

Oleh Klochan

List of Publications by Year in descending order

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papers

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citations

331259

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454577

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all docs

71
docs citations

71
times ranked

871
citing authors

#	ARTICLE	IF	CITATIONS
1	Zeeman Splitting in Ballistic Hole Quantum Wires. <i>Physical Review Letters</i> , 2006, 97, 026403.	2.9	85
2	Ballistic transport in induced one-dimensional hole systems. <i>Applied Physics Letters</i> , 2006, 89, 092105.	1.5	55
3	Anisotropic Pauli Spin Blockade of Holes in a GaAs Double Quantum Dot. <i>Nano Letters</i> , 2016, 16, 7685-7689.	4.5	47
4	Strong and Tunable Spin-Orbit Coupling in a Two-Dimensional Hole Gas in Ionic-Liquid Gated Diamond Devices. <i>Nano Letters</i> , 2016, 16, 3768-3773.	4.5	45
5	Conductance quantization and the $0.7\hbar/2e^2$ conductance anomaly in one-dimensional hole systems. <i>Applied Physics Letters</i> , 2006, 88, 012107.	1.5	42
6	Spin-Orbit Interaction in a Two-Dimensional Hole Gas at the Surface of Hydrogenated Diamond. <i>Nano Letters</i> , 2015, 15, 16-20.	4.5	39
7	Fabrication and characterization of ambipolar devices on an undoped AlGaAs/GaAs heterostructure. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	37
8	One-dimensional conduction properties of highly phosphorus-doped planar nanowires patterned by scanning probe microscopy. <i>Physical Review B</i> , 2007, 76, .	1.1	33
9	Observation of orientation- and k -dependent Zeeman spin-splitting in hole quantum wires on (100)-oriented AlGaAs/GaAs heterostructures. <i>New Journal of Physics</i> , 2010, 12, 033043.	1.2	30
10	Impact of Small-Angle Scattering on Ballistic Transport in Quantum Dots. <i>Physical Review Letters</i> , 2012, 108, 196807.	2.9	29
11	Transport in disordered monolayer MoS ₂ nanoflakes—evidence for inhomogeneous charge transport. <i>Nanotechnology</i> , 2014, 25, 375201.	1.3	29
12	Geometric Control of Universal Hydrodynamic Flow in a Two-Dimensional Electron Fluid. <i>Physical Review X</i> , 2021, 11, .	2.8	29
13	Observation of the Kondo Effect in a Spin-3/2 Hole Quantum Dot. <i>Physical Review Letters</i> , 2011, 107, 076805.	2.9	28
14	0.7 Structure and Zero Bias Anomaly in Ballistic Hole Quantum Wires. <i>Physical Review Letters</i> , 2008, 100, 016403.	2.9	27
15	Resistively Detected Nuclear Magnetic Resonance in n- and p-Type GaAs Quantum Point Contacts. <i>Nano Letters</i> , 2011, 11, 3147-3150.	4.5	27
16	Fabrication and characterization of an induced GaAs single hole transistor. <i>Applied Physics Letters</i> , 2010, 96, 092103.	1.5	25
17	Thickness-dependent electronic structure in WTe_2 thin films. <i>Physical Review B</i> , 2018, 98, .	1.1	25
18	AlGaAs/GaAs single electron transistor fabricated without modulation doping. <i>Applied Physics Letters</i> , 2010, 96, 112104.	1.5	23

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19	Extreme Sensitivity of the Spin-Splitting and 0.7 Anomaly to Confining Potential in One-Dimensional Nanoelectronic Devices. Nano Letters, 2012, 12, 4495-4502.	4.5	22
20	The interplay between one-dimensional confinement and two-dimensional crystallographic anisotropy effects in ballistic hole quantum wires. New Journal of Physics, 2009, 11, 043018.	1.2	21
21	Influence of surface states on quantum and transport lifetimes in high-quality undoped heterostructures. Physical Review B, 2013, 87, .	1.1	21
22	Using a Tunable Quantum Wire To Measure the Large out-of-Plane Spin Splitting of Quasi Two-Dimensional Holes in a GaAs Nanostructure. Nano Letters, 2013, 13, 148-152.	4.5	21
23	Piezoelectric rotator for studying quantum effects in semiconductor nanostructures at high magnetic fields and low temperatures. Review of Scientific Instruments, 2010, 81, 113905.	0.6	20
24	Detection and Control of Spin-Orbit Interactions in a GaAs Hole Quantum Point Contact. Physical Review Letters, 2017, 118, 146801.	2.9	18
25	Ultra-shallow quantum dots in an undoped GaAs/AlGaAs two-dimensional electron gas. Applied Physics Letters, 2013, 102, 103507.	1.5	17
26	Effect of screening long-range Coulomb interactions on the metallic behavior in two-dimensional hole systems. Physical Review B, 2008, 77, .	1.1	14
27	Manifestation of a non-Abelian Berry phase in a p -type semiconductor system. Physical Review B, 2016, 93, .	1.1	14
28	Origin of gate hysteresis in p -type Si-doped AlGaAs/GaAs heterostructures. Physical Review B, 2012, 86, .	1.1	12
29	Scaling of the Kondo zero-bias peak in a hole quantum dot at finite temperatures. Physical Review B, 2013, 87, .	1.1	12
30	Electrical control of the sign of the g -factor in a GaAs hole quantum point contact. Physical Review B, 2016, 94, .	1.1	12
31	The 0.7 anomaly in one-dimensional hole quantum wires. Journal of Physics Condensed Matter, 2008, 20, 164205.	0.7	10
32	Noncollinear Paramagnetism of a GaAs Two-Dimensional Hole System. Physical Review Letters, 2014, 113, 236401.	2.9	9
33	A study of transport suppression in an undoped AlGaAs/GaAs quantum dot single-electron transistor. Journal of Physics Condensed Matter, 2013, 25, 505302.	0.7	7
34	Fabrication and characterisation of gallium arsenide ambipolar quantum point contacts. Applied Physics Letters, 2015, 106, .	1.5	6
35	Two-dimensional lateral surface superlattices in GaAs heterostructures with independent control of carrier density and modulation potential. Applied Physics Letters, 2020, 117, .	1.5	6
36	New signatures of the spin gap in quantum point contacts. Nature Communications, 2021, 12, 5.	5.8	6

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37	Gate voltage dependent Rashba spin splitting in hole transverse magnetic focusing. <i>Physical Review B</i> , 2022, 105, .	1.1	6
38	Double-layer-gate architecture for few-hole GaAs quantum dots. <i>Nanotechnology</i> , 2016, 27, 334001.	1.3	5
39	Landau level spin diode in a GaAs two dimensional hole system. <i>New Journal of Physics</i> , 2015, 17, 033035.	1.2	4
40	Transverse magnetic focussing of heavy holes in a (100) GaAs quantum well. <i>Semiconductor Science and Technology</i> , 2015, 30, 102001.	1.0	3
41	Ballistic transport in one-dimensional bilayer hole systems. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 34, 550-552.	1.3	2
42	Ballistic induced hole quantum wires fabricated on a (100)-oriented AlGaAs/GaAs heterostructure. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 1111-1113.	1.3	2
43	High electron mobility and low noise quantum point contacts in an ultra-shallow all-epitaxial metal gate GaAs/Al _x Ga _{1-x} As heterostructure. <i>Applied Physics Letters</i> , 2021, 119, 063105.	1.5	2
44	Anisotropic Zeeman Splitting In Ballistic One-Dimensional Hole Systems. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	1
45	Screening long-range Coulomb interactions in 2D hole systems using a bilayer heterostructure. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 1700-1702.	1.3	1
46	Quantum transport in one-dimensional GaAs hole systems. <i>International Journal of Nanotechnology</i> , 2008, 5, 318.	0.1	1
47	Electrically controlled piezo-rotator for studying semiconductor nanostructures at milli-Kelvin temperatures and high magnetic fields. , 2010, , .		1
48	Mapping the anisotropy of the Zeeman spin splitting of one-dimensional heavy holes in a GaAs quantum point contact. , 2014, , .		1
49	Determining the stability and activation energy of Si acceptors in AlGaAs using quantum interference in an open hole quantum dot. <i>Physical Review B</i> , 2014, 89, .	1.1	1
50	Ultra-shallow All-epitaxial Aluminum Gate GaAs/Al _x Ga _{1-x} As Transistors with High Electron Mobility. <i>Advanced Functional Materials</i> , 0, , 2104213.	7.8	1
51	Radiation-Stimulated Ordering Effect in CdS Crystals. <i>Solid State Phenomena</i> , 2002, 82-84, 587-592.	0.3	0
52	Conductance Quantisation In An Induced Hole Quantum Wire. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	0
53	0.7 Structure and zero bias anomaly in one-dimensional hole systems. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 1501-1503.	1.3	0
54	Crystallographic anisotropy of the Zeeman splitting in 1D hole quantum wires. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 967-970.	1.3	0

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55	The Reduced Effective Interaction Parameter in Closely Spaced Two-dimensional Hole Systems. , 2010, , .		0
56	Fabrication and characterization of an undoped GaAs single hole transistor. , 2010, , .		0
57	Fabrication of undoped AlGaAs/GaAs electron quantum dots. , 2010, , .		0
58	Fabrication and characterisation of an induced ambipolar device on AlGaAs/GaAs Heterostructures. , 2010, , .		0
59	Fabrication of Undoped AlGaAs ⁺ GaAs Electron Quantum Dots. AIP Conference Proceedings, 2011, , .	0.3	0
60	(100) GaAs/Al _x Ga _{1-x} As heterostructures for Zeeman spin splitting studies of hole quantum wires. Journal of Crystal Growth, 2011, 323, 48-51.	0.7	0
61	Overlapping-Gate Architecture for Silicon Hall Bar MOSFET Devices in the Low Electron Density and High Magnetic Field Regime. Materials Science Forum, 0, 700, 93-95.	0.3	0
62	“You need another gate, mate”; g-factor engineering in quantum wires and wrap-gated nanowires. , 2012, , .		0
63	Observation of the Kondo effect in a spin-3/2 hole quantum dot. , 2012, , .		0
64	The 1D g-factor and 0.7 anomaly in QPCs with independent control over density. , 2012, , .		0
65	The origin of gate hysteresis in p-type Si-doped AlGaAs/GaAs heterostructures. , 2012, , .		0
66	The influence of small-angle scattering on ballistic transport in quantum dots. , 2012, , .		0
67	Observation of the Kondo effect in a spin-3/2 hole quantum dot. , 2013, , .		0
68	Fabrication and characterization of few-hole quantum dots in undoped GaAs/AlGaAs heterostructures. , 2014, , .		0
69	Publisher's Note: Manifestation of a non-Abelian Berry phase in a p-type semiconductor system [Phys. Rev. B93, 205424 (2016)]. Physical Review B, 2016, 93, .	1.1	0
70	Publisher's Note: Electrical control of the sign of the g-factor in a GaAs hole quantum point contact [Phys. Rev. B94, 041406(R) (2016)]. Physical Review B, 2016, 94, .	1.1	0
71	Absorption enhancement of WS ₂ monolayer based on Si ₃ N ₄ nanowires. , 2020, , .		0