

Andre Geim

List of Publications by Year in descending order

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315
papers

285,938
citations

419

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331
all docs

331
docs citations

331
times ranked

105883
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric Field Effect in Atomically Thin Carbon Films. Science, 2004, 306, 666-669.	12.6	56,177
2	The rise of graphene. Nature Materials, 2007, 6, 183-191.	27.5	35,008
3	The electronic properties of graphene. Reviews of Modern Physics, 2009, 81, 109-162.	45.6	20,779
4	Two-dimensional gas of massless Dirac fermions in graphene. Nature, 2005, 438, 197-200.	27.8	18,948
5	Raman Spectrum of Graphene and Graphene Layers. Physical Review Letters, 2006, 97, 187401.	7.8	12,689
6	Graphene: Status and Prospects. Science, 2009, 324, 1530-1534.	12.6	12,120
7	Two-dimensional atomic crystals. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10451-10453.	7.1	10,229
8	Van der Waals heterostructures. Nature, 2013, 499, 419-425.	27.8	8,378
9	Fine Structure Constant Defines Visual Transparency of Graphene. Science, 2008, 320, 1308-1308.	12.6	7,667
10	Detection of individual gas molecules adsorbed on graphene. Nature Materials, 2007, 6, 652-655.	27.5	7,114
11	The structure of suspended graphene sheets. Nature, 2007, 446, 60-63.	27.8	4,511
12	Control of Graphene's Properties by Reversible Hydrogenation: Evidence for Graphane. Science, 2009, 323, 610-613.	12.6	3,748
13	Chiral tunnelling and the Klein paradox in Graphene. Nature Physics, 2006, 2, 620-625.	16.7	3,383
14	Monitoring dopants by Raman scattering in an electrochemically top-gated graphene transistor. Nature Nanotechnology, 2008, 3, 210-215.	31.5	3,125
15	Giant Intrinsic Carrier Mobilities in Graphene and Its Bilayer. Physical Review Letters, 2008, 100, 016602.	7.8	2,919
16	Room-Temperature Quantum Hall Effect in Graphene. Science, 2007, 315, 1379-1379.	12.6	2,662
17	Unimpeded Permeation of Water Through Helium-Leak-Tight Graphene-Based Membranes. Science, 2012, 335, 442-444.	12.6	2,552
18	Field-Effect Tunneling Transistor Based on Vertical Graphene Heterostructures. Science, 2012, 335, 947-950.	12.6	2,268

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19	Strong Light-Matter Interactions in Heterostructures of Atomically Thin Films. Science, 2013, 340, 1311-1314.	12.6	2,179
20	Chaotic Dirac Billiard in Graphene Quantum Dots. Science, 2008, 320, 356-358.	12.6	2,098
21	Precise and Ultrafast Molecular Sieving Through Graphene Oxide Membranes. Science, 2014, 343, 752-754.	12.6	2,060
22	Unconventional quantum Hall effect and Berry's phase of 2π in bilayer graphene. Nature Physics, 2006, 2, 177-180.	16.7	1,785
23	Biased Bilayer Graphene: Semiconductor with a Gap Tunable by the Electric Field Effect. Physical Review Letters, 2007, 99, 216802.	7.8	1,728
24	Uniaxial strain in graphene by Raman spectroscopy: G peak splitting, G band parameters, and sample orientation. Physical Review B, 2009, 79, .	3.2	1,662
25	Making graphene visible. Applied Physics Letters, 2007, 91, .	3.3	1,653
26	Energy gaps and a zero-field quantum Hall effect in graphene by strain engineering. Nature Physics, 2010, 6, 30-33.	16.7	1,554
27	Vertical field-effect transistor based on graphene-WS ₂ heterostructures for flexible and transparent electronics. Nature Nanotechnology, 2013, 8, 100-103.	31.5	1,543
28	Graphene-Based Liquid Crystal Device. Nano Letters, 2008, 8, 1704-1708.	9.1	1,441
29	Micrometer-Scale Ballistic Transport in Encapsulated Graphene at Room Temperature. Nano Letters, 2011, 11, 2396-2399.	9.1	1,440
30	Light-emitting diodes by band-structure engineering in van der Waals heterostructures. Nature Materials, 2015, 14, 301-306.	27.5	1,397
31	Tunable sieving of ions using graphene oxide membranes. Nature Nanotechnology, 2017, 12, 546-550.	31.5	1,364
32	Breakdown of the adiabatic Born-Oppenheimer approximation in graphene. Nature Materials, 2007, 6, 198-201.	27.5	1,229
33	Microfabricated adhesive mimicking gecko foot-hair. Nature Materials, 2003, 2, 461-463.	27.5	1,189
34	Fluorographene: A Two-Dimensional Counterpart of Teflon. Small, 2010, 6, 2877-2884.	10.0	1,146
35	Cloning of Dirac fermions in graphene superlattices. Nature, 2013, 497, 594-597.	27.8	1,107
36	Molecular Doping of Graphene. Nano Letters, 2008, 8, 173-177.	9.1	1,025

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37	High electron mobility, quantum Hall effect and anomalous optical response in atomically thin InSe. Nature Nanotechnology, 2017, 12, 223-227.	31.5	996
38	Hunting for Monolayer Boron Nitride: Optical and Raman Signatures. Small, 2011, 7, 465-468.	10.0	950
39	Strong Suppression of Weak Localization in Graphene. Physical Review Letters, 2006, 97, 016801.	7.8	809
40	Raman fingerprint of charged impurities in graphene. Applied Physics Letters, 2007, 91, .	3.3	802
41	Cross-sectional imaging of individual layers and buried interfaces of graphene-based heterostructures and superlattices. Nature Materials, 2012, 11, 764-767.	27.5	796
42	Strong plasmonic enhancement of photovoltage in graphene. Nature Communications, 2011, 2, 458.	12.8	775
43	Spin-half paramagnetism in graphene induced by point defects. Nature Physics, 2012, 8, 199-202.	16.7	743
44	Commensurate–incommensurate transition in graphene on hexagonal boron nitride. Nature Physics, 2014, 10, 451-456.	16.7	737
45	Optical conductivity of graphene in the visible region of the spectrum. Physical Review B, 2008, 78, .	3.2	728
46	Electron Tunneling through Ultrathin Boron Nitride Crystalline Barriers. Nano Letters, 2012, 12, 1707-1710.	9.1	724
47	Dirac cones reshaped by interaction effects in suspended graphene. Nature Physics, 2011, 7, 701-704.	16.7	703
48	Proton transport through one-atom-thick crystals. Nature, 2014, 516, 227-230.	27.8	668
49	Anomalously low dielectric constant of confined water. Science, 2018, 360, 1339-1342.	12.6	627
50	Detecting topological currents in graphene superlattices. Science, 2014, 346, 448-451.	12.6	619
51	Macroscopic Graphene Membranes and Their Extraordinary Stiffness. Nano Letters, 2008, 8, 2442-2446.	9.1	607
52	Square ice in graphene nanocapillaries. Nature, 2015, 519, 443-445.	27.8	602
53	Nanofabricated media with negative permeability at visible frequencies. Nature, 2005, 438, 335-338.	27.8	597
54	Making Graphene Luminescent by Oxygen Plasma Treatment. ACS Nano, 2009, 3, 3963-3968.	14.6	587

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55	Free-standing graphene at atomic resolution. Nature Nanotechnology, 2008, 3, 676-681.	31.5	575
56	Ultrathin graphene-based membrane with precise molecular sieving and ultrafast solvent permeation. Nature Materials, 2017, 16, 1198-1202.	27.5	549
57	Single-Layer Behavior and Its Breakdown in Twisted Graphene Layers. Physical Review Letters, 2011, 106, 126802.	7.8	547
58	Resonant tunnelling and negative differential conductance in graphene transistors. Nature Communications, 2013, 4, 1794.	12.8	542
59	The rise of graphene. , 2009, , 11-19.		530
60	Negative local resistance caused by viscous electron backflow in graphene. Science, 2016, 351, 1055-1058.	12.6	516
61	Impermeable barrier films and protective coatings based on reduced graphene oxide. Nature Communications, 2014, 5, 4843.	12.8	508
62	Tunable metal-insulator transition in double-layer graphene heterostructures. Nature Physics, 2011, 7, 958-961.	16.7	486
63	Molecular transport through capillaries made with atomic-scale precision. Nature, 2016, 538, 222-225.	27.8	483
64	Spectroscopic ellipsometry of graphene and an exciton-shifted van Hove peak in absorption. Physical Review B, 2010, 81, .	3.2	477
65	Electron scattering on microscopic corrugations in graphene. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 195-204.	3.4	475
66	Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures. Nature Nanotechnology, 2014, 9, 808-813.	31.5	435
67	Surface-Enhanced Raman Spectroscopy of Graphene. ACS Nano, 2010, 4, 5617-5626.	14.6	433
68	Electronic Properties of Graphene Encapsulated with Different Two-Dimensional Atomic Crystals. Nano Letters, 2014, 14, 3270-3276.	9.1	433
69	Raman Spectroscopy of Graphene and Bilayer under Biaxial Strain: Bubbles and Balloons. Nano Letters, 2012, 12, 617-621.	9.1	431
70	Size effect in ion transport through angstrom-scale slits. Science, 2017, 358, 511-513.	12.6	418
71	Of flying frogs and levitrons. European Journal of Physics, 1997, 18, 307-313.	0.6	407
72	Subjecting a Graphene Monolayer to Tension and Compression. Small, 2009, 5, 2397-2402.	10.0	400

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73	Phase transitions in individual sub-micrometre superconductors. Nature, 1997, 390, 259-262.	27.8	388
74	Singular phase nano-optics in plasmonic metamaterials for label-free single-molecule detection. Nature Materials, 2013, 12, 304-309.	27.5	382
75	Strong Coulomb drag and broken symmetry in double-layer graphene. Nature Physics, 2012, 8, 896-901.	16.7	365
76	Nobel Lecture: Random walk to graphene. Reviews of Modern Physics, 2011, 83, 851-862.	45.6	361
77	Quality Heterostructures from Two-Dimensional Crystals Unstable in Air by Their Assembly in Inert Atmosphere. Nano Letters, 2015, 15, 4914-4921.	9.1	358
78	Limits on Intrinsic Magnetism in Graphene. Physical Review Letters, 2010, 105, 207205.	7.8	349
79	Thermal Conductivity of Graphene in Corbino Membrane Geometry. ACS Nano, 2010, 4, 1889-1892.	14.6	349
80	Effect of a High- $\hat{\rho}$ Environment on Charge Carrier Mobility in Graphene. Physical Review Letters, 2009, 102, 206603.	7.8	347
81	Limits on Charge Carrier Mobility in Suspended Graphene due to Flexural Phonons. Physical Review Letters, 2010, 105, 266601.	7.8	347
82	Resonant Scattering by Realistic Impurities in Graphene. Physical Review Letters, 2010, 105, 056802.	7.8	300
83	Electronic properties of graphene. Physica Status Solidi (B): Basic Research, 2007, 244, 4106-4111.	1.5	291
84	Superballistic flow of viscous electron fluid through graphene constrictions. Nature Physics, 2017, 13, 1182-1185.	16.7	288
85	Generating quantizing pseudomagnetic fields by bending graphene ribbons. Physical Review B, 2010, 81, .	3.2	270
86	Cyclotron resonance study of the electron and hole velocity in graphene monolayers. Physical Review B, 2007, 76, .	3.2	269
87	Electrically controlled water permeation through graphene oxide membranes. Nature, 2018, 559, 236-240.	27.8	263
88	Interaction-Driven Spectrum Reconstruction in Bilayer Graphene. Science, 2011, 333, 860-863.	12.6	262
89	Carbon Wonderland. Scientific American, 2008, 298, 90-97.	1.0	260
90	Universal shape and pressure inside bubbles appearing in van der Waals heterostructures. Nature Communications, 2016, 7, 12587.	12.8	260

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91	Generic miniband structure of graphene on a hexagonal substrate. Physical Review B, 2013, 87, .	3.2	259
92	On Resonant Scatterers As a Factor Limiting Carrier Mobility in Graphene. Nano Letters, 2010, 10, 3868-3872.	9.1	256
93	Two Dimensional Electrons in a Lateral Magnetic Superlattice. Physical Review Letters, 1995, 74, 3009-3012.	7.8	255
94	Dissipative Quantum Hall Effect in Graphene near the Dirac Point. Physical Review Letters, 2007, 98, 196806.	7.8	255
95	Giant Nonlocality Near the Dirac Point in Graphene. Science, 2011, 332, 328-330.	12.6	255
96	Sieving hydrogen isotopes through two-dimensional crystals. Science, 2016, 351, 68-70.	12.6	247
97	Interaction phenomena in graphene seen through quantum capacitance. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3282-3286.	7.1	239
98	Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr ₃ . Nature Electronics, 2018, 1, 344-349.	26.0	239
99	Diamagnetic levitation: Flying frogs and floating magnets (invited). Journal of Applied Physics, 2000, 87, 6200-6204.	2.5	237
100	Paramagnetic Meissner effect in small superconductors. Nature, 1998, 396, 144-146.	27.8	232
101	WSe ₂ Light-Emitting Tunneling Transistors with Enhanced Brightness at Room Temperature. Nano Letters, 2015, 15, 8223-8228.	9.1	231
102	Dual origin of defect magnetism in graphene and its reversible switching by molecular doping. Nature Communications, 2013, 4, 2010.	12.8	230
103	Limits on gas impermeability of graphene. Nature, 2020, 579, 229-232.	27.8	220
104	Graphene-protected copper and silver plasmonics. Scientific Reports, 2014, 4, 5517.	3.3	217
105	Electronic properties of a biased graphene bilayer. Journal of Physics Condensed Matter, 2010, 22, 175503.	1.8	209
106	Complete steric exclusion of ions and proton transport through confined monolayer water. Science, 2019, 363, 145-148.	12.6	207
107	Density of States and Zero Landau Level Probed through Capacitance of Graphene. Physical Review Letters, 2010, 105, 136801.	7.8	202
108	Nonlocal transport and the hydrodynamic shear viscosity in graphene. Physical Review B, 2015, 92, .	3.2	198

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109	Commensurability Effects in Viscosity of Nanoconfined Water. ACS Nano, 2016, 10, 3685-3692.	14.6	198
110	Resonant terahertz detection using graphene plasmons. Nature Communications, 2018, 9, 5392.	12.8	198
111	Measuring Hall viscosity of graphene's electron fluid. Science, 2019, 364, 162-165.	12.6	197
112	Ballistic Hall micromagnetometry. Applied Physics Letters, 1997, 71, 2379-2381.	3.3	194
113	Quantum oscillations of the critical current and high-field superconducting proximity in ballistic graphene. Nature Physics, 2016, 12, 318-322.	16.7	179
114	Graphene bubbles with controllable curvature. Applied Physics Letters, 2011, 99, .	3.3	176
115	Development of a universal stress sensor for graphene and carbon fibres. Nature Communications, 2011, 2, .	12.8	172
116	Magnetization of Mesoscopic Superconducting Disks. Physical Review Letters, 1997, 79, 4653-4656.	7.8	171
117	Infrared spectroscopy of electronic bands in bilayer graphene. Physical Review B, 2009, 79, .	3.2	170
118	Binder-free highly conductive graphene laminate for low cost printed radio frequency applications. Applied Physics Letters, 2015, 106, .	3.3	170
119	Molecular streaming and its voltage control in Ångström-scale channels. Nature, 2019, 567, 87-90.	27.8	170
120	Visualizing Poiseuille flow of hydrodynamic electrons. Nature, 2019, 576, 75-79.	27.8	170
121	Capillary condensation under atomic-scale confinement. Nature, 2020, 588, 250-253.	27.8	168
122	Heterostructures Produced from Nanosheet-Based Inks. Nano Letters, 2014, 14, 3987-3992.	9.1	165
123	Non-quantized penetration of magnetic field in the vortex state of superconductors. Nature, 2000, 407, 55-57.	27.8	163
124	Hierarchy of Hofstadter states and replica quantum Hall ferromagnetism in graphene superlattices. Nature Physics, 2014, 10, 525-529.	16.7	161
125	Fermi-edge singularity in resonant tunneling. Physical Review Letters, 1994, 72, 2061-2064.	7.8	160
126	How Close Can One Approach the Dirac Point in Graphene Experimentally?. Nano Letters, 2012, 12, 4629-4634.	9.1	159

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127	Highly Flexible and Conductive Printed Graphene for Wireless Wearable Communications Applications. Scientific Reports, 2016, 5, 18298.	3.3	158
128	Diamagnetically stabilized magnet levitation. American Journal of Physics, 2001, 69, 702-713.	0.7	151
129	Nanoscale thermal imaging of dissipation in quantum systems. Nature, 2016, 539, 407-410.	27.8	149
130	Two-dimensional electron and hole gases at the surface of graphite. Physical Review B, 2005, 72, .	3.2	148
131	Nonvolatile Switching in Graphene Field-Effect Devices. IEEE Electron Device Letters, 2008, 29, 952-954.	3.9	148
132	Gap opening in the zeroth Landau level of graphene. Physical Review B, 2009, 80, .	3.2	146
133	Ballistic molecular transport through two-dimensional channels. Nature, 2018, 558, 420-424.	27.8	139
134	Graphene as a transparent conductive support for studying biological molecules by transmission electron microscopy. Applied Physics Letters, 2010, 97, .	3.3	138
135	Random Walk to Graphene (Nobel Lecture). Angewandte Chemie - International Edition, 2011, 50, 6966-6985.	13.8	137
136	Van der Waals pressure and its effect on trapped interlayer molecules. Nature Communications, 2016, 7, 12168.	12.8	137
137	Fluidity onset in graphene. Nature Communications, 2018, 9, 4533.	12.8	136
138	Magnet levitation at your fingertips. Nature, 1999, 400, 323-324.	27.8	134
139	Charge-polarized interfacial superlattices in marginally twisted hexagonal boron nitride. Nature Communications, 2021, 12, 347.	12.8	132
140	Indirect excitons in van der Waals heterostructures at room temperature. Nature Communications, 2018, 9, 1895.	12.8	130
141	Gate Tunable Infrared Phonon Anomalies in Bilayer Graphene. Physical Review Letters, 2009, 103, 116804.	7.8	127
142	Scalable and efficient separation of hydrogen isotopes using graphene-based electrochemical pumping. Nature Communications, 2017, 8, 15215.	12.8	119
143	Evidence of flat bands and correlated states in buckled graphene superlattices. Nature, 2020, 584, 215-220.	27.8	118
144	High-temperature quantum oscillations caused by recurring Bloch states in graphene superlattices. Science, 2017, 357, 181-184.	12.6	117

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145	Interfacial ferroelectricity in marginally twisted 2D semiconductors. Nature Nanotechnology, 2022, 17, 390-395.	31.5	115
146	Scattering of electrons in graphene by clusters of impurities. Physical Review B, 2009, 79, .	3.2	111
147	Strained Bubbles in van der Waals Heterostructures as Local Emitters of Photoluminescence with Adjustable Wavelength. ACS Photonics, 2019, 6, 516-524.	6.6	110
148	Superconductivity in Ca-doped graphene laminates. Scientific Reports, 2016, 6, 23254.	3.3	109
149	Macroscopic self-reorientation of interacting two-dimensional crystals. Nature Communications, 2016, 7, 10800.	12.8	108
150	Graphene prehistory. Physica Scripta, 2012, T146, 014003.	2.5	107
151	Tunable van Hove singularities and correlated states in twisted monolayer–bilayer graphene. Nature Physics, 2021, 17, 619-626.	16.7	103
152	Raman Fingerprint of Aligned Graphene/h-BN Superlattices. Nano Letters, 2013, 13, 5242-5246.	9.1	102
153	From One Electron to One Hole: Quasiparticle Counting in Graphene Quantum Dots Determined by Electrochemical and Plasma Etching. Small, 2010, 6, 1469-1473.	10.0	98
154	Electrostatically Confined Monolayer Graphene Quantum Dots with Orbital and Valley Splittings. Nano Letters, 2016, 16, 5798-5805.	9.1	93
155	Micromagnetometry of two-dimensional ferromagnets. Nature Electronics, 2019, 2, 457-463.	26.0	93
156	Asymmetric scattering and diffraction of two-dimensional electrons at quantized tubes of magnetic flux. Physical Review Letters, 1992, 69, 2252-2255.	7.8	91
157	Subatomic movements of a domain wall in the Peierls potential. Nature, 2003, 426, 812-816.	27.8	91
158	Quantum capacitance measurements of electron-hole asymmetry and next-nearest-neighbor hopping in graphene. Physical Review B, 2013, 88, .	3.2	88
159	Tuning the valley and chiral quantum state of Dirac electrons in van der Waals heterostructures. Science, 2016, 353, 575-579.	12.6	88
160	Extremely large magnetoresistance in few-layer graphene/boron–nitride heterostructures. Nature Communications, 2015, 6, 8337.	12.8	86
161	Electron hydrodynamics dilemma: Whirlpools or no whirlpools. Physical Review B, 2016, 94, .	3.2	86
162	Fine Structure in Magnetization of Individual Fluxoid States. Physical Review Letters, 2000, 85, 1528-1531.	7.8	84

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163	Unraveling the 3D Atomic Structure of a Suspended Graphene/hBN van der Waals Heterostructure. Nano Letters, 2017, 17, 1409-1416.	9.1	84
164	Electron transport in graphene. Physics-Uspekhi, 2008, 51, 744-748.	2.2	83
165	Intercalant-independent transition temperature in superconducting black phosphorus. Nature Communications, 2017, 8, 15036.	12.8	82
166	Electronic phase separation in multilayer rhombohedral graphite. Nature, 2020, 584, 210-214.	27.8	81
167	Phonon-Assisted Resonant Tunneling of Electrons in Grapheneâ€“Boron Nitride Transistors. Physical Review Letters, 2016, 116, 186603.	7.8	78
168	Edge currents shunt the insulating bulk in gapped graphene. Nature Communications, 2017, 8, 14552.	12.8	77
169	Submicron sensors of local electric field with single-electron resolution at room temperature. Applied Physics Letters, 2006, 88, 013901.	3.3	75
170	Composite super-moir� lattices in double-aligned graphene heterostructures. Science Advances, 2019, 5, eaay8897.	10.3	74
171	Magnetoresistance of vertical Co-graphene-NiFe junctions controlled by charge transfer and proximity-induced spin splitting in graphene. 2D Materials, 2017, 4, 031004.	4.4	73
172	Quantum resistance metrology in graphene. Applied Physics Letters, 2008, 93, .	3.3	72
173	Direct determination of the crystallographic orientation of graphene edges by atomic resolution imaging. Applied Physics Letters, 2010, 97, 053110.	3.3	70
174	Unusual Suppression of the Superconducting Energy Gap and Critical Temperature in Atomically Thin NbSe ₂ . Nano Letters, 2018, 18, 2623-2629.	9.1	70
175	Giant Magnetodrag in Graphene at Charge Neutrality. Physical Review Letters, 2013, 111, 166601.	7.8	69
176	In situ manipulation of van der Waals heterostructures for twistronics. Science Advances, 2020, 6, .	10.3	69
177	Formation of Monolayer Graphene by Annealing Sacrificial Nickel Thin Films. Journal of Physical Chemistry C, 2009, 113, 16565-16567.	3.1	68
178	Giant oscillations in a triangular network of one-dimensional states in marginally twisted graphene. Nature Communications, 2019, 10, 4008.	12.8	67
179	Stacking Boundaries and Transport in Bilayer Graphene. Nano Letters, 2014, 14, 2052-2057.	9.1	66
180	Electrically pumped single-defect light emitters in WSe ₂ . 2D Materials, 2016, 3, 025038.	4.4	66

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181	High thermal conductivity of hexagonal boron nitride laminates. 2D Materials, 2016, 3, 011004.	4.4	66
182	Imaging resonant dissipation from individual atomic defects in graphene. Science, 2017, 358, 1303-1306.	12.6	66
183	Graphene in Multilayered CPP Spin Valves. IEEE Transactions on Magnetism, 2008, 44, 2624-2627.	2.1	65
184	Resonant tunnelling between the chiral Landau states of twisted graphene lattices. Nature Physics, 2015, 11, 1057-1062.	16.7	64
185	High-order fractal states in graphene superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5135-5139.	7.1	63
186	Indirect Excitons and Trions in MoSe ₂ /WSe ₂ van der Waals Heterostructures. Nano Letters, 2020, 20, 1869-1875.	9.1	63
187	Viscous electron fluids. Physics Today, 2020, 73, 28-34.	0.3	62
188	New nonlocal magnetoresistance effect at the crossover between the classical and quantum transport regimes. Physical Review Letters, 1991, 67, 3014-3017.	7.8	60
189	Perfect proton selectivity in ion transport through two-dimensional crystals. Nature Communications, 2019, 10, 4243.	12.8	60
190	Manifestation of ripples in free-standing graphene in lattice images obtained in an aberration-corrected scanning transmission electron microscope. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1117-1122.	1.8	59
191	Giant photoeffect in proton transport through graphene membranes. Nature Nanotechnology, 2018, 13, 300-303.	31.5	59
192	Water friction in nanofluidic channels made from two-dimensional crystals. Nature Communications, 2021, 12, 3092.	12.8	59
193	Revealing common artifacts due to ferromagnetic inclusions in highly oriented pyrolytic graphite. Europhysics Letters, 2012, 97, 47001.	2.0	58
194	Graphene-hexagonal boron nitride resonant tunneling diodes as high-frequency oscillators. Applied Physics Letters, 2015, 107, .	3.3	58
195	Large tunable valley splitting in edge-free graphene quantum dots on boron nitride. Nature Nanotechnology, 2018, 13, 392-397.	31.5	58
196	Failure of Conductance Quantization in Two-Dimensional Topological Insulators due to Nonmagnetic Impurities. Physical Review Letters, 2019, 122, 016601.	7.8	57
197	Control of excitons in multi-layer van der Waals heterostructures. Applied Physics Letters, 2016, 108, .	3.3	56
198	Scaling of the quantum Hall plateau-plateau transition in graphene. Physical Review B, 2009, 80, .	3.2	55

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199	Simultaneous voltage and current density imaging of flowing electrons in two dimensions. Nature Nanotechnology, 2019, 14, 480-487.	31.5	55
200	Proton and Li-Ion Permeation through Graphene with Eight-Atom-Ring Defects. ACS Nano, 2020, 14, 7280-7286.	14.6	55
201	Stacking Order in Graphite Films Controlled by van der Waals Technology. Nano Letters, 2019, 19, 8526-8532.	9.1	54
202	Multiple flux jumps and irreversible behavior of thin Al superconducting rings. Physical Review B, 2003, 67, .	3.2	52
203	Giant Spin-Hall Effect Induced by the Zeeman Interaction in Graphene. Physical Review Letters, 2011, 107, 096601.	7.8	52
204	Landau Level Spectroscopy of Electron-Electron Interactions in Graphene. Physical Review Letters, 2015, 114, 126804.	7.8	52
205	Tunnel field-effect transistors for sensitive terahertz detection. Nature Communications, 2021, 12, 543.	12.8	52
206	Upconverted electroluminescence via Auger scattering of interlayer excitons in van der Waals heterostructures. Nature Communications, 2019, 10, 2335.	12.8	51
207	Imaging work and dissipation in the quantum Hall state in graphene. Nature, 2019, 575, 628-633.	27.8	50
208	Breakdown of universal scaling of conductance fluctuations in high magnetic fields. Physical Review Letters, 1992, 69, 1248-1251.	7.8	49
209	Ballistic two-dimensional electrons in a random magnetic field. Physical Review B, 1994, 49, 5749-5752.	3.2	49
210	Memory effects in individual submicrometer ferromagnets. Physical Review B, 1998, 58, 12201-12206.	3.2	48
211	Resonant tunneling through donor molecules. Physical Review B, 1994, 50, 8074-8077.	3.2	47
212	Excess resistivity in graphene superlattices caused by umklapp electron-electron scattering. Nature Physics, 2019, 15, 32-36.	16.7	46
213	Control of electron-electron interaction in graphene by proximity screening. Nature Communications, 2020, 11, 2339.	12.8	46
214	Transport of hydrogen isotopes through interlayer spacing in van der Waals crystals. Nature Nanotechnology, 2018, 13, 468-472.	31.5	45
215	Atomically thin micas as proton-conducting membranes. Nature Nanotechnology, 2019, 14, 962-966.	31.5	45
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