasmon-Enhanced Infrared Spectroscopy. <i>Advanced Materials</i> , 2018 , 30, e1704896	24	88
106	Ultimate RF Performance Potential of Carbon Electronics. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2011 , 59, 2739-2750	4.1	88
105	Phonon and electronic nonradiative decay mechanisms of excitons in carbon nanotubes. <i>Physical Review Letters</i> , 2008 , 101, 057401	7.4	87
104	Wafer-scale epitaxial graphene growth on the Si-face of hexagonal SiC (0001) for high frequency transistors. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010 , 28, 985-992	1.3	86
103	Externally Assembled Gate-All-Around Carbon Nanotube Field-Effect Transistor. <i>IEEE Electron Device Letters</i> , 2008 , 29, 183-185	4.4	85
102	Cooling of photoexcited carriers in graphene by internal and substrate phonons. <i>Physical Review B</i> , 2012 , 86,	3.3	84
101	High-frequency performance of scaled carbon nanotube array field-effect transistors. <i>Applied Physics Letters</i> , 2012 , 101, 053123	3.4	83
100	Ultrasensitive Plasmonic Detection of Molecules with Graphene. <i>ACS Photonics</i> , 2016 , 3, 553-557	6.3	80
99	Graphene field-effect transistors with self-aligned gates. <i>Applied Physics Letters</i> , 2010 , 97, 013103	3.4	78
98	Variations in homogeneous fluorescence linewidth and electron-phonon coupling within an inhomogeneous spectral profile. <i>Journal of Chemical Physics</i> , 1977 , 67, 3397-3398	3.9	78
97	The Interaction of Light and Graphene: Basics, Devices, and Applications. <i>Proceedings of the IEEE</i> , 2013 , 101, 1717-1731	14.3	77
96	The effects of substrate phonon mode scattering on transport in carbon nanotubes. <i>Nano Letters</i> , 2009 , 9, 312-6	11.5	76
95	A theoretical study of the initial stages of Si(111) oxidation. I. The molecular precursor. <i>Journal of Chemical Physics</i> , 1993 , 98, 7593-7605	3.9	76

94	. <i>Proceedings of the IEEE</i> , 2013 , 101, 1620-1637	14.3	75
93	A microcavity-controlled, current-driven, on-chip nanotube emitter at infrared wavelengths. <i>Nature Nanotechnology</i> , 2008 , 3, 609-13	28.7	75
92	Progress in Carbon Nanotube Electronics and Photonics. <i>MRS Bulletin</i> , 2010 , 35, 306-313	3.2	73
91	Enhanced Performance in Epitaxial Graphene FETs With Optimized Channel Morphology. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1343-1345	4.4	72
90	Impact excitation by hot carriers in carbon nanotubes. <i>Physical Review B</i> , 2006 , 74,	3.3	68
89	EXCITED STATE INTERACTIONS OF 7-AZAINDOLE WITH ALCOHOL AND WATER. <i>Photochemistry and Photobiology</i> , 1976 , 24, 211-216	3.6	68
88	Plasmonics of coupled graphene micro-structures. <i>New Journal of Physics</i> , 2012 , 14, 125001	2.9	66
87	Epitaxial graphene nanoribbon array fabrication using BCP-assisted nanolithography. <i>ACS Nano</i> , 2012 , 6, 6786-92	16.7	62
86	Quantum behavior of graphene transistors near the scaling limit. <i>Nano Letters</i> , 2012 , 12, 1417-23	11.5	62
85	Chemically assisted directed assembly of carbon nanotubes for the fabrication of large-scale device arrays. <i>Journal of the American Chemical Society</i> , 2007 , 129, 11964-8	16.4	60
84	Raman and photocurrent imaging of electrical stress-induced p-n junctions in graphene. <i>ACS Nano</i> , 2011 , 5, 5848-54	16.7	59
83	Charge trapping and scattering in epitaxial graphene. <i>Physical Review B</i> , 2011 , 84,	3.3	59
82	Self-assembly of 1-D organic semiconductor nanostructures. <i>Physical Chemistry Chemical Physics</i> , 2007 , 9, 1515-32	3.6	58
81	Tunable Graphene Metasurface Reflectarray for Cloaking, Illusion, and Focusing. <i>Physical Review Applied</i> , 2018 , 9,	4.3	56
80	Electrically excited, localized infrared emission from single carbon nanotubes. <i>Nano Letters</i> , 2006 , 6, 1425-33	11.5	56
79	Dynamics of double proton transfer in the excited state of 7-azaindole hydrogen bonded dimer. A time-resolved fluorescence study. <i>Journal of Chemical Physics</i> , 1975 , 62, 2499-2500	3.9	55
78	Gate-variable light absorption and emission in a semiconducting carbon nanotube. <i>Nano Letters</i> , 2009 , 9, 3477-81	11.5	53
77	Electrical Transport Through Single-Wall Carbon Nanotubes 2001 , 147-171		51

76	Switching behavior of semiconducting carbon nanotubes under an external electric field. <i>Applied Physics Letters</i> , 2001 , 78, 2521-2523	3.4	49
75	Multicarrier transport in epitaxial multilayer graphene. <i>Applied Physics Letters</i> , 2010 , 97, 112107	3.4	47
74	Mobility in semiconducting carbon nanotubes at finite carrier density. <i>Nano Letters</i> , 2006 , 6, 205-8	11.5	47
73	Multiphoton ionization and two-photon fluorescence excitation spectroscopy of triethylenediamine. <i>Journal of Chemical Physics</i> , 1979 , 71, 1241-1246	3.9	47
72	How does the substrate affect the Raman and excited state spectra of a carbon nanotube?. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 96, 271-282	2.6	45
71	Multiphoton ionization spectra of two caged amines. <i>Chemical Physics Letters</i> , 1978 , 53, 515-520	2.5	44
70	Novel midinfrared plasmonic properties of bilayer graphene. <i>Physical Review Letters</i> , 2014 , 112, 116801	7.4	42
69	Electrical Switching in Resonant 1D Intermolecular Channels. <i>Nano Letters</i> , 2002 , 2, 877-880	11.5	42
68	Quantum Size Effects in Carbon Nanotube Intramolecular Junctions. <i>Nano Letters</i> , 2002 , 2, 253-256	11.5	42
67	Current-induced local oxidation of metal films: Mechanism and quantum-size effects. <i>Applied Physics Letters</i> , 1998 , 73, 2173-2175	3.4	42
66	An Ambipolar Virtual-Source-Based Charge-Current Compact Model for Nanoscale Graphene Transistors. <i>IEEE Nanotechnology Magazine</i> , 2014 , 13, 1005-1013	2.6	41
65	Device modeling of long-channel nanotube electro-optical emitter. <i>Applied Physics Letters</i> , 2005 , 86, 263108	3.4	41
64	Effects of optical and surface polar phonons on the optical conductivity of doped graphene. <i>Physical Review B</i> , 2013 , 87,	3.3	38
63	The polarized carbon nanotube thin film LED. <i>Optics Express</i> , 2010 , 18, 25738-45	3.3	38
62	Electron Interference Effects on the Conductance of Doped Carbon Nanotubes. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 9807-9811	2.8	37
61	Plasmon-plasmon hybridization and bandwidth enhancement in nanostructured graphene. <i>Nano Letters</i> , 2015 , 15, 2582-7	11.5	36
60	Graphene radio frequency devices on flexible substrate. <i>Applied Physics Letters</i> , 2013 , 102, 233102	3.4	36
59	Antenna-enhanced photocurrent microscopy on single-walled carbon nanotubes at 30 nm resolution. <i>ACS Nano</i> , 2012 , 6, 6416-21	16.7	35

58	Carbon nanotube photo- and electroluminescence in longitudinal electric fields. <i>ACS Nano</i> , 2009 , 3, 3744-3748	8.7	35
57	Intersubband decay of 1-D exciton resonances in carbon nanotubes. <i>Nano Letters</i> , 2008 , 8, 87-91	11.5	35
56	Electrically excited infrared emission from InN nanowire transistors. <i>Nano Letters</i> , 2007 , 7, 2276-80	11.5	35
55	Impact of oxide substrate on electrical and optical properties of carbon nanotube devices. <i>Nanotechnology</i> , 2007 , 18, 295202	3.4	35
54	Strong and Broadly Tunable Plasmon Resonances in Thick Films of Aligned Carbon Nanotubes. <i>Nano Letters</i> , 2017 , 17, 5641-5645	11.5	34
53	Electronics with carbon nanotubes. <i>Physics World</i> , 2007 , 20, 40-45	0.5	33
52	Coherent Plasmon and Phonon-Plasmon Resonances in Carbon Nanotubes. <i>Physical Review Letters</i> , 2017 , 118, 257401	7.4	32
51	1/f Noise in Carbon Nanotube Devices: On the Impact of Contacts and Device Geometry. <i>IEEE Nanotechnology Magazine</i> , 2007 , 6, 368-373	2.6	32
50	Scanning photovoltage microscopy of potential modulations in carbon nanotubes. <i>Applied Physics Letters</i> , 2007 , 91, 031101	3.4	31
49	A theoretical study of the initial stages of Si(111) surface oxidation. II. The dissociated state and formation of SiO ₂ . <i>Journal of Chemical Physics</i> , 1993 , 98, 7606-7612	3.9	31
48	Nanophotonic biosensors harnessing van der Waals materials. <i>Nature Communications</i> , 2021 , 12, 3824	17.4	31
47	Intrinsically ultrastrong plasmon-exciton interactions in crystallized films of carbon nanotubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 12662-12667	11.5	28
46	Substrate-sensitive mid-infrared photoresponse in graphene. <i>ACS Nano</i> , 2014 , 8, 8350-6	16.7	26
45	Electronic band-shape calculations in ammonia. <i>Journal of Chemical Physics</i> , 1981 , 74, 5516-5520	3.9	25
44	Phonon assisted site-to-site electronic energy transfer between Eu ³⁺ ions in an amorphous solid. <i>Chemical Physics Letters</i> , 1977 , 50, 9-13	2.5	25
43	Spatially resolved electrostatic potential and photocurrent generation in carbon nanotube array devices. <i>ACS Nano</i> , 2012 , 6, 7303-10	16.7	24
42	Electrical transport and 1/f noise in semiconducting carbon nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007 , 37, 72-77	3	22
41	Effects of Coadsorption on the Conductance of Molecular Wires. <i>Nano Letters</i> , 2002 , 2, 1047-1050	11.5	22

40	Interaction of solid organic acids with carbon nanotube field effect transistors. <i>Chemical Physics Letters</i> , 2006 , 430, 75-79	2.5	21
39	Image polaritons in boron nitride for extreme polariton confinement with low losses. <i>Nature Communications</i> , 2020 , 11, 3649	17.4	21
38	Impact of gate resistance in graphene radio frequency transistors. <i>Applied Physics Letters</i> , 2012 , 101, 143503	3.4	19
37	Development of graphene FETs for high frequency electronics 2009 ,		18
36	Carbon-Nanotube Optoelectronics. <i>Topics in Applied Physics</i> , 2007 , 423-454	0.5	18
35	Plasmonic Gas Sensing with Graphene Nanoribbons. <i>Physical Review Applied</i> , 2020 , 13,	4.3	17
34	Graphene-enabled and directed nanomaterial placement from solution for large-scale device integration. <i>Nature Communications</i> , 2018 , 9, 4095	17.4	17
33	Carbon-based electronics 2009 , 174-184		15
32	Understanding the Variation of the Electrostatic Potential along a Biased Molecular Wire. <i>Nano Letters</i> , 2003 , 3, 737-740	11.5	14
31	Oxygen Atom Reactions with Circumtrindene and Related Molecules: Analogues for the Oxidation of Nanotube Caps. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 2572-2579	2.8	13
30	Power Dissipation and Electrical Breakdown in Black Phosphorus. <i>Nano Letters</i> , 2015 , 15, 6785-8	11.5	11
29	Layer Number Determination and Thickness-Dependent Properties of Graphene Grown on SiC. <i>IEEE Nanotechnology Magazine</i> , 2011 , 10, 1196-1201	2.6	10
28	Infrared laser multiple photon ionization. <i>Journal of Chemical Physics</i> , 1980 , 72, 3522-3527	3.9	10
27	The infrared-laser multiple-photon ionization of nitromethane. <i>Journal of Chemical Physics</i> , 1979 , 70, 5315-5317	3.9	9
26	Plasmon coupling in extended structures: Graphene superlattice nanoribbon arrays. <i>Physical Review B</i> , 2016 , 93,	3.3	8
25	Graphene Nanophotonics. <i>IEEE Photonics Journal</i> , 2011 , 3, 293-295	1.8	8
24	Studies of confined states and quantum size effects with scanning tunneling microscopy. <i>Solid State Communications</i> , 1994 , 92, 11-18	1.6	8
23	Hot spot dynamics in carbon nanotube array devices. <i>Nano Letters</i> , 2015 , 15, 2127-31	11.5	7

22	Computational study of exciton generation in suspended carbon nanotube transistors. <i>Nano Letters</i> , 2008 , 8, 1596-601	11.5	7
21	Local measurement of charge density in carbon nanotubes by Raman spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2008 , 245, 2216-2220	1.3	6
20	Theoretical Overview of Black Phosphorus381-412		5
19	Gate Work Function Engineering for Nanotube-Based Circuits. <i>Digest of Technical Papers - IEEE International Solid-State Circuits Conference</i> , 2007 ,	4	4
18	Optical Properties of Graphene38-51		3
17	Anisotropic Properties of Black Phosphorus413-434		3
16	Electron transport and excitations in graphene. <i>Procedia Chemistry</i> , 2011 , 3, 352-362		3
15	Carbon nanotubes and optical confinement: controlling light emission in nanophotonic devices 2008 ,		3
14	Effect of dual gate control on the alternating current performance of graphene radio frequency device. <i>Journal of Applied Physics</i> , 2013 , 114, 044307	2.5	2
13	Applications: Nanoelectronics and Nanomagnetism 2011 , 375-415		2
12	Energy dependence of the nonradiative electronic relaxation in camphorquinone vapor. <i>Journal of Chemical Physics</i> , 1977 , 66, 1376-1377	3.9	2
11	Graphene Plasmonics104-140		1
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