Oleh Klochan

List of Publications by Citations

52 papers	746 citations	18 h-index	25 g-index
71 ext. papers	877 ext. citations	4.9 avg, IF	3.27 L-index

#	Paper	IF	Citations
52	Zeeman splitting in ballistic hole quantum wires. *Physical Review Letters*, **2006**, 97, 026403	7.4	75
51	Ballistic transport in induced one-dimensional hole systems. *Applied Physics Letters*, **2006**, 89, 092105	3.4	46
50	Conductance quantization and the 0.7□e2□ conductance anomaly in one-dimensional hole systems. *Applied Physics Letters*, **2006**, 88, 012107	3.4	37
49	Strong and Tunable Spin-Orbit Coupling in a Two-Dimensional Hole Gas in Ionic-Liquid Gated Diamond Devices. *Nano Letters*, **2016**, 16, 3768-73	11.5	36
48	Spin-orbit interaction in a two-dimensional hole gas at the surface of hydrogenated diamond. *Nano Letters*, **2015**, 15, 16-20	11.5	34
47	One-dimensional conduction properties of highly phosphorus-doped planar nanowires patterned by scanning probe microscopy. *Physical Review B*, **2007**, 76,	3.3	32
46	Fabrication and characterization of ambipolar devices on an undoped AlGaAs/GaAs heterostructure. *Applied Physics Letters*, **2012**, 100, 052101	3.4	30
45	Anisotropic Pauli Spin Blockade of Holes in a GaAs Double Quantum Dot. *Nano Letters*, **2016**, 16, 7685-7689	11.5	30
44	0.7 Structure and zero bias anomaly in ballistic hole quantum wires. *Physical Review Letters*, **2008**, 100, 016403	7.4	26
43	Observation of orientation- andk-dependent Zeeman spin-splitting in hole quantum wires on (100)-oriented AlGaAs/GaAs heterostructures. *New Journal of Physics*, **2010**, 12, 033043	2.9	25
42	Impact of small-angle scattering on ballistic transport in quantum dots. *Physical Review Letters*, **2012**, 108, 196807	7.4	24
41	Resistively detected nuclear magnetic resonance in n- and p-type GaAs quantum point contacts. *Nano Letters*, **2011**, 11, 3147-50	11.5	24
40	Transport in disordered monolayer MoS2 nanoflakes--evidence for inhomogeneous charge transport. *Nanotechnology*, **2014**, 25, 375201	3.4	23
39	Observation of the Kondo effect in a spin-3/2 hole quantum dot. *Physical Review Letters*, **2011**, 107, 076805	7.4	23
38	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, 148-52	11.5	21
37	AlGaAs/GaAs single electron transistor fabricated without modulation doping. *Applied Physics Letters*, **2010**, 96, 112104	3.4	20
36	Fabrication and characterization of an induced GaAs single hole transistor. *Applied Physics Letters*, **2010**, 96, 092103	3.4	20

35	The interplay between one-dimensional confinement and two-dimensional crystallographic anisotropy effects in ballistic hole quantum wires. *New Journal of Physics*, **2009**, 11, 043018	2.9	20
34	Extreme sensitivity of the spin-splitting and 0.7 anomaly to confining potential in one-dimensional nanoelectronic devices. *Nano Letters*, **2012**, 12, 4495-502	11.5	18
33	Influence of surface states on quantum and transport lifetimes in high-quality undoped heterostructures. *Physical Review B*, **2013**, 87,	3.3	17
32	Piezoelectric rotator for studying quantum effects in semiconductor nanostructures at high magnetic fields and low temperatures. *Review of Scientific Instruments*, **2010**, 81, 113905	1.7	17
31	Thickness-dependent electronic structure in WTe2 thin films. *Physical Review B*, **2018**, 98,	3.3	15
30	Ultra-shallow quantum dots in an undoped GaAs/AlGaAs two-dimensional electron gas. *Applied Physics Letters*, **2013**, 102, 103507	3.4	14
29	Effect of screening long-range Coulomb interactions on the metallic behavior in two-dimensional hole systems. *Physical Review B*, **2008**, 77,	3.3	14
28	Detection and Control of Spin-Orbit Interactions in a GaAs Hole Quantum Point Contact. *Physical Review Letters*, **2017**, 118, 146801	7.4	12
27	Origin of gate hysteresis in p-type Si-doped AlGaAs/GaAs heterostructures. *Physical Review B*, **2012**, 86,	3.3	12
26	Scaling of the Kondo zero-bias peak in a hole quantum dot at finite temperatures. *Physical Review B* , **2013**, 87,	3.3	11
25	Manifestation of a non-Abelian Berry phase in a p-type semiconductor system. *Physical Review B*, **2016**, 93,	3.3	10
24	Electrical control of the sign of the g factor in a GaAs hole quantum point contact. *Physical Review B* , **2016**, 94,	3.3	9
23	Noncollinear paramagnetism of a GaAs two-dimensional hole system. *Physical Review Letters*, **2014**, 113, 236401	7.4	8
22	The 0.7 anomaly in one-dimensional hole quantum wires. *Journal of Physics Condensed Matter*, **2008** , 20, 164205	1.8	8
21	Fabrication and characterisation of gallium arsenide ambipolar quantum point contacts. *Applied Physics Letters*, **2015**, 106, 183504	3.4	5
20	Landau level spin diode in a GaAs two dimensional hole system. *New Journal of Physics*, **2015**, 17, 033035	2.9	4
19	Double-layer-gate architecture for few-hole GaAs quantum dots. *Nanotechnology*, **2016**, 27, 334001	3.4	4
18	A study of transport suppression in an undoped AlGaAs/GaAs quantum dot single-electron transistor. *Journal of Physics Condensed Matter*, **2013**, 25, 505302	1.8	4

17	New signatures of the spin gap in quantum point contacts. *Nature Communications*, **2021**, 12, 5	17.4	4
16	Ballistic induced hole quantum wires fabricated on a (100)-oriented AlGaAs/GaAs heterostructure. *Physica E: Low-Dimensional Systems and Nanostructures*, **2010**, 42, 1111-1113	3	2
15	Ballistic transport in one-dimensional bilayer hole systems. *Physica E: Low-Dimensional Systems and Nanostructures*, **2006**, 34, 550-552	3	2
14	Transverse magnetic focussing of heavy holes in a (100) GaAs quantum well. *Semiconductor Science and Technology*, **2015**, 30, 102001	1.8	1
13	**2014**,		1
12	Determining the stability and activation energy of Si acceptors in AlGaAs using quantum interference in an open hole quantum dot. *Physical Review B*, **2014**, 89,	3.3	1
11	Quantum transport in one-dimensional GaAs hole systems. *International Journal of Nanotechnology*, **2008**, 5, 318	1.5	1
10	Screening long-range Coulomb interactions in 2D hole systems using a bilayer heterostructure. *Physica E: Low-Dimensional Systems and Nanostructures*, **2008**, 40, 1700-1702	3	1
9	Two-dimensional lateral surface superlattices in GaAs heterostructures with independent control of carrier density and modulation potential. *Applied Physics Letters*, **2020**, 117, 032102	3.4	1
8	Ultra-Shallow All-Epitaxial Aluminum Gate GaAs/AlxGa1−xAs Transistors with High Electron Mobility. *Advanced Functional Materials*,2104213	15.6	1
7	High electron mobility and low noise quantum point contacts in an ultra-shallow all-epitaxial metal gate GaAs/AlxGa1−xAs heterostructure. *Applied Physics Letters*, **2021**, 119, 063105	3.4	1
6	Geometric Control of Universal Hydrodynamic Flow in a Two-Dimensional Electron Fluid. *Physical Review X*, **2021**, 11,	9.1	1
5	(100) GaAs/AlxGa1−xAs heterostructures for Zeeman spin splitting studies of hole quantum wires. *Journal of Crystal Growth*, **2011**, 323, 48-51	1.6	
4	Overlapping-Gate Architecture for Silicon Hall Bar MOSFET Devices in the Low Electron Density and High Magnetic Field Regime. *Materials Science Forum*, **2011**, 700, 93-95	0.4	
3	Crystallographic anisotropy of the Zeeman splitting in 1D hole quantum wires. *Physica E: Low-Dimensional Systems and Nanostructures*, **2010**, 42, 967-970	3	
2	0.7 Structure and zero bias anomaly in one-dimensional hole systems. *Physica E: Low-Dimensional Systems and Nanostructures*, **2008**, 40, 1501-1503	3	
1	Radiation-Stimulated Ordering Effect in CdS Crystals. *Solid State Phenomena*, **2001**, 82-84, 587-592	0.4	