Hidekazu Saito

List of Publications by Year
in descending order

88 papers	3,220 citations	218592 26 h-index	149623 56 g-index
89 all docs	89 docs citations	89 times ranked	2850 citing authors

#	Article	IF	Citations
1	Room-temperature spin relaxation in a (110)-oriented GaAs/AlGaAs superlattice with tunnel-coupled quantum wells. Applied Physics Express, 2020, 13, 123003.	1.1	3
2	Structural and magneto-transport properties of lattice-mismatched epitaxial Fe/SrO/MgO/Fe magnetic tunnel junctions. Japanese Journal of Applied Physics, 2020, 59, 103001.	0.8	0
3	Tunneling Magnetoresistance and Spin-Dependent Diode Performance in Fully Epitaxial Magnetic Tunnel Junctions With a Rocksalt <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Zn</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mo>/</mml:mo><mml:mrow><mml:mi>Mg</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math> Bilayer Tunnel Barrier. Physical Review Applied, 2019, 11, .	1.5	9
4	Improvements of surface morphology and electrical transport properties of single-crystalline In2O3(111) thin films by postgrowth annealing. Japanese Journal of Applied Physics, 2019, 58, 030909.	0.8	1
5	Room-temperature side-gate-induced current modulation in a magnetic tunnel junction with an oxide-semiconductor barrier for vertical spin MOSFET operation. Applied Physics Express, 2019, 12, 023009.	1.1	7
6	Theoretical study of rectifying properties in a terahertz regime with a zero-bias voltage for fully epitaxial Fe/ZnO/MgO/Fe magnetic tunnel junctions. Applied Physics Express, 2019, 12, 114003.	1.1	3
7	Fabrication of magnetic tunnel junctions with a single-crystalline LiF tunnel barrier. Japanese Journal of Applied Physics, 2018, 57, 04FN04.	0.8	6
8	Epitaxial growth of MgO/Ga₂O₃ heterostructure and its band alignment studied by X-ray photoemission spectroscopy. Japanese Journal of Applied Physics, 2018, 57, 070304.	0.8	9
9	Investigation on the formation process of single-crystalline GaO_xbarrier in Fe/GaO_x/MgO/Fe magnetic tunnel junctions. Journal Physics D: Applied Physics, 2017, 50, 435001.	1.3	9
10	Giant Spin Accumulation in Silicon Nonlocal Spin-Transport Devices. Physical Review Applied, 2017, 8, .	1.5	47
11	Photonic integration of plasmonic Magneto-optical waveguide and Si nanowire waveguide. , 2017, , .		1
12	Effect of MgO Underlying Layer on the Growth of GaOx Tunnel Barrier in Epitaxial Fe/GaOx/(MgO)/Fe Magnetic Tunnel Junction Structure. Sensors, 2017, 17, 2424.	2.1	5
13	Observation of Magnetoresistance Effect in n -Type Non-Degenerate Germanium With Co2Fe0.4Mn0.6Si Heusler Alloy Electrodes. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	2
14	Spin signals in Si non-local transport devices with giant spin accumulation. , 2017, , .		1
15	Systematic study of surface morphology, photoluminescence efficiency, and spin-detection sensitivity in (110)-oriented GaAs/AlGaAs quantum wells. Japanese Journal of Applied Physics, 2016, 55, 113001.	0.8	3
16	Suppression of spin transport in ferromagnet/oxide/semiconductor junctions by magnetic impurities in the tunnel barrier. Applied Physics Express, 2016, 9, 103001.	1.1	0
17	High Magnetoresistance in Fully Epitaxial Magnetic Tunnel Junctions with a Semiconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>GaO</mml:mi></mml:mrow><mml:mrow><mml:mi>x</mml:mi></mml:mrow></ Barrier. Physical Review Applied, 2016, 6, .	1.5	29
18	Relative strength of thermal and electrical spin currents in a ferromagnetic tunnel contact on a semiconductor. Physical Review B, 2015, 92, .	1.1	5

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19	Nonlinear spin transport in a rectifying ferromagnet/semiconductor Schottky contact. Physical Review B, 2015, 92, .	1.1	5
20	Energy dispersion of tunnel spin polarization extracted from thermal and electrical spin currents. Physical Review B, 2015, 91, .	1.1	6
21	Fabrication of Ge-based light-emitting diodes with a ferromagnetic metal/insulator tunnel contact. Japanese Journal of Applied Physics, 2015, 54, 04DM02.	0.8	2
22	Growth condition dependence of photoluminescence polarization in (100) GaAs/AlGaAs quantum wells at room temperature. Journal of Applied Physics, 2015, 118, 083901.	1.1	2
23	Large spin accumulation voltages in epitaxial <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mn>5</mml:mn></mml:msub><mml:mi mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> contacts	1.1	43
24	Localized spâ€“d exchange interaction in ferromagnetic Ga_{1â^'x}Mn_xAs observed by magnetic circular dichroism spectroscopy ofLcritical points. Journal Physics D: Applied Physics, 2014, 47, 355001.	1.3	12
25	Voltage tuning of thermal spin current in ferromagnetic tunnel contacts to semiconductors. Nature Materials, 2014, 13, 360-366.	13.3	40
26	Anomalous scaling of spin accumulation in ferromagnetic tunnel devices with silicon and germanium. Physical Review B, 2014, 89, .	1.1	43
27	Epitaxial growth of ferromagnetic semiconductor Ga1-xMnxAs film on Ge(001) substrate. Thin Solid Films, 2013, 536, 323-326.	0.8	4
28	Crystal-induced anisotropy of spin accumulation in Si/MgO/Fe and Si/Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>/ferromagnet tunnel devices. Physical Review B, 2013, 87, .	1.1	6
29	Thermal creation of a spin current by Seebeck spin tunneling. , 2013, , .		0
30	Effective Creation of Spin Polarization in p-Type Ge from a Fe/GeO₂Tunnel Contact. Japanese Journal of Applied Physics, 2013, 52, 04CM01.	0.8	9
31	Spin Accumulation and Spin Lifetime in p-Type Germanium at Room Temperature. Applied Physics Express, 2012, 5, 053004.	1.1	29
32	Spin Accumulation in Nondegenerate and Heavily Doped p-Type Germanium. Applied Physics Express, 2012, 5, 023003.	1.1	25
33	Anisotropy of spin polarization and spin accumulation in Si/Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>/ferromagnet tunnel devices. Physical Review B, 2012, 86, .	1.1	20
34	Thermal spin current and magnetothermopower by Seebeck spin tunneling. Physical Review B, 2012, 85, .	1.1	37
35	Electrical spin injection in p-type Si using Fe/MgO contacts. Proceedings of SPIE, 2012, , .	0.8	14
36	Injection and detection of spin in a semiconductor by tunneling via interface states. Physical Review B, 2012, 85, .	1.1	47

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37	Study of magnetic properties of epitaxial Mn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>5</mml:mn></mml:msub></mml:math>Ge<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	1.1	60
38	Anomalous Zeeman splittings of IIâ€“VI diluted magnetic semiconductors at L-critical points. Journal of Applied Physics, 2011, 109, 07C304.	1.1	7
39	Thermal spin current from a ferromagnet to silicon by Seebeck spin tunnelling. Nature, 2011, 475, 82-85.	13.7	218
40	Reducing Schottky barrier height for Fe/n-GaAs junction by inserting thin GaOx layer. Journal of Applied Physics, 2011, 109, 07C701.	1.1	2
41	Origin of Very Low Effective Barrier Height in Magnetic Tunnel Junctions with a Semiconductor GaO$_{x}$ Tunnel Barrier. Japanese Journal of Applied Physics, 2011, 50, 113002.	0.8	2
42	Electrical creation of spin accumulation in -type germanium. Solid State Communications, 2011, 151, 1159-1161.	0.9	68
43	Efficient spin injection into semiconductor from an Fe/GaOx tunnel injector. Applied Physics Letters, 2010, 96, .	1.5	18
44	Hot electron transport in magnetic tunnel transistors with an epitaxial MgO tunnel barrier. Applied Physics Letters, 2010, 96, 112509.	1.5	9
45	Magnetization-dependent loss in an (Al,Ga)As optical waveguide with an embedded Fe micromagnet. Optics Letters, 2010, 35, 931.	1.7	57
46	AndoetÂal.Reply:. Physical Review Letters, 2009, 102, .	2.9	7
47	Spin-polarized tunneling in fully epitaxial magnetic tunnel diodes with a narrow-gap In1âˆ’xMnxAs electrode. Applied Physics Letters, 2009, 95, 192508.	1.5	1
48	Low effective barrier height of GaOx tunnel barrier in metal/semiconductor hybrid junctions. Applied Physics Letters, 2009, 94, 152101.	1.5	10
49	Origin of the Anomalous Magnetic Circular Dichroism Spectral Shape in Ferromagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ga</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>âˆ’</mml:mo><mml:mi>x</mml:mi> Impurity Bands inside the Band Gap. Physical Review Letters, 2008, 100, 067204.	2.9	95
50	High tunneling magnetoresistance in Fe/GaOx/Ga1âˆ’xMnxAs with metal/insulator/semiconductor structure. Applied Physics Letters, 2008, 93, .	1.5	14
51	X-ray Magnetic Circular Dichroism and Photoemission Study of the Diluted Ferromagnetic Semiconductor Zn1-xCrxTe. Applied Physics Express, 2008, 1, 041301.	1.1	8
52	Local electronic structure of Cr in the IIâ€“VI diluted ferromagnetic semiconductor Zn_{1-x}Cr_xTe. New Journal of Physics, 2008, 10, 055011.	1.2	14
53	Spin-dependent density of states in Ga1âˆ’xMnxAs probed by tunneling spectroscopy. Applied Physics Letters, 2008, 92, 192512.	1.5	6
54	Zeeman splittings near the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>L</mml:mi></mml:math>point of the Brillouin zone in zinc-blende semiconductors. Physical Review B, 2008, 77, .	1.1	7

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55	Tunneling spectroscopy in Feâ•ZnSeâ•Ga1â^'xMnxAs magnetic tunnel diodes. Journal of Applied Physics, 2008, 103, 07D127.	1.1	4
56	Thermal Expansion Characteristics Associated with Spin Fluctuations under Applied Magnetic Field and High Pressure for Lu(Co0.9Ga0.1)2Laves-Phase Compound. Journal of the Physical Society of Japan, 2007, 76, 84-85.	0.7	0
57	Room-temperature magnetoresistance in magnetic tunnel junctions with Fe3O4 electrode. Journal of Applied Physics, 2007, 101, 09J511.	1.1	12
58	Growth and Transport Studies in M/I/p-SC Magnetic Tunnel Diodes Containing Different Tunnel Barrier Materials. IEEE Transactions on Magnetics, 2007, 43, 2809-2811.	1.2	5
59	Soft X-ray Magnetic Circular Dichroism and Photoemission Studies of IIâ€"VI Diluted Ferromagnetic Semiconductor Zn1â^'x Cr x Te. Journal of Superconductivity and Novel Magnetism, 2007, 20, 467-471.	0.8	3
60	Spin-polarized tunneling in metal-insulator-semiconductor Feâ•ZnSeâ•Ga1â^'xMnxAs magnetic tunnel diodes. Applied Physics Letters, 2006, 89, 232502.	1.5	18
61	Itinerant-electron metamagnetism and onset of weak ferromagnetism in laves phase Y(Co1â^'xGax)2 compounds. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 431-434.	1.0	2
62	Effect of spin fluctuations on thermal expansion characteristics in paramagnetic Laves-phaseLu(Co1â^'xGax)2compounds. Physical Review B, 2005, 71, .	1.1	2
63	Tunnel magnetoresistance effect in Cr1â^'Îˆ'Teâ•AlAsâ•Ga1â^'xMnxAs magnetic tunnel junctions. Journal of Applied Physics, 2005, 97, 10D305.	1.1	23
64	Origin of the Tunnel Anisotropic Magnetoresistance inGa1â^'xMnxAs/ZnSe/Ga1â^'xMnxAsMagnetic Tunnel Junctions of II-VI/III-V Heterostructures. Physical Review Letters, 2005, 95, 086604.	2.9	114
65	Itinerant-electron metamagnetism and susceptibility maximum behavior in several kinds of Laves-phase compounds. Journal of Alloys and Compounds, 2005, 394, 43-50.	2.8	6
66	Kadowakiâ€"Woods plot of exchange-enhanced Pauli paramagnetic Laves phase quasi-binary compounds Lu(Co1ÂxMx)2. Journal of Physics Condensed Matter, 2004, 16, 2829-2837.	0.7	3
67	Optical properties and functions of dilute magnetic semiconductors. Journal of Physics Condensed Matter, 2004, 16, S5541-S5548.	0.7	65
68	Magnetoresistance in a room temperature ferromagnetic diluted magnetic semiconductor Zn1â^'xCrxTe. Journal of Applied Physics, 2004, 95, 7175-7177.	1.1	20
69	Room-temperature ferromagnetism in highly Cr-doped IIâ€"VI diluted magnetic semiconductor Zn1â^'xCrxTe. Journal of Applied Physics, 2003, 93, 6796-6798.	1.1	56
70	Room-Temperature Ferromagnetism in a II-VI Diluted Magnetic SemiconductorZn1â^'xCrxTe. Physical Review Letters, 2003, 90, 207202.	2.9	400
71	Ferromagnetism in IIâ€"VI diluted magnetic semiconductor Zn[sub 1â^'x]Cr[sub x]Te. Journal of Applied Physics, 2002, 91, 8085.	1.1	76
72	Magneto-optical studies of ferromagnetism in the II-VI diluted magnetic semiconductorZn1â^'xCrxTe. Physical Review B, 2002, 66, .	1.1	60

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73	Growth and properties of new IIIâ€“V diluted magnetic semiconductor Ga1â^'xCrxAs. Journal of Crystal Growth, 2002, 237-239, 1339-1343.	0.7	5
74	High throughput fabrication of transition-metal-doped epitaxial ZnO thin films: A series of oxide-diluted magnetic semiconductors and their properties. Applied Physics Letters, 2001, 78, 3824-3826.	1.5	575
75	Large magneto-optical effect in an oxide diluted magnetic semiconductor Zn1â^'xCoxO. Applied Physics Letters, 2001, 78, 2700-2702.	1.5	173
76	Itinerant-electron metamagnetism and magneto-volume effects in Lu(Co1-xAlx)2Laves phase compounds. Journal of Physics Condensed Matter, 2001, 13, 9281-9300.	0.7	24
77	Magneto-optical properties of ZnO-based diluted magnetic semiconductors. Journal of Applied Physics, 2001, 89, 7284-7286.	1.1	284
78	Magnetic phase diagrams of itinerant-electron metamagneticLu(Co1â^'xMx)2(M=Aland Ga) Laves-phase compounds. Physical Review B, 2001, 64, .	1.1	24
79	Magnetic and transport properties of IIIâ€“V diluted magnetic semiconductor Ga1â^'xCrxAs. Journal of Applied Physics, 2001, 89, 7392-7394.	1.1	41
80	Universal linear relation between the critical field and the inverse susceptibility for Co-based Laves-phase metamagnets. Solid State Communications, 2000, 113, 447-450.	0.9	19
81	X-Ray Diffraction Studies on Magneto-Volume Effect and the First Order Phase Transition in Lu(Co1-xGax)2. Journal of the Physical Society of Japan, 2000, 69, 4013-4017.	0.7	5
82	Itinerant-electron metamagnetism of the Laves-phase compoundsLu(Co1â^'xGax)2under high pressures with high magnetic fields. Physical Review B, 1999, 59, 8725-8731.	1.1	30
83	Spin dynamics and freezing in magnetic rare-earth quasicrystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 238, 197-202.	0.9	27
84	Structural, electrical, magnetic and low-temperature specific heat studies of PrPb2. Journal of Alloys and Compounds, 1998, 264, 24-30.	2.8	1
85	Itinerant-electron metamagnetism and the onset of ferromagnetism in Laves phase compounds. Journal of Physics Condensed Matter, 1997, 9, 9333-9346.	0.7	28
86	Concentration dependence of the magnetic properties of melt-quenched P-type Mg30GdxZn70â^'x quasicrystals. Journal of Alloys and Compounds, 1997, 252, 6-11.	2.8	9
87	Metamagnetic Transition in GdSi. Journal of the Physical Society of Japan, 1996, 65, 1938-1940.	0.7	12
88	Highly Enhanced Electron-Injection Efficiency in GaAs-Based Light-Emitting Diodes Using a Fe/GaO_xTunnel Injector. Applied Physics Express, 0, 2, 083003.	1.1	7