

Philip Kim

List of Publications by Year in descending order

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291
papers

100,860
citations

1046

113
h-index

443

274
g-index

299
all docs

299
docs citations

299
times ranked

60246
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental observation of the quantum Hall effect and Berry's phase in graphene. <i>Nature</i> , 2005, 438, 201-204.	27.8	12,153
2	Large-scale pattern growth of graphene films for stretchable transparent electrodes. <i>Nature</i> , 2009, 457, 706-710.	27.8	9,624
3	Ultrahigh electron mobility in suspended graphene. <i>Solid State Communications</i> , 2008, 146, 351-355.	1.9	6,963
4	Boron nitride substrates for high-quality graphene electronics. <i>Nature Nanotechnology</i> , 2010, 5, 722-726.	31.5	5,794
5	Energy Band-Gap Engineering of Graphene Nanoribbons. <i>Physical Review Letters</i> , 2007, 98, 206805.	7.8	4,635
6	Thermal Transport Measurements of Individual Multiwalled Nanotubes. <i>Physical Review Letters</i> , 2001, 87, 215502.	7.8	2,853
7	Room-Temperature Quantum Hall Effect in Graphene. <i>Science</i> , 2007, 315, 1379-1379.	12.6	2,662
8	Atomic structure and electronic properties of single-walled carbon nanotubes. <i>Nature</i> , 1998, 391, 62-64.	27.8	2,355
9	One-Dimensional Electrical Contact to a Two-Dimensional Material. <i>Science</i> , 2013, 342, 614-617.	12.6	2,236
10	Atomically thin p-n junctions with van der Waals heterointerfaces. <i>Nature Nanotechnology</i> , 2014, 9, 676-681.	31.5	1,953
11	Thermal conductivity of individual silicon nanowires. <i>Applied Physics Letters</i> , 2003, 83, 2934-2936.	3.3	1,536
12	Current saturation in zero-bandgap, top-gated graphene field-effect transistors. <i>Nature Nanotechnology</i> , 2008, 3, 654-659.	31.5	1,426
13	Hofstadter's butterfly and the fractal quantum Hall effect in moiré superlattices. <i>Nature</i> , 2013, 497, 598-602.	27.8	1,404
14	Tuning the Graphene Work Function by Electric Field Effect. <i>Nano Letters</i> , 2009, 9, 3430-3434.	9.1	1,255
15	Nanotube Nanotweezers. <i>Science</i> , 1999, 286, 2148-2150.	12.6	1,119
16	Dirac charge dynamics in graphene by infrared spectroscopy. <i>Nature Physics</i> , 2008, 4, 532-535.	16.7	1,111
17	Multi-terminal transport measurements of MoS ₂ using a van der Waals heterostructure device platform. <i>Nature Nanotechnology</i> , 2015, 10, 534-540.	31.5	1,099
18	Temperature-Dependent Transport in Suspended Graphene. <i>Physical Review Letters</i> , 2008, 101, 096802.	7.8	1,044

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19	Quantum interference and Klein tunnelling in graphene heterojunctions. <i>Nature Physics</i> , 2009, 5, 222-226.	16.7	1,011
20	Electric Field Effect Tuning of Electron-Phonon Coupling in Graphene. <i>Physical Review Letters</i> , 2007, 98, 166802.	7.8	996
21	The Role of Surface Oxygen in the Growth of Large Single-Crystal Graphene on Copper. <i>Science</i> , 2013, 342, 720-723.	12.6	977
22	Flexible and Transparent MoS ₂ Field-Effect Transistors on Hexagonal Boron Nitride-Graphene Heterostructures. <i>ACS Nano</i> , 2013, 7, 7931-7936.	14.6	947
23	Measurement of Scattering Rate and Minimum Conductivity in Graphene. <i>Physical Review Letters</i> , 2007, 99, 246803.	7.8	905
24	Observation of the fractional quantum Hall effect in graphene. <i>Nature</i> , 2009, 462, 196-199.	27.8	877
25	Graphene Barristor, a Triode Device with a Gate-Controlled Schottky Barrier. <i>Science</i> , 2012, 336, 1140-1143.	12.6	862
26	Performance of monolayer graphene nanomechanical resonators with electrical readout. <i>Nature Nanotechnology</i> , 2009, 4, 861-867.	31.5	847
27	Controlling Electron-Phonon Interactions in Graphene at Ultrahigh Carrier Densities. <i>Physical Review Letters</i> , 2010, 105, 256805.	7.8	801
28	Visualizing Individual Nitrogen Dopants in Monolayer Graphene. <i>Science</i> , 2011, 333, 999-1003.	12.6	774
29	Atmospheric Oxygen Binding and Hole Doping in Deformed Graphene on a SiO ₂ Substrate. <i>Nano Letters</i> , 2010, 10, 4944-4951.	9.1	706
30	Measuring Thermal and Thermoelectric Properties of One-Dimensional Nanostructures Using a Microfabricated Device. <i>Journal of Heat Transfer</i> , 2003, 125, 881-888.	2.1	698
31	Landau-Level Splitting in Graphene in High Magnetic Fields. <i>Physical Review Letters</i> , 2006, 96, 136806.	7.8	694
32	Structure and Electronic Properties of Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 2000, 104, 2794-2809.	2.6	646
33	Thermoelectric and Magnetothermoelectric Transport Measurements of Graphene. <i>Physical Review Letters</i> , 2009, 102, 096807.	7.8	639
34	Controlled charge trapping by molybdenum disulphide and graphene in ultrathin heterostructured memory devices. <i>Nature Communications</i> , 2013, 4, 1624.	12.8	595
35	High-resolution scanning tunneling microscopy imaging of mesoscopic graphene sheets on an insulating surface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 9209-9212.	7.1	553
36	Tailoring Electrical Transport Across Grain Boundaries in Polycrystalline Graphene. <i>Science</i> , 2012, 336, 1143-1146.	12.6	535

#	ARTICLE	IF	CITATIONS
37	Reversible Basal Plane Hydrogenation of Graphene. Nano Letters, 2008, 8, 4597-4602.	9.1	513
38	Infrared Spectroscopy of Landau Levels of Graphene. Physical Review Letters, 2007, 98, 197403.	7.8	501
39	Observation of the Dirac fluid and the breakdown of the Wiedemann-Franz law in graphene. Science, 2016, 351, 1058-1061.	12.6	491
40	Connecting Dopant Bond Type with Electronic Structure in N-Doped Graphene. Nano Letters, 2012, 12, 4025-4031.	9.1	471
41	Electron Transport in Disordered Graphene Nanoribbons. Physical Review Letters, 2010, 104, 056801.	7.8	456
42	Atomic and electronic reconstruction at the van der Waals interface in twisted bilayer graphene. Nature Materials, 2019, 18, 448-453.	27.5	454
43	Covalently Bridging Gaps in Single-Walled Carbon Nanotubes with Conducting Molecules. Science, 2006, 311, 356-359.	12.6	438
44	Electronic Transport and Quantum Hall Effect in Bipolar Graphene p - n Junctions. Physical Review Letters, 2007, 99, 166804.	7.8	434
45	Electron tunneling through atomically flat and ultrathin hexagonal boron nitride. Applied Physics Letters, 2011, 99, .	3.3	425
46	Multicomponent fractional quantum Hall effect in \hat{A} graphene. Nature Physics, 2011, 7, 693-696.	16.7	405
47	Electric Field Modulation of Galvanomagnetic Properties of Mesoscopic Graphite. Physical Review Letters, 2005, 94, 176803.	7.8	385
48	Tunable spin-polarized correlated states in twisted double bilayer graphene. Nature, 2020, 583, 221-225.	27.8	385
49	Two-dimensional van der Waals materials. Physics Today, 2016, 69, 38-44.	0.3	381
50	Fabrication and electric-field-dependent transport measurements of mesoscopic graphite devices. Applied Physics Letters, 2005, 86, 073104.	3.3	368
51	Label-free single-molecule detection of DNA-hybridization kinetics with a carbon nanotube field-effect transistor. Nature Nanotechnology, 2011, 6, 126-132.	31.5	360
52	Electronic Density of States of Atomically Resolved Single-Walled Carbon Nanotubes: Van Hove Singularities and End States. Physical Review Letters, 1999, 82, 1225-1228.	7.8	343
53	Near-field focusing and magnification through self-assembled nanoscale spherical lenses. Nature, 2009, 460, 498-501.	27.8	338
54	Highly Stable, Dual-Gated MoS ₂ Transistors Encapsulated by Hexagonal Boron Nitride with Gate-Controllable Contact, Resistance, and Threshold Voltage. ACS Nano, 2015, 9, 7019-7026.	14.6	331

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55	Quantum Hall States near the Charge-Neutral Dirac Point in Graphene. <i>Physical Review Letters</i> , 2007, 99, 106802.	7.8	329
56	Alcohol Vapor Sensors Based on Single-Walled Carbon Nanotube Field Effect Transistors. <i>Nano Letters</i> , 2003, 3, 877-881.	9.1	308
57	Spin and valley quantum Hall ferromagnetism in Graphene. <i>Nature Physics</i> , 2012, 8, 550-556.	16.7	307
58	Oxygen-activated growth and bandgap tunability of large single-crystal bilayer graphene. <i>Nature Nanotechnology</i> , 2016, 11, 426-431.	31.5	287
59	Scaling of Resistance and Electron Mean Free Path of Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 2007, 98, 186808.	7.8	285
60	Photonic crystals for nano-light in moiré graphene superlattices. <i>Science</i> , 2018, 362, 1153-1156.	12.6	273
61	Probing dark excitons in atomically thin semiconductors via near-field coupling to surface plasmon polaritons. <i>Nature Nanotechnology</i> , 2017, 12, 856-860.	31.5	270
62	Charge Transfer Chemical Doping of Few Layer Graphenes: Charge Distribution and Band Gap Formation. <i>Nano Letters</i> , 2009, 9, 4133-4137.	9.1	263
63	Electric field-tunable superconductivity in alternating-twist magic-angle trilayer graphene. <i>Science</i> , 2021, 371, 1133-1138.	12.6	261
64	Carbon Wonderland. <i>Scientific American</i> , 2008, 298, 90-97.	1.0	260
65	Electrical control of interlayer exciton dynamics in atomically thin heterostructures. <i>Science</i> , 2019, 366, 870-875.	12.6	255
66	Modulation of Thermoelectric Power of Individual Carbon Nanotubes. <i>Physical Review Letters</i> , 2003, 91, 256801.	7.8	251
67	Low-Temperature Ohmic Contact to Monolayer MoS ₂ by van der Waals Bonded Co ₂ BN Electrodes. <i>Nano Letters</i> , 2017, 17, 4781-4786.	9.1	233
68	Single-Gate Bandgap Opening of Bilayer Graphene by Dual Molecular Doping. <i>Advanced Materials</i> , 2012, 24, 407-411.	21.0	228
69	Nature of the quantum metal in a two-dimensional crystalline superconductor. <i>Nature Physics</i> , 2016, 12, 208-212.	16.7	228
70	Band Structure Asymmetry of Bilayer Graphene Revealed by Infrared Spectroscopy. <i>Physical Review Letters</i> , 2009, 102, 037403.	7.8	223
71	Dirac electrons in a dodecagonal graphene quasicrystal. <i>Science</i> , 2018, 361, 782-786.	12.6	223
72	Valleytronics: Opportunities, Challenges, and Paths Forward. <i>Small</i> , 2018, 14, e1801483.	10.0	221

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73	Imaging viscous flow of the Dirac fluid in graphene. <i>Nature</i> , 2020, 583, 537-541.	27.8	213
74	Single Crystals of Electrically Conductive Two-Dimensional Metal-Organic Frameworks: Structural and Electrical Transport Properties. <i>ACS Central Science</i> , 2019, 5, 1959-1964.	11.3	211
75	Structure and control of charge density waves in two-dimensional 1T-TaS ₂ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15054-15059.	7.1	205
76	Nanoscale Atoms in Solid-State Chemistry. <i>Science</i> , 2013, 341, 157-160.	12.6	199
77	Observation of Graphene Bubbles and Effective Mass Transport under Graphene Films. <i>Nano Letters</i> , 2009, 9, 332-337.	9.1	198
78	Electron and Optical Phonon Temperatures in Electrically Biased Graphene. <i>Physical Review Letters</i> , 2010, 104, 227401.	7.8	190
79	Graphene based heterostructures. <i>Solid State Communications</i> , 2012, 152, 1275-1282.	1.9	184
80	Heterointerface effects in the electrointercalation of van der Waals heterostructures. <i>Nature</i> , 2018, 558, 425-429.	27.8	184
81	Cyclotron Resonance in Bilayer Graphene. <i>Physical Review Letters</i> , 2008, 100, 087403.	7.8	178
82	Quantum Hall drag of exciton condensate in graphene. <i>Nature Physics</i> , 2017, 13, 746-750.	16.7	173
83	Electronic transport in locally gated graphene nanoconstrictions. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	171
84	Theory of correlated insulating behaviour and spin-triplet superconductivity in twisted double bilayer graphene. <i>Nature Communications</i> , 2019, 10, 5333.	12.8	171
85	Temperature dependent electron transport in graphene. <i>European Physical Journal: Special Topics</i> , 2007, 148, 15-18.	2.6	170
86	Single-walled carbon nanotube probes for high-resolution nanostructure imaging. <i>Applied Physics Letters</i> , 1998, 73, 3465-3467.	3.3	169
87	Water-Gated Charge Doping of Graphene Induced by Mica Substrates. <i>Nano Letters</i> , 2012, 12, 648-654.	9.1	166
88	Large Excitonic Reflectivity of Monolayer MoSe_2 in Hexagonal Boron Nitride. <i>Physical Review Letters</i> , 2018, 120, 037402.	7.8	165
89	Directing and Sensing Changes in Molecular Conformation on Individual Carbon Nanotube Field Effect Transistors. <i>Journal of the American Chemical Society</i> , 2005, 127, 15045-15047.	13.7	162
90	Observation of Anomalous Phonon Softening in Bilayer Graphene. <i>Physical Review Letters</i> , 2008, 101, 136804.	7.8	160

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91	Specular interband Andreev reflections at van der Waals interfaces between graphene and NbSe ₂ . Nature Physics, 2016, 12, 328-332.	16.7	159
92	Quantum Hall effect in graphene. Solid State Communications, 2007, 143, 14-19.	1.9	157
93	Band structure engineering of 2D materials using patterned dielectric superlattices. Nature Nanotechnology, 2018, 13, 566-571.	31.5	157
94	Symmetry Breaking in the Zero-Energy Landau Level in Bilayer Graphene. Physical Review Letters, 2010, 104, 066801.	7.8	153
95	Tunable Electrical and Optical Characteristics in Monolayer Graphene and Few-Layer MoS ₂ Heterostructure Devices. Nano Letters, 2015, 15, 5017-5024.	9.1	150
96	Transport in inhomogeneous quantum critical fluids and in the Dirac fluid in graphene. Physical Review B, 2016, 93, .	3.2	149
97	Raman Spectroscopy of Lithographically Patterned Graphene Nanoribbons. ACS Nano, 2011, 5, 4123-4130.	14.6	148
98	Flexible and Transparent Gas Molecule Sensor Integrated with Sensing and Heating Graphene Layers. Small, 2014, 10, 3685-3691.	10.0	142
99	Enhanced Thermoelectric Power in Graphene: Violation of the Mott Relation by Inelastic Scattering. Physical Review Letters, 2016, 116, 136802.	7.8	142
100	Electrical control of charged carriers and excitons in atomically thin materials. Nature Nanotechnology, 2018, 13, 128-132.	31.5	142
101	Chemoresponsive monolayer transistors. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11452-11456.	7.1	141
102	Evidence for a spin phase transition at charge neutrality in bilayer graphene. Nature Physics, 2013, 9, 154-158.	16.7	138
103	Raman Enhancement on Graphene: Adsorbed and Intercalated Molecular Species. ACS Nano, 2010, 4, 7005-7013.	14.6	137
104	Graphene Field-Effect Transistors Based on Boron Nitride Dielectrics. Proceedings of the IEEE, 2013, 101, 1609-1619.	21.3	137
105	Tunable fractional quantum Hall phases in bilayer graphene. Science, 2014, 345, 61-64.	12.6	137
106	Channel Length Scaling in Graphene Field-Effect Transistors Studied with Pulsed Current-Voltage Measurements. Nano Letters, 2011, 11, 1093-1097.	9.1	135
107	Inducing superconducting correlation in quantum Hall edge states. Nature Physics, 2017, 13, 693-698.	16.7	132
108	Quasi-Continuous Growth of Ultralong Carbon Nanotube Arrays. Journal of the American Chemical Society, 2005, 127, 15336-15337.	13.7	131

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109	Mesoscopic thermal and thermoelectric measurements of individual carbon nanotubes. <i>Solid State Communications</i> , 2003, 127, 181-186.	1.9	122
110	Large Physisorption Strain in Chemical Vapor Deposition of Graphene on Copper Substrates. <i>Nano Letters</i> , 2012, 12, 2408-2413.	9.1	122
111	Electronic compressibility of layer-polarized bilayer graphene. <i>Physical Review B</i> , 2012, 85, .	3.2	121
112	Epitaxial Growth of Molecular Crystals on van der Waals Substrates for High-Performance Organic Electronics. <i>Advanced Materials</i> , 2014, 26, 2812-2817.	21.0	120
113	Mesoscopic thermal transport and energy dissipation in carbon nanotubes. <i>Physica B: Condensed Matter</i> , 2002, 323, 67-70.	2.7	118
114	Electron Transport in a Multichannel One-Dimensional Conductor: Molybdenum Selenide Nanowires. <i>Physical Review Letters</i> , 2006, 96, 076601.	7.8	118
115	Nanocrystalline Graphite Growth on Sapphire by Carbon Molecular Beam Epitaxy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4491-4494.	3.1	113
116	Radio frequency electrical transduction of graphene mechanical resonators. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	112
117	Diameter Dependence of the Transport Properties of Antimony Telluride Nanowires. <i>Nano Letters</i> , 2010, 10, 3037-3040.	9.1	111
118	Magnetic resonance spectroscopy of an atomically thin material using a single-spin qubit. <i>Science</i> , 2017, 355, 503-507.	12.6	110
119	Excitons in a reconstructed moiré potential in twisted WSe ₂ /WSe ₂ homobilayers. <i>Nature Materials</i> , 2021, 20, 480-487.	27.5	109
120	Polariton nanophotonics using phase-change materials. <i>Nature Communications</i> , 2019, 10, 4487.	12.8	106
121	Broken mirror symmetry in excitonic response of reconstructed domains in twisted MoSe ₂ /MoSe ₂ bilayers. <i>Nature Nanotechnology</i> , 2020, 15, 750-754.	31.5	106
122	Spectromicroscopy of single and multilayer graphene supported by a weakly interacting substrate. <i>Physical Review B</i> , 2008, 78, .	3.2	105
123	Ultraclean Patterned Transfer of Single-Layer Graphene by Recyclable Pressure Sensitive Adhesive Films. <i>Nano Letters</i> , 2015, 15, 3236-3240.	9.1	101
124	Inking Elastomeric Stamps with Micro-Patterned, Single Layer Graphene to Create High-Performance OFETs. <i>Advanced Materials</i> , 2011, 23, 3531-3535.	21.0	100
125	Unbalanced Hole and Electron Diffusion in Lead Bromide Perovskites. <i>Nano Letters</i> , 2017, 17, 1727-1732.	9.1	100
126	Ultra-confined mid-infrared resonant phonon polaritons in van der Waals nanostructures. <i>Science Advances</i> , 2018, 4, eaat7189.	10.3	100

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127	Tuning Electrical Conductance of MoS ₂ Monolayers through Substitutional Doping. Nano Letters, 2020, 20, 4095-4101.	9.1	100
128	Bilayer Wigner crystals in a transition metal dichalcogenide heterostructure. Nature, 2021, 595, 48-52.	27.8	98
129	Thermal probing of energy dissipation in current-carrying carbon nanotubes. Journal of Applied Physics, 2009, 105, .	2.5	97
130	Phonon Speed, Not Scattering, Differentiates Thermal Transport in Lead Halide Perovskites. Nano Letters, 2017, 17, 5734-5739.	9.1	94
131	RF performance of top-gated, zero-bandgap graphene field-effect transistors. , 2008, , .		92
132	Synthesis and Electrical Characterization of Magnetic Bilayer Graphene Intercalate. Nano Letters, 2011, 11, 860-865.	9.1	92
133	Electronic Transport in Graphene Heterostructures. Annual Review of Condensed Matter Physics, 2011, 2, 101-120.	14.5	92
134	Li Intercalation into Graphite: Direct Optical Imaging and Cahn-Hilliard Reaction Dynamics. Journal of Physical Chemistry Letters, 2016, 7, 2151-2156.	4.6	92
135	Interaction-Induced Shift of the Cyclotron Resonance of Graphene Using Infrared Spectroscopy. Physical Review Letters, 2010, 104, 067404.	7.8	91
136	Electrically Tunable Valley Dynamics in Twisted WSe_2 Bilayers. Physical Review Letters, 2020, 124, 217403.	7.8	89
137	Graphene-based Josephson junction microwave bolometer. Nature, 2020, 586, 42-46.	27.8	88
138	Magnetoresistance Measurements of Graphene at the Charge Neutrality Point. Physical Review Letters, 2012, 108, 106804.	7.8	87
139	Renormalization of the Graphene Dispersion Velocity Determined from Scanning Tunneling Spectroscopy. Physical Review Letters, 2012, 109, 116802.	7.8	86
140	Atomic lattice disorder in charge-density-wave phases of exfoliated dichalcogenides (1T-TaS) ₂ . Nature, 2012, 486, 113, 11420-11424.	7.1	86
141	Graphene nanoribbon devices at high bias. Nano Convergence, 2014, 1, 1.	12.1	84
142	40 years of the quantum Hall effect. Nature Reviews Physics, 2020, 2, 397-401.	26.6	84
143	Thermoelectric power measurements of wide band gap semiconducting nanowires. Applied Physics Letters, 2009, 94, 022106.	3.3	82
144	Corrugation in Exfoliated Graphene: An Electron Microscopy and Diffraction Study. ACS Nano, 2010, 4, 4879-4889.	14.6	78

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145	Measurement of the $\frac{1}{2}$ Quantum Hall Energy Gap in Suspended Graphene. Physical Review Letters, 2011, 106, 046801.	16.8	77
146	Selective excitation and imaging of ultraslow phonon polaritons in thin hexagonal boron nitride crystals. Light: Science and Applications, 2018, 7, 27.	16.6	75
147	Graphene-Based Josephson-Junction Single-Photon Detector. Physical Review Applied, 2017, 8, .	3.8	74
148	Optical phonon mixing in bilayer graphene with a broken inversion symmetry. Physical Review B, 2009, 80, .	3.2	73
149	Engineering phonon polaritons in van der Waals heterostructures to enhance in-plane optical anisotropy. Science Advances, 2019, 5, eaau7171.	10.3	71
150	Direct Imaging of Charged Impurity Density in Common Graphene Substrates. Nano Letters, 2013, 13, 3576-3580.	9.1	70
151	Imaging Cyclotron Orbits of Electrons in Graphene. Nano Letters, 2016, 16, 1690-1694.	9.1	68
152	Graphene field-effect transistors based on boron nitride gate dielectrics. , 2010, , .		67
153	Electrically integrated SU-8 clamped graphene drum resonators for strain engineering. Applied Physics Letters, 2013, 102, 153101.	3.3	67
154	Extracting subnanometer single shells from ultralong multiwalled carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14155-14158.	7.1	64
155	Organic Field Effect Transistors Based on Graphene and Hexagonal Boron Nitride Heterostructures. Advanced Functional Materials, 2014, 24, 5157-5163.	14.9	64
156	High-resolution spatial mapping of the temperature distribution of a Joule self-heated graphene nanoribbon. Applied Physics Letters, 2011, 99, .	3.3	62
157	Single-layer graphene cathodes for organic photovoltaics. Applied Physics Letters, 2011, 98, .	3.3	60
158	30°-Twisted Bilayer Graphene Quasicrystals from Chemical Vapor Deposition. Nano Letters, 2020, 20, 3313-3319.	9.1	60
159	Creation of Nanocrystals Through a Solid-Solid Phase Transition Induced by an STM Tip. Science, 1996, 274, 757-760.	12.6	59
160	Ferromagnetic Ordering in Superatomic Solids. Journal of the American Chemical Society, 2014, 136, 16926-16931.	18.7	58
161	Across the border. Nature Materials, 2010, 9, 792-793.	27.5	57
162	Heterostructures based on inorganic and organic van der Waals systems. APL Materials, 2014, 2, .	5.1	57

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163	Sign-Reversing Hall Effect in Atomically Thin High-Temperature $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Bi} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2.1 \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2019, 122, 247001. Physical Review Letters, 2019, 122, 247001.$	7.8	57
164	Multilayer graphene grown by precipitation upon cooling of nickel on diamond. Carbon, 2011, 49, 1006-1012.	10.3	56
165	Chemically Modulated Band Gap in Bilayer Graphene Memory Transistors with High On/Off Ratio. ACS Nano, 2015, 9, 9034-9042.	14.6	56
166	van der Waals Solids from Self-Assembled Nanoscale Building Blocks. Nano Letters, 2016, 16, 1445-1449.	9.1	56
167	Diameter-dependent thermoelectric figure of merit in single-crystalline Bi nanowires. Nanoscale, 2015, 7, 5053-5059.	5.6	55
168	Controlling Excitons in an Atomically Thin Membrane with a Mirror. Physical Review Letters, 2020, 124, 027401.	7.8	55
169	Measurement of collective dynamical mass of Dirac fermions in graphene. Nature Nanotechnology, 2014, 9, 594-599.	31.5	53
170	Interlayer fractional quantum Hall effect in a coupled graphene double layer. Nature Physics, 2019, 15, 893-897.	16.7	53
171	Landau Level Spectroscopy of Electron-Electron Interactions in Graphene. Physical Review Letters, 2015, 114, 126804.	7.8	52
172	Single Electron Transistor with Single Aromatic Ring Molecule Covalently Connected to Graphene Nanogaps. Nano Letters, 2017, 17, 5335-5341.	9.1	50
173	Controlled Electrochemical Intercalation of Graphene/ <i>h</i> - <i>i</i> BN van der Waals Heterostructures. Nano Letters, 2018, 18, 460-466.	9.1	49
174	Scanning Tunneling Microscopy and Spectroscopy Studies of Single Wall Carbon Nanotubes. Journal of Materials Research, 1998, 13, 2380-2388.	2.6	48
175	Collapse of Landau Levels in Gated Graphene Structures. Physical Review Letters, 2011, 106, 066601.	7.8	48
176	Study of Graphene-based 2D-Heterostructure Device Fabricated by All-Dry Transfer Process. ACS Applied Materials & Interfaces, 2016, 8, 3072-3078.	8.0	48
177	Plasmon Reflections by Topological Electronic Boundaries in Bilayer Graphene. Nano Letters, 2017, 17, 7080-7085.	9.1	48
178	Mechanical Detection and Imaging of Hyperbolic Phonon Polaritons in Hexagonal Boron Nitride. ACS Nano, 2017, 11, 8741-8746.	14.6	48
179	Aharonovâ€“Bohm effect in graphene-based Fabryâ€“PÃ©rot quantum Hall interferometers. Nature Nanotechnology, 2021, 16, 563-569.	31.5	48
180	Observation of Magnetophonon Resonance of Dirac Fermions in Graphite. Physical Review Letters, 2010, 105, 227401.	7.8	47

#	ARTICLE	IF	CITATIONS
181	Making angle-resolved photoemission measurements on corrugated monolayer crystals: Suspended exfoliated single-crystal graphene. <i>Physical Review B</i> , 2011, 84, .	3.2	47
182	Patterning Superatom Dopants on Transition Metal Dichalcogenides. <i>Nano Letters</i> , 2016, 16, 3385-3389.	9.1	47
183	Modulation of mechanical resonance by chemical potential oscillation in graphene. <i>Nature Physics</i> , 2016, 12, 240-244.	16.7	47
184	Electron-phonon instability in graphene revealed by global and local noise probes. <i>Science</i> , 2019, 364, 154-157.	12.6	47
185	Josephson junction infrared single-photon detector. <i>Science</i> , 2021, 372, 409-412.	12.6	45
186	Raman scattering and tunable electron-phonon coupling in single layer graphene. <i>Solid State Communications</i> , 2007, 143, 39-43.	1.9	43
187	In situ nanoscale imaging of moiré superlattices in twisted van der Waals heterostructures. <i>Nature Communications</i> , 2020, 11, 4209.	12.8	43
188	Large Single Crystals of Two-Dimensional π -Conjugated Metal-Organic Frameworks via Biphasic Solution-Solid Growth. <i>ACS Central Science</i> , 2021, 7, 104-109.	11.3	40
189	STM study of single-walled carbon nanotubes. <i>Carbon</i> , 2000, 38, 1741-1744.	10.3	39
190	Unusual transport properties in carbon based nanoscaled materials: nanotubes and graphene. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 3418-3422.	1.5	39
191	Holography of the Dirac Fluid in Graphene with Two Currents. <i>Physical Review Letters</i> , 2017, 118, 036601.	7.8	39
192	Strongly adhesive dry transfer technique for van der Waals heterostructure. <i>2D Materials</i> , 2020, 7, 041005.	4.4	38
193	Multilayer graphene films grown by molecular beam deposition. <i>Solid State Communications</i> , 2010, 150, 809-811.	1.9	35
194	Graphene transistor based on tunable Dirac fermion optics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6575-6579.	7.1	34
195	Nano-photocurrent Mapping of Local Electronic Structure in Twisted Bilayer Graphene. <i>Nano Letters</i> , 2020, 20, 2958-2964.	9.1	34
196	Crossover between strongly coupled and weakly coupled exciton superfluids. <i>Science</i> , 2022, 375, 205-209.	12.6	33
197	Conductance measurement of single-walled carbon nanotubes in aqueous environment. <i>Applied Physics Letters</i> , 2003, 82, 2338-2340.	3.3	32
198	Electronic transport measurements in graphene nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 4134-4137.	1.5	32

#	ARTICLE	IF	CITATIONS
199	Electrically Tunable Exciton-Plasmon Coupling in a WSe_2 Monolayer Embedded in a Plasmonic Crystal Cavity. Nano Letters, 2019, 19, 3543-3547.	9.1	32
200	Molecular-Scale Quantum Dots from Carbon Nanotube Heterojunctions. Nano Letters, 2009, 9, 1544-1548.	9.1	31
201	Development of high frequency and wide bandwidth Johnson noise thermometry. Applied Physics Letters, 2015, 106, .	3.3	31
202	Multiband transport in bilayer graphene at high carrier densities. Physical Review B, 2011, 84, .	3.2	30
203	Unusually High Thermal Conductivity in Carbon Nanotubes. , 2006, , 227-265.		27
204	Thermoelectric properties of individual single-crystalline PbTe nanowires grown by a vapor transport method. Nanotechnology, 2011, 22, 295707.	2.6	27
205	Weak antilocalization and conductance fluctuation in a single crystalline Bi nanowire. Applied Physics Letters, 2014, 104, .	3.3	27
206	Guiding Dirac Fermions in Graphene with a Carbon Nanotube. Physical Review Letters, 2019, 123, 216804.	7.8	27
207	Unconventional supercurrent phase in Ising superconductor Josephson junction with atomically thin magnetic insulator. Nature Communications, 2021, 12, 5332.	12.8	27
208	Electrically controlled emission from singlet and triplet exciton species in atomically thin light-emitting diodes. Physical Review B, 2021, 103, .	3.2	26
209	Terahertz detection mechanism and contact capacitance of individual metallic single-walled carbon nanotubes. Applied Physics Letters, 2012, 100, 163503.	3.3	25
210	Frank-van der Merwe Growth versus Volmer-Weber Growth in Successive Stacking of a Few-Layer $\text{Bi}_2\text{Te}_3/\text{Sb}_2\text{Te}_3$ by van der Waals Heteroepitaxy: The Critical Roles of Finite Lattice Mismatch with Seed Substrates. Advanced Electronic Materials, 2017, 3, 1600375.	5.1	25
211	Molecular beam epitaxial growth and electronic transport properties of high quality topological insulator Bi_2Se_3 thin films on hexagonal boron nitride. 2D Materials, 2016, 3, 035029.	4.4	24
212	Epitaxially Self-Assembled Alkane Layers for Graphene Electronics. Advanced Materials, 2017, 29, 1603925.	21.0	24
213	Structure of flux line lattices with weak disorder at large length scales. Physical Review B, 1999, 60, R12589-R12592.	3.2	23
214	Electric field effect thermoelectric transport in individual silicon and germanium/silicon nanowires. Journal of Applied Physics, 2016, 119, .	2.5	23
215	Thermoelectric power of Sachdev-Ye-Kitaev islands: Probing Bekenstein-Hawking entropy in quantum matter experiments. Physical Review B, 2020, 101, .	3.2	23
216	Bosonic topological insulator intermediate state in the superconductor-insulator transition. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126570.	2.1	23

#	ARTICLE	IF	CITATIONS
217	Vortex Lattice Structure in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ at High Temperatures. <i>Physical Review Letters</i> , 1996, 77, 5118-5121.	7.8	22
218	Energy Loss of the Electron System in Individual Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2010, 10, 4538-4543.	9.1	22
219	Andreev Reflection in the Fractional Quantum Hall State. <i>Physical Review X</i> , 2022, 12, .	8.9	22
220	Frictional Magneto-Coulomb Drag in Graphene Double-Layer Heterostructures. <i>Physical Review Letters</i> , 2017, 119, 056802.	7.8	20
221	Plasmonics with two-dimensional conductors. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130104.	3.4	19
222	Dopant Segregation in Polycrystalline Monolayer Graphene. <i>Nano Letters</i> , 2015, 15, 1428-1436.	9.1	19
223	Evidence for $4e$ charge of Cooper quartets in a biased multi-terminal graphene-based Josephson junction. <i>Nature Communications</i> , 2022, 13, .	12.8	19
224	THERMOPOWER MEASUREMENT OF INDIVIDUAL SINGLE WALLED CARBON NANOTUBES. <i>Microscale Thermophysical Engineering</i> , 2004, 8, 1-5.	1.2	18
225	Bolometric and nonbolometric radio frequency detection in a metallic single-walled carbon nanotube. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	18
226	Electric field effects in graphene/ LaAlO_3 / SrTiO_3 heterostructures and nanostructures. <i>APL Materials</i> , 2015, 3, 062502.	5.1	17
227	Impact of geometry and non-idealities on electron optoelectronics-based graphene p-n junction devices. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	17
228	Low Bias Electron Scattering in Structure-Identified Single Wall Carbon Nanotubes: Role of Substrate Polar Phonons. <i>Physical Review Letters</i> , 2011, 107, 146601.	7.8	16
229	Shape-dependent two-photon absorption in two-dimensionally extended benzoporphyrin arrays. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 10612.	2.8	16
230	Signatures of long-range-correlated disorder in the magnetotransport of ultrathin topological insulators. <i>Physical Review B</i> , 2018, 98, .	3.2	16
231	Liquid Salt Transport Growth of Single Crystals of the Layered Dichalcogenides MoS_2 and WS_2 . <i>Crystal Growth and Design</i> , 2019, 19, 5762-5767.	3.0	16
232	Guided Modes of Anisotropic van der Waals Materials Investigated by near-Field Scanning Optical Microscopy. <i>ACS Photonics</i> , 2018, 5, 1196-1201.	6.6	15
233	Characterization and modeling of graphene field-effect devices. , 2008, , .		14
234	Ambipolar transport and magneto-resistance crossover in a Mott insulator, Sr_2IrO_4 . <i>Journal of Physics Condensed Matter</i> , 2016, 28, 505304.	1.8	14

#	ARTICLE	IF	CITATIONS
235	Imaging Andreev Reflection in Graphene. Nano Letters, 2020, 20, 4890-4894.	9.1	14
236	Tunable electronic correlation effects in nanotube-light interactions. Physical Review B, 2015, 92, .	3.2	13
237	Imaging electron flow from collimating contacts in graphene. 2D Materials, 2018, 5, 021003.	4.4	13
238	Dual-Gated Graphene Devices for Near-Field Nano-imaging. Nano Letters, 2021, 21, 1688-1693.	9.1	13
239	Electronic thermal transport measurement in low-dimensional materials with graphene non-local noise thermometry. Nature Nanotechnology, 2022, 17, 166-173.	31.5	13
240	Chloroaluminate Anion Intercalation in Graphene and Graphite: From Two-Dimensional Devices to Aluminum-Ion Batteries. Nano Letters, 2022, 22, 1726-1733.	9.1	13
241	Scanning Tunneling Microscope Studies of Ultrathin Graphitic (Graphene) Films on an Insulating Substrate under Ambient Conditions. Journal of Physical Chemistry C, 2008, 112, 6681-6688.	3.1	12
242	Probing giant Zeeman shift in vanadium-doped WSe_2 via resonant magnetotunneling transport. Physical Review B, 2021, 103, .	3.2	12
243	Thermal Transport Signatures of Broken-Symmetry Phases in Graphene. Physical Review Letters, 2017, 119, 027601.	7.8	11
244	Measuring the Local Twist Angle and Layer Arrangement in Van der Waals Heterostructures. Physica Status Solidi (B): Basic Research, 2018, 255, 1800191.	1.5	11
245	Spatially correlated incommensurate lattice modulations in an atomically thin high-temperature Bi_2O_8 . Physical Review Materials, 2020, 4, .	2.1	11
246	All-optical structure assignment of individual single-walled carbon nanotubes from Rayleigh and Raman scattering measurements. Physica Status Solidi (B): Basic Research, 2012, 249, 2436-2441.	1.5	10
247	Quantum oscillations observed in graphene at microwave frequencies. Applied Physics Letters, 2010, 97, 062113.	3.3	9
248	Electronic transport in nanoparticle monolayers sandwiched between graphene electrodes. Nanoscale, 2014, 6, 14158-14162.	5.6	8
249	Flexible Electronics: Flexible and Transparent Gas Molecule Sensor Integrated with Sensing and Heating Graphene Layers (Small 18/2014). Small, 2014, 10, 3812-3812.	10.0	7
250	Tunneling Spectroscopy of Quantum Hall States in Bilayer Graphene p-n Junctions. Physical Review Letters, 2019, 122, 146801.	7.8	7
251	Fast and accurate robotic optical detection of exfoliated graphene and hexagonal boron nitride by deep neural networks. 2D Materials, 2021, 8, 035017.	4.4	7
252	Fractional Quantum Hall Effects in Graphene. , 2020, , 317-375.		7

#	ARTICLE	IF	CITATIONS
253	Analysis of Scanned Probe Images for Magnetic Focusing in Graphene. Journal of Electronic Materials, 2017, 46, 3837-3841.	2.2	6
254	Imaging quantum dot formation in MoS ₂ nanostructures. Nanotechnology, 2018, 29, 42LT03.	2.6	6
255	Beam steering at the nanosecond time scale with an atomically thin reflector. Nature Communications, 2022, 13, .	12.8	6
256	GRAPHENE IN EXTREMELY HIGH MAGNETIC FIELDS. International Journal of Modern Physics B, 2007, 21, 1123-1130.	2.0	5
257	Graphene nanoribbon devices and quantum heterojunction devices. , 2009, , .		5
258	Coulomb Drag between a Carbon Nanotube and Monolayer Graphene. Physical Review Letters, 2021, 127, 257701.	7.8	5
259	NEMS applications of graphene. , 2009, , .		4
260	Imaging Electron Motion in a Few Layer MoS ₂ Device. Journal of Physics: Conference Series, 2017, 864, 012031.	0.4	4
261	Logarithmic singularities and quantum oscillations in magnetically doped topological insulators. Physical Review B, 2018, 97, .	3.2	4
262	Zhao etÂal. Reply:. Physical Review Letters, 2020, 124, 249702.	7.8	4
263	Graphene and Relativistic Quantum Physics. Progress in Mathematical Physics, 2017, , 1-23.	0.4	4
264	Charge density wave formation in nanocrystals. Solid State Physics, 2001, , 119-157.	0.5	3
265	Cyclotron Resonance near the Charge Neutrality Point of Graphene. , 2011, , .		3
266	A Material Framework for Beyond-CMOS Devices. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2015, 1, 19-27.	1.5	3
267	High-bandwidth, variable-resistance differential noise thermometry. Review of Scientific Instruments, 2021, 92, 014904.	1.3	3
268	Creation of Nanocrystals Via a Tip-Induced Solid-Solid Transformation. Materials Research Society Symposia Proceedings, 1996, 466, 89.	0.1	2
269	Growth of nanotubes and chemical sensor applications. , 2004, , .		2
270	Experimental Manifestation of Berry Phase in Graphene. Nanoscience and Technology, 2014, , 3-27.	1.5	2

#	ARTICLE	IF	CITATIONS
271	Curved paths of electron-hole pairs. Nature Materials, 2017, 16, 1169-1170.	27.5	2
272	Bi_2Se_3 thin films heteroepitaxially grown on Physical Review Materials, 2020, 4, .	2.4	2
273	Asymmetric photoelectric effect: Auger-assisted hot hole photocurrents in transition metal dichalcogenides. Nanophotonics, 2020, 10, 105-113.	6.0	2
274	Henriksen et al. Reply. Physical Review Letters, 2010, 105, .	7.8	1
275	Toward carbon based quantum electronics: Quantum transport in graphene heterojunctions. , 2011, , .		1
276	Torsional Periodic Lattice Distortion in Twisted Bilayer Graphene. Microscopy and Microanalysis, 2020, 26, 864-866.	0.4	1
277	Imaging of 2-Dimensional Dislocation Networks in Twisted Bilayer Graphene and Beyond. Microscopy and Microanalysis, 2020, 26, 854-855.	0.4	1
278	Imaging of Ultra-Confined Phonon Polaritons in Hexagonal Boron Nitride on Gold. , 2018, , .		1
279	Reconfigurable mid-infrared optical elements using phase change materials. , 2019, , .		1
280	Imaging the flow of holes from a collimating contact in graphene. Semiconductor Science and Technology, 2020, 35, 09LT02.	2.0	1
281	Electronic structures and applications of carbon nanotubes. , 1999, , .		0
282	Nanoscale Thermal and Thermoelectric Mapping of Semiconductor Devices and Interconnects. AIP Conference Proceedings, 2003, , .	0.4	0
283	Electric field effect transport in mesoscopic graphite and graphene. , 0, , .		0
284	Spatially Resolved Electric and Thermal Properties Study of Graphene Field Effect Devices. , 2011, , .		0
285	Photocurrent gain in graphene-silicon p-i-n junction. , 2015, , .		0
286	Mapping Periodic Lattice Distortions in Exfoliated Dichalcogenides with Atomic Resolution cryo-STEM. Microscopy and Microanalysis, 2016, 22, 1550-1551.	0.4	0
287	Thickness and Stacking Sequence Determination of Exfoliated Dichalcogenides Using Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2016, 22, 1456-1457.	0.4	0
288	Microstructure Effect on LaPtBi Superconductivity. Microscopy and Microanalysis, 2019, 25, 948-949.	0.4	0

#	ARTICLE	IF	CITATIONS
289	Optical characterization of van der Waals materials via near-field microscopy. , 2016, , .		0
290	New nano-photonics based on vdW materials. , 2018, , .		0
291	Polariton Meta-Optics with Phase-Change Materials. , 2019, , .		0