

# Akira Oiwa

## List of Publications by Year in descending order

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83  
papers

4,790  
citations

236612

25  
h-index

91712

69  
g-index

84  
all docs

84  
docs citations

84  
times ranked

3403  
citing authors

#	ARTICLE	IF	CITATIONS
1	(Ga,Mn)As: A new diluted magnetic semiconductor based on GaAs. Applied Physics Letters, 1996, 69, 363-365.	1.5	2,213
2	Ferromagnetic Order Induced by Photogenerated Carriers in Magnetic III-V Semiconductor Heterostructures of (In,Mn)As/GaSb. Physical Review Letters, 1997, 78, 4617-4620.	2.9	600
3	Effect of Optical Spin Injection on Ferromagnetically Coupled Mn Spins in the III-V Magnetic Alloy Semiconductor(Ga,Mn)As. Physical Review Letters, 2002, 88, 137202.	2.9	157
4	Nonmetal-metal-nonmetal transition and large negative magnetoresistance in (Ga, Mn)As/GaAs. Solid State Communications, 1997, 103, 209-213.	0.9	150
5	Control of magnetization reversal process by light illumination in ferromagnetic semiconductor heterostructure p-(In,â€Mn)As/GaSb. Applied Physics Letters, 2001, 78, 518-520.	1.5	97
6	Kondo Universal Scaling for a Quantum Dot Coupled to Superconducting Leads. Physical Review Letters, 2007, 99, 136806.	2.9	97
7	Ultrafast Quenching of Ferromagnetism in InMnAs Induced by Intense Laser Irradiation. Physical Review Letters, 2005, 95, 167401.	2.9	94
8	Magnetic and transport properties of the ferromagnetic semiconductor heterostructures (In,Mn)As/(Ga,Al)Sb. Physical Review B, 1999, 59, 5826-5831.	1.1	80
9	Kondo-enhanced Andreev transport in single self-assembled InAs quantum dots contacted with normal and superconducting leads. Physical Review B, 2010, 81, .	1.1	80
10	Light-induced ferromagnetism in III-V-based diluted magnetic semiconductor heterostructures. Journal of Applied Physics, 1997, 81, 4862-4864.	1.1	76
11	Spin conversion on the nanoscale. Nature Physics, 2017, 13, 829-832.	6.5	75
12	Large Anisotropy of the Spin-Orbit Interaction in a Single InAs Self-Assembled Quantum Dot. Physical Review Letters, 2010, 104, 246801.	2.9	71
13	Electrically tuned spinâ€orbit interaction in an InAs self-assembled quantum dot. Nature Nanotechnology, 2011, 6, 511-516.	15.6	71
14	Metalâ€insulator transition and magnetotransport in IIIâ€V compound diluted magnetic semiconductors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 63, 88-95.	1.7	64
15	Interlayer exchange in (Ga,Mn)As/(Al,Ga)As/(Ga,Mn)As semiconducting ferromagnet/nonmagnet/ferromagnet trilayer structures. Applied Physics Letters, 1998, 73, 2122-2124.	1.5	53
16	Ferromagnetic semiconductor (In,Ga,Mn)As with Curie temperature above 100 K. Applied Physics Letters, 2002, 80, 1592-1594.	1.5	53
17	Roadmap on quantum nanotechnologies. Nanotechnology, 2021, 32, 162003.	1.3	45
18	Electrical control of Kondo effect and superconducting transport in a side-gated InAs quantum dot Josephson junction. Physical Review B, 2010, 82, .	1.1	39

#	ARTICLE	IF	CITATIONS
19	Spin-half Kondo effect in a single self-assembled InAs quantum dot with and without an applied magnetic field. <i>Physical Review B</i> , 2007, 76, .	1.1	37
20	Angular momentum transfer from photon polarization to an electron spin in a gate-defined quantum dot. <i>Nature Communications</i> , 2019, 10, 2991.	5.8	37
21	Strongly Anisotropic Hopping Conduction in (Ga, Mn)As/GaAs. <i>Physica Status Solidi (B): Basic Research</i> , 1998, 205, 115-118.	0.7	32
22	Electrically tuned $g$ tensor in an InAs self-assembled quantum dot. <i>Physical Review B</i> , 2011, 84, .	1.1	32
23	Infrared optical conductivity of $\text{In}_{1-x}\text{Mn}_x\text{As}$ . <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 215-218.	1.3	31
24	Photoinduced Magnetization Rotation and Precessional Motion of Magnetization in Ferromagnetic (Ga,Mn)As. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 9-13.	0.5	28
25	Nondestructive Real-Time Measurement of Charge and Spin Dynamics of Photoelectrons in a Double Quantum Dot. <i>Physical Review Letters</i> , 2013, 110, 266803.	2.9	26
26	Contribution of Shape Anisotropy to the Magnetic Configuration of (Ga, Mn)As. <i>Japanese Journal of Applied Physics</i> , 2004, 43, L306-L308.	0.8	25
27	Resonant spin-orbit interaction in a $\text{ZnO}/\text{ZnO}/\text{ZnO}$ two-dimensional electron gas studied by electrically detected electron spin resonance. <i>Physical Review B</i> , 2013, 87, .	1.1	25
28	Signatures of Hyperfine, Spin-Orbit, and Decoherence Effects in a Pauli Spin Blockade. <i>Physical Review Letters</i> , 2016, 117, 206802.	2.9	25
29	Ultrafast optical and magneto-optical studies of $\text{In}_{1-x}\text{V}_x$ ferromagnetic semiconductors. <i>Journal of Modern Optics</i> , 2004, 51, 2771-2780.	0.6	24
30	Current-Induced Magnetization Reversal in a (Ga,Mn)As-Based Magnetic Tunnel Junction. <i>Japanese Journal of Applied Physics</i> , 2004, 43, L825-L827.	0.8	22
31	Ultrafast softening in InMnAs. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 20, 412-418.	1.3	22
32	Lateral electron tunneling through single self-assembled InAs quantum dots coupled to superconducting nanogap electrodes. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	20
33	Single-Shot Detection of Electrons Generated by Individual Photons in a Tunable Lateral Quantum Dot. <i>Physical Review Letters</i> , 2011, 106, 146804.	2.9	20
34	Photogeneration of a single electron from a single Zeeman-resolved light-hole exciton with preserved angular momentum. <i>Physical Review B</i> , 2019, 99, .	1.1	16
35	Giant Negative Magnetoresistance of (Ga,Mn)As/GaAs in the Vicinity of a Metal-Insulator Transition. <i>Physica Status Solidi (B): Basic Research</i> , 1998, 205, 167-171.	0.7	15
36	Light-induced precession of ferromagnetically coupled Mn spins in ferromagnetic (Ga,Mn)As. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 4267-4270.	0.8	15

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37	Conversion from Single Photon to Single Electron Spin Using Electrically Controllable Quantum Dots. Journal of the Physical Society of Japan, 2017, 86, 011008.	0.7	14
38	Superconducting transport in single and parallel double InAs quantum dot Josephson junctions with Nb-based superconducting electrodes. Applied Physics Letters, 2015, 107, .	1.5	13
39	Tuning the electrically evaluated electron Landé $g$ factor in GaAs quantum dots and quantum wells of different well widths. Physical Review B, 2014, 90, .	1.1	12
40	Theoretical and experimental studies of cyclotron resonance in p-type InAs and InMnAs at ultrahigh magnetic fields. Journal of Applied Physics, 2003, 93, 6897-6899.	1.1	11
41	Gate tunable parallel double quantum dots in InAs double-nanowire devices. Applied Physics Letters, 2017, 111, .	1.5	11
42	Single photoelectron detection after selective excitation of electron heavy-hole and electron light-hole pairs in double quantum dots. Physical Review B, 2014, 90, .	1.1	10
43	Single electron-photon pair creation from a single polarization-entangled photon pair. Scientific Reports, 2017, 7, 16968.	1.6	10
44	Photo-carrier-induced magnetism in (In,Mn)As/GaSb magnetic alloy semiconductor heterostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 516-520.	1.3	9
45	Control of magnetic anisotropy and magnetotransport in epitaxial micropatterned (Ga,Mn)As wire structures. IEEE Transactions on Magnetics, 2003, 39, 2785-2787.	1.2	9
46	Interlayer coupling in (In,Mn)As/InAs/(In,Mn)As magnetic semiconductor trilayer structures. Journal of Applied Physics, 2002, 91, 7902.	1.1	8
47	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 107-110.	0.5	8
48	High-field cyclotron resonance studies of InMnAs-based ferromagnetic semiconductor heterostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 978-982.	1.3	8
49	Single-Shot Ternary Readout of Two-Electron Spin States in a Quantum Dot Using Spin Filtering by Quantum Hall Edge States. Physical Review Letters, 2016, 117, 236802.	2.9	8
50	Design of bullseye optical cavity toward efficient quantum media conversion using gate-defined quantum dot. Japanese Journal of Applied Physics, 2021, 60, 102003.	0.8	8
51	Spin-dependent current through a quantum dot from spin-polarized nonequilibrium quantum Hall edge channels. Physical Review B, 2015, 91, .	1.1	7
52	Effect of light illumination on the process of magnetization reversal in carrier-induced ferromagnetic semiconductors. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 10, 201-205.	1.3	6
53	Terahertz dynamics of photogenerated carriers in ferromagnetic InGaMnAs. Journal of Applied Physics, 2003, 93, 8286-8288.	1.1	6
54	Selective oxidation of the surface layer of bilayer $WSe_2$ by laser heating. Japanese Journal of Applied Physics, 2019, 58, 120903.	0.8	6

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55	Fabrication and optical characterization of photonic crystal nanocavities with electrodes for gate-defined quantum dots. Japanese Journal of Applied Physics, 2020, 59, SGGI05.	0.8	6
56	Noise-robust classification of single-shot electron spin readouts using a deep neural network. Npj Quantum Information, 2021, 7, .	2.8	6
57	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 449-452.	0.5	5
58	Determining carrier densities in InMnAs by cyclotron resonance. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 20, 378-381.	1.3	5
59	Electrically tunable spin filtering for electron tunneling between spin-resolved quantum Hall edge states and a quantum dot. Applied Physics Letters, 2014, 104, 263101.	1.5	5
60	Ultrafast carrier dynamics in ferromagnetic InGaMnAs. Superlattices and Microstructures, 2003, 34, 563-566.	1.4	4
61	Control of supercurrent in a self-assembled InAs quantum dot Josephson junction by electrical tuning of level overlaps. Applied Physics Letters, 2012, 100, 202109.	1.5	4
62	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 439-442.	0.5	3
63	Photo-induced magnetization rotation in III-V ferromagnetic alloy semiconductor quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 987-990.	1.3	3
64	Distinguishing persistent effects in an undoped GaAs/AlGaAs quantum well by top-gate-dependent illumination. Journal of Applied Physics, 2021, 129, 234301.	1.1	3
65	Preparation and Readout of Multielectron High-Spin States in a Gate-Defined GaAs/AlGaAs Quantum Dot. Physical Review Letters, 2021, 127, 086802.	2.9	3
66	Alloying (In,Mn)As and (Ga,Mn)As: Ferromagnetic (In,Ga,Mn)As Lattice-Matched to InP. Journal of Superconductivity and Novel Magnetism, 2003, 16, 45-49.	0.5	2
67	A Quaternary Magnetic Alloy Semiconductor (Ga,In,Mn)N. Japanese Journal of Applied Physics, 2004, 43, L851-L854.	0.8	2
68	Photoinduced phase transition accompanied with the changes in magnetic properties. Phase Transitions, 2001, 74, 35-50.	0.6	1
69	Photo-induced phase transitions in organic and inorganic materials. Current Applied Physics, 2001, 1, 21-27.	1.1	1
70	Rotation of Ferromagnetically Coupled Mn Spins in (Ga,Mn)As by Hole Spins. Journal of Superconductivity and Novel Magnetism, 2003, 16, 411-414.	0.5	1
71	Magnetization Reversal by Electrical Spin Injection in Ferromagnetic (Ga,Mn)As-Based Magnetic Tunnel Junctions. Journal of Superconductivity and Novel Magnetism, 2005, 18, 3-7.	0.5	1
72	Electron transport through single self-assembled InAs quantum dots coupled to superconducting nanogap electrodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 178-181.	0.8	1

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73	Characterization of a surface plasmon antenna fabricated on a gate-defined lateral quantum dot. Japanese Journal of Applied Physics, 2021, 60, SBBI01.	0.8	1
74	Photocarrier induced ferromagnetic order in IIIâ€V-based magnetic semiconductor heterostructures of (In,Mn)As/GaSb. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 417-420.	1.3	0
75	Magnetization Reversal Process of Submicrometer-Scale Hall Bars of Ferromagnetic Semiconductorp-In0.97Mn0.03As. Japanese Journal of Applied Physics, 2004, 43, 2097-2100.	0.8	0
76	Probing electronic properties of quantum dots and molecules by nanogap metallic electrodes. , 2006, , .		0
77	Electron tunneling through single selfâ€assembled InAs quantum dots coupled to nanogap electrodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2869-2872.	0.8	0
78	Proximity supercurrent in self assembled InAs quantum dots. , 2010, , .		0
79	Angular momentum transfer between a circularly polarized photon and an electron spin in double quantum dots. , 2011, , .		0
80	Development of a Numerical Algorithm for Identifying Single Photon Detection with a Quantum Dot. AIP Conference Proceedings, 2011, , .	0.3	0
81	Influence of a Quantum Point Contact as a Charge Detector on the Spin-Related Transport Through a Quantum Dot. AIP Conference Proceedings, 2011, , .	0.3	0
82	Phase measurement in the Kondo regime of a self assembled InAs quantum dot SQUID. Journal of Physics: Conference Series, 2012, 400, 042027.	0.3	0
83	Electron g-factor determined for quantum dot circuit fabricated from (110)-oriented GaAs quantum well. Journal of Applied Physics, 2022, 131, 134305.	1.1	0