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	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
2	Room-Temperature Ferromagnetism in a II-VI Diluted Magnetic SemiconductorZn1âˆ’xCrxTe. Physical Review Letters, 2003, 90, 207202.	2.9	400
3	Magneto-optical properties of ZnO-based diluted magnetic semiconductors. Journal of Applied Physics, 2001, 89, 7284-7286.	1.1	284
4	Thermal spin current from a ferromagnet to silicon by Seebeck spin tunnelling. Nature, 2011, 475, 82-85.	13.7	218
5	Large magneto-optical effect in an oxide diluted magnetic semiconductor Zn1âˆ’xCoxO. Applied Physics Letters, 2001, 78, 2700-2702.	1.5	173
6	Origin of the Tunnel Anisotropic Magnetoresistance inGa1âˆ’xMnxAs/ZnSe/Ga1âˆ’xMnxAsMagnetic Tunnel Junctions of II-VI/III-V Heterostructures. Physical Review Letters, 2005, 95, 086604.	2.9	114
7	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>â’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Mn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>As</mml:mi></mml:msub></mml:math>Impurity Bands inside the Band Gap. Physical Review Letters, 2008, 100, 067204.	2.9	95
8	Ferromagnetism in IIâ€“VI diluted magnetic semiconductor Zn[sub 1âˆ’x]Cr[sub x]Te. Journal of Applied Physics, 2002, 91, 8085.	1.1	76
9	Electrical creation of spin accumulation in -type germanium. Solid State Communications, 2011, 151, 1159-1161.	0.9	68
10	Optical properties and functions of dilute magnetic semiconductors. Journal of Physics Condensed Matter, 2004, 16, S5541-S5548.	0.7	65
11	Magneto-optical studies of ferromagnetism in the II-VI diluted magnetic semiconductorZn1âˆ’xCrxTe. Physical Review B, 2002, 66, .	1.1	60
12	Control 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 /><mml:mml:	1.1	60
13	Magnetization-dependent loss in an (Al,Ga)As optical waveguide with an embedded Fe micromagnet. Optics Letters, 2010, 35, 931.	1.7	57
14	Room-temperature ferromagnetism in highly Cr-doped IIâ€“VI diluted magnetic semiconductor Zn1âˆ’xCrxTe. Journal of Applied Physics, 2003, 93, 6796-6798.	1.1	56
15	Injection and detection of spin in a semiconductor by tunneling via interface states. Physical Review B, 2012, 85, .	1.1	47
16	Giant Spin Accumulation in Silicon Nonlocal Spin-Transport Devices. Physical Review Applied, 2017, 8, .	1.5	47
17	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
18	Anomalous scaling of spin accumulation in ferromagnetic tunnel devices with silicon and germanium. Physical Review B, 2014, 89, .	1.1	43

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19	Magnetic and transport properties of IIIâ€“V diluted magnetic semiconductor Ga1âˆ’xCrxAs. Journal of Applied Physics, 2001, 89, 7392-7394.	1.1	41
20	Voltage tuning of thermal spin current in ferromagnetic tunnel contacts to semiconductors. Nature Materials, 2014, 13, 360-366.	13.3	40
21	Thermal spin current and magnetothermopower by Seebeck spin tunneling. Physical Review B, 2012, 85, .	1.1	37
22	Itinerant-electron metamagnetism of the Laves-phase compoundsLu(Co1âˆ’xGax)2under high pressures with high magnetic fields. Physical Review B, 1999, 59, 8725-8731.	1.1	30
23	Spin Accumulation and Spin Lifetime in p-Type Germanium at Room Temperature. Applied Physics Express, 2012, 5, 053004.	1.1	29
24	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></mml:msub></mml:mrow></mml:math>Barrier. Physical Review Applied, 2016, 6, .	1.5	29
25	Itinerant-electron metamagnetism and the onset of ferromagnetism in Laves phase compounds. Journal of Physics Condensed Matter, 1997, 9, 9333-9346.	0.7	28
26	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
27	Spin Accumulation in Nondegenerate and Heavily Doped p-Type Germanium. Applied Physics Express, 2012, 5, 023003.	1.1	25
28	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
29	Magnetic phase diagrams of itinerant-electron metamagneticLu(Co1âˆ’xMx)2(M=Aland Ga) Laves-phase compounds. Physical Review B, 2001, 64, .	1.1	24
30	Tunnel magnetoresistance effect in Cr1âˆ’ÎTeâ•AlAsâ•Ga1âˆ’xMnxAs magnetic tunnel junctions. Journal of Applied Physics, 2005, 97, 10D305.	1.1	23
31	Magnetoresistance in a room temperature ferromagnetic diluted magnetic semiconductor Zn1âˆ’xCrxTe. Journal of Applied Physics, 2004, 95, 7175-7177.	1.1	20
32	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
33	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
34	Spin-polarized tunneling in metal-insulator-semiconductor Feâ•ZnSeâ•Ga1âˆ’xMnxAs magnetic tunnel diodes. Applied Physics Letters, 2006, 89, 232502.	1.5	18
35	Efficient spin injection into semiconductor from an Fe/GaOx tunnel injector. Applied Physics Letters, 2010, 96, .	1.5	18
36	High tunneling magnetoresistance in Fe/GaOx/Ga1âˆ’xMnxAs with metal/insulator/semiconductor structure. Applied Physics Letters, 2008, 93, .	1.5	14

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37	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
38	Electrical spin injection in p-type Si using Fe/MgO contacts. Proceedings of SPIE, 2012, , .	0.8	14
39	Metamagnetic Transition in GdSi. Journal of the Physical Society of Japan, 1996, 65, 1938-1940.	0.7	12
40	Room-temperature magnetoresistance in magnetic tunnel junctions with Fe3O4 electrode. Journal of Applied Physics, 2007, 101, 09J511.	1.1	12
41	Localized spâ€“d exchange interaction in ferromagnetic Ga_{1âˆ’x}Mn_xAs observed by magnetic circular dichroism spectroscopy ofLcritical points. Journal Physics D: Applied Physics, 2014, 47, 355001.	1.3	12
42	Low effective barrier height of GaOx tunnel barrier in metal/semiconductor hybrid junctions. Applied Physics Letters, 2009, 94, 152101.	1.5	10
43	Concentration dependence of the magnetic properties of melt-quenched P-type Mg30GdxZn70âˆ’x quasicrystals. Journal of Alloys and Compounds, 1997, 252, 6-11.	2.8	9
44	Hot electron transport in magnetic tunnel transistors with an epitaxial MgO tunnel barrier. Applied Physics Letters, 2010, 96, 112509.	1.5	9
45	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
46	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
47	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
48	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
49	X-ray Magnetic Circular Dichroism and Photoemission Study of the Diluted Ferromagnetic Semiconductor Zn1-xCrxTe. Applied Physics Express, 2008, 1, 041301.	1.1	8
50	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
51	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
52	AndoetÂal.Reply:. Physical Review Letters, 2009, 102, .	2.9	7
53	Anomalous Zeeman splittings of IIâ€“VI diluted magnetic semiconductors at L-critical points. Journal of Applied Physics, 2011, 109, 07C304.	1.1	7
54	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

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55	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
56	Spin-dependent density of states in Ga1â^'xMnxAs probed by tunneling spectroscopy. Applied Physics Letters, 2008, 92, 192512.	1.5	6
57	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
58	Energy dispersion of tunnel spin polarization extracted from thermal and electrical spin currents. Physical Review B, 2015, 91, .	1.1	6
59	Fabrication of magnetic tunnel junctions with a single-crystalline LiF tunnel barrier. Japanese Journal of Applied Physics, 2018, 57, 04FN04.	0.8	6
60	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
61	Growth and properties of new IIIâ€"V diluted magnetic semiconductor Ga1â^'xCrxAs. Journal of Crystal Growth, 2002, 237-239, 1339-1343.	0.7	5
62	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
63	Relative strength of thermal and electrical spin currents in a ferromagnetic tunnel contact on a semiconductor. Physical Review B, 2015, 92, .	1.1	5
64	Nonlinear spin transport in a rectifying ferromagnet/semiconductor Schottky contact. Physical Review B, 2015, 92, .	1.1	5
65	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
66	Tunneling spectroscopy in Feâ•ZnSeâ•Ga1â^'xMnxAs magnetic tunnel diodes. Journal of Applied Physics, 2008, 103, 07D127.	1.1	4
67	Epitaxial growth of ferromagnetic semiconductor Ga1-xMnxAs film on Ge(001) substrate. Thin Solid Films, 2013, 536, 323-326.	0.8	4
68	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
69	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
70	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
71	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
72	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

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73	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
74	Effect of spin fluctuations on thermal expansion characteristics in paramagnetic Laves-phaseLu(Co1â^'xGax)2compounds. Physical Review B, 2005, 71, .	1.1	2
75	Reducing Schottky barrier height for Fe/n-GaAs junction by inserting thin GaOx layer. Journal of Applied Physics, 2011, 109, 07C701.	1.1	2
76	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
77	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
78	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
79	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
80	Structural, electrical, magnetic and low-temperature specific heat studies of PrPb2. Journal of Alloys and Compounds, 1998, 264, 24-30.	2.8	1
81	Spin-polarized tunneling in fully epitaxial magnetic tunnel diodes with a narrow-gap In1â^'xMnxAs electrode. Applied Physics Letters, 2009, 95, 192508.	1.5	1
82	Photonic integration of plasmonic Magneto-optical waveguide and Si nanowire waveguide. , 2017, , .		1
83	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
84	Spin signals in Si non-local transport devices with giant spin accumulation. , 2017, , .		1
85	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
86	Thermal creation of a spin current by Seebeck spin tunneling. , 2013, , .		0
87	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
88	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