

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	Electron g-factor determined for quantum dot circuit fabricated from (110)-oriented GaAs quantum well. <i>Journal of Applied Physics</i> , 2022, 131, 134305.	1.1	0
2	Characterization of a surface plasmon antenna fabricated on a gate-defined lateral quantum dot. <i>Japanese Journal of Applied Physics</i> , 2021, 60, SBB101.	0.8	1
3	Roadmap on quantum nanotechnologies. <i>Nanotechnology</i> , 2021, 32, 162003.	1.3	45
4	Distinguishing persistent effects in an undoped GaAs/AlGaAs quantum well by top-gate-dependent illumination. <i>Journal of Applied Physics</i> , 2021, 129, 234301.	1.1	3
5	Preparation and Readout of Multielectron High-Spin States in a Gate-Defined GaAs/AlGaAs Quantum Dot. <i>Physical Review Letters</i> , 2021, 127, 086802.	2.9	3
6	Design of bull's-eye optical cavity toward efficient quantum media conversion using gate-defined quantum dot. <i>Japanese Journal of Applied Physics</i> , 2021, 60, 102003.	0.8	8
7	Noise-robust classification of single-shot electron spin readouts using a deep neural network. <i>Npj Quantum Information</i> , 2021, 7, .	2.8	6
8	Fabrication and optical characterization of photonic crystal nanocavities with electrodes for gate-defined quantum dots. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SGG105.	0.8	6
9	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
10	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
11	Selective oxidation of the surface layer of bilayer WSe ₂ by laser heating. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 120903.	0.8	6
12	Single electron-photon pair creation from a single polarization-entangled photon pair. <i>Scientific Reports</i> , 2017, 7, 16968.	1.6	10
13	Conversion from Single Photon to Single Electron Spin Using Electrically Controllable Quantum Dots. <i>Journal of the Physical Society of Japan</i> , 2017, 86, 011008.	0.7	14
14	Spin conversion on the nanoscale. <i>Nature Physics</i> , 2017, 13, 829-832.	6.5	75
15	Gate tunable parallel double quantum dots in InAs double-nanowire devices. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	11
16	Single-Shot Ternary Readout of Two-Electron Spin States in a Quantum Dot Using Spin Filtering by Quantum Hall Edge States. <i>Physical Review Letters</i> , 2016, 117, 236802.	2.9	8
17	Signatures of Hyperfine, Spin-Orbit, and Decoherence Effects in a Pauli Spin Blockade. <i>Physical Review Letters</i> , 2016, 117, 206802.	2.9	25
18	Spin-dependent current through a quantum dot from spin-polarized nonequilibrium quantum Hall edge channels. <i>Physical Review B</i> , 2015, 91, .	1.1	7

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19	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
20	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
21	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
22	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
23	Nondestructive Real-Time Measurement of Charge and Spin Dynamics of Photoelectrons in a Double Quantum Dot. Physical Review Letters, 2013, 110, 266803.	2.9	26
24	Rashba spin-orbit interaction in a MgZnO/ZnO two-dimensional electron gas studied by electrically detected electron spin resonance. Physical Review B, 2013, 87, .	1.1	25
25	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
26	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
27	Electrically tuned spin-orbit interaction in an InAs self-assembled quantum dot. Nature Nanotechnology, 2011, 6, 511-516.	15.6	71
28	Angular momentum transfer between a circularly polarized photon and an electron spin in double quantum dots. , 2011, , .		0
29	Development of a Numerical Algorithm for Identifying Single Photon Detection with a Quantum Dot. AIP Conference Proceedings, 2011, , .	0.3	0
30	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
31	Single-Shot Detection of Electrons Generated by Individual Photons in a Tunable Lateral Quantum Dot. Physical Review Letters, 2011, 106, 146804.	2.9	20
32	Electrically tuned g tensor in an InAs self-assembled quantum dot. Physical Review B, 2011, 84, .	1.1	32
33	Proximity supercurrent in self assembled InAs quantum dots. , 2010, , .		0
34	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
35	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
36	Large Anisotropy of the Spin-Orbit Interaction in a Single InAs Self-Assembled Quantum Dot. Physical Review Letters, 2010, 104, 246801.	2.9	71

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37	Electron transport through single self-assembled InAs quantum dots coupled to superconducting nanogap electrodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 178-181.	0.8	1
38	Electron tunneling through single self-assembled InAs quantum dots coupled to nanogap electrodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 2869-2872.	0.8	0
39	Kondo Universal Scaling for a Quantum Dot Coupled to Superconducting Leads. <i>Physical Review Letters</i> , 2007, 99, 136806.	2.9	97
40	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
41	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
42	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
43	Probing electronic properties of quantum dots and molecules by nanogap metallic electrodes. , 2006, , .		0
44	Magnetization Reversal by Electrical Spin Injection in Ferromagnetic (Ga,Mn)As-Based Magnetic Tunnel Junctions. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 3-7.	0.5	1
45	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
46	Ultrafast Quenching of Ferromagnetism in InMnAs Induced by Intense Laser Irradiation. <i>Physical Review Letters</i> , 2005, 95, 167401.	2.9	94
47	Magnetization Reversal Process of Submicrometer-Scale Hall Bars of Ferromagnetic Semiconductor-In _{0.97} Mn _{0.03} As. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 2097-2100.	0.8	0
48	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
49	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
50	A Quaternary Magnetic Alloy Semiconductor (Ga,In,Mn)N. <i>Japanese Journal of Applied Physics</i> , 2004, 43, L851-L854.	0.8	2
51	Ultrafast optical and magneto-optical studies of III-V ferromagnetic semiconductors. <i>Journal of Modern Optics</i> , 2004, 51, 2771-2780.	0.6	24
52	Ultrafast softening in InMnAs. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 20, 412-418.	1.3	22
53	Photo-induced magnetization rotation in III-V ferromagnetic alloy semiconductor quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 21, 987-990.	1.3	3
54	Determining carrier densities in InMnAs by cyclotron resonance. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 20, 378-381.	1.3	5

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55	High-field cyclotron resonance studies of InMnAs-based ferromagnetic semiconductor heterostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 21, 978-982.	1.3	8
56	Title is missing!. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 107-110.	0.5	8
57	Alloying (In,Mn)As and (Ga,Mn)As: Ferromagnetic (In,Ga,Mn)As Lattice-Matched to InP. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 45-49.	0.5	2
58	Rotation of Ferromagnetically Coupled Mn Spins in (Ga,Mn)As by Hole Spins. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 411-414.	0.5	1
59	Title is missing!. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 439-442.	0.5	3
60	Title is missing!. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 449-452.	0.5	5
61	Ultrafast carrier dynamics in ferromagnetic InGaMnAs. <i>Superlattices and Microstructures</i> , 2003, 34, 563-566.	1.4	4
62	Theoretical and experimental studies of cyclotron resonance in p-type InAs and InMnAs at ultrahigh magnetic fields. <i>Journal of Applied Physics</i> , 2003, 93, 6897-6899.	1.1	11
63	Control of magnetic anisotropy and magnetotransport in epitaxial micropatterned (Ga,Mn)As wire structures. <i>IEEE Transactions on Magnetics</i> , 2003, 39, 2785-2787.	1.2	9
64	Terahertz dynamics of photogenerated carriers in ferromagnetic InGaMnAs. <i>Journal of Applied Physics</i> , 2003, 93, 8286-8288.	1.1	6
65	Effect of Optical Spin Injection on Ferromagnetically Coupled Mn Spins in the III-V Magnetic Alloy Semiconductor (Ga,Mn)As. <i>Physical Review Letters</i> , 2002, 88, 137202.	2.9	157
66	Ferromagnetic semiconductor (In,Ga,Mn)As with Curie temperature above 100 K. <i>Applied Physics Letters</i> , 2002, 80, 1592-1594.	1.5	53
67	Interlayer coupling in (In,Mn)As/InAs/(In,Mn)As magnetic semiconductor trilayer structures. <i>Journal of Applied Physics</i> , 2002, 91, 7902.	1.1	8
68	Photo-carrier-induced magnetism in (In,Mn)As/GaSb magnetic alloy semiconductor heterostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 13, 516-520.	1.3	9
69	Photoinduced phase transition accompanied with the changes in magnetic properties. <i>Phase Transitions</i> , 2001, 74, 35-50.	0.6	1
70	Effect of light illumination on the process of magnetization reversal in carrier-induced ferromagnetic semiconductors. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 201-205.	1.3	6
71	Infrared optical conductivity of In _{1-x} MnxAs. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 215-218.	1.3	31
72	Photo-induced phase transitions in organic and inorganic materials. <i>Current Applied Physics</i> , 2001, 1, 21-27.	1.1	1

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73	Control of magnetization reversal process by light illumination in ferromagnetic semiconductor heterostructure p-(In, δ Mn)As/GaSb. Applied Physics Letters, 2001, 78, 518-520.	1.5	97
74	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
75	Metal-insulator transition and magnetotransport in III-V compound diluted magnetic semiconductors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 63, 88-95.	1.7	64
76	Strongly Anisotropic Hopping Conduction in (Ga, Mn)As/GaAs. Physica Status Solidi (B): Basic Research, 1998, 205, 115-118.	0.7	32
77	Giant Negative Magnetoresistance of (Ga,Mn)As/GaAs in the Vicinity of a Metal-Insulator Transition. Physica Status Solidi (B): Basic Research, 1998, 205, 167-171.	0.7	15
78	Photocurrent induced ferromagnetic order in III-V-based magnetic semiconductor heterostructures of (In,Mn)As/GaSb. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 417-420.	1.3	0
79	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
80	Light-induced ferromagnetism in III-V-based diluted magnetic semiconductor heterostructures. Journal of Applied Physics, 1997, 81, 4862-4864.	1.1	76
81	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
82	Nonmetal-metal-nonmetal transition and large negative magnetoresistance in (Ga, Mn)As/GaAs. Solid State Communications, 1997, 103, 209-213.	0.9	150
83	(Ga,Mn)As: A new diluted magnetic semiconductor based on GaAs. Applied Physics Letters, 1996, 69, 363-365.	1.5	2,213