

# Yuzo Ohno

## List of Publications by Year in descending order

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103  
papers

8,567  
citations

126858  
33  
h-index

42364  
92  
g-index

103  
all docs

103  
docs citations

103  
times ranked

6964  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical spin injection in a ferromagnetic semiconductor heterostructure. <i>Nature</i> , 1999, 402, 790-792.	13.7	2,315
2	Electric-field control of ferromagnetism. <i>Nature</i> , 2000, 408, 944-946.	13.7	1,904
3	Quantum Hall Effect in Polar Oxide Heterostructures. <i>Science</i> , 2007, 315, 1388-1391.	6.0	531
4	Magnetic Tunnel Junctions for Spintronic Memories and Beyond. <i>IEEE Transactions on Electron Devices</i> , 2007, 54, 991-1002.	1.6	460
5	Spin Relaxation in GaAs(110) Quantum Wells. <i>Physical Review Letters</i> , 1999, 83, 4196-4199.	2.9	389
6	High Mobility Thin Film Transistors with Transparent ZnO Channels. <i>Japanese Journal of Applied Physics</i> , 2003, 42, L347-L349.	0.8	267
7	Observation of the fractional quantum Hall effect in an oxide. <i>Nature Materials</i> , 2010, 9, 889-893.	13.3	258
8	Spontaneous splitting of ferromagnetic (Ga, Mn)As valence band observed by resonant tunneling spectroscopy. <i>Applied Physics Letters</i> , 1998, 73, 363-365.	1.5	147
9	Magnetoresistance effect and interlayer coupling of (Ga, $\epsilon$ Mn)As trilayer structures. <i>Applied Physics Letters</i> , 2000, 77, 1873.	1.5	143
10	Optical Manipulation of Nuclear Spin by a Two-Dimensional Electron Gas. <i>Physical Review Letters</i> , 2001, 86, 2677-2680.	2.9	142
11	A Spin Esaki Diode. <i>Japanese Journal of Applied Physics</i> , 2001, 40, L1274-L1276.	0.8	125
12	Magnetotransport properties of (Ga,Mn)As investigated at low temperature and high magnetic field. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 7, 976-980.	1.3	117
13	Phase Transition in the $\hat{l}^{1/2}=2$ Bilayer Quantum Hall State. <i>Physical Review Letters</i> , 1998, 80, 4534-4537.	2.9	104
14	Molecular beam epitaxy of III-V diluted magnetic semiconductor (Ga,Mn)Sb. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 7, 981-985.	1.3	78
15	Generation and control of polarization-entangled photons from GaAs island quantum dots by an electric field. <i>Nature Communications</i> , 2012, 3, 661.	5.8	76
16	Electron mobility exceeding $104\text{ cm}^2/\text{V}\text{s}$ in an AlGaN-GaN heterostructure grown on a sapphire substrate. <i>Applied Physics Letters</i> , 1999, 74, 3531-3533.	1.5	68
17	Hall magnetometry on a single iron nanoparticle. <i>Applied Physics Letters</i> , 2002, 80, 4644-4646.	1.5	65
18	Relaxation of photojected spins during drift transport in GaAs. <i>Applied Physics Letters</i> , 2002, 81, 2788-2790.	1.5	56

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19	Interlayer exchange in (Ga,Mn)As/(Al,Ga)As/(Ga,Mn)As semiconducting ferromagnet/nonmagnet/ferromagnet trilayer structures. <i>Applied Physics Letters</i> , 1998, 73, 2122-2124.	1.5	53
20	Anisotropic electrical spin injection in ferromagnetic semiconductor heterostructures. <i>Applied Physics Letters</i> , 2002, 80, 1598-1600.	1.5	53
21	Spin relaxation in n-modulation doped GaAs/AlGaAs quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 36-39.	1.3	51
22	(Ga, Mn)As/GaAs Diluted Magnetic Semiconductor Superlattice Structures Prepared by Molecular Beam Epitaxy. <i>Japanese Journal of Applied Physics</i> , 1997, 36, L73-L75.	0.8	48
23	Direct imaging of gate-controlled persistent spin helix state in a modulation-doped GaAs/AlGaAs quantum well. <i>Applied Physics Express</i> , 2014, 7, 013001.	1.1	47
24	Carrier Mobility Dependence of Electron Spin Relaxation in GaAs Quantum Wells. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 2549-2551.	0.8	44
25	Electrical spin injection in ferromagnetic/nonmagnetic semiconductor heterostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 489-492.	1.3	44
26	InAs self-organized quantum dashes grown on GaAs (211)B. <i>Applied Physics Letters</i> , 1997, 70, 2738-2740.	1.5	42
27	Magnetotransport studies of AlGaN/GaN heterostructures grown on sapphire substrates: Effective mass and scattering time. <i>Applied Physics Letters</i> , 2000, 76, 2737-2739.	1.5	42
28	Light emission spectra of AlGaAs/GaAs multiquantum wells induced by scanning tunneling microscope. <i>Applied Physics Letters</i> , 1998, 73, 1544-1546.	1.5	41
29	Faraday rotation of ferromagnetic (Ga, Mn)As. <i>Electronics Letters</i> , 1998, 34, 190.	0.5	37
30	Electron spin relaxation beyond D'yakonovâ€“Perelâ€™ interaction in GaAs/AlGaAs quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 6, 817-820.	1.3	37
31	Spin-dependent phenomena in ferromagnetic/nonmagnetic IIIâ€“V heterostructures. <i>Solid State Communications</i> , 2001, 119, 281-289.	0.9	36
32	Modulation of Noise in SubmicronGaAs/AlGaAsHall Devices by Gating. <i>Physical Review Letters</i> , 2004, 93, 246602.	2.9	36
33	Control of ferromagnetism in field-effect transistor of a magnetic semiconductor. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 12, 351-355.	1.3	33
34	Valence band barrier at (Ga,Mn)As/GaAs interfaces. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 13, 521-524.	1.3	33
35	Evidence for Ferromagnetic Clusters in the Colossal-Magnetoresistance Material $\text{Eu}_x\text{B}_{6-x}$ . <i>Physical Review Letters</i> , 2018, 120, 257201.	2.9	33
36	Photoluminescence Study of InAs Quantum Dots and Quantum Dashes Grown on GaAs(211)B. <i>Japanese Journal of Applied Physics</i> , 1998, 37, 1527-1531.	0.8	32

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37	Decomposition of 1/f Noise in Al <sub>x</sub> Ga <sub>1-x</sub> As/GaAs Hall Devices. <i>Physical Review Letters</i> , 2006, 96, 186601.	2.9	29	
38	Multipulse Operation and Optical Detection of Nuclear Spin Coherence in a $\text{AlGaAs}_{\text{Quantum Well}}$ . <i>Physical Review Letters</i> , 2008, 101, 207601.	2.9	28	
39	Growth and properties of (Ga,Mn)As films with high Mn concentration. <i>Journal of Applied Physics</i> , 2001, 89, 7024-7026.	1.1	27	
40	Magnetotransport properties of (Ga,Mn)As grown on GaAs A substrates. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 206-209.	1.3	27	
41	Zincblende CrSb/GaAs multilayer structures with room-temperature ferromagnetism. <i>Materials Science in Semiconductor Processing</i> , 2003, 6, 507-509.	1.9	24	
42	Spin-dependent scattering in semiconducting ferromagnetic (Ga,Mn)As trilayer structures. <i>Journal of Applied Physics</i> , 2000, 87, 6436-6438.	1.1	22	
43	Low-temperature field-effect and magnetotransport properties in a ZnO based heterostructure with atomic-layer-deposited gate dielectric. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	22	
44	Strong anisotropic spin dynamics in narrow n-InGaAs $\bullet$ AlGaAs (110) quantum wells. <i>Applied Physics Letters</i> , 2005, 87, 171905.	1.5	21	
45	Effect of n+-GaAs thickness and doping density on spin injection of GaMnAs/n+-GaAs Esaki tunnel junction. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 32, 438-441.	1.3	20	
46	Single-electron switching in Al <sub>x</sub> Ga <sub>1-x</sub> As $\bullet$ GaAs Hall devices. <i>Physical Review B</i> , 2006, 74, .	1.1	20	
47	InAs quantum dots and dashes grown on (100), (211)B, and (311)B GaAs substrates. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 1998, 2, 672-677.	1.3	18	
48	Surfactant effect of Mn on the formation of self-organized InAs nanostructures. <i>Journal of Crystal Growth</i> , 2000, 208, 799-803.	0.7	18	
49	Magnetization reversal in elongated Fe nanoparticles. <i>Physical Review B</i> , 2005, 71, .	1.1	17	
50	Defect-free etching process for GaAs/AlGaAs hetero-nanostructure using chlorine/argon mixed neutral beam. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2010, 28, 1138-1142.	0.6	17	
51	Temperature dependence of electroluminescence and I-V characteristics of ferromagnetic/non-magnetic semiconductor pn junctions. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 288-291.	1.3	16	
52	Coherent Manipulation of Nuclear Spins in Semiconductors with an Electric Field. <i>Applied Physics Express</i> , 2013, 6, 033002.	1.1	15	
53	Arsenic flux dependence of InAs nanostructure formation on GaAs (211)B surface. <i>Applied Surface Science</i> , 2000, 166, 413-417.	3.1	14	
54	Damage-free top-down processes for fabricating two-dimensional arrays of 7 nm GaAs nanodiscs using bio-templates and neutral beam etching. <i>Nanotechnology</i> , 2011, 22, 365301.	1.3	14	

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55	A strong anisotropy of spin dephasing time of quasi-one dimensional electron gas in modulation-doped GaAs/AlGaAs wires. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	13
56	Nanocluster building blocks of artificial square spin ice: Stray-field studies of thermal dynamics. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	13
57	Anomalous stability of $\hat{l}/2 = 1$ bilayer quantum Hall state. <i>Solid State Communications</i> , 1997, 103, 447-451.	0.9	12
58	Spin-dependent properties of ferromagnetic/nonmagnetic GaAs heterostructures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001, 84, 70-74.	1.7	12
59	Magnetic stray-field studies of a single Cobalt nanoelement as a component of the building blocks of artificial square spin ice. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 400, 206-212.	1.0	12
60	Mobility dependence of electron spin relaxation time in n-type InGaAs/InAlAs multiple quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 7, 1015-1019.	1.3	11
61	Molecular Beam Epitaxy and Properties of Cr-Doped GaSb. <i>Journal of Superconductivity and Novel Magnetism</i> , 2004, 17, 349-352.	0.5	10
62	Electron spin dynamics in InGaAs quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 21, 1007-1011.	1.3	9
63	Phototransistors Using Point Contact Structures. <i>Japanese Journal of Applied Physics</i> , 1997, 36, 1955-1957.	0.8	8
64	Effect of barrier width on the performance of quantum well infrared photodetector. <i>Infrared Physics and Technology</i> , 2001, 42, 115-121.	1.3	8
65	Band-tail shape and transport near the metal-insulator transition in Si-doped $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:mrow>< mml:msub>< mml:mrow>< mml:mtext>Al</mml:mtext></mml:mrow>< mml:mrow>< mml:mn>1</mml:mn>< mml:mn>8</mml:mn>< mml:mn>0.3</mml:mn>$ Physical Review B, 2010, 82, .		
66	Magnetization reversal of iron nanoparticles studied by submicron Hall magnetometry. <i>Journal of Applied Physics</i> , 2003, 93, 7912-7914.	1.1	7
67	Direct Observation of Electron Jet from a Point Contact. <i>Japanese Journal of Applied Physics</i> , 1996, 35, 1151-1153.	0.8	6
68	Spin degree of freedom in ferromagnetic semiconductor heterostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 16, 104-110.	1.3	6
69	Direct mapping of photoexcited local spins in a modulation-doped GaAs/AlGaAs wires. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 04EM04.	0.8	6
70	Surface-mediated spin dynamics probed by optical-pump-probe scanning tunneling microscopy. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 7256-7260.	1.3	6
71	Surface morphologies of III-V based magnetic semiconductor (Ga,Mn)As grown by molecular beam epitaxy. <i>Applied Surface Science</i> , 2000, 166, 242-246.	3.1	5
72	Properties of (Ga,Mn)As/(Al,Ga)As/(Ga,Mn)As magnetic trilayer structures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 278-282.	1.3	5

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73	0.7 anomaly and magnetotransport of disordered quantum wires. <i>Europhysics Letters</i> , 2008, 82, 27003.	0.7	4	
74	Detection and measurement of electroreflectance on quantum cascade laser device using Fourier transform infrared microscope. <i>Applied Physics Letters</i> , 2013, 103, 231106.	1.5	4	
75	Complex switching behavior of magnetostatically coupled single-domain nanomagnets probed by micro-Hall magnetometry. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	4	
76	Zero-field spin precession dynamics of high-mobility two-dimensional electron gas in persistent spin helix regime. <i>Physical Review B</i> , 2020, 101, .	1.1	4	
77	A few-electron vertical In <sub>0.56</sub> Ga <sub>0.44</sub> As quantum dot with an insulating gate. <i>Applied Physics Letters</i> , 2007, 91, 232101.	1.5	3	
78	Optical detection of zero-field spin precession of high mobility two-dimensional electron gas in a gated GaAs/AlGaAs quantum well. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 2698-2701.	1.3	3	
79	Systematic study of surface morphology, photoluminescence efficiency, and spin-detection sensitivity in (110)-oriented GaAs/AlGaAs quantum wells. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 113001.	0.8	3	
80	Room-temperature spin-orbit magnetic fields in slightly misoriented (110) InGaAs/InAlAs multiple quantum wells. <i>Applied Physics Letters</i> , 2021, 119, 032405.	1.5	3	
81	Room-temperature spin relaxation in a (110)-oriented GaAs/AlGaAs superlattice with tunnel-coupled quantum wells. <i>Applied Physics Express</i> , 2020, 13, 123003.	1.1	3	
82	Photoluminescence from point contact structure – Direct observation of electron flow. <i>Physica B: Condensed Matter</i> , 1996, 227, 77-81.	1.3	2	
83	Intersubband exchange interaction induced by optically excited electron spins in GaAs/AlGaAs quantum wells. <i>Applied Physics Letters</i> , 2009, 94, 162104.	1.5	2	
84	Width and temperature dependence of lithography-induced magnetic anisotropy in (Ga,Mn)As wires. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 2685-2689.	1.3	2	
85	Photocurrent Measurements on a Quantum Cascade Laser Device by Fourier Transform Infrared Microscope. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FE15.	0.8	2	
86	Strain dependence of nuclear spin coherence in a (110)GaAs/AlGaAs quantum well. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 093001.	0.8	2	
87	Vertical electric field induced suppression of fine structure splitting of excited state excitons in a single GaAs/AlGaAs island quantum dots. <i>Applied Physics Letters</i> , 2015, 107, 123102.	1.5	2	
88	Growth condition dependence of photoluminescence polarization in (100) GaAs/AlGaAs quantum wells at room temperature. <i>Journal of Applied Physics</i> , 2015, 118, 083901.	1.1	2	
89	Suppression of resonant tunneling in a coupled quantum well. <i>Surface Science</i> , 1996, 361-362, 142-145.	0.8	1	
90	Well-width dependence of bound to quasi-bound intersubband transition in GaAs quantum wells with multi-quantum barriers. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 1998, 2, 200-203.	1.3	1	

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91	MOCVD Growth and Transport Investigation of Two-Dimensional Electron Gas in AlGaN/GaN Heterostructures on Sapphire Substrates. <i>Physica Status Solidi (B): Basic Research</i> , 1999, 216, 743-748.	0.7	1	
92	Low-frequency noise in submicron GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As Hall devices. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 290-291, 1161-1164.	1.0	1	
93	Detection of local electron and nuclear spin dynamics by time-resolved Kerr microscopy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 2702-2706.	1.3	1	
94	Magnetic Field Dependence of Quadrupolar Splitting and Nuclear Spin Coherence Time in a Strained (110) GaAs Quantum Well. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 04DM03.	0.8	1	
95	Vertical-Electrical-Field-Induced Control of the Exciton Fine Structure Splitting in GaAs Island Quantum Dots for the Generation of Polarization-Entangled Photons. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FE14.	0.8	1	
96	Impacts of Crystal Quality on Carrier Recombination and Spin Dynamics in (110)-Oriented GaAs/AlGaAs Multiple Quantum Wells at Room Temperature. <i>Micromachines</i> , 2021, 12, 1112.	1.4	1	
97	Spatiotemporal spin dynamics of two-dimensional electron gas with ballistic motion in persistent spin helix state. <i>Physical Review B</i> , 2022, 105, .	1.1	1	
98	$\frac{1}{2}=1$ bilayer quantum Hall state at arbitrary electron distribution in a double quantum well. <i>Solid-State Electronics</i> , 1998, 42, 1183-1185.	0.8	0	
99	Etched-backgate field-effect transistor structure for magnetotunneling study of low-dimensional electron systems. <i>Solid-State Electronics</i> , 1998, 42, 1187-1190.	0.8	0	
100	Bilayer $\frac{1}{2}=2$ quantum Hall state in parallel high magnetic field. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 6, 615-618.	1.3	0	
101	Fabrication of a few-electron In <sub>0.56</sub> Ga <sub>0.44</sub> As vertical quantum dot with an Al <sub>2</sub> O <sub>3</sub> gate insulator. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 1930-1932.	1.3	0	
102	Damage-free top-down processes for fabricating two-dimensional array of sub-10-nanometer GaAs nanodiscs using bio-template and neutral beam etching for intermediate band solar cell applications. , 2011, , .		0	
103	Simultaneous extraction of Rashba and Dresselhaus spin-orbit coefficients in GaAs/AlGaAs (110) two-dimensional electron gas. , 2019, , .		0	