

Christopher J B Ford

List of Publications by Year in descending order

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93
papers

3,398
citations

147566

31
h-index

143772

57
g-index

94
all docs

94
docs citations

94
times ranked

2393
citing authors

#	ARTICLE	IF	CITATIONS
1	High-frequency single-electron transport in a quasi-one-dimensional GaAs channel induced by surface acoustic waves. <i>Journal of Physics Condensed Matter</i> , 1996, 8, L531-L539.	0.7	256
2	On-demand single-electron transfer between distant quantum dots. <i>Nature</i> , 2011, 477, 439-442.	13.7	251
3	The 2019 surface acoustic waves roadmap. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 353001.	1.3	236
4	Single-electron transport in a one-dimensional channel by high-frequency surface acoustic waves. <i>Physical Review B</i> , 1997, 56, 15180-15184.	1.1	219
5	Probing Spin-Charge Separation in a Tomonaga-Luttinger Liquid. <i>Science</i> , 2009, 325, 597-601.	6.0	188
6	Influence of geometry on the Hall effect in ballistic wires. <i>Physical Review Letters</i> , 1989, 62, 2724-2727.	2.9	182
7	Vanishing hall voltage in a quasi-one-dimensional GaAs λ AlxGa1 λ xAs heterojunction. <i>Physical Review B</i> , 1988, 38, 8518-8521.	1.1	101
8	Electrostatically defined heterojunction rings and the Aharonov-Bohm effect. <i>Applied Physics Letters</i> , 1989, 54, 21-23.	1.5	96
9	Crosslinked PMMA as a high-resolution negative resist for electron beam lithography and applications for physics of low-dimensional structures. <i>Semiconductor Science and Technology</i> , 1996, 11, 1235-1238.	1.0	96
10	Magnetic-field-induced insulator-quantum Hall-insulator transition in a disordered two-dimensional electron gas. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 4763-4770.	0.7	70
11	Spin splitting of one-dimensional subbands in high quality quantum wires at zero magnetic field. <i>Physical Review B</i> , 2000, 62, 15842-15850.	1.1	68
12	The Aharonov-Bohm effect in electrostatically defined heterojunction rings. <i>Journal of Physics C: Solid State Physics</i> , 1988, 21, L325-L331.	1.5	67
13	Detection of Coulomb Charging around an Antidot in the Quantum Hall Regime. <i>Physical Review Letters</i> , 1999, 83, 160-163.	2.9	67
14	Fluctuations and Evidence for Charging in the Quantum Hall Effect. <i>Physical Review Letters</i> , 1999, 82, 4695-4698.	2.9	66
15	Charging and double-frequency Aharonov-Bohm effects in an open system. <i>Physical Review B</i> , 1994, 49, 17456-17459.	1.1	65
16	Coherent Time Evolution of a Single-Electron Wave Function. <i>Physical Review Letters</i> , 2009, 102, 156801.	2.9	59
17	Kondo Effect from a Tunable Bound State within a Quantum Wire. <i>Physical Review Letters</i> , 2008, 100, 026807.	2.9	57
18	Fabrication of high-quality one- and two-dimensional electron gases in undoped GaAs/AlGaAs heterostructures. <i>Applied Physics Letters</i> , 1999, 74, 2328-2330.	1.5	54

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19	Possible Evidence of a Spontaneous Spin Polarization in Mesoscopic Two-Dimensional Electron Systems. <i>Physical Review Letters</i> , 2004, 92, 116601.	2.9	52
20	Magnetization Instability in a Two-Dimensional System. <i>Physical Review Letters</i> , 1997, 79, 4449-4452.	2.9	51
21	Sound-driven single-electron transfer in a circuit of coupled quantum rails. <i>Nature Communications</i> , 2019, 10, 4557.	5.8	50
22	Enhanced g factors of a one-dimensional hole gas with quantized conductance. <i>Physical Review B</i> , 1997, 55, R13409-R13412.	1.1	47
23	Energy-Dependent Tunneling from Few-Electron Dynamic Quantum Dots. <i>Physical Review Letters</i> , 2007, 99, 156802.	2.9	43
24	Resonant suppression of the quantized Hall effect in ballistic junctions. <i>Physical Review B</i> , 1991, 43, 7339-7342.	1.1	42
25	Aharonov-Bohm effect and one-dimensional ballistic transport through two independent parallel channels. <i>Applied Physics Letters</i> , 1993, 63, 3191-3193.	1.5	39
26	Coulomb blockade of tunneling through compressible rings formed around an antidot: An explanation for $h/2e$ Aharonov-Bohm oscillations. <i>Physical Review B</i> , 2000, 62, R4817-R4820.	1.1	37
27	Kondo Effect in a Quantum Antidot. <i>Physical Review Letters</i> , 2002, 89, 226803.	2.9	37
28	Dual-mode thin film bulk acoustic wave resonators for parallel sensing of temperature and mass loading. <i>Biosensors and Bioelectronics</i> , 2012, 38, 369-374.	5.3	36
29	Single-Electron Population and Depopulation of an Isolated Quantum Dot Using a Surface-Acoustic-Wave Pulse. <i>Physical Review Letters</i> , 2007, 98, 046801.	2.9	35
30	Shadow-evaporated nanometre-sized gaps and their use in electrical studies of nanocrystals. <i>Nanotechnology</i> , 2005, 16, 631-634.	1.3	34
31	Back-gated split-gate transistor: A one-dimensional ballistic channel with variable Fermi energy. <i>Applied Physics Letters</i> , 1992, 60, 2782-2784.	1.5	32
32	Electrostatic potential and quantum transport in a one-dimensional channel of an induced two-dimensional electron gas. <i>Journal of Applied Physics</i> , 2001, 89, 4993-5000.	1.1	32
33	Room-temperature remote-plasma sputtering of c -axis oriented zinc oxide thin films. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	30
34	Resonant transmission through an open quantum dot. <i>Physical Review B</i> , 1997, 55, 6723-6726.	1.1	28
35	Single-photon emission from single-electron transport in a SAW-driven lateral light-emitting diode. <i>Nature Communications</i> , 2020, 11, 917.	5.8	28
36	Quantum-dot thermometry of electron heating by surface acoustic waves. <i>Applied Physics Letters</i> , 2006, 89, 122104.	1.5	26

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37	The effect of pulse-modulated surface acoustic waves on acoustoelectric current quantization. <i>Journal of Applied Physics</i> , 2006, 100, 063710.	1.1	26
38	Phase coherence, interference, and conductance quantization in a confined two-dimensional hole gas. <i>Physical Review B</i> , 1994, 49, 5101-5104.	1.1	25
39	General picture of quantum Hall transitions in quantum antidots. <i>Physical Review B</i> , 1995, 52, R8672-R8675.	1.1	25
40	Surface acoustic wave modulation of a coherently driven quantum dot in a pillar microcavity. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	25
41	Guided propagation of surface acoustic waves and piezoelectric field enhancement in ZnO/GaAs systems. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	24
42	Relative importance of the electron interaction strength and disorder in the two-dimensional metallic state. <i>Physical Review B</i> , 2002, 66, .	1.1	21
43	Localized Magnetic Fields in Arbitrary Directions Using Patterned Nanomagnets. <i>Nano Letters</i> , 2010, 10, 1549-1553.	4.5	21
44	Transporting and manipulating single electrons in surface acoustic wave minima. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600658.	0.7	21
45	Two-dimensional electron-gas heating and phonon emission by hot ballistic electrons. <i>Physical Review B</i> , 1992, 45, 6309-6312.	1.1	20
46	Hierarchy of Modes in an Interacting One-Dimensional System. <i>Physical Review Letters</i> , 2015, 114, 196401.	2.9	18
47	The Aharonov-Bohm effect in the fractional quantum Hall regime. <i>Journal of Physics Condensed Matter</i> , 1994, 6, L725-L730.	0.7	17
48	Nonlinear spectra of spinons and holons in short GaAs quantum wires. <i>Nature Communications</i> , 2016, 7, 12784.	5.8	16
49	Nuclear spin coherence in a quantum wire. <i>Physical Review B</i> , 2009, 80, .	1.1	14
50	Examination of surface acoustic wave reflections by observing acoustoelectric current generation under pulse modulation. <i>Applied Physics Letters</i> , 2006, 89, 132102.	1.5	13
51	Nature of the many-body excitations in a quantum wire: Theory and experiment. <i>Physical Review B</i> , 2016, 93, .	1.1	13
52	Momentum-dependent power law measured in an interacting quantum wire beyond the Luttinger limit. <i>Nature Communications</i> , 2019, 10, 2821.	5.8	13
53	Effect of quantum fluctuations of the environment on the Coulomb blockade in a single barrier. <i>Physical Review B</i> , 1993, 48, 12349-12352.	1.1	12
54	Noninvasive lateral detection of Coulomb blockade in a quantum dot fabricated using atomic force microscopy. <i>Journal of Applied Physics</i> , 2004, 95, 2557-2559.	1.1	12

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55	Zero-Bias Anomaly and Kondo-Assisted Quasiballistic 2D Transport. <i>Physical Review Letters</i> , 2005, 95, 066603.	2.9	12
56	Comment on "Absence of Compressible Edge Channel Rings in Quantum Antidots". <i>Physical Review Letters</i> , 2004, 92, 199703; author reply 199704.	2.9	11
57	Submicron trenching of semiconductor nanostructures. <i>Applied Physics Letters</i> , 1989, 55, 625-627.	1.5	10
58	Selective spin-resolved edge-current injection into a quantum antidot. <i>Physical Review B</i> , 2003, 68, .	1.1	10
59	Quantized acoustoelectric current in an InGaAs quantum well. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	10
60	Quantized charge transport driven by a surface acoustic wave in induced unipolar and bipolar junctions. <i>Physical Review B</i> , 2019, 100, .	1.1	10
61	One-dimensional ballistic channel with a triple-barrier longitudinal potential: Measurement and model. <i>Physical Review B</i> , 1994, 49, 14078-14080.	1.1	9
62	Spin effects in one-dimensional systems. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 164213.	0.7	9
63	The excitation spectrum of quantum antidots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 34, 195-198.	1.3	7
64	Examination of multiply reflected surface acoustic waves by observing acoustoelectric current generation under pulse modulation. <i>Physical Review B</i> , 2006, 74, .	1.1	7
65	Electrically Controlled Nano and Micro Actuation in Memristive Switching Devices with On-Chip Gas Encapsulation. <i>Small</i> , 2018, 14, e1801599.	5.2	7
66	Microscopic metallic air-bridge arrays for connecting quantum devices. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	7
67	Low and High Field Quenching of the Hall Effect and Coulomb Blockade in Ballistic Junctions. <i>Physica Scripta</i> , 1991, T39, 288-294.	1.2	6
68	Electron conduction characteristics of split-gate structures fabricated on pseudomorphic GaAs-InxGa1-xAs-AlGaAs heterostructures. <i>Journal of Physics Condensed Matter</i> , 1993, 5, L227-L234.	0.7	6
69	Masking by weak localization of metallic behavior in a two-dimensional electron system in strong parallel magnetic fields. <i>Physical Review B</i> , 2004, 69, .	1.1	6
70	Experimental verification of electrostatic boundary conditions in gate-patterned quantum devices. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 244004.	1.3	6
71	Long-lived nonequilibrium superconductivity in a noncentrosymmetric Rashba semiconductor. <i>Physical Review B</i> , 2019, 100, .	1.1	6
72	Magnetothermopower oscillations in a lateral superlattice. <i>Physical Review B</i> , 1995, 51, 17243-17246.	1.1	5

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73	Gated-charge force microscopy for imaging a surface-acoustic-wave-induced charge in a depleted one-dimensional channel. <i>Physical Review B</i> , 2008, 78, .	1.1	5
74	Sidewall Quantum Wires on $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Ga} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{As} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ (001) Substrates. <i>Physical Review Applied</i> , 2019, 11, .	1.5	5
75	A silicon structure for electrical characterisation of nanoscale elements. <i>Materials Research Society Symposia Proceedings</i> , 2001, 679, 1.	0.1	4
76	Collapse of nonequilibrium charge states in an isolated quantum dot using surface acoustic waves. <i>Physical Review B</i> , 2007, 75, .	1.1	4
77	Scanned gate microscopy of surface-acoustic-wave-induced current through a depleted one-dimensional GaAs channel. <i>Physical Review B</i> , 2010, 82, .	1.1	4
78	Observing separate spin and charge Fermi seas in a strongly correlated one-dimensional conductor. <i>Science Advances</i> , 2022, 8, .	4.7	4
79	Tunneling Spectroscopy of a Two-Dimensionally Periodic Electron System. <i>Physical Review Letters</i> , 2002, 89, 146803.	2.9	3
80	Low attenuation of GHz Rayleigh-like surface acoustic waves in ZnO/GaAs systems immersed in liquid helium. <i>Applied Physics Letters</i> , 2013, 102, 043507.	1.5	3
81	Quantized conductance of one-dimensional strongly correlated electrons in an oxide heterostructure. <i>Physical Review B</i> , 2019, 99, .	1.1	3
82	Quantum dot with independently tunable tunneling barriers fabricated using an atomic force microscope. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002, 20, 2810.	1.6	2
83	High-yield parallel fabrication of quantum-dot monolayer single-electron devices displaying Coulomb staircase, contacted by graphene. <i>Nature Communications</i> , 2021, 12, 4307.	5.8	2
84	Monolayers and nanoparticles on nickel silicide for molecular electronics. <i>Applied Physics Letters</i> , 2006, 88, 143107.	1.5	1
85	Effects of a piezoelectric substrate on phonon-drag thermopower in monolayer graphene. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 235303.	0.7	1
86	The Growth and Physics of MBE Structures. <i>Physica Scripta</i> , 1989, T29, 141-146.	1.2	0
87	Publisher's Note: Gated-charge force microscopy for imaging a surface-acoustic-wave-induced charge in a depleted one-dimensional channel [<i>Phys. Rev. B</i> 78 , 125330 (2008)]. <i>Physical Review B</i> , 2008, 78, .	1.1	0
88	High frequency high-order Rayleigh modes in ZnO/GaAs. , 2011, , .		0
89	Surface acoustic waves in liquid helium for enhanced single-electron transport applications. , 2012, , .		0
90	Reduced tunnel-barrier height in sub-10 nm Au nanoelectrodes. , 2012, , .		0

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91	Non-invasive charge detection in surface-acoustic-wave-defined dynamic quantum dots. Applied Physics Letters, 2016, 109, 183501.	1.5	0
92	Publisher's Note: Nature of the many-body excitations in a quantum wire: Theory and experiment [Phys. Rev. B 93, 075147 (2016)]. Physical Review B, 2016, 93, .	1.1	0
93	Aspects of One Dimensional Transport Effects in Gallium Arsenide Heterojunction Structures. NATO ASI Series Series B: Physics, 1991, , 451-467.	0.2	0