

Fumihiko Matsukura

List of Publications by Year in descending order

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92
all docs

92
docs citations

92
times ranked

14262
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric-field effect on magnetic moments in Co ultra-thin films deposited on Pt. Applied Physics Letters, 2021, 118, .	1.5	3
2	Magnetization dynamics and related phenomena in semiconductors with ferromagnetism. Journal of Semiconductors, 2019, 40, 081502.	2.0	1
3	Electric-field effect on magnetic anisotropy in Pt/Co/Pd/MgO structures deposited on GaAs and Si substrates. Applied Physics Express, 2018, 11, 013003.	1.1	13
4	Temperature-dependent properties of CoFeB/MgO thin films: Experiments versus simulations. Physical Review B, 2018, 98, .	1.1	46
5	Damping constant in a free layer in nanoscale CoFeB/MgO magnetic tunnel junctions investigated by homodyne-detected ferromagnetic resonance. Applied Physics Express, 2017, 10, 013001.	1.1	9
6	Magnetic domain-wall creep driven by field and current in Ta/CoFeB/MgO. AIP Advances, 2017, 7, .	0.6	10
7	Electric-field-induced magnetization switching in CoFeB/MgO magnetic tunnel junctions. Japanese Journal of Applied Physics, 2017, 56, 0802A3.	0.8	2
8	Annealing temperature dependence of magnetic properties of CoFeB/MgO stacks on different buffer layers. Japanese Journal of Applied Physics, 2017, 56, 0802B2.	0.8	14
9	Magnetization dynamics and its scattering mechanism in thin CoFeB films with interfacial anisotropy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3815-3820.	3.3	50
10	Magnetic-field-angle dependence of coercivity in CoFeB/MgO magnetic tunnel junctions with perpendicular easy axis. Applied Physics Letters, 2017, 111, .	1.5	18
11	Electric-field effect on spin-wave resonance in a nanoscale CoFeB/MgO magnetic tunnel junction. Applied Physics Letters, 2017, 111, .	1.5	16
12	Current-induced magnetization switching in a nano-scale CoFeB-MgO magnetic tunnel junction under in-plane magnetic field. AIP Advances, 2017, 7, 055927.	0.6	7
13	Magnetization Reversal by Field and Current Pulses in Elliptic CoFeB/MgO Tunnel Junctions With Perpendicular Easy Axis. IEEE Magnetics Letters, 2016, 7, 1-4.	0.6	13
14	Critical role of W deposition condition on spin-orbit torque induced magnetization switching in nanoscale W/CoFeB/MgO. Applied Physics Letters, 2016, 109, .	1.5	69
15	Peculiar temperature dependence of electric-field effect on magnetic anisotropy in Co/Pd/MgO system. Applied Physics Letters, 2016, 109, .	1.5	34
16	Effect of electric-field modulation of magnetic parameters on domain structure in MgO/CoFeB. AIP Advances, 2016, 6, .	0.6	27
17	Electric-field-induced magnetization switching in CoFeB/MgO magnetic tunnel junctions with high junction resistance. Applied Physics Letters, 2016, 108, .	1.5	84
18	Free- and reference-layer magnetization modes versus in-plane magnetic field in a magnetic tunnel junction with perpendicular magnetic easy axis. Physical Review B, 2016, 94, .	1.1	4

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19	Temperature dependence of in-plane magnetic anisotropy and anisotropic magnetoresistance in (Ga,Mn)As codoped with Li. Applied Physics Letters, 2016, 108, .	1.5	7
20	Adiabatic spin-transfer-torque-induced domain wall creep in a magnetic metal. Nature Physics, 2016, 12, 333-336.	6.5	43
21	Current-Induced Magnetization Switching of CoFeB/Ta/[Co/Pd (Pt)]-Multilayers in Magnetic Tunnel Junctions With Perpendicular Anisotropy. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	7
22	Electric-field induced nonlinear ferromagnetic resonance in a CoFeB/MgO magnetic tunnel junction. Applied Physics Letters, 2015, 107, .	1.5	15
23	Temperature dependence of energy barrier in CoFeB-MgO magnetic tunnel junctions with perpendicular easy axis. Applied Physics Letters, 2015, 107, .	1.5	27
24	Control of magnetism by electric fields. Nature Nanotechnology, 2015, 10, 209-220.	15.6	741
25	CoFeB Thickness Dependence of Damping Constants for Single and Double CoFeB-MgO Interface Structures. IEEE Magnetics Letters, 2015, 6, 1-3.	0.6	31
26	Temperature dependence of lattice parameter of (Ga,Mn)As on GaAs substrate. Japanese Journal of Applied Physics, 2015, 54, 098003.	0.8	2
27	In-plane anisotropy of a nano-scaled magnetic tunnel junction with perpendicular magnetic easy axis. Japanese Journal of Applied Physics, 2015, 54, 04DM03.	0.8	5
28	Ferromagnetic resonance in nanoscale CoFeB/MgO magnetic tunnel junctions. Journal of Applied Physics, 2015, 117, 17B708.	1.1	14
29	Inverse spin Hall effect in Pt/(Ga,Mn)As. Applied Physics Letters, 2015, 106, 222405.	1.5	4
30	Spin-orbit torque induced magnetization switching in nano-scale Ta/CoFeB/MgO. Applied Physics Letters, 2015, 107, .	1.5	167
31	Perpendicular-anisotropy CoFeB-MgO based magnetic tunnel junctions scaling down to 1X nm. , 2014, , .		20
32	Properties of (Ga,Mn)As codoped with Li. Applied Physics Letters, 2014, 104, 222408.	1.5	1
33	Properties of magnetic tunnel junctions with a MgO/CoFeB/Ta/CoFeB/MgO recording structure down to junction diameter of 11â€‰%nm. Applied Physics Letters, 2014, 105, .	1.5	240
34	Electric field-induced ferromagnetic resonance in a CoFeB/MgO magnetic tunnel junction under dc bias voltages. Applied Physics Letters, 2014, 105, .	1.5	44
35	Magnetization reversal induced by in-plane current in Ta/CoFeB/MgO structures with perpendicular magnetic easy axis. Journal of Applied Physics, 2014, 115, 17C714.	1.1	30
36	Electric-field effects on magnetic anisotropy and damping constant in Ta/CoFeB/MgO investigated by ferromagnetic resonance. Applied Physics Letters, 2014, 105, .	1.5	106

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37	DC voltages in Py and Py/Pt under ferromagnetic resonance. Applied Physics Express, 2014, 7, 013002.	1.1	31
38	Magnetization switching in a CoFeB/MgO magnetic tunnel junction by combining spin-transfer torque and electric field-effect. Applied Physics Letters, 2014, 104, .	1.5	87
39	In-plane magnetic field dependence of electric field-induced magnetization switching. Applied Physics Letters, 2013, 103, .	1.5	53
40	MgO/CoFeB/Ta/CoFeB/MgO Recording Structure in Magnetic Tunnel Junctions With Perpendicular Easy Axis. IEEE Transactions on Magnetics, 2013, 49, 4437-4440.	1.2	120
41	Magnetotransport measurements of current induced effective fields in Ta/CoFeB/MgO. Applied Physics Letters, 2013, 103, .	1.5	30
42	Three terminal magnetic tunnel junction utilizing the spin Hall effect of iridium-doped copper. Applied Physics Letters, 2013, 102, .	1.5	99
43	Direct-current voltages in (Ga,Mn)As structures induced by ferromagnetic resonance. Nature Communications, 2013, 4, 2055.	5.8	87
44	Magnetic properties of MgO-[Co/Pt] multilayers with a CoFeB insertion layer. Journal of Applied Physics, 2013, 113, .	1.1	28
45	Size Dependence of Magnetic Properties of Nanoscale CoFeB/MgO Magnetic Tunnel Junctions with Perpendicular Magnetic Easy Axis Observed by Ferromagnetic Resonance. Applied Physics Express, 2013, 6, 063002.	1.1	38
46	Electric field-induced magnetization reversal in a perpendicular-anisotropy CoFeB-MgO magnetic tunnel junction. Applied Physics Letters, 2012, 101, .	1.5	341
47	Observation of boron diffusion in an annealed Ta/CoFeB/MgO magnetic tunnel junction with standing-wave hard x-ray photoemission. Applied Physics Letters, 2012, 101, .	1.5	64
48	Boron Composition Dependence of Magnetic Anisotropy and Tunnel Magnetoresistance in MgO/CoFe(B) Based Stack Structures. IEEE Transactions on Magnetics, 2012, 48, 3829-3832.	1.2	28
49	Perpendicular-anisotropy CoFeB-MgO magnetic tunnel junctions with a MgO/CoFeB/Ta/CoFeB/MgO recording structure. Applied Physics Letters, 2012, 101, .	1.5	255
50	Magnetism of Co-doped ZnO epitaxially grown on a ZnO substrate. Physical Review B, 2012, 85, .	1.1	54
51	CoFeB Thickness Dependence of Thermal Stability Factor in CoFeB/MgO Perpendicular Magnetic Tunnel Junctions. IEEE Magnetics Letters, 2012, 3, 3000204-3000204.	0.6	92
52	Domain Structure in CoFeB Thin Films With Perpendicular Magnetic Anisotropy. IEEE Magnetics Letters, 2011, 2, 3000304-3000304.	0.6	124
53	Junction size effect on switching current and thermal stability in CoFeB/MgO perpendicular magnetic tunnel junctions. Applied Physics Letters, 2011, 99, .	1.5	143
54	Origin of the collapse of tunnel magnetoresistance at high annealing temperature in CoFeB/MgO perpendicular magnetic tunnel junctions. Applied Physics Letters, 2011, 99, .	1.5	55

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55	Dependence of magnetic anisotropy on MgO thickness and buffer layer in Co ₂₀ Fe ₆₀ B ₂₀ -MgO structure. Journal of Applied Physics, 2011, 109, .	1.1	109
56	Tunnel magnetoresistance properties and annealing stability in perpendicular anisotropy MgO-based magnetic tunnel junctions with different stack structures. Journal of Applied Physics, 2011, 109, .	1.1	16
57	Current induced effective magnetic field and magnetization reversal in uniaxial anisotropy (Ga,Mn)As. Applied Physics Letters, 2010, 97, .	1.5	61
58	Simulation of magnetization switching by electric-field manipulation of magnetic anisotropy. Applied Physics Letters, 2010, 96, .	1.5	49
59	A perpendicular-anisotropy CoFe/B ⁺ MgO magnetic tunnel junction. Nature Materials, 2010, 9, 721-724.	13.3	3,020
60	Experimental probing of the interplay between ferromagnetism and localization in (Ga,Mn)As. Nature Physics, 2010, 6, 22-25.	6.5	211
61	Tunnel magnetoresistance properties and film structures of double MgO barrier magnetic tunnel junctions. Applied Physics Letters, 2010, 96, .	1.5	49
62	Domain wall creep in (Ga,Mn)As. Applied Physics Letters, 2010, 97, 032504.	1.5	13
63	Curie temperature versus hole concentration in field-effect structures of $Ga_{1-x}Mn_xAs$. Physical Review B, 2010, 81, .	1.1	69
64	Electric double layer transistor with a (Ga,Mn)As channel. Applied Physics Letters, 2010, 96, .	1.5	40
65	Electric-field effects on thickness dependent magnetic anisotropy of sputtered MgO/Co ₄₀ Fe ₄₀ B ₂₀ /Ta structures. Applied Physics Letters, 2010, 96, .	1.5	443
66	MgO barrier-perpendicular magnetic tunnel junctions with CoFe/Pd multilayers and ferromagnetic insertion layers. Applied Physics Letters, 2009, 95, .	1.5	130
67	ac susceptibility of (Ga,Mn)As probed by the anomalous Hall effect. Journal of Applied Physics, 2009, 105, 07C516.	1.1	0
68	Magnetization vector manipulation by electric fields. Nature, 2008, 455, 515-518.	13.7	602
69	Chapter 5 Spintronic Properties of Ferromagnetic Semiconductors. Semiconductors and Semimetals, 2008, , 207-240.	0.4	3
70	Tunnel magnetoresistance of 604% at 300K by suppression of Ta diffusion in CoFe/B ⁺ MgO/B ⁺ CoFeB pseudo-spin-valves annealed at high temperature. Applied Physics Letters, 2008, 93, .	1.5	1,259
71	Properties of Ga _{1-x} Mn _x As with high x (>0.1). Journal of Applied Physics, 2008, 103, .	1.1	20
72	Electrical Curie temperature modulation in (Ga,Mn)As field-effect transistors with Mn composition from 0.027 to 0.200. Journal of Applied Physics, 2008, 103, 07D139.	1.1	7

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73	Effect of electrode composition on the tunnel magnetoresistance of pseudo-spin-valve magnetic tunnel junction with a MgO tunnel barrier. Applied Physics Letters, 2007, 90, 212507.	1.5	293
74	Properties of Ga _{1-x} Mn _x As with high Mn composition (x>0.1). Applied Physics Letters, 2007, 90, 122503.	1.5	72
75	2-Mb SPRAM design: bi-directional current write and parallelizing-direction current read based on spin-transfer torque switching. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3929-3933.	0.8	2
76	Channel Thickness Dependence of the Magnetic Properties in (Ga,Mn)As FET Structures. Journal of Superconductivity and Novel Magnetism, 2007, 20, 409-411.	0.8	4
77	Bias voltage dependence of the electron spin injection studied in a three-terminal device based on a (Ga,Mn)As ⁿ⁺ -GaAs Esaki diode. Applied Physics Letters, 2006, 89, 012103.	1.5	39
78	Spin injection with three terminal device based on (Ga,Mn)As/n ⁺ -GaAs tunnel junction. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4164-4167.	0.8	5
79	Magnetic anisotropy in (Ga,Mn)As probed by magnetotransport measurements. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4086-4089.	0.8	14
80	Effect of high annealing temperature on giant tunnel magnetoresistance ratio of CoFeB/MgO/CoFeB magnetic tunnel junctions. Applied Physics Letters, 2006, 89, 232510.	1.5	205
81	Effect of GaAs Intermediary Layer Thickness on the Properties of (Ga,Mn)As Tri-Layer Structures. Journal of Superconductivity and Novel Magnetism, 2006, 18, 345-347.	0.5	5
82	Tunnel magnetoresistance in MgO-barrier magnetic tunnel junctions with bcc-CoFe(B) and fcc-CoFe free layers. Journal of Applied Physics, 2006, 99, 08A907.	1.1	52
83	Giant tunnel magnetoresistance and high annealing stability in CoFeB/MgO/CoFeB magnetic tunnel junctions with synthetic pinned layer. Applied Physics Letters, 2006, 89, 042506.	1.5	150
84	Pulse-width and magnetic-field dependences of current-induced magnetization switching in a (Ga,Mn)As magnetic tunnel junction. Journal of Applied Physics, 2006, 99, 08G514.	1.1	8
85	Dependence of Tunnel Magnetoresistance in MgO Based Magnetic Tunnel Junctions on Ar Pressure during MgO Sputtering. Japanese Journal of Applied Physics, 2005, 44, L1442-L1445.	0.8	99
86	Magnetotransport properties of metallic (Ga,Mn)As films with compressive and tensile strain. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 1032-1036.	1.3	120
87	Electrical Manipulation of Magnetization Reversal in a Ferromagnetic Semiconductor. Science, 2003, 301, 943-945.	6.0	588
88	Hole-mediated ferromagnetism in tetrahedrally coordinated semiconductors. Physical Review B, 2001, 63, .	1.1	1,439
89	Electric-field control of ferromagnetism. Nature, 2000, 408, 944-946.	13.7	1,904
90	Zener Model Description of Ferromagnetism in Zinc-Blende Magnetic Semiconductors. Science, 2000, 287, 1019-1022.	6.0	7,340

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91	Electrical spin injection in a ferromagnetic semiconductor heterostructure. Nature, 1999, 402, 790-792.	13.7	2,315
92	Epitaxy of (Ga, Mn)As, a new diluted magnetic semiconductor based on GaAs. Journal of Crystal Growth, 1997, 175-176, 1069-1074.	0.7	183