David Goldhaber-Gordon

List of Publications by Year
in descending order

130 papers	13,759 citations	36303 51 h-index	20358 116 g-index
136 all docs	136 docs citations	136 times ranked	11340 citing authors

#	Article	IF	Citations
1	Kondo effect in a single-electron transistor. Nature, 1998, 391, 156-159.	27.8	1,983
2	Emergent ferromagnetism near three-quarters filling in twisted bilayer graphene. Science, 2019, 365, 605-608.	12.6	1,106
3	From the Kondo Regime to the Mixed-Valence Regime in a Single-Electron Transistor. Physical Review Letters, 1998, 81, 5225-5228.	7.8	700
4	Evidence for Klein Tunneling in Graphene<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:mi>n</mml:mi></mml:math>Junctions. Physical Review Letters, 2009, 102, 026807.	7.8	678
5	Transport Measurements Across a Tunable Potential Barrier in Graphene. Physical Review Letters, 2007, 98, 236803.	7.8	592
6	Signatures of tunable superconductivity in a trilayer graphene moirÃ© superlattice. Nature, 2019, 572, 215-219.	27.8	458
7	Tunable correlated Chern insulator and ferromagnetism in a moirÃ© superlattice. Nature, 2020, 579, 56-61.	27.8	425
8	Fano resonances in electronic transport through a single-electron transistor. Physical Review B, 2000, 62, 2188-2194.	3.2	400
9	Gate-Controlled Spin-Orbit Quantum Interference Effects in Lateral Transport. Physical Review Letters, 2003, 90, 076807.	7.8	393
10	Evidence of the role of contacts on the observed electron-hole asymmetry in graphene. Physical Review B, 2008, 78, .	3.2	373
11	Low-Temperature Fate of the 0.7 Structure in a Point Contact: A Kondo-like Correlated State in an Open System. Physical Review Letters, 2002, 88, 226805.	7.8	363
12	Observation of the two-channel Kondo effect. Nature, 2007, 446, 167-171.	27.8	324
13	Unconventional Josephson Effect in Hybrid Superconductor-Topological Insulator Devices. Physical Review Letters, 2012, 109, 056803.	7.8	314
14	Precise Quantization of the Anomalous Hall Effect near Zero Magnetic Field. Physical Review Letters, 2015, 114, 187201.	7.8	255
15	Imaging currents in HgTe quantum wells in the quantum spin Hall regime. Nature Materials, 2013, 12, 787-791.	27.5	230
16	Quantum Dot Behavior in Graphene Nanoconstrictions. Nano Letters, 2009, 9, 416-421.	9.1	225
17	Observation of a one-dimensional spinâ€“orbit gap in a quantum wire. Nature Physics, 2010, 6, 336-339.	16.7	194
18	Disorder-induced gap behavior in graphene nanoribbons. Physical Review B, 2010, 81, .	3.2	179

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19	Charge Transport in Interpenetrating Networks of Semiconducting and Metallic Carbon Nanotubes. Nano Letters, 2009, 9, 1866-1871.	9.1	151
20	Electrolyte Gate-Controlled Kondo Effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2011, 107, 256601.	7.8	139
21	Two-Channel Kondo Effect in a Modified Single Electron Transistor. Physical Review Letters, 2003, 90, 136602.	7.8	133
22	Universal Scaling in Nonequilibrium Transport through a Single Channel Kondo Dot. Physical Review Letters, 2008, 100, 246601.	7.8	127
23	Measurements of Kondo and Spin Splitting in Single-Electron Transistors. Physical Review Letters, 2004, 93, 166602.	7.8	125
24	Insulating Behavior at the Neutrality Point in Single-Layer Graphene. Physical Review Letters, 2013, 110, 216601.	7.8	120
25	Magnetic Doping and Kondo Effect in Bi₂Se₃ Nanoribbons. Nano Letters, 2010, 10, 1076-1081.	9.1	119
26	Ballistic miniband conduction in a graphene superlattice. Science, 2016, 353, 1526-1529.	12.6	116
27	Unexpected features of branched flow through high-mobility two-dimensional electron gases. Nature Physics, 2007, 3, 841-845.	16.7	115
28	Emergent SU(4) Kondo physics in a spinâ€“charge-entangled double quantum dot. Nature Physics, 2014, 10, 145-150.	16.7	114
29	Effective Cleaning of Hexagonal Boron Nitride for Graphene Devices. Nano Letters, 2012, 12, 4449-4454.	9.1	108
30	Spin-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mfrac><mml:mn>1</mml:mn><mml:mn>2</mml:mn></mml:mfrac></mml:math>Kondo effect in an InAs nanowire quantum dot: Unitary limit, conductance scaling, and Zeeman splitting. Physical Review B, 2011, 84, .	3.2	106
31	Unexpected edge conduction in mercury telluride quantum wells under broken time-reversal symmetry. Nature Communications, 2015, 6, 7252.	12.8	101
32	Contact resistance and shot noise in graphene transistors. Physical Review B, 2009, 79, .	3.2	98
33	Extreme Monolayer-Selectivity of Hydrogen-Plasma Reactions with Graphene. ACS Nano, 2013, 7, 1324-1332.	14.6	98
34	Singletâ€“triplet transition in a single-electron transistor at zero magnetic field. Physical Review B, 2003, 67, .	3.2	97
35	High-Velocity Saturation in Graphene Encapsulated by Hexagonal Boron Nitride. ACS Nano, 2017, 11, 9914-9919.	14.6	89
36	Universal Fermi liquid crossover and quantum criticality in a mesoscopic system. Nature, 2015, 526, 237-240.	27.8	87

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37	Fully CMOS-compatible titanium nitride nanoantennas. Applied Physics Letters, 2016, 108, .	3.3	86
38	Composite fermions and broken symmetries in graphene. Nature Communications, 2015, 6, 5838.	12.8	84
39	Temperature-dependent optical properties of titanium nitride. Applied Physics Letters, 2017, 110, .	3.3	83
40	Spatially Resolved Study of Backscattering in the Quantum Spin Hall State. Physical Review X, 2013, 3, .	8.9	76
41	A high-mobility electronic system at an electrolyte-gated oxide surface. Nature Communications, 2015, 6, 6437.	12.8	76
42	Giant orbital magnetoelectric effect and current-induced magnetization switching in twisted bilayer graphene. Nature Communications, 2020, 11, 1650.	12.8	74
43	Selective Equilibration of Spin-Polarized Quantum Hall Edge States in Graphene. Physical Review Letters, 2014, 112, 196601.	7.8	73
44	Tunneling spectroscopy of graphene-boron-nitride heterostructures. Physical Review B, 2012, 85, .	3.2	69
45	Carrier-Controlled Ferromagnetism in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review X, 2012, 2, .	8.9	69
46	Part-per-million quantization and current-induced breakdown of the quantum anomalous Hall effect. Physical Review B, 2018, 98, .	3.2	65
47	An off-board quantum point contact as a sensitive detector of cantilever motion. Nature Physics, 2008, 4, 635-638.	16.7	60
48	Pseudospin-Resolved Transport Spectroscopy of the Kondo Effect in a Double Quantum Dot. Physical Review Letters, 2013, 110, 046604.	7.8	60
49	Switchable friction enabled by nanoscale self-assembly on graphene. Nature Communications, 2016, 7, 10745.	12.8	59
50	Direct Measurement of Current-Phase Relations in Superconductor/Topological Insulator/Superconductor Junctions. Nano Letters, 2013, 13, 3086-3092.	9.1	55
51	Visualization of an axion insulating state at the transition between 2 chiral quantum anomalous Hall states. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14511-14515.	7.1	52
52	Magnetic field dependence of the spin-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mstyle scriptlevel="1"><mml:mfrac bevelled="false"><mml:mn>1</mml:mn><mml:mn>2</mml:mn></mml:mfrac></mml:mstyle></mml:math>and spin-1 Kondo effects in a quantum dot. Physical Review B, 2007, 76, .	3.2	51
53	Electron Thermal Microscopy. Nano Letters, 2008, 8, 582-585.	9.1	50
54	Distinguishing Oxygen Vacancy Electromigration and Conductive Filament Formation in TiO₂ Resistance Switching Using Liquid Electrolyte Contacts. Nano Letters, 2017, 17, 4390-4399.	9.1	50

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55	Electron interferometer formed with a scanning probe tip and quantum point contact. Physical Review B, 2009, 80, .	3.2	49
56	Field evolution of magnons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub>< by high-resolution polarized terahertz spectroscopy. Physical Review B, 2018, 98, .	3.2	44
57	Kondo effect and spin filtering in triangular artificial atoms. Solid State Communications, 2003, 126, 463-466.	1.9	43
58	Cotunneling Drag Effect in Coulomb-Coupled Quantum Dots. Physical Review Letters, 2016, 117, 066602.	7.8	43
59	Molecular Junctions of Self-Assembled Monolayers with Conducting Polymer Contacts. ACS Nano, 2012, 6, 9920-9931.	14.6	40
60	Scanning gate microscopy of localized states in wide graphene constrictions. Physical Review B, 2013, 87, .	3.2	37
61	Chiral transport along magnetic domain walls in the quantum anomalous Hall effect. Npj Quantum Materials, 2017, 2, .	5.2	37
62	High-quality quantum point contacts in GaNâ^•AlGaN heterostructures. Applied Physics Letters, 2005, 86, 073108.	3.3	36
63	Suppression of the Kondo Effect in a Quantum Dot by Microwave Radiation. Journal of Low Temperature Physics, 2000, 118, 375-389.	1.4	34
64	Design of a scanning gate microscope for mesoscopic electron systems in a cryogen-free dilution refrigerator. Review of Scientific Instruments, 2013, 84, 033703.	1.3	34
65	Mechanism for the large conductance modulation in electrolyte-gated thin gold films. Physical Review B, 2014, 90, .	3.2	34
66	Absorptive pinhole collimators for ballistic Dirac fermions in graphene. Nature Communications, 2017, 8, 15418.	12.8	34
67	Spatially probed electron-electron scattering in a two-dimensional electron gas. Physical Review B, 2010, 82, .	3.2	33
68	Quantum oscillations from a two-dimensional electron gas at a Mott/band insulator interface. Applied Physics Letters, 2012, 101, .	3.3	33
69	Gate-tunable superconducting weak link and quantum point contact spectroscopy on a strontium titanate surface. Nature Physics, 2014, 10, 748-752.	16.7	33
70	Unconventional Correlation between Quantum Hall Transport Quantization and Bulk State Filling in Gated Graphene Devices. Physical Review Letters, 2016, 117, 186601.	7.8	33
71	Zero-field edge plasmons in a magnetic topological insulator. Nature Communications, 2017, 8, 1836.	12.8	32
72	Magnetic-field dependence of the level spacing of a small electron droplet. Physical Review B, 1996, 53, R4221-R4224.	3.2	30

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73	Voltage-Controlled Interfacial Layering in an Ionic Liquid on SrTiO₃. ACS Nano, 2016, 10, 4565-4569.	14.6	29
74	Coulomb-blockade spectroscopy on a small quantum dot in a parallel magnetic field. Applied Physics Letters, 2000, 77, 2183-2185.	3.3	28
75	Tunable Anomalous Hall Effect in a Nonferromagnetic System. Physical Review Letters, 2006, 96, 196404.	7.8	28
76	Robust fractional quantum Hall effect in the N=2 Landau level in bilayer graphene. Nature Communications, 2016, 7, 13908.	12.8	27
77	Disorder from the Bulk Ionic Liquid in Electric Double Layer Transistors. ACS Nano, 2017, 11, 8395-8400.	14.6	27
78	Evidence of Orbital Ferromagnetism in Twisted Bilayer Graphene Aligned to Hexagonal Boron Nitride. Nano Letters, 2021, 21, 4299-4304.	9.1	27
79	Super-geometric electron focusing on the hexagonal Fermi surface of PdCoO2. Nature Communications, 2019, 10, 5081.	12.8	26
80	Dip-Pen Nanolithography of Electrical Contacts to Single Graphene Flakes. ACS Nano, 2010, 4, 6409-6416.	14.6	22
81	Vertical field-effect transistor based on wave-function extension. Physical Review B, 2011, 84, .	3.2	22
82	Coulomb Blockade in an Open Quantum Dot. Physical Review Letters, 2011, 107, 216804.	7.8	20
83	Conductance fluctuations and partially broken spin symmetries in quantum dots. Physical Review B, 2005, 72, .	3.2	19
84	An integrated capacitance bridge for high-resolution, wide temperature range quantum capacitance measurements. Review of Scientific Instruments, 2011, 82, 053904.	1.3	19
85	Quantumâ€Hall to Insulator Transition in Ultraâ€Lowâ€Carrierâ€Density Topological Insulator Films and a Hidden Phase of the Zeroth Landau Level. Advanced Materials, 2019, 31, e1901091.	21.0	19
86	Single-electron transistors in GaNâ•AlGaN heterostructures. Applied Physics Letters, 2006, 89, 033104.	3.3	17
87	Transport properties of carbon nanotube<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>60</mml:mn></mml:msub></mml:math>peapods. Physical Review B, 2007, 76, .	3.2	17
88	Interplay of Chiral and Helical States in a Quantum Spin Hall Insulator Lateral Junction. Physical Review Letters, 2017, 119, 226401.	7.8	17
89	Tunable Orbital Ferromagnetism at Noninteger Filling of a MoirÃ© Superlattice. Nano Letters, 2022, 22, 238-245.	9.1	17
90	Kondo physics with single electron transistors. Solid State Communications, 2001, 119, 245-252.	1.9	16

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91	Directional ballistic transport in the two-dimensional metal PdCoO2. Nature Physics, 2022, 18, 819-824.	16.7	16
92	Quantum transport in high mobility AlGaN/GaN 2DEGs and nanostructures. Physica Status Solidi (B): Basic Research, 2006, 243, 1706-1712.	1.5	15
93	Optical Imaging and Spectroscopic Characterization of Self-Assembled Environmental Adsorbates on Graphene. Nano Letters, 2018, 18, 2603-2608.	9.1	15
94	Significant Phonon Drag Enables High Power Factor in the AlGaN/GaN Two-Dimensional Electron Gas. Nano Letters, 2019, 19, 3770-3776.	9.1	13
95	Unusual magnetotransport in twisted bilayer graphene. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2118482119.	7.1	13
96	Magnetic lattice surprise. Nature Physics, 2007, 3, 295-296.	16.7	12
97	Bulk dissipation in the quantum anomalous Hall effect. APL Materials, 2021, 9, 081116.	5.1	12
98	Charge Rearrangement and Screening in a Quantum Point Contact. Physical Review Letters, 2007, 98, 196805.	7.8	11
99	Universal conductance fluctuations in electrolyte-gated SrTiO3 nanostructures. Applied Physics Letters, 2013, 103, .	3.3	11
100	Transmission phase shifts of Kondo impurities. Physical Review B, 2012, 86, .	3.2	10
101	Fabrication of samples for scanning probe experiments on quantum spin Hall effect in HgTe quantum wells. Journal of Applied Physics, 2012, 112, 103713.	2.5	9
102	Quantized critical supercurrent in SrTiO ₃ -based quantum point contacts. Science Advances, 2021, 7, eabi6520.	10.3	9
103	Absence of strong localization at low conductivity in the topological surface state of low-disorder <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sb</mml:mi><mml:mn>2</mml:mn></ Physical Review B, 2019, 99, .	3.2	8
104	The Kondo effect in a single-electron transistor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 84, 17-21.	3.5	7
105	Momentous period for nanotubes. Nature, 2001, 412, 595-597.	27.8	7
106	Resonant magneto-optic Kerr effect in the magnetic topological insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Cr</mml:mi><mml:mo>:</mml:mo><mml:mo>(Physical Review B, 2015, 92, .	3.2	7
107	Virtual scanning tunneling microscopy: A local spectroscopic probe of two-dimensional electron systems. Applied Physics Letters, 2010, 97, 132103.	3.3	6
108	Crystal truncation rods from miscut surfaces. Physical Review B, 2017, 95, .	3.2	6

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109	Coaxial tip piezoresistive scanning probes for high-resolution electrical imaging. , 2010, , .		5
110	Coaxial tip piezoresistive scanning probes with sub-nanometer vertical displacement resolution. , 2010, , .		5
111	Doubling down on Majorana. Nature Physics, 2012, 8, 778-779.	16.7	5
112	New spin on correlated electrons. Nature, 2005, 434, 451-452.	27.8	4
113	Low-impedance shielded tip piezoresistive probe enables portable microwave impedance microscopy. Micro and Nano Letters, 2012, 7, 321.	1.3	4
114	Self-sensing cantilevers with integrated conductive coaxial tips for high-resolution electrical scanning probe metrology. Journal of Applied Physics, 2015, 118, 034306.	2.5	4
115	Ionic Liquid Gating of SrTiO₃ Lamellas Fabricated with a Focused Ion Beam. Nano Letters, 2022, 22, 3872-3878.	9.1	3
116	Nanofabrication of top-gated carbon nanotube-based transistors: Probing electron-electron interactions in one-dimensional systems. Journal of Materials Research, 2006, 21, 2916-2921.	2.6	2
117	Local imaging of high mobility two-dimensional electron systems with virtual scanning tunneling microscopy. Applied Physics Letters, 2014, 105, .	3.3	2
118	Repairing nanoscale devices using electron-beam-induced deposition of platinum. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 051803.	1.2	2
119	Application-driven synthesis and characterization of hexagonal boron nitride deposited on metals and carbon nanotubes. 2D Materials, 2021, 8, 045024.	4.4	2
120	Nanoscale Electronic Transparency of Wafer-Scale Hexagonal Boron Nitride. Nano Letters, 2022, , .	9.1	2
121	Clean quantum point contacts in an InAs quantum well grown on a lattice-mismatched InP substrate. Physical Review B, 2022, 105, .	3.2	2
122	Electron Microscopy of the Operation of Nanoscale Devices. Materials Research Society Symposia Proceedings, 2004, 839, 143.	0.1	0
123	Two-Channel Kondo Effect in a Modified Single Electron Transistor. , 2004, , 67-76.		0
124	Electron Microscopy of the Operation of Nanoscale Devices. Microscopy and Microanalysis, 2005, 11, .	0.4	0
125	SchrÃ¶dinger's mousetrap. Nature, 2005, 433, 805-805.	27.8	0
126	Greetings from Three Generations of Goldhabers to Academician Ginzburg, on the Occasion of Your 90th Birthday. Journal of Superconductivity and Novel Magnetism, 2007, 19, 467-467.	1.8	0

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127	Local interlayer tunneling between two-dimensional electron systems in the ballistic regime. Physical Review B, 2010, 82, .	3.2	0
128	Making light of electrons. Nature Nanotechnology, 2011, 6, 196-197.	31.5	0
129	A quantum critical approach. Nature Physics, 2013, 9, 695-696.	16.7	0
130	The Two Channel Kondo Effect in Quantum Dots. Springer Series in Solid-state Sciences, 2007, , 27-44.	0.3	0