

Takahiro Moriyama

List of Publications by Year in descending order

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135
papers

6,973
citations

117625

34
h-index

60623

81
g-index

136
all docs

136
docs citations

136
times ranked

5819
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal orientation dependence of spin Hall angle in epitaxial Pt/FeNi systems. Applied Physics Letters, 2022, 120, .	3.3	4
2	Triaxial magnetic anisotropy and Morin transition in $\hat{\Gamma}$ -Fe ₂ O ₃ epitaxial films characterized by spin Hall magnetoresistance. Applied Physics Letters, 2022, 120, 112403.	3.3	1
3	Field-free superconducting diode effect in noncentrosymmetric superconductor/ferromagnet multilayers. Nature Nanotechnology, 2022, 17, 823-828.	31.5	45
4	Field-driven domain wall creep motion in ferrimagnetic Tb/CoFeB/MgO microwires. Japanese Journal of Applied Physics, 2021, 60, 020902.	1.5	1
5	High thermal stability and low driven current achieved by vertical domain wall motion memory with artificial ferromagnet. Applied Physics Express, 2021, 14, 023001.	2.4	7
6	Investigation of the upper critical field in artificially engineered Nb/V/Ta superlattices. Japanese Journal of Applied Physics, 2021, 60, 060902.	1.5	3
7	Observation of nonreciprocal superconducting critical field. Applied Physics Express, 2021, 14, 073003.	2.4	17
8	Control of antiferromagnetic resonance and the Morin temperature in cation doped $\hat{\Gamma}$ -Fe ₂ MO ₃ (M = Al, Ru, Rh, and In). Applied Physics Letters, 2021, 119, .	3.3	3
9	Positive correlation between interlayer exchange coupling and the driving current of domain wall motion in a synthetic antiferromagnet. Applied Physics Letters, 2021, 119, .	3.3	1
10	The 2021 Magnonics Roadmap. Journal of Physics Condensed Matter, 2021, 33, 413001.	1.8	287
11	Long-distance spin current transmission in single-crystalline NiO thin films. Applied Physics Express, 2021, 14, 123001.	2.4	3
12	Inhomogeneous magnetic properties characterized by simultaneous electrical and optical detection of spin-torque ferromagnetic resonance. Applied Physics Letters, 2021, 119, 192409.	3.3	1
13	Laser stimulated THz emission from Pt/CoO/FeCoB. Applied Physics Letters, 2020, 117, .	3.3	16
14	Spin-orbit torque based physical unclonable function. Journal of Applied Physics, 2020, 128, .	2.5	35
15	Observation of superconducting diode effect. Nature, 2020, 584, 373-376.	27.8	211
16	Enhancement of spin wave group velocity in ferrimagnets with angular momentum compensation. Applied Physics Express, 2020, 13, 063003.	2.4	1
17	Distinct domain reversal mechanisms in epitaxial and polycrystalline antiferromagnetic NiO films from high-field spin Hall magnetoresistance. Applied Physics Letters, 2020, 116, 192402.	3.3	9
18	Imaging of caustic-like spin wave beams using optical heterodyne detection. Applied Physics Letters, 2020, 116, 192411.	3.3	5

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19	Enhanced antiferromagnetic resonance linewidth in NiO/Pt and NiO/Pd. Physical Review B, 2020, 101, .	3.2	18
20	Giant Anomalous Hall Conductivity at the $\text{Pt}/\text{CrO}_2/\text{CrO}_3$ Interface. Physical Review Applied, 2020, 13, .	3.8	14
21	Tunable Magnon-Magnon Coupling Mediated by Dynamic Dipolar Interaction in Synthetic Antiferromagnets. Physical Review Letters, 2020, 125, 017203.	7.8	72
22	Magnetic damping enhancement in L1_2 -ordered $\text{Mn}_3\text{Ir}/\text{Fe}_{20}\text{Ni}_{80}$ bilayers. Applied Physics Express, 2020, 13, 073001.	2.4	2
23	Elastic constants of beta tungsten thin films studied by picosecond ultrasonics and density functional theory. Applied Physics Letters, 2020, 116, 021901.	3.3	11
24	Field-sweep-rate and time dependence of transverse resistivity anomalies in ultrathin SrRuO_3 films. Physical Review B, 2020, 101, .	3.2	12
25	Large anomalous Hall effect in L1_2 -ordered antiferromagnetic Mn_3Ir thin films. Applied Physics Letters, 2020, 116, .	3.3	41
26	Tailoring THz antiferromagnetic resonance of NiO by cation substitution. Physical Review Materials, 2020, 4, .	2.4	12
27	Spin-orbit precession effect in a Py/Pt/Co tri-layer structure detected by ferromagnetic resonance. Applied Physics Express, 2020, 13, 083001.	2.4	6
28	Observation of the dispersion relations for quantized coherent spin waves excited by a microwave antenna. Physical Review B, 2020, 102, .	3.2	3
29	Spin wave propagation in ferrimagnetic $\text{Gd}_x\text{Co}_{1-x}$. Japanese Journal of Applied Physics, 2019, 58, 080909.	1.5	4
30	Temperature dependence of magnetic resonance in ferrimagnetic GdFeCo alloys. Applied Physics Express, 2019, 12, 093001.	2.4	24
31	Magnetic properties of ferrimagnetic Tb/CoFeB/MgO films. Applied Physics Express, 2019, 12, 083002.	2.4	4
32	Spin Seebeck Imaging of Spin-Torque Switching in Antiferromagnetic Pt/NiO Heterostructures. Physical Review X, 2019, 9, .	8.9	58
33	Spin-transfer torques for domain wall motion in antiferromagnetically coupled ferrimagnets. Nature Electronics, 2019, 2, 389-393.	26.0	55
34	Vanishing skyrmion Hall effect at the angular momentum compensation temperature of a ferrimagnet. Nature Nanotechnology, 2019, 14, 232-236.	31.5	137
35	Resistive detection of the Néel temperature of Cr_2O_3 thin films. Applied Physics Letters, 2019, 114, .	3.3	23
36	Bulk Dzyaloshinskii-Moriya interaction in amorphous ferrimagnetic alloys. Nature Materials, 2019, 18, 685-690.	27.5	116

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37	Enhanced perpendicular magnetocrystalline anisotropy energy in an artificial magnetic material with bulk spin-momentum coupling. <i>Physical Review B</i> , 2019, 99, .	3.2	16
38	Possible contribution of high-energy magnons to unidirectional magnetoresistance in metallic bilayers. <i>Applied Physics Express</i> , 2019, 12, 063001.	2.4	16
39	Low Magnetic Damping of Ferrimagnetic GdFeCo Alloys. <i>Physical Review Letters</i> , 2019, 122, 127203.	7.8	60
40	Choking Nonlocal Magnetic Damping in Exchange-Biased Ferromagnets. <i>Physical Review Applied</i> , 2019, 11, .	3.8	5
41	Intrinsic and extrinsic antiferromagnetic damping in NiO. <i>Physical Review Materials</i> , 2019, 3, .	2.4	38
42	Determination of perpendicular magnetic anisotropy based on the magnetic droplet nucleation. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 050308.	1.5	4
43	Spin-wave wavelength down-conversion at thickness steps. <i>Applied Physics Express</i> , 2018, 11, 053002.	2.4	13
44	Microscopic Investigation into the Electric Field Effect on Proximity-Induced Magnetism in Pt. <i>Physical Review Letters</i> , 2018, 120, 157203.	7.8	26
45	Antiferromagnetic spintronics. <i>Reviews of Modern Physics</i> , 2018, 90, .	45.6	1,536
46	Spin torque in FeRh alloy measured by spin-torque ferromagnetic resonance. <i>Applied Physics Express</i> , 2018, 11, 013008.	2.4	6
47	Homodyne detection of ferromagnetic resonance by a non-uniform radio-frequency excitation current. <i>Applied Physics Express</i> , 2018, 11, 053008.	2.4	7
48	Correlation between magnetic properties and depinning field in field-driven domain wall dynamics in GdFeCo ferrimagnets. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	5
49	Alternative to the topological interpretation of the transverse resistivity anomalies in SrRuO_3 . <i>Physical Review B</i> , 2018, 98, .	7.8	17
50	Magnetic domain writing defined by electrical gating in Pt/Co film. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	6
51	Spin torque control of antiferromagnetic moments in NiO. <i>Scientific Reports</i> , 2018, 8, 14167.	3.3	190
52	Observation of a Goos-Hänchen-like Phase Shift for Magnetostatic Spin Waves. <i>Physical Review Letters</i> , 2018, 121, 137201.	7.8	17
53	Spin-Orbit-Torque Memory Operation of Synthetic Antiferromagnets. <i>Physical Review Letters</i> , 2018, 121, 167202.	7.8	49
54	Spin current transmission in polycrystalline NiO films. <i>Applied Physics Express</i> , 2018, 11, 073003.	2.4	12

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55	Evaluation of electric field effect on interface magnetic properties by propagating spin wave in Pt/Co/MgO structures. Japanese Journal of Applied Physics, 2018, 57, 080309.	1.5	9
56	Effect of depinning field on determination of angular-momentum-compensation temperature of ferrimagnets. Applied Physics Express, 2018, 11, 063001.	2.4	4
57	Electric field effect on exchange interaction in ultrathin Co films with ionic liquids. Applied Physics Express, 2018, 11, 063002.	2.4	3
58	Correlation of the Dzyaloshinskiiâ€Moriya interaction with Heisenberg exchange and orbital asphericity. Nature Communications, 2018, 9, 1648.	12.8	60
59	Microscopic origin of electric-field-induced modulation of Curie temperature in cobalt. Applied Physics Express, 2018, 11, 073002.	2.4	9
60	Temperature dependence of spin-orbit effective fields in Pt/GdFeCo bilayers. Applied Physics Letters, 2017, 110, .	3.3	66
61	Origin of threshold current density for asymmetric magnetoresistance in Pt/Py bilayers. Applied Physics Express, 2017, 10, 073001.	2.4	16
62	Energy-efficient writing scheme for magnetic domain-wall motion memory. Applied Physics Express, 2017, 10, 043002.	2.4	4
63	Electrical control of superparamagnetism. Applied Physics Express, 2017, 10, 013004.	2.4	5
64	Fast domain wall motion in the vicinity of the angular momentum compensation temperature of ferrimagnets. Nature Materials, 2017, 16, 1187-1192.	27.5	321
65	Influence of sloped electric field on magnetic-field-induced domain wall creep in a perpendicularly magnetized Co wire. Japanese Journal of Applied Physics, 2017, 56, 050305.	1.5	7
66	Electric-field-induced modulation of the anomalous Hall effect in a heterostructured itinerant ferromagnet SrRuO_3 . Physical Review B, 2017, 96, .	3.2	19
67	Magnetic droplet nucleation with a homochiral Néel domain wall. Physical Review B, 2017, 95, .	3.2	36
68	Magnetic Moment Orientation-Dependent Spin Dissipation in Antiferromagnets. Physical Review Letters, 2017, 119, 267204.	7.8	30
69	Contributions of Co and Fe orbitals to perpendicular magnetic anisotropy of MgO/CoFeB bilayers with Ta, W, IrMn, and Ti underlayers. Applied Physics Express, 2017, 10, 073006.	2.4	9
70	Observation of asymmetry in domain wall velocity under transverse magnetic field. APL Materials, 2016, 4, 032504.	5.1	11
71	Anomalous behavior of $1/f$ noise in graphene near the charge neutrality point. Applied Physics Letters, 2016, 108, .	3.3	11
72	Modulation of the magnetic domain size induced by an electric field. Applied Physics Letters, 2016, 109, .	3.3	49

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73	Temperature dependence of spin Hall magnetoresistance in W/CoFeB bilayer. Japanese Journal of Applied Physics, 2016, 55, 080308.	1.5	8
74	Snell's Law for Spin Waves. Physical Review Letters, 2016, 117, 037204.	7.8	87
75	Exchange bias controlled by electric current: Interplay of Joule heating and the induced field. Japanese Journal of Applied Physics, 2016, 55, 070304.	1.5	3
76	Switching local magnetization by electric-field-induced domain wall motion. Applied Physics Express, 2016, 9, 063004.	2.4	10
77	Temperature dependence of magnetoresistance in GdFeCo/Pt heterostructure. Applied Physics Express, 2016, 9, 073001.	2.4	39
78	Observation of magnon Hall-like effect for sample-edge scattering in unsaturated YIG. Physica Status Solidi (B): Basic Research, 2016, 253, 783-787.	1.5	15
79	Soliton-like magnetic domain wall motion induced by the interfacial Dzyaloshinskii-Moriya interaction. Nature Physics, 2016, 12, 157-161.	16.7	125
80	Antiferromagnet-mediated spin transfer between a metal and a ferromagnet. Physical Review B, 2015, 92, .	3.2	49
81	Traveling surface spin-wave resonance spectroscopy using surface acoustic waves. Journal of Applied Physics, 2015, 118, .	2.5	68
82	Sequential write-read operations in FeRh antiferromagnetic memory. Applied Physics Letters, 2015, 107, .	3.3	79
83	Anti-damping spin transfer torque through epitaxial nickel oxide. Applied Physics Letters, 2015, 106, .	3.3	116
84	Interfacial Dzyaloshinskii-Moriya interaction studied by time-resolved scanning Kerr microscopy. Physical Review B, 2015, 92, .	3.2	21
85	Spin motive force induced in Fe ₃ O ₄ thin films with negative spin polarization. Applied Physics Express, 2015, 8, 123001.	2.4	9
86	Localized precessional mode of domain wall controlled by magnetic field and dc current. Applied Physics Express, 2015, 8, 023003.	2.4	4
87	Temperature dependence of current-induced magnetic domain wall motion in an asymmetric Co/Ni nanowire. Japanese Journal of Applied Physics, 2015, 54, 038004.	1.5	9
88	Ferromagnetic resonance measurements in sub-nanometer Fe films. Applied Physics Express, 2015, 8, 073003.	2.4	8
89	Chiral magnetic domain wall in ferrimagnetic GdFeCo wires. Applied Physics Express, 2015, 8, 073001.	2.4	29
90	Parity effect of bipolar quantum Hall edge transport around graphene antidots. Scientific Reports, 2015, 5, 11723.	3.3	7

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91	Precise control of magnetic domain wall displacement by a nanosecond current pulse in Co/Ni nanowires. Applied Physics Express, 2015, 8, 073008.	2.4	15
92	In-plane field-driven crossover in the spin-torque mechanism acting on magnetic domain walls in Co/Ni. Physical Review B, 2015, 91, .	3.2	16
93	Layer thickness dependence of current induced effective fields in ferromagnetic multilayers. Journal of Applied Physics, 2015, 117, .	2.5	9
94	Edge mixing dynamics in graphene p-n junctions in the quantum Hall regime. Nature Communications, 2015, 6, 8066.	12.8	28
95	Ferromagnetic resonance measurement using stroboscopic magneto-optical Kerr effect. Journal of Applied Physics, 2015, 117, 213908.	2.5	6
96	Micro-focused Brillouin light scattering study of the magnetization dynamics driven by Spin Hall effect in a transversely magnetized NiFe nanowire. Journal of Applied Physics, 2015, 117, 17D504.	2.5	6
97	Current induced antiferro-ferromagnetic transition in FeRh nanowires. Japanese Journal of Applied Physics, 2015, 54, 073002.	1.5	14
98	Dimensional crossover characterized by distribution of magnetic domain wall creep velocity. Applied Physics Express, 2015, 8, 073004.	2.4	0
99	Linewidth broadening of optical precession mode in synthetic antiferromagnet. Applied Physics Express, 2014, 7, 063010.	2.4	19
100	Proposal for quantifying the Dzyaloshinsky-Moriya interaction by domain walls annihilation measurement. Japanese Journal of Applied Physics, 2014, 53, 108001.	1.5	11
101	Real-time observation of Snell's law for spin waves in thin ferromagnetic films. Applied Physics Express, 2014, 7, 053001.	2.4	16
102	Ferromagnetic Resonance in Magnetite Thin Films. IEEE Transactions on Magnetics, 2014, 50, 1-3.	2.1	9
103	Different stochastic behaviors for magnetic field and current in domain wall creep motion. Applied Physics Express, 2014, 7, 053005.	2.4	8
104	Effect of spin Hall torque on current-induced precessional domain wall motion. Applied Physics Express, 2014, 7, 033005.	2.4	14
105	Transition in mechanism for current-driven magnetic domain wall dynamics. Applied Physics Express, 2014, 7, 053006.	2.4	27
106	Tradeoff between low-power operation and thermal stability in magnetic domain-wall-motion devices driven by spin Hall torque. Applied Physics Express, 2014, 7, 053003.	2.4	19
107	Spin-wave-induced domain wall motion in perpendicularly magnetized system. Applied Physics Express, 2014, 7, 033001.	2.4	14
108	Current-Induced Magnetic Domain Wall Motion in a Co/Ni Nanowire with Structural Inversion Asymmetry. Applied Physics Express, 2013, 6, 033001.	2.4	27

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109	Injection locking at zero field in two free layer spin-valves. Applied Physics Letters, 2013, 102, .	3.3	8
110	Current-Induced Effective Fields Detected by Magnetotransport Measurements. Applied Physics Express, 2013, 6, 113002.	2.4	33
111	High Spin Torque Efficiency of Magnetic Tunnel Junctions with MgO/CoFeB/MgO Free Layer. Applied Physics Express, 2012, 5, 093008.	2.4	74
112	Phase locking and frequency doubling in spin-transfer-torque oscillators with two coupled free layers. Physical Review B, 2012, 86, .	3.2	39
113	Spin-transfer torque in nanoscale magnetic devices. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 3617-3630.	3.4	15
114	Spin-Torque Ferromagnetic Resonance Induced by the Spin Hall Effect. Physical Review Letters, 2011, 106, 036601.	7.8	1,323
115	On-Chip Detection of Magnetic Dynamics for Single Microscopic Magnetic Dot. IEEE Transactions on Magnetism, 2011, 47, 359-361.	2.1	2
116	Tunnel magnetoresistance and spin torque switching in MgO-based magnetic tunnel junctions with a Co/Ni multilayer electrode. Applied Physics Letters, 2010, 97, .	3.3	34
117	Reduction of the spin-torque critical current by partially canceling the free layer demagnetization field. Applied Physics Letters, 2009, 94, .	3.3	62
118	Magnetic tunnel junction based microwave detector. Applied Physics Letters, 2009, 95, .	3.3	33
119	Nonlinear effective spin-mixing conductance in Pt/Ni80Fe20/Pt thin films. Journal of Applied Physics, 2009, 105, 07C705.	2.5	8
120	Spin-Polarized Transport and Dynamics in Magnetic Tunneling Structures. IEEE Transactions on Magnetism, 2009, 45, 3434-3440.	2.1	3
121	Ferromagnetic Resonance Spectroscopy With Very Large Precession Cone Angle in Magnetic Tunnel Junctions. IEEE Transactions on Magnetism, 2009, 45, 2047-2049.	2.1	2
122	Tunnel-barrier-enhanced dc voltage signals induced by magnetization dynamics in magnetic tunnel junctions. Physical Review B, 2008, 78, .	3.2	29
123	Microstructure, magnetic, and spin-dependent transport properties of (Zn,Cr)Te films fabricated by magnetron sputtering. Physical Review B, 2008, 77, .	3.2	7
124	Tunnel Barrier Enhanced Voltage Signal Generated by Magnetization Precession of a Single Ferromagnetic Layer. Physical Review Letters, 2008, 100, 067602.	7.8	45
125	Real-time evolution of tunneling magnetoresistance during annealing in CoFeB/MgO/CoFeB magnetic tunnel junctions. Applied Physics Letters, 2008, 92, .	3.3	38
126	Magnetization reversal by microwave in magnetic tunnel junctions. Journal of Applied Physics, 2008, 103, 07A906.	2.5	10

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127	Microwave-assisted magnetization switching of Ni ₈₀ Fe ₂₀ in magnetic tunnel junctions. Applied Physics Letters, 2007, 90, 152503.	3.3	87
128	Direct measurement of barrier asymmetry in AlO _x /ZrO ₂ magnetic tunnel junctions using off-axis electron holography. Physical Review B, 2007, 75, .	3.2	8
129	Tunneling magnetoresistance in (001)-oriented FeCo/MgO/FeCo magnetic tunneling junctions grown by sputtering deposition. Applied Physics Letters, 2006, 88, 222503.	3.3	33
130	In Vitro Heating With Polyethylene Glycol Coated Fe Nanoparticles. IEEE Transactions on Magnetics, 2006, 42, 3602-3604.	2.1	9
131	Spin-polarized transport in hybrid (Zn,Cr)Te/Al ₂ O ₃ /Co magnetic tunnel junctions. Applied Physics Letters, 2006, 88, 202501.	3.3	25
132	Magnetic tunnel junctions with L1 ₀ -ordered FePt alloy electrodes. Journal of Applied Physics, 2004, 95, 6789-6791.	2.5	30
133	Fe/MgO/FeCo(100) epitaxial magnetic tunnel junctions prepared by using in situ plasma oxidation. Journal of Applied Physics, 2003, 93, 8041-8043.	2.5	30
134	Structure and tunnel magnetoresistance in Fe/MgF ₂ /Co junctions with an oxide seed layer on an Fe bottom electrode. Journal of Applied Physics, 2002, 91, 7200.	2.5	4
135	Extrinsic contribution to anomalous Hall effect in chiral antiferromagnetic (111)-oriented L ₁ ₂ -Mn ₃ Ir films. Japanese Journal of Applied Physics, 0, , .	1.5	3