

Takahide Kubota

List of Publications by Year in descending order

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123
papers

3,319
citations

159358

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54
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125
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125
docs citations

125
times ranked

2689
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-Lived Ultrafast Spin Precession in Manganese Alloys Films with a Large Perpendicular Magnetic Anisotropy. Physical Review Letters, 2011, 106, 117201.	2.9	293
2	Half-metallicity and Gilbert damping constant in $\text{Co}_2\text{Fe}_x\text{Mn}_{1-x}\text{Si}$ Heusler alloys depending on the film composition. Applied Physics Letters, 2009, 94, .	1.5	214
3	Heusler alloys for spintronic devices: review on recent development and future perspectives. Science and Technology of Advanced Materials, 2021, 22, 235-271.	2.8	171
4	Composition dependence of magnetic properties in perpendicularly magnetized epitaxial thin films of Mn-Ga alloys. Physical Review B, 2012, 85, .	1.1	151
5	Observation of a large spin-dependent transport length in organic spin valves at room temperature. Nature Communications, 2013, 4, 1392.	5.8	140
6	Anomalous Nernst Effect in $\text{L}_1\text{-FePt/MnGa}$ Thermopiles for New Thermoelectric Applications. Applied Physics Express, 2013, 6, 033003.	1.1	131
7	Material dependence of anomalous Nernst effect in perpendicularly magnetized ordered-alloy thin films. Applied Physics Letters, 2015, 106, .	1.5	86
8	Gilbert magnetic damping constant of epitaxially grown Co-based Heusler alloy thin films. Applied Physics Letters, 2010, 96, .	1.5	80
9	Low-damping spin-wave propagation in a micro-structured $\text{Co}_2\text{Mn}_{0.6}\text{Fe}_{0.4}\text{Si}$ Heusler waveguide. Applied Physics Letters, 2012, 100, 112402.	1.5	80
10	Gilbert Damping in Ni/Co Multilayer Films Exhibiting Large Perpendicular Anisotropy. Applied Physics Express, 2011, 4, 013005.	1.1	70
11	Nonlinear Emission of Spin-Wave Caustics from an Edge Mode of a Microstructured Co_2MnSi Heusler Alloy. Physical Review Letters, 2013, 110, 067201.	2.9	68
12	Magnetoresistance effect in $\text{L}_1\text{-MnGa/MgO/CoFeB}$ perpendicular magnetic tunnel junctions with Co interlayer. Applied Physics Letters, 2012, 101, .	1.5	66
13	Fabrication of $\text{L}_1\text{-MnAl}$ perpendicularly magnetized thin films for perpendicular magnetic tunnel junctions. Journal of Applied Physics, 2012, 111, .	1.1	64
14	Magnetoresistance Effect in Tunnel Junctions with Perpendicularly Magnetized $\text{D}_{022}\text{-Mn}_3\text{Ga}$ Electrode and MgO Barrier. Applied Physics Express, 2011, 4, 043002.	1.1	59
15	Tetragonal $\text{D}_{022}\text{-Mn}_3\text{Ge}$ Epitaxial Films Grown on MgO(100) with a Large Perpendicular Magnetic Anisotropy. Applied Physics Express, 2013, 6, 123002.	1.1	59
16	Band-Structure-Dependent Demagnetization in the Heusler Alloy Co_2MnSi . Physical Review Letters, 2010, 105, 217202.	2.9	58
17	Evidence of Fermi level control in a half-metallic Heusler compound Co_2MnSi Al-doping: Comparison of measurements with first-principles calculations. Physical Review B, 2010, 81, .	1.1	55
18	Damping of Magnetization Precession in Perpendicularly Magnetized CoFeB Alloy Thin Films. Applied Physics Express, 2012, 5, 083001.	1.1	51

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19	Abrupt Transition from Ferromagnetic to Antiferromagnetic of Interfacial Exchange in Perpendicularly Magnetized $\text{L}_{10}\text{-MnGa/FeCo}$ Tuned by Fermi Level Position. <i>Physical Review Letters</i> , 2014, 112, 157202.	2.9	50
20	Laser-Induced Fast Magnetization Precession and Gilbert Damping for CoCrPt Alloy Thin Films with Perpendicular Magnetic Anisotropy. <i>Applied Physics Express</i> , 2010, 3, 123001.	1.1	49
21	Composition dependence of magnetoresistance effect and its annealing endurance in tunnel junctions having Mn-Ga electrode with high perpendicular magnetic anisotropy. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	45
22	Development of antiferromagnetic Heusler alloys for the replacement of iridium as a critically raw material. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 443001.	1.3	43
23	Structure, exchange stiffness, and magnetic anisotropy of $\text{Co}_2\text{MnAl}_x\text{Si}_{1-x}$ Heusler compounds. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	42
24	Voltage control of magnetic anisotropy in epitaxial $\text{Ru/Co}_2\text{FeAl/MgO}$ heterostructures. <i>Scientific Reports</i> , 2017, 7, 45026.	1.6	40
25	Interface tailoring effect on magnetic properties and their utilization in MnGa-based perpendicular magnetic tunnel junctions. <i>Physical Review B</i> , 2013, 87, .	1.1	39
26	Fully epitaxial C1b-type NiMnSb half-Heusler alloy films for current-perpendicular-to-plane giant magnetoresistance devices with a Ag spacer. <i>Scientific Reports</i> , 2016, 5, 18387.	1.6	38
27	Stoichiometry dependent phase transition in Mn-Co-Ga-based thin films: From cubic in-plane, soft magnetized to tetragonal perpendicular, hard magnetized. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	36
28	Fast magnetization precession for perpendicularly magnetized MnAlGe epitaxial films with atomic layered structures. <i>Applied Physics Letters</i> , 2013, 103, 142405.	1.5	36
29	Magnetic damping constant in Co-based full heusler alloy epitaxial films. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 164012.	1.3	36
30	Effect of Mg interlayer on perpendicular magnetic anisotropy of CoFeB films in MgO/Mg/CoFeB/Ta structure. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	35
31	Effect of metallic Mg insertion on the magnetoresistance effect in MgO -based tunnel junctions using $\text{D}_{22}\text{-Mn}_3\text{-Ga}$ perpendicularly magnetized spin polarizer. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	30
32	Efficiency of ultrafast optically induced spin transfer in Heusler compounds. <i>Physical Review Research</i> , 2020, 2, .	1.3	29
33	Dependence of Tunnel Magnetoresistance Effect on Fe Thickness of Perpendicularly Magnetized $\text{L}_{10}\text{-Mn}_{62}\text{Ga}_{38}\text{/Fe/MgO/CoFe}$ Junctions. <i>Applied Physics Express</i> , 2012, 5, 043003.	1.1	28
34	Ferrimagnetism in epitaxially grown Mn_2VAl Heusler alloy investigated by means of soft x-ray magnetic circular dichroism. <i>Applied Physics Letters</i> , 2009, 95, 222503.	1.5	25
35	Spin-dependent transport behavior in C_{60} and Alq_3 based spin valves with a magnetite electrode (invited). <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	25
36	Current perpendicular to film plane type giant magnetoresistance effect using a Ag/Mg spacer and $\text{Co}_{0.2}\text{Fe}_{0.4}\text{Mn}_{0.6}\text{Si}$ Heusler alloy electrodes. <i>Applied Physics Express</i> , 2015, 8, 063008.	1.1	25

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37	Nonlinear electric field effect on perpendicular magnetic anisotropy in Fe/MgO interfaces. Journal Physics D: Applied Physics, 2017, 50, 40LT04.	1.3	25
38	Structural-order dependence of anomalous Hall effect in Co ₂ MnGa topological semimetal thin films. Applied Physics Letters, 2019, 115, .	1.5	25
39	Fabrication of perpendicularly magnetized magnetic tunnel junctions with L1-CoPt/Co ₂ MnSi hybrid electrode. Journal of Applied Physics, 2010, 107, .	1.1	23
40	Tunneling Spin Polarization and Magnetic Properties of Co-Fe-B Alloys and Their Dependence on Boron Content. Japanese Journal of Applied Physics, 2007, 46, L250-L252.	0.8	22
41	Current-perpendicular-to-plane giant magnetoresistance effects using Heusler alloys. Journal of Magnetism and Magnetic Materials, 2019, 492, 165667.	1.0	22
42	Spin-Hall and anisotropic magnetoresistance in ferrimagnetic Co-Gd/Pt layers. Physical Review Materials, 2018, 2, .	0.9	22
43	Magnetic and transport properties of tetragonal- or cubic-Heusler-type Co-substituted Mn-Ga epitaxial thin films. Journal of Applied Physics, 2013, 113, .	1.1	21
44	Anomalous Ettingshausen effect in ferrimagnetic Co-Gd. Applied Physics Express, 2019, 12, 023006.	1.1	20
45	Perpendicular Magnetic Anisotropy of Co ₂ Fe _x Mn _{1-x} Si Heusler Alloy Ultra-Thin Films. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	19
46	Non-Gilbert-damping Mechanism in a Ferromagnetic Heusler Compound Probed by Nonlinear Spin Dynamics. Physical Review Letters, 2014, 113, 227601.	2.9	19
47	Direct measurement of the magnetic anisotropy field in Mn-Ga and Mn-Co-Ga Heusler films. Journal Physics D: Applied Physics, 2015, 48, 164006.	1.3	19
48	Strain-Induced Large Anomalous Nernst Effect in Polycrystalline Co ₂ MnGa/AlN Multilayers. Advanced Electronic Materials, 2022, 8, .	2.6	19
49	Quadratic magneto-optical Kerr effect in Co ₂ MnSi. Journal of Applied Physics, 2011, 110, 043904.	1.1	18
50	Magnetic tunnel junctions of perpendicularly magnetized L1 ₀ -MnGa/Fe/MgO/CoFe structures: Fe-layer-thickness dependences of magnetoresistance effect and tunnelling conductance spectra. Journal Physics D: Applied Physics, 2013, 46, 155001.	1.3	17
51	Zero-field spin torque oscillation in Co ₂ (Fe, Mn)Si with a point contact geometry. Applied Physics Letters, 2015, 106, 092406.	1.5	17
52	Current perpendicular-to-plane giant magnetoresistance devices using half-metallic Co ₂ Fe _{0.4} Mn _{0.6} Si electrodes and a Ag-Mg spacer. Journal Physics D: Applied Physics, 2017, 50, 014004.	1.3	17
53	Note: Probing quadratic magneto-optical Kerr effects with a dual-beam system. Review of Scientific Instruments, 2010, 81, 026105.	0.6	16
54	Interface effects on perpendicular magnetic anisotropy for molecular-capped cobalt ultrathin films. Applied Physics Letters, 2011, 99, 162509.	1.5	16

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55	Interlayer exchange coupling and spin Hall effect through an Ir-doped Cu nonmagnetic layer. Physical Review B, 2020, 101, .	1.1	16
56	Ultrafast magnetization dynamics in Co-based Heusler compounds with tuned chemical ordering. New Journal of Physics, 2014, 16, 063068.	1.2	15
57	giant magnetoresistance using an L_2 interface of Ag_3Mg spacer and $Pd/Co_2Fe_xMn_1-x/MgO$ Layered Structures. Materials Transactions, 2016, 57, 773-776.	0.9	15
58	Interface Magnetic Anisotropy of $Pd/Co_2Fe_xMn_1-x/MgO$ Layered Structures. Materials Transactions, 2016, 57, 773-776.		
59	Spin torque-induced magnetization dynamics in giant magnetoresistance devices with Heusler alloy layers. Journal Physics D: Applied Physics, 2015, 48, 164010.	1.3	13
60	Spin Transport in $CoAl_2O_3/Alq_3/Co$ Organic Spin Valve. IEEE Transactions on Magnetics, 2011, 47, 2649-2651.	1.2	11
61	Magnetization dynamics for L_{10} MnGa/Fe exchange coupled bilayers. Journal of Applied Physics, 2014, 115, 17C119.	1.1	11
62	Parameter-free determination of the exchange constant in thin films using magnonic patterning. Applied Physics Letters, 2016, 108, .	1.5	11
63	Enhanced current-perpendicular-to-plane giant magnetoresistance effect in half-metallic NiMnSb based nanojunctions with multiple Ag spacers. Applied Physics Letters, 2016, 108, .	1.5	11
64	Exchange bias effects in Heusler alloy Ni_2MnAl/Fe bilayers. Journal Physics D: Applied Physics, 2016, 49, 235001.	1.3	11
65	Spin-charge conversion in NiMnSb Heusler alloy films. Science Advances, 2019, 5, eaaw9337.	4.7	11
66	Electronic properties of Co_2MnSi thin films studied by hard x-ray photoelectron spectroscopy. Journal Physics D: Applied Physics, 2009, 42, 084011.	1.3	10
67	Large change of perpendicular magnetic anisotropy in Cobalt ultrathin film induced by varying capping layers. Journal of Applied Physics, 2012, 111, 07B320.	1.1	10
68	Tunnel magnetoresistance effect using perpendicularly magnetized tetragonal and cubic Mn-Co-Ga Heusler alloy electrode. Journal of Applied Physics, 2014, 115, 17C704.	1.1	10
69	Mn_2VAl Heusler alloy thin films: appearance of antiferromagnetism and exchange bias in a layered structure with Fe. Journal Physics D: Applied Physics, 2018, 51, 065001.	1.3	10
70	Transport properties of epitaxial films for superconductor NbN and half-metallic Heusler alloy Co_2MnSi under high magnetic fields. Physica B: Condensed Matter, 2018, 536, 310-313.	1.3	10
71	Influence of Pt Doping on Gilbert Damping in Permalloy Films and Comparison with the Perpendicularly Magnetized Alloy Films. Japanese Journal of Applied Physics, 2011, 50, 103003.	0.8	10
72	Influence of Pt Doping on Gilbert Damping in Permalloy Films and Comparison with the Perpendicularly Magnetized Alloy Films. Japanese Journal of Applied Physics, 2011, 50, 103003.	0.8	9

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73	Magnetic dichroism study on Mn _{1.8} Co _{1.2} Ga thin film using a combination of x-ray absorption and photoemission spectroscopy. Journal Physics D: Applied Physics, 2015, 48, 164007.	1.3	9
74	Unconventional drop in the electrical resistance of chromium metal thin films at low temperature. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 3133-3137.	0.9	9
75	Dual-spacer nanojunctions exhibiting large current-perpendicular-to-plane giant magnetoresistance for ultrahigh density magnetic recording. Applied Physics Letters, 2017, 110, .	1.5	9
76	Investigation of the Mn ^{3d} /Ga/MgO interface for magnetic tunneling junctions. Journal of Applied Physics, 2014, 116, 034508.	1.1	8
77	Structural, electronic, and magnetic properties of perpendicularly magnetised Mn ₂ RhSn thin films. Journal Physics D: Applied Physics, 2015, 48, 164008.	1.3	8
78	Perpendicularly magnetized Cu ₂ Sb type (Mn-Cr)AlGe films onto amorphous SiO ₂ . Applied Physics Express, 2019, 12, 103002.	1.1	8
79	Ultrafast demagnetization for Ni ₈₀ Fe ₂₀ and half-metallic Co ₂ MnSi heusler alloy films. Journal of Physics: Conference Series, 2010, 200, 042017.	0.3	7
80	The electrical resistivity of epitaxially deposited chromium films. Journal of Physics: Conference Series, 2017, 871, 012002.	0.3	7
81	Epitaxial contact Andreev reflection spectroscopy of NbN/Co ₂ FeSi layered devices. Applied Physics Letters, 2018, 112, .	1.5	7
82	Non-destructive imaging for quality assurance of magnetoresistive random-access memory junctions. Journal Physics D: Applied Physics, 2020, 53, 014004.	1.3	7
83	Perpendicular magnetic anisotropy of (001)-textured poly-crystalline MnAlGe films. AIP Advances, 2020, 10, 015122.	0.6	6
84	Generation of terahertz transients from $\text{Co}_{2-\text{Mn}}\text{Heusler-alloy}/\text{normal-metal}$ nanobilayers excited by femtosecond optical pulses. Physical Review Research, 2021, 3, .	1.3	6
85	Nanoscale-Thick Ni-Based Half-Heusler Alloys with Structural Ordering-Dependent Ultralow Magnetic Damping: Implications for Spintronic Applications. ACS Applied Nano Materials, 2022, 5, 569-577.	2.4	6
86	Fabrication and Characterization of Epitaxial Films of Superconductor NbN and Highly Spin-Polarized Heusler Alloy Co ₂ Fe _{0.4} Mn _{0.6} Si. IEEE Magnetics Letters, 2017, 8, 1-5.	0.6	5
87	Size dependence of vortex-type spin torque oscillation in a Co ₂ Fe _{0.4} Mn _{0.6} Si Heusler alloy disk. Journal Physics D: Applied Physics, 2018, 51, 075005.	1.3	5
88	Chemical and structural analysis on magnetic tunnel junctions using a decelerated scanning electron beam. Scientific Reports, 2018, 8, 7585.	1.6	5
89	Interface Tailoring Effect for Heusler Based CPP-GMR with an L12-Type Ag ₃ Mg Spacer. Materials, 2018, 11, 219.	1.3	5
90	Scaling of quadratic and linear magneto-optic Kerr effect spectra with L21 ordering of Co ₂ MnSi Heusler compound. Applied Physics Letters, 2020, 116, .	1.5	5

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91	Time-Resolved Kerr Effect in Very Thin Films of CoCrPt Alloys. IEEE Transactions on Magnetics, 2011, 47, 3897-3900.	1.2	4
92	Annealing Temperature and Co Layer Thickness Dependence of Magnetoresistance Effect for MnGa/Co/MgO/CoFeB Perpendicular Magnetic Tunnel Junctions. IEEE Transactions on Magnetics, 2012, 48, 2808-2811.	1.2	4
93	Modelling of the Peltier effect in magnetic multilayers. Journal of Applied Physics, 2016, 119, .	1.1	4
94	Optimization of half-Heusler PtMnSb alloy films for spintronic device applications. Journal Physics D: Applied Physics, 2018, 51, 435002.	1.3	4
95	Deposition temperature dependence of interface magnetism of Co_2FeGe -Heusler-alloy/Ag films studied with 57 Fe Mössbauer spectroscopy. Journal of Magnetism and Magnetic Materials, 2018, 464, 71-75.	1.0	4
96	Temperature dependence of current-perpendicular-to-plane giant magnetoresistance in the junctions with interface tailored Heusler alloy electrodes. Journal of Magnetism and Magnetic Materials, 2019, 474, 365-368.	1.0	4
97	Perpendicular magnetic anisotropy in ultra-thin Cu_2Sb -type $(\text{Mn}\text{Cr})\text{AlGe}$ films fabricated onto thermally oxidized silicon substrates. Applied Physics Letters, 2021, 118, .	1.5	4
98	Magnetization Precession at Sub-Terahertz Frequencies in Polycrystalline Cu_2Sb -type $(\text{Mn}\text{Cr})\text{AlGe}$ Ultrathin Films. Small, 2022, , 2200378.	5.2	4
99	Magnetoelastic anisotropy in Heusler-type MnCo_2Ga films. Physical Review Materials, 2022, 6, .	1.0	4
100	Magnetoresistance Effect in Co_2MnSi /semimetallic- Fe_2VAl /CoFe Junctions. Journal of Physics: Conference Series, 2011, 266, 012096.	0.3	3
101	Magnetic properties of $\text{L}_{10}\text{-Mn}_{57}\text{Ga}_{43}/\text{Co}$ bilayer films with different Co thicknesses. Journal of Magnetism and Magnetic Materials, 2013, 346, 53-57.	1.0	3
102	Magnetoresistance Enhancement in $\text{Mn}_{1-x}\text{Ga}_{100-x}/\text{MgO}/\text{CoFeB}$ Perpendicular Magnetic Tunnel Junctions by Using CoFeB Interlayer. IEEE Transactions on Magnetics, 2013, 49, 4339-4342.	1.2	3
103	Tunneling magnetoresistance effect in MnGa based perpendicular magnetic tunnel junction with Fe/Co interlayer. Journal of Applied Physics, 2013, 114, 163913.	1.1	3
104	Static and dynamic magnetic properties of cubic Mn-Co-Ga Heusler films. Journal of Applied Physics, 2014, 115, 17D133.	1.1	3
105	Anisotropic Magnetoresistance Effect in $\text{Co}_2(\text{FeMn})(\text{AlSi})$ Heusler Alloy Thin Film. IEEE Transactions on Magnetics, 2015, 51, 1-3.	1.2	3
106	Impact of local order and stoichiometry on the ultrafast magnetization dynamics of Heusler compounds. Journal Physics D: Applied Physics, 2015, 48, 164016.	1.3	3
107	Buffer-Layer Dependence of Interface Magnetic Anisotropy in $\text{Co}_2\text{Fe}_{0.4}\text{Mn}_{0.6}\text{Si}$ Heusler Alloy Ultrathin Films. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	3
108	Buffer layer dependence of magnetoresistance effects in $\text{Co}_2\text{Fe}_{0.4}\text{Mn}_{0.6}\text{Si}/\text{MgO}/\text{Co}_{50}\text{Fe}_{50}$ tunnel junctions. AIP Advances, 2018, 8, .	0.6	3

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109	Epitaxially grown Cu ₂ Sb-type MnGaGe films with large perpendicular magnetic anisotropy. Applied Physics Letters, 2020, 116, .	1.5	3
110	Reply to "Comment on "Current perpendicular to film plane type giant magnetoresistance effect using a Ag/Mg spacer and Co ₂ /Fe _{0.4} /Mn _{0.6} /Si Heusler alloy electrodes" " Applied Physics Express, 2015, 8, 119102.	1.1	2
111	Size dependence of Peltier cooling in ferromagnet/Au nanopillars. Applied Physics Express, 2015, 8, 083002.	1.1	2
112	Epitaxial CuN Films with Highly Tunable Lattice Constant for Lattice-Matched Magnetic Heterostructures with Enhanced Thermal Stability. Advanced Electronic Materials, 2018, 4, 1700367.	2.6	2
113	Microstructures and Interface Magnetic Moments in Mn ₂ VAl/Fe Layered Films Showing Exchange Bias. Nanomaterials, 2021, 11, 1723.	1.9	2
114	MgO template effect for perpendicular magnetic anisotropy in (001)-textured poly-crystalline MnAlGe films. AIP Advances, 2021, 11, 015124.	0.6	2
115	Anisotropic magnetoresistance effect in Co ₂ (Fe-Mn)(Al-Si) Heusler alloy thin films. , 2015, , .		1
116	Forward scattering in hard X-ray photoelectron spectroscopy: Structural investigation of buried MnGa films. Applied Physics Letters, 2015, 106, 052402.	1.5	1
117	The electrical resistance of gold-capped chromium thin films. Journal of Physics: Conference Series, 2018, 969, 012029.	0.3	1
118	Blocking temperature enhancement in Ni ₂ MnAl/Fe bilayers by thermal treatments. Journal of Magnetism and Magnetic Materials, 2019, 478, 206-210.	1.0	1
119	Evaluation of edge domains in giant magnetoresistive junctions. Applied Physics Letters, 2021, 118, 172405.	1.5	1
120	Half-metallicity and Gilbert damping constant in Co ₂ FexMn _{1-x} Si Heusler alloys depending on the film composition. , 0, .		1
121	Underlayer-dependent perpendicular magnetic anisotropy of Co ₂ /Fe _{0.4} /Mn _{0.6} /Si Heusler alloy ultra-thin films. , 2017, , .		0
122	Spin Electronics. , 2019, , 537-555.		0
123	Ordered Alloys for Spintronics. Journal of the Institute of Electrical Engineers of Japan, 2019, 139, 607-612.	0.0	0