

# Joseph Falson

## List of Publications by Year in descending order

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papers

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citations

331538

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414303

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all docs

34  
docs citations

34  
times ranked

2191  
citing authors

#	ARTICLE	IF	CITATIONS
1	Trajectory of the anomalous Hall effect towards the quantized state in a ferromagnetic topological insulator. Nature Physics, 2014, 10, 731-736.	6.5	517
2	Quantum Hall effect on top and bottom surface states of topological insulator (Bi $\hat{x}$ Sb $\hat{x}$ ) $\hat{2}$ Te $\hat{3}$ films. Nature Communications, 2015, 6, 6627.	5.8	154
3	Even-denominator fractional quantum Hall physics in ZnO. Nature Physics, 2015, 11, 347-351.	6.5	138
4	Type-II Ising pairing in few-layer stanene. Science, 2020, 367, 1454-1457.	6.0	81
5	Magnesium Doping Controlled Density and Mobility of Two-Dimensional Electron Gas in Mg $\hat{x}$ Zn $\hat{x}$ O/ZnO Heterostructures. Applied Physics Express, 2011, 4, 091101.	1.1	72
6	MgZnO/ZnO heterostructures with electron mobility exceeding 1 $\hat{\times}$ 10 $\hat{6}$ cm $\hat{2}$ /Vs. Scientific Reports, 2016, 6, 26598.	1.6	71
7	Observation of the quantum Hall effect in $\hat{\nu}$ -doped SrTiO $\hat{3}$ . Nature Communications, 2016, 7, 11631.	5.8	62
8	A review of the quantum Hall effects in MgZnO/ZnO heterostructures. Reports on Progress in Physics, 2018, 81, 056501.	8.1	42
9	Single-valley quantum Hall ferromagnet in a dilute Mg $\hat{x}$ Zn $\hat{x}$ O heterostructure. Physical Review Letters, 2012, 108, 186803.	1.1	36
10	Electron scattering times in ZnO based polar heterostructures. Applied Physics Letters, 2015, 107, .	1.5	36
11	Observation of anomalous Hall effect in a non-magnetic two-dimensional electron system. Nature Communications, 2017, 8, 14777.	5.8	35
12	Temperature-Dependent Magnetotransport around $\hat{\nu}$ = 1/2 in Mg $\hat{x}$ Zn $\hat{x}$ O/ZnO Heterostructures. Physical Review Letters, 2012, 108, 186803.	2.9	81
13	Observation of microwave induced resistance and photovoltage oscillations in MgZnO/ZnO heterostructures. Physical Review B, 2016, 93, .	1.1	30
14	Insulating phase of a two-dimensional electron gas in Mg $\hat{x}$ Zn $\hat{x}$ O/ZnO heterostructures below $\hat{\nu}$ = 1. Physical Review B, 2013, 87, .	1.1	29
15	A cascade of phase transitions in an orbitally mixed half-filled Landau level. Science Advances, 2018, 4, eaat8742.	4.7	27
16	Polarization-dependent Landau level crossing in a two-dimensional electron system in a MgZnO/ZnO heterostructure. Physical Review B, 2014, 90, .	1.1	26
17	Rashba spin-orbit interaction in a Mg $\hat{x}$ Zn $\hat{x}$ O/ZnO heterostructure studied by electrically detected electron spin resonance. Physical Review B, 2013, 87, .	1.1	25
18	Competing correlated states around the zero-field Wigner crystallization transition of electrons in two dimensions. Nature Materials, 2022, 21, 311-316.	13.3	25

#	ARTICLE	IF	CITATIONS
19	Correlation-Enhanced Effective Mass of Two-Dimensional Electrons in $\text{Mg}_x\text{Zn}_{1-x}\text{O}/\text{ZnO}$ Heterostructures. <i>Physical Review Letters</i> , 2012, 108, 246401.	2.9	23
20	Optical probing of MgZnO/ZnO heterointerface confinement potential energy levels. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	23
21	Microwave magnetoplasma resonances of two-dimensional electrons in MgZnO/ZnO heterojunctions. <i>Physical Review B</i> , 2015, 91, .	1.1	22
22	Precise calibration of Mg concentration in $\text{Mg}_x\text{Zn}_{1-x}\text{O}$ thin films grown on ZnO substrates. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	16
23	Spin-Selective Electron Quantum Transport in Nonmagnetic $\text{MgZnO}/\text{ZnO}$ Heterostructures. <i>Physical Review Letters</i> , 2015, 115, 197601.	2.9	12
24	Composite fermion liquid to Wigner solid transition in the lowest Landau level of zinc oxide. <i>Nature Communications</i> , 2018, 9, 4356.	5.8	11
25	Ising pairing in atomically thin superconductors. <i>Nanotechnology</i> , 2021, 32, 502003.	1.3	9
26	Ballistic transport in periodically modulated MgZnO/ZnO two-dimensional electron systems. <i>Applied Physics Letters</i> , 2019, 115, 153101.	1.5	6
27	Quantized conductance of one-dimensional strongly correlated electrons in an oxide heterostructure. <i>Physical Review B</i> , 2019, 99, .	1.1	3
28	Phase transitions at $\nu = 5/2$ in ZnO-based heterostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 110, 49-51.	1.3	3
29	Microwave response of interacting oxide two-dimensional electron systems. <i>Physical Review B</i> , 2020, 102, .	1.1	3
30	Observation of plasma and magnetoplasma resonances of two-dimensional electrons in a single MgZnO/ZnO heterojunction. <i>JETP Letters</i> , 2013, 98, 223-226.	0.4	2
31	Air-gap gating of MgZnO/ZnO heterostructures. <i>Journal of Applied Physics</i> , 2014, 116, 084310.	1.1	2
32	Alloy disorder modulated electron transport at $\text{Mg}_x\text{Zn}_{1-x}\text{O}/\text{ZnO}$ heterointerface. <i>AIP Advances</i> , 2017, 7, 015029.	0.6	2
33	Enhanced quantum oscillatory magnetization and nonequilibrium currents in an interacting two-dimensional electron system in MgZnO/ZnO with repulsive scatterers. <i>Physical Review B</i> , 2014, 89, .	1.1	0