

# Yusuke Kozuka

## List of Publications by Year in descending order

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95  
papers

4,389  
citations

147801

31  
h-index

106344

65  
g-index

97  
all docs

97  
docs citations

97  
times ranked

5270  
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.	16.7	517
2	A magnetic heterostructure of topological insulators as a candidate for an axion insulator. Nature Materials, 2017, 16, 516-521.	27.5	276
3	Magnetic modulation doping in topological insulators toward higher-temperature quantum anomalous Hall effect. Applied Physics Letters, 2015, 107, .	3.3	260
4	Dominant Mobility Modulation by the Electric Field Effect at the $\text{LaAlO}_3/\text{SrTiO}_3$ interface. Physical Review Letters, 2009, 103, 226802.	7.8	246
5	Thermal Generation of Spin Current in an Antiferromagnet. Physical Review Letters, 2015, 115, 266601.	7.8	223
6	Two-dimensional normal-state quantum oscillations in a superconducting heterostructure. Nature, 2009, 462, 487-490.	27.8	222
7	Quantum Hall effect on top and bottom surface states of topological insulator $(\text{Bi}_2\text{Se}_3)_2\text{Te}_3$ films. Nature Communications, 2015, 6, 6627.	12.8	154
8	Electric-field control of anomalous and topological Hall effects in oxide bilayer thin films. Nature Communications, 2018, 9, 213.	12.8	152
9	Even-denominator fractional quantum Hall physics in ZnO. Nature Physics, 2015, 11, 347-351.	16.7	138
10	Quantum Hall states observed in thin films of Dirac semimetal $\text{Cd}_3\text{As}_2$ . Nature Communications, 2017, 8, 2274.	12.8	130
11	Challenges and opportunities of ZnO-related single crystalline heterostructures. Applied Physics Reviews, 2014, 1, 011303.	11.3	118
12	Dramatic mobility enhancements in doped $\text{SrTiO}_3$ thin films by defect management. Applied Physics Letters, 2010, 97, .	3.3	88
13	Discretized topological Hall effect emerging from skyrmions in constricted geometry. Physical Review B, 2015, 91, .	3.2	84
14	Stability of two-dimensional skyrmions in thin films of $\text{MnFeSi}$ investigated by the topological Hall effect. Physical Review B, 2014, 89, .	3.2	73
15	Magnesium Doping Controlled Density and Mobility of Two-Dimensional Electron Gas in $\text{Mg}_{1-x}\text{Zn}_x\text{O}/\text{ZnO}$ Heterostructures. Applied Physics Express, 2011, 4, 091101.	2.4	72
16	Characterization of the Schottky barrier in $\text{SrRuO}_3/\text{Nb:SrTiO}_3$ junctions. Applied Physics Letters, 2007, 90, 143507.	3.3	71
17	$\text{MgZnO}/\text{ZnO}$ heterostructures with electron mobility exceeding $1 \times 10^6 \text{ cm}^2/\text{Vs}$ . Scientific Reports, 2016, 6, 26598.	3.3	71
18	Odd-parity magnetoresistance in pyrochlore iridate thin films with broken time-reversal symmetry. Scientific Reports, 2015, 5, 9711.	3.3	68

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19	Topological Hall effect in thin films of the Heisenberg ferromagnet EuO. Physical Review B, 2015, 91, .	3.2	63
20	Observation of the quantum Hall effect in $\tilde{I}$ -doped SrTiO <sub>3</sub> . Nature Communications, 2016, 7, 11631. Temperature-dependent polarity reversal in $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review B, 2016, 93, 120407.	12.8	62
21	Temperature-dependent polarity reversal in $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review B, 2016, 93, 120407.	3.2	52
22	Enhancing the electron mobility via delta-doping in SrTiO <sub>3</sub> . Applied Physics Letters, 2010, 97, .	3.3	52
23	Intrinsic spin-orbit coupling in superconducting $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review B, 2012, 86, .	3.2	49
24	Gate-tuned quantum Hall states in Dirac semimetal (Cd <sub>1-x</sub> Zn <sub>x</sub> )Te. Physical Review Letters, 2010, 105, 076801. Fermi Surface and Superconductivity in Low-Density High-Mobility $\tilde{I}$ -Doped SrTiO <sub>3</sub> . Physical Review Letters, 2011, 107, 106801.	10.3	48
25	$\tilde{I}$ -Doped SrTiO <sub>3</sub> . Physical Review Letters, 2011, 107, 106801.	7.8	46
26	Formation of In-plane Skyrmions in Epitaxial MnSi Thin Films as Revealed by Planar Hall Effect. Journal of the Physical Society of Japan, 2015, 84, 104708.	1.6	40
27	Single-valley quantum Hall ferromagnet in a dilute MgZnO/ZnO heterostructure. Physical Review B, 2012, 85, .	3.2	36
28	Electron scattering times in ZnO based polar heterostructures. Applied Physics Letters, 2015, 107, .	3.3	36
29	Observation of anomalous Hall effect in a non-magnetic two-dimensional electron system. Nature Communications, 2017, 8, 14777.	12.8	35
30	Common Origin of the Circular-Dichroism Pattern in Angle-Resolved Photoemission Spectroscopy of $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review Letters, 2011, 107, 077601.	7.8	33
31	Evolution of Insulator-Metal Phase Transitions in Epitaxial Tungsten Oxide Films during Electrolyte-Gating. ACS Applied Materials & Interfaces, 2016, 8, 22330-22336.	8.0	32
32	Temperature-Dependent Magnetotransport around $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review Letters, 2012, 108, 186803.	7.8	31
33	Observation of microwave induced resistance and photovoltage oscillations in MgZnO/ZnO heterostructures. Physical Review B, 2016, 93, .	3.2	30
34	Insulating phase of a two-dimensional electron gas in MgZnO/ZnO heterostructures. Physical Review B, 2016, 93, .	3.2	29
35	Magnetic and electronic properties on ordered double-perovskite $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review B, 2011, 84, .	3.2	28
36	Optically tuned dimensionality crossover in photocarrier-doped $\tilde{I}$ -doped SrTiO <sub>3</sub> . Physical Review B, 2007, 76, .	3.2	27

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37	A cascade of phase transitions in an orbitally mixed half-filled Landau level. <i>Science Advances</i> , 2018, 4, eaat8742.	10.3	27
38	Polarization-dependent Landau level crossing in a two-dimensional electron system in a MgZnO/ZnO heterostructure. <i>Physical Review B</i> , 2014, 90, .	3.2	26
39	All-in-all-out magnetic domain wall conduction in a pyrochlore iridate heterointerface. <i>Physical Review B</i> , 2016, 93, .	3.2	26
40	Vanishing Hall Coefficient in the Extreme Quantum Limit in Photocarrier-Doped $\text{SrTiO}_3$ . <i>Physical Review Letters</i> , 2008, 101, 096601.	7.8	25
41	Two-dimensional electron gas studied by electrically detected electron spin resonance. <i>Physical Review B</i> , 2013, 87, .	3.2	25
42	Topological spin-hedgehog crystals of a chiral magnet as engineered with magnetic anisotropy. <i>Physical Review B</i> , 2017, 96, .	3.2	25
43	Competing correlated states around the zero-field Wigner crystallization transition of electrons in two dimensions. <i>Nature Materials</i> , 2022, 21, 311-316.	27.5	25
44	Direct observation of anisotropic magnetic field response of the spin helix in FeGe thin films. <i>Physical Review B</i> , 2016, 94, .	3.2	24
45	Correlation-Enhanced Effective Mass of Two-Dimensional Electrons in $\text{MgZnO}/\text{ZnO}$ Heterostructures. <i>Physical Review Letters</i> , 2012, 109, 246401.	3.3	23
46	Optical probing of MgZnO/ZnO heterointerface confinement potential energy levels. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	23
47	All-in-all-out magnetic domain size in pyrochlore iridate thin films as probed by local magnetotransport. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	23
48	Topological quantum phase transition in magnetic topological insulator upon magnetization rotation. <i>Physical Review B</i> , 2018, 98, .	3.2	23
49	Microwave magnetoplasma resonances of two-dimensional electrons in MgZnO/ZnO heterojunctions. <i>Physical Review B</i> , 2015, 91, .	3.2	22
50	Negative magnetoresistance suppressed through a topological phase transition in $\text{Cd}_3\text{As}_2$ thin films. <i>Physical Review B</i> , 2018, 97, .	3.2	21
51	Epitaxially Stabilized $\text{EuMoO}_3$ : A New Itinerant Ferromagnet. <i>Chemistry of Materials</i> , 2012, 24, 3746-3750.	6.7	21
52	Coherence Properties of Shallow Donor Qubits in $\text{ZnO}$ . <i>Physical Review Applied</i> , 2018, 10, .	3.8	21
53	Structural characterisation of high-mobility $\text{Cd}_3\text{As}_2$ films crystallised on $\text{SrTiO}_3$ . <i>Scientific Reports</i> , 2018, 8, 2244.	3.3	18
54	Rectifying $\text{NdNiO}_3/\text{Nb:SrTiO}_3$ junctions as a probe of the surface electronic structure of $\text{NdNiO}_3$ . <i>Applied Physics Letters</i> , 2006, 88, 142111.	3.3	17

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55	Precise calibration of Mg concentration in Mg <sub>x</sub> Zn <sub>1-x</sub> O thin films grown on ZnO substrates. Journal of Applied Physics, 2012, 112, .	2.5	16
56	Field-direction control of the type of charge carriers in nonsymmorphic IrO <sub>2</sub> . Physical Review B, 2015, 91, .	3.2	12
57	Interplay of spin-orbit coupling and Coulomb interaction in ZnO-based electron system. Nature Communications, 2021, 12, 3180.	12.8	16
58	Ultrafast optical control of magnetization in EuO thin films. Physical Review B, 2012, 86, .	3.2	14
59	Spin-Selective Electron Quantum Transport in Nonmagnetic MgZnO. Physical Review Letters, 2015, 115, 197601.	7.8	12
60	Magnetic properties of spin frustrated spinel ZnFe <sub>2</sub> O <sub>4</sub> /ZnCr <sub>2</sub> O <sub>4</sub> superlattices. Journal of Applied Physics, 2015, 118, 193901.	2.5	12
61	Effective carrier doping and metallization in La <sub>1-x</sub> Sr <sub>x</sub> IrO <sub>3</sub> . Physical Review B, 2016, 93, .	3.2	12
62	Hall field-induced resistance oscillations in MgZnO/ZnO heterostructures. Physical Review B, 2017, 95, .	3.2	12
63	All-in-all-out magnetic domain inversion in Tb <sub>2</sub> O <sub>7</sub> with molecular fields antiparallel to external fields. Physical Review Materials, 2018, 2, .	2.4	12
64	Electric double layer transistors with ferroelectric BaTiO <sub>3</sub> channels. Applied Physics Letters, 2014, 104, .	3.3	11
65	Composite fermion liquid to Wigner solid transition in the lowest Landau level of zinc oxide. Nature Communications, 2018, 9, 4356.	12.8	11
66	Observation of Nonlinear Spin-Charge Conversion in the Thin Film of Nominally Centrosymmetric Dirac Semimetal SrIrO <sub>3</sub> at Room Temperature. Physical Review Letters, 2021, 126, 236801.	7.8	11
67	Current scaling of the topological quantum phase transition between a quantum anomalous Hall insulator and a trivial insulator. Physical Review B, 2020, 102, .	3.2	10
68	Efficient current-driven magnetization switching owing to isotropic magnetism in a highly symmetric 111-oriented Mn <sub>4</sub> N epitaxial single layer. AIP Advances, 2021, 11, .	1.3	10
69	Anomalous enhancement of upper critical field in Sr <sub>2</sub> IrO <sub>7</sub> thin films. Physical Review B, 2019, 99, .	3.2	9
70	Deterministic Influence of Substrate-Induced Oxygen Vacancy Diffusion on Bi <sub>2</sub> WO <sub>6</sub> Thin Film Growth. Crystal Growth and Design, 2021, 21, 625-630.	3.0	9
71	Andreev Reflection at the Interface with an Oxide in the Quantum Hall Regime. Journal of the Physical Society of Japan, 2018, 87, 124712.	1.6	8
72	Ferroelectric field control of charge density in oxide films with polarization reversal by electric double layer. Applied Physics Letters, 2018, 113, .	3.3	8

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73	Photoinduced sign inversion of the anomalous Hall effect in EuO thin films. <i>Physical Review B</i> , 2014, 89, .	3.2	7
74	Electrical conduction on the surface of ferroelectric PbTiO <sub>3</sub> thin film induced by electrolyte gating. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	7
75	Wide modulation of coercive fields in Mn <sub>4</sub> N ferrimagnetic thin films caused dominantly by dislocation microstructures. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 560, 169642.	2.3	7
76	Ballistic transport in periodically modulated MgZnO/ZnO two-dimensional electron systems. <i>Applied Physics Letters</i> , 2019, 115, 153101.	3.3	6
77	Visualizing ferroic domains in an all-in/all-out antiferromagnet thin film. <i>Physical Review B</i> , 2017, 96, .	3.2	5
78	Charge-spin-coupled electrical transport properties in EuMoO <sub>3</sub> /SrTiO <sub>3</sub> superlattices. <i>Physical Review B</i> , 2013, 87, .	3.2	4
79	Negative correlation between the linear and the nonlinear conductance in magnetic tunnel junctions. <i>Physical Review B</i> , 2021, 103, .	3.2	4
80	Ensemble spin relaxation of shallow donor qubits in ZnO. <i>Physical Review B</i> , 2022, 105, .	3.2	4
81	High Crystallinity CuScO <sub>2</sub> Delafossite Films Exhibiting Ultraviolet Photoluminescence Grown by Vapor-Liquid-Solid Tri-phase Epitaxy. <i>Applied Physics Express</i> , 2012, 5, 011201.	2.4	3
82	Spontaneous polarization driven Mg concentration profile reconstruction in MgZnO/ZnO heterostructures. <i>Applied Physics Letters</i> , 2014, 104, 242112.	3.3	3
83	Band alignment and photovoltaic effect of epitaxial $\pm$ -PbO thin films. <i>Applied Physics Express</i> , 2015, 8, 074001.	2.4	3
84	Quantized conductance of one-dimensional strongly correlated electrons in an oxide heterostructure. <i>Physical Review B</i> , 2019, 99, .	3.2	3
85	Microwave response of interacting oxide two-dimensional electron systems. <i>Physical Review B</i> , 2020, 102, .	3.2	3
86	Observation of plasma and magnetoplasma resonances of two-dimensional electrons in a single MgZnO/ZnO heterojunction. <i>JETP Letters</i> , 2013, 98, 223-226.	1.4	2
87	Air-gap gating of MgZnO/ZnO heterostructures. <i>Journal of Applied Physics</i> , 2014, 116, 084310.	2.5	2
88	Calibration and control of in-plane Mg doping distribution in Mg <sub>x</sub> Zn <sub>1-x</sub> O/ZnO heterostructures grown by molecular beam epitaxy. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 028004.	1.5	2
89	Epitaxially Stabilized Oxide Composed of Twisted Triangular-Lattice Layers. <i>Chemistry of Materials</i> , 2016, 28, 1165-1169.	6.7	2
90	Alloy disorder modulated electron transport at Mg <sub>x</sub> Zn <sub>1-x</sub> O/ZnO heterointerface. <i>AIP Advances</i> , 2017, 7, 015029.	1.3	2

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91	Generation of multipeak spectrum of spin torque oscillator in non-linear regime. Applied Physics Letters, 2020, 117, .	3.3	2
92	Nonlinear response of a MgZnO/ZnO heterostructure close to zero bias. Physical Review B, 2017, 96, .	3.2	1
93	Enhanced quantum oscillatory magnetization and nonequilibrium currents in an interacting two-dimensional electron system in MgZnO/ZnO with repulsive scatterers. Physical Review B, 2014, 89, .	3.2	0
94	Publisher's Note: Topological spin-hedgehog crystals of a chiral magnet as engineered with magnetic anisotropy [Phys. Rev. B 96, 220414(R) (2017)]. Physical Review B, 2019, 99, .	3.2	0
95	Multiple modes of a single spin torque oscillator under the non-linear region. AIP Advances, 2020, 10, .	1.3	0