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	Tunable Orbital Ferromagnetism at Noninteger Filling of a MoirÃ© Superlattice. Nano Letters, 2022, 22, 238-245.	9.1	17
2	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
3	Directional ballistic transport in the two-dimensional metal PdCoO2. Nature Physics, 2022, 18, 819-824.	16.7	16
4	Nanoscale Electronic Transparency of Wafer-Scale Hexagonal Boron Nitride. Nano Letters, 2022, , .	9.1	2
5	Clean quantum point contacts in an InAs quantum well grown on a lattice-mismatched InP substrate. Physical Review B, 2022, 105, .	3.2	2
6	Ionic Liquid Gating of SrTiO₃ Lamellas Fabricated with a Focused Ion Beam. Nano Letters, 2022, 22, 3872-3878.	9.1	3
7	Evidence of Orbital Ferromagnetism in Twisted Bilayer Graphene Aligned to Hexagonal Boron Nitride. Nano Letters, 2021, 21, 4299-4304.	9.1	27
8	Bulk dissipation in the quantum anomalous Hall effect. APL Materials, 2021, 9, 081116.	5.1	12
9	Application-driven synthesis and characterization of hexagonal boron nitride deposited on metals and carbon nanotubes. 2D Materials, 2021, 8, 045024.	4.4	2
10	Quantized critical supercurrent in SrTiO ₃ -based quantum point contacts. Science Advances, 2021, 7, eabi6520.	10.3	9
11	Tunable correlated Chern insulator and ferromagnetism in a moirÃ© superlattice. Nature, 2020, 579, 56-61.	27.8	425
12	Giant orbital magnetoelectric effect and current-induced magnetization switching in twisted bilayer graphene. Nature Communications, 2020, 11, 1650.	12.8	74
13	Signatures of tunable superconductivity in a trilayer graphene moirÃ© superlattice. Nature, 2019, 572, 215-219.	27.8	458
14	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
15	Emergent ferromagnetism near three-quarters filling in twisted bilayer graphene. Science, 2019, 365, 605-608.	12.6	1,106
16	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
17	Significant Phonon Drag Enables High Power Factor in the AlGaN/GaN Two-Dimensional Electron Gas. Nano Letters, 2019, 19, 3770-3776.	9.1	13
18	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></mml: Physical Review B, 2019, 99, .	3.2	8

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19	Super-geometric electron focusing on the hexagonal Fermi surface of PdCoO2. Nature Communications, 2019, 10, 5081.	12.8	26
20	Optical Imaging and Spectroscopic Characterization of Self-Assembled Environmental Adsorbates on Graphene. Nano Letters, 2018, 18, 2603-2608.	9.1	15
21	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	11
22	Part-per-million quantization and current-induced breakdown of the quantum anomalous Hall effect. Physical Review B, 2018, 98, .	3.2	65
23	Temperature-dependent optical properties of titanium nitride. Applied Physics Letters, 2017, 110, .	3.3	83
24	Absorptive pinhole collimators for ballistic Dirac fermions in graphene. Nature Communications, 2017, 8, 15418.	12.8	34
25	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
26	High-Velocity Saturation in Graphene Encapsulated by Hexagonal Boron Nitride. ACS Nano, 2017, 11, 9914-9919.	14.6	89
27	Crystal truncation rods from miscut surfaces. Physical Review B, 2017, 95, .	3.2	6
28	Disorder from the Bulk Ionic Liquid in Electric Double Layer Transistors. ACS Nano, 2017, 11, 8395-8400.	14.6	27
29	Zero-field edge plasmons in a magnetic topological insulator. Nature Communications, 2017, 8, 1836.	12.8	32
30	Interplay of Chiral and Helical States in a Quantum Spin Hall Insulator Lateral Junction. Physical Review Letters, 2017, 119, 226401.	7.8	17
31	Chiral transport along magnetic domain walls in the quantum anomalous Hall effect. Npj Quantum Materials, 2017, 2, .	5.2	37
32	Switchable friction enabled by nanoscale self-assembly on graphene. Nature Communications, 2016, 7, 10745.	12.8	59
33	Fully CMOS-compatible titanium nitride nanoantennas. Applied Physics Letters, 2016, 108, .	3.3	86
34	Robust fractional quantum Hall effect in the N=2 Landau level in bilayer graphene. Nature Communications, 2016, 7, 13908.	12.8	27
35	Ballistic miniband conduction in a graphene superlattice. Science, 2016, 353, 1526-1529.	12.6	116
36	Cotunneling Drag Effect in Coulomb-Coupled Quantum Dots. Physical Review Letters, 2016, 117, 066602.	7.8	43

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37	Unconventional Correlation between Quantum Hall Transport Quantization and Bulk State Filling in Gated Graphene Devices. Physical Review Letters, 2016, 117, 186601.	7.8	33
38	Voltage-Controlled Interfacial Layering in an Ionic Liquid on SrTiO₃. ACS Nano, 2016, 10, 4565-4569.	14.6	29
39	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>(</mml:mo><mml:mo>(Physical Review B, 2015, 92, .	3.2	7
40	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
41	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
42	Unexpected edge conduction in mercury telluride quantum wells under broken time-reversal symmetry. Nature Communications, 2015, 6, 7252.	12.8	101
43	Composite fermions and broken symmetries in graphene. Nature Communications, 2015, 6, 5838.	12.8	84
44	A high-mobility electronic system at an electrolyte-gated oxide surface. Nature Communications, 2015, 6, 6437.	12.8	76
45	Precise Quantization of the Anomalous Hall Effect near Zero Magnetic Field. Physical Review Letters, 2015, 114, 187201.	7.8	255
46	Universal Fermi liquid crossover and quantum criticality in a mesoscopic system. Nature, 2015, 526, 237-240.	27.8	87
47	Local imaging of high mobility two-dimensional electron systems with virtual scanning tunneling microscopy. Applied Physics Letters, 2014, 105, .	3.3	2
48	Selective Equilibration of Spin-Polarized Quantum Hall Edge States in Graphene. Physical Review Letters, 2014, 112, 196601.	7.8	73
49	Emergent SU(4) Kondo physics in a spinâ€“charge-entangled double quantum dot. Nature Physics, 2014, 10, 145-150.	16.7	114
50	Mechanism for the large conductance modulation in electrolyte-gated thin gold films. Physical Review B, 2014, 90, .	3.2	34
51	Gate-tunable superconducting weak link and quantum point contact spectroscopy on a strontium titanate surface. Nature Physics, 2014, 10, 748-752.	16.7	33
52	A quantum critical approach. Nature Physics, 2013, 9, 695-696.	16.7	0
53	Pseudospin-Resolved Transport Spectroscopy of the Kondo Effect in a Double Quantum Dot. Physical Review Letters, 2013, 110, 046604.	7.8	60
54	Imaging currents in HgTe quantum wells in the quantum spin Hall regime. Nature Materials, 2013, 12, 787-791.	27.5	230

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55	Extreme Monolayer-Selectivity of Hydrogen-Plasma Reactions with Graphene. ACS Nano, 2013, 7, 1324-1332.	14.6	98
56	Direct Measurement of Current-Phase Relations in Superconductor/Topological Insulator/Superconductor Junctions. Nano Letters, 2013, 13, 3086-3092.	9.1	55
57	Spatially Resolved Study of Backscattering in the Quantum Spin Hall State. Physical Review X, 2013, 3, .	8.9	76
58	Insulating Behavior at the Neutrality Point in Single-Layer Graphene. Physical Review Letters, 2013, 110, 216601.	7.8	120
59	Scanning gate microscopy of localized states in wide graphene constrictions. Physical Review B, 2013, 87, .	3.2	37
60	Universal conductance fluctuations in electrolyte-gated SrTiO3 nanostructures. Applied Physics Letters, 2013, 103, .	3.3	11
61	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
62	Quantum oscillations from a two-dimensional electron gas at a Mott/band insulator interface. Applied Physics Letters, 2012, 101, .	3.3	33
63	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
64	Transmission phase shifts of Kondo impurities. Physical Review B, 2012, 86, .	3.2	10
65	Tunneling spectroscopy of graphene-boron-nitride heterostructures. Physical Review B, 2012, 85, .	3.2	69
66	Unconventional Josephson Effect in Hybrid Superconductor-Topological Insulator Devices. Physical Review Letters, 2012, 109, 056803.	7.8	314
67	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
68	Effective Cleaning of Hexagonal Boron Nitride for Graphene Devices. Nano Letters, 2012, 12, 4449-4454.	9.1	108
69	Doubling down on Majorana. Nature Physics, 2012, 8, 778-779.	16.7	5
70	Molecular Junctions of Self-Assembled Monolayers with Conducting Polymer Contacts. ACS Nano, 2012, 6, 9920-9931.	14.6	40
71	Low-impedance shielded tip piezoresistive probe enables portable microwave impedance microscopy. Micro and Nano Letters, 2012, 7, 321.	1.3	4
72	Making light of electrons. Nature Nanotechnology, 2011, 6, 196-197.	31.5	0

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73	Coulomb Blockade in an Open Quantum Dot. Physical Review Letters, 2011, 107, 216804.	7.8	20
74	Vertical field-effect transistor based on wave-function extension. Physical Review B, 2011, 84, .	3.2	22
75	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
76	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
77	An integrated capacitance bridge for high-resolution, wide temperature range quantum capacitance measurements. Review of Scientific Instruments, 2011, 82, 053904.	1.3	19
78	Observation of a one-dimensional spinâ€“orbit gap in a quantum wire. Nature Physics, 2010, 6, 336-339.	16.7	194
79	Virtual scanning tunneling microscopy: A local spectroscopic probe of two-dimensional electron systems. Applied Physics Letters, 2010, 97, 132103.	3.3	6
80	Local interlayer tunneling between two-dimensional electron systems in the ballistic regime. Physical Review B, 2010, 82, .	3.2	0
81	Magnetic Doping and Kondo Effect in Bi₂Se₃ Nanoribbons. Nano Letters, 2010, 10, 1076-1081.	9.1	119
82	Dip-Pen Nanolithography of Electrical Contacts to Single Graphene Flakes. ACS Nano, 2010, 4, 6409-6416.	14.6	22
83	Disorder-induced gap behavior in graphene nanoribbons. Physical Review B, 2010, 81, .	3.2	179
84	Coaxial tip piezoresistive scanning probes for high-resolution electrical imaging. , 2010, , .		5
85	Coaxial tip piezoresistive scanning probes with sub-nanometer vertical displacement resolution. , 2010, , .		5
86	Spatially probed electron-electron scattering in a two-dimensional electron gas. Physical Review B, 2010, 82, .	3.2	33
87	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
88	Electron interferometer formed with a scanning probe tip and quantum point contact. Physical Review B, 2009, 80, .	3.2	49
89	Contact resistance and shot noise in graphene transistors. Physical Review B, 2009, 79, .	3.2	98
90	Quantum Dot Behavior in Graphene Nanoconstrictions. Nano Letters, 2009, 9, 416-421.	9.1	225

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91	Charge Transport in Interpenetrating Networks of Semiconducting and Metallic Carbon Nanotubes. Nano Letters, 2009, 9, 1866-1871.	9.1	151
92	An off-board quantum point contact as a sensitive detector of cantilever motion. Nature Physics, 2008, 4, 635-638.	16.7	60
93	Evidence of the role of contacts on the observed electron-hole asymmetry in graphene. Physical Review B, 2008, 78, .	3.2	373
94	Electron Thermal Microscopy. Nano Letters, 2008, 8, 582-585.	9.1	50
95	Universal Scaling in Nonequilibrium Transport through a Single Channel Kondo Dot. Physical Review Letters, 2008, 100, 246601.	7.8	127
96	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
97	Charge Rearrangement and Screening in a Quantum Point Contact. Physical Review Letters, 2007, 98, 196805.	7.8	11
98	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
99	Transport Measurements Across a Tunable Potential Barrier in Graphene. Physical Review Letters, 2007, 98, 236803.	7.8	592
100	Magnetic lattice surprise. Nature Physics, 2007, 3, 295-296.	16.7	12
101	Unexpected features of branched flow through high-mobility two-dimensional electron gases. Nature Physics, 2007, 3, 841-845.	16.7	115
102	Observation of the two-channel Kondo effect. Nature, 2007, 446, 167-171.	27.8	324
103	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
104	The Two Channel Kondo Effect in Quantum Dots. Springer Series in Solid-state Sciences, 2007, , 27-44.	0.3	0
105	Quantum transport in high mobility AlGaN/GaN 2DEGs and nanostructures. Physica Status Solidi (B): Basic Research, 2006, 243, 1706-1712.	1.5	15
106	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
107	Tunable Anomalous Hall Effect in a Nonferromagnetic System. Physical Review Letters, 2006, 96, 196404.	7.8	28
108	Single-electron transistors in GaNâˆ•AlGaN heterostructures. Applied Physics Letters, 2006, 89, 033104.	3.3	17

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109	Electron Microscopy of the Operation of Nanoscale Devices. Microscopy and Microanalysis, 2005, 11, .	0.4	0
110	SchrÃ¶dinger's mousetrap. Nature, 2005, 433, 805-805.	27.8	0
111	New spin on correlated electrons. Nature, 2005, 434, 451-452.	27.8	4
112	High-quality quantum point contacts in GaNâˆ•AlGaN heterostructures. Applied Physics Letters, 2005, 86, 073108.	3.3	36
113	Conductance fluctuations and partially broken spin symmetries in quantum dots. Physical Review B, 2005, 72, .	3.2	19
114	Measurements of Kondo and Spin Splitting in Single-Electron Transistors. Physical Review Letters, 2004, 93, 166602.	7.8	125
115	Electron Microscopy of the Operation of Nanoscale Devices. Materials Research Society Symposia Proceedings, 2004, 839, 143.	0.1	0
116	Two-Channel Kondo Effect in a Modified Single Electron Transistor. , 2004, , 67-76.		0
117	Kondo effect and spin filtering in triangular artificial atoms. Solid State Communications, 2003, 126, 463-466.	1.9	43
118	Gate-Controlled Spin-Orbit Quantum Interference Effects in Lateral Transport. Physical Review Letters, 2003, 90, 076807.	7.8	393
119	Two-Channel Kondo Effect in a Modified Single Electron Transistor. Physical Review Letters, 2003, 90, 136602.	7.8	133
120	Singletâ€“triplet transition in a single-electron transistor at zero magnetic field. Physical Review B, 2003, 67, .	3.2	97
121	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
122	Kondo physics with single electron transistors. Solid State Communications, 2001, 119, 245-252.	1.9	16
123	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
124	Momentous period for nanotubes. Nature, 2001, 412, 595-597.	27.8	7
125	Suppression of the Kondo Effect in a Quantum Dot by Microwave Radiation. Journal of Low Temperature Physics, 2000, 118, 375-389.	1.4	34
126	Coulomb-blockade spectroscopy on a small quantum dot in a parallel magnetic field. Applied Physics Letters, 2000, 77, 2183-2185.	3.3	28

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127	Fano resonances in electronic transport through a single-electron transistor. Physical Review B, 2000, 62, 2188-2194.	3.2	400
128	Kondo effect in a single-electron transistor. Nature, 1998, 391, 156-159.	27.8	1,983
129	From the Kondo Regime to the Mixed-Valence Regime in a Single-Electron Transistor. Physical Review Letters, 1998, 81, 5225-5228.	7.8	700
130	Magnetic-field dependence of the level spacing of a small electron droplet. Physical Review B, 1996, 53, R4221-R4224.	3.2	30