

Tim Mewes

List of Publications by Year in descending order

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95
papers

2,582
citations

172457

29
h-index

206112

48
g-index

95
all docs

95
docs citations

95
times ranked

2724
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances and Future Prospects of Spin-Transfer Torque Random Access Memory. IEEE Transactions on Magnetics, 2010, 46, 1873-1878.	2.1	311
2	Switching Distributions for Perpendicular Spin-Torque Devices Within the Macrospin Approximation. IEEE Transactions on Magnetics, 2012, 48, 4684-4700.	2.1	137
3	Local manipulation and reversal of the exchange bias field by ion irradiation in FeNi/FeMn double layers. Physical Review B, 2001, 63, .	3.2	135
4	Measurements of the exchange stiffness of YIG films using broadband ferromagnetic resonance techniques. Journal Physics D: Applied Physics, 2015, 48, 015001.	2.8	123
5	Suppression of exchange bias by ion irradiation. Applied Physics Letters, 2000, 76, 1057-1059.	3.3	97
6	Origin of low Gilbert damping in half metals. Applied Physics Letters, 2009, 95, .	3.3	95
7	Oscillatory exchange bias effect in FeNi/Cu/FeMn and FeNi/Cr/FeMn trilayer systems. Journal of Applied Physics, 2000, 87, 5064-5066.	2.5	65
8	Bulk Single Crystal-Like Structural and Magnetic Characteristics of Epitaxial Spinel Ferrite Thin Films with Elimination of Antiphase Boundaries. Advanced Materials, 2017, 29, 1701222.	21.0	54
9	Magnetic domain wall skyrmions. Physical Review B, 2019, 99, .	3.2	51
10	Interfacial perpendicular magnetic anisotropy and damping parameter in ultra thin Co ₂ FeAl films. Applied Physics Letters, 2013, 102, .	3.3	49
11	Origin of fourfold anisotropy in square lattices of circular ferromagnetic dots. Physical Review B, 2006, 74, .	3.2	48
12	Magnetization relaxation and structure of CoFeGe alloys. Applied Physics Letters, 2009, 95, .	3.3	48
13	Enhanced coercivity of exchange-bias Fe/MnPd bilayers. Applied Physics Letters, 1999, 75, 707-709.	3.3	47
14	Angular dependence and phase diagrams of exchange-coupled epitaxial Ni ₈₁ Fe ₁₉ /Fe ₅₀ Mn ₅₀ (001) bilayers. Physical Review B, 2002, 65, .	3.2	45
15	Radiation Studies of Spin-Transfer Torque Materials and Devices. IEEE Transactions on Nuclear Science, 2012, 59, 3027-3033.	2.0	42
16	Conductivitylike Gilbert Damping due to Intraband Scattering in Epitaxial Iron. Physical Review Letters, 2020, 124, 157201.	7.8	41
17	Spin pumping in Co ₅₆ Fe ₂₄ B ₂₀ multilayer systems. Journal Physics D: Applied Physics, 2008, 41, 215001.	2.8	40
18	Tuning exchange bias and coercive fields in ferromagnet/antiferromagnet bilayers with ion irradiation. Journal of Applied Physics, 2002, 91, 6896.	2.5	39

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19	Ferromagnetic resonance force microscopy studies of arrays of micron size permalloy dots. Physical Review B, 2006, 74, .	3.2	39
20	Influence of capping layers on CoFeB anisotropy and damping. Journal of Applied Physics, 2012, 112, .	2.5	39
21	Perpendicular magnetic tunnel junctions using Co-based multilayers. Journal of Applied Physics, 2010, 107, .	2.5	38
22	Progress and Prospects of Spin Transfer Torque Random Access Memory. IEEE Transactions on Magnetics, 2012, 48, 3025-3030.	2.1	35
23	Low Gilbert damping in Co ₂ FeSi and Fe ₂ CoSi films. Journal of Applied Physics, 2016, 120, .	2.5	35
24	Study of structural and ferromagnetic resonance properties of spinel lithium ferrite (LiFe ₅ O ₈) single crystals. Journal of Applied Physics, 2015, 117, .	2.5	34
25	Probing interface magnetism in the FeMn/NiFe exchange bias system using magnetic second-harmonic generation. Europhysics Letters, 2003, 63, 819-825.	2.0	33
26	Magnetization Reversal of Exchange Bias Double Layers Magnetically Patterned by Ion Irradiation. Physica Status Solidi A, 2002, 189, 439-447.	1.7	32
27	Interlayer Exchange Coupling in Asymmetric $\text{Co}/\text{Mn}/\text{Fe}$ Trilayers Investigated with Broadband Temperature-Dependent Ferromagnetic Resonance. Physical Review Applied, 2017, 8, .	1.8	32
28	Magnetism and spin dynamics in room-temperature van der Waals magnet Fe ₅ GeTe ₂ . 2D Materials, 2021, 8, 045030.	4.4	32
29	Efficient Numerical Schemes for Electronic States in Coupled Quantum Dots. Journal of Nanoscience and Nanotechnology, 2008, 8, 3695-3709.	0.9	31
30	Ion irradiation of exchange bias systems for magnetic sensor applications. Applied Physics A: Materials Science and Processing, 2003, 77, 51-56.	2.3	29
31	Comparative study of the epitaxial growth of Cu on MgO(001) and on hydrogen terminated Si(001). Surface Science, 2001, 481, 87-96.	1.9	28
32	Modification of the exchange bias effect by He ion irradiation. IEEE Transactions on Magnetics, 2000, 36, 2647-2649.	2.1	25
33	A comprehensive study of ferromagnetic resonance and structural properties of iron-rich nickel ferrite (Ni _{1-x} Fe _{3+4x} O ₄) films grown by chemical vapor deposition. Journal of Magnetism and Magnetic Materials, 2016, 417, 137-142.	2.3	25
34	Broadband ferromagnetic resonance characterization of anisotropies and relaxation in exchange-biased IrMn/CoFe bilayers. Physical Review B, 2017, 95, .	3.2	25
35	Enhanced spin pumping near a magnetic ordering transition. Physical Review B, 2017, 96, .	3.2	25
36	Morphology of epitaxial metallic layers on MgO substrates: influence of submonolayer carbon contamination. Surface Science, 2001, 495, 68-76.	1.9	24

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37	Structure and magnetic properties of exchange-biased polycrystalline Fe/MnPd bilayers. Physical Review B, 2000, 62, 8654-8657.	3.2	22
38	Relaxation of Polymer Coated Fe_3O_4 Magnetic Nanoparticles in Aqueous Solution. IEEE Transactions on Magnetics, 2010, 46, 1541-1543.	2.1	22
39	Unidirectional Magnetization Relaxation in Exchange-Biased Films. IEEE Magnetics Letters, 2010, 1, 3500204-3500204.	1.1	22
40	Microstructural and ferromagnetic resonance properties of epitaxial nickel ferrite films grown by chemical vapor deposition. Applied Physics Letters, 2012, 101, .	3.3	22
41	Magnetic and Microwave Properties of Sm-Doped $\text{SrFe}_{12}\text{O}_{19}$ Single Crystals. IEEE Transactions on Magnetics, 2008, 44, 2978-2981.	2.1	21
42	Induced fourfold anisotropy and bias in compensated NiFe/FeMn double layers. Physical Review B, 2003, 68, .	3.2	19
43	Relaxation in Magnetic Materials for Spintronics. , 2015, , 71-96.		19
44	Phase diagrams and energy barriers of exchange-biased bilayers with additional anisotropies in the ferromagnet. Physical Review B, 2003, 67, .	3.2	17
45	Separation of the first- and second-order contributions in magneto-optic Kerr effect magnetometry of epitaxial FeMn/NiFe bilayers. Journal of Applied Physics, 2004, 95, 5324-5329.	2.5	17
46	Ferromagnetic resonance force microscopy on a thin permalloy film. Applied Physics Letters, 2007, 90, 234105.	3.3	16
47	Magnetic and microwave properties of ferrimagnetic Zr-substituted $\text{Ba}_2\text{Zn}_2\text{Fe}_{12}\text{O}_{22}$ (Zn-Y) single crystals. Journal of Applied Physics, 2011, 109, 07A509.	2.5	15
48	Magnetic damping and spin polarization of highly ordered $\text{B}_2\text{Co}_2\text{FeAl}$ thin films. Journal of Applied Physics, 2014, 116, 073902.	2.5	15
49	Soft magnetic properties and damping parameter of (FeCo)-Al alloy thin films. AIP Advances, 2017, 7, .	1.3	15
50	Magnetic Properties of Semiconducting Spinel CdCr_2S_4 Nanostructured Films Grown by Low-Pressure Metal-Organic Chemical Vapor Deposition. ACS Applied Electronic Materials, 2019, 1, 1424-1432.	4.3	15
51	Low Gilbert damping and linewidth in magnetostrictive FeGa thin films. Journal of Magnetism and Magnetic Materials, 2020, 496, 165906.	2.3	15
52	Room-temperature skyrmions in strain-engineered FeGe thin films. Physical Review B, 2020, 101, .	3.2	15
53	Temperature-dependent magnetic resonance force microscopy studies of a thin Permalloy film. Journal of Applied Physics, 2007, 101, 074905.	2.5	13
54	Growth and characterization of 144-nm thick barium ferrite single crystalline film for microwave device application. Journal of Applied Physics, 2009, 105, 07A511.	2.5	13

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55	Magnetic Damping in Epitaxial $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"} \rangle \langle \text{mml:mi} \rangle \text{Iron} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ Alloyed with Vanadium and Aluminum. <i>Physical Review Applied</i> , 2020, 14, .	3.8	13
56	Vectorial observation of the spin Seebeck effect in epitaxial NiFe ₂ O ₄ thin films with various magnetic anisotropy contributions. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	12
57	Structural and magnetic properties of NiFe ₂ O ₄ thin films grown on isostructural lattice-matched substrates. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	11
58	Frequency-selective control of ferromagnetic resonance linewidth in magnetic multilayers. <i>Applied Physics Letters</i> , 2012, 100, 032402.	3.3	10
59	Magnetic Instability in Tunneling Magnetoresistive Heads Due to Temperature Increase During Electrostatic Discharge. <i>IEEE Transactions on Device and Materials Reliability</i> , 2012, 12, 570-575.	2.0	10
60	A novel technique to detect effects of electromagnetic interference by electrostatic discharge simulator to test parameters of tunneling magnetoresistive read heads. <i>Journal of Applied Physics</i> , 2015, 117, 17A908.	2.5	9
61	Studies of electrical and magnetic properties across the Verwey transition in epitaxial magnetite thin films. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	9
62	Formation of zero-field skyrmion arrays in asymmetric superlattices. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	9
63	Modeling of switching energy of magnetic tunnel junction devices with tilted magnetization. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 381, 220-225.	2.3	8
64	Electromagnetic interference-induced instability in CPP-GMR read heads. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 412, 42-48.	2.3	8
65	The Thickness Dependence of Soft Magnetic Properties of (FeCo)-Al Alloy Thin Films. <i>IEEE Transactions on Magnetics</i> , 2017, 53, 1-4.	2.1	8
66	Unidirectional and uniaxial anisotropies in the MnN/CoFeB exchange bias system. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 485, 374-380.	2.3	8
67	Thickness dependence of dynamic magnetic properties of soft (FeCo)-Si alloy thin films. <i>Physical Review B</i> , 2019, 99, .	3.2	8
68	Room-temperature intrinsic and extrinsic damping in polycrystalline Fe thin films. <i>Physical Review B</i> , 2022, 105, .	3.2	8
69	Correlation between topography and magnetic surface anisotropy in epitaxial Fe films on vicinal-to-(001) Au surfaces with different step orientation. <i>Physical Review B</i> , 2004, 70, .	3.2	7
70	Higher-order perpendicular magnetic anisotropy and interfacial damping of Co/Ni multilayers. <i>Physical Review B</i> , 2020, 102, .	3.2	7
71	Exchange bias of antiferromagnets with random anisotropies and perfectly compensated interfaces. <i>Applied Physics Letters</i> , 2004, 84, 3840-3842.	3.3	6
72	Magnetic resonance force microscopy studies in a thin permalloy film. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, e941-e943.	2.3	6

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73	The growth temperature and measurement temperature dependences of soft magnetic properties and effective damping parameter of (FeCo)-Al alloy thin films. AIP Advances, 2018, 8, .	1.3	6
74	Broadband characterization of stress induced anisotropy in nanocomposite Co _{74.6} Fe _{2.7} Mn _{2.7} Nb ₄ Si ₂ B ₁₄ . Journal of Magnetism and Magnetic Materials, 2020, 500, 166307.	2.3	6
75	Ferromagnetic Resonance Study of the Verwey Phase Transition of Magnetite Thin Film on MgGa ₂ O ₄ (001) Substrate. IEEE Transactions on Magnetics, 2020, 56, 1-6.	2.1	6
76	Exchange bias effect and anisotropy analysis of FM/AF bilayers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 76, 59-62.	3.5	5
77	Detection of higher order modulation harmonics in magnetic resonance force microscopy. Journal of Applied Physics, 2007, 102.	2.5	5
78	Ferromagnetic Sr _{1.5} Fe _{0.5} Zn ₂ O ₁₂ and Ba _{0.5} Zn ₂ O ₁₂ thin films. IEEE Magnetics Letters, 2011, 2, 5000104-5000104.	1.1	5
79	Element-Specific Detection of Sub-Nanosecond Spin-Transfer Torque in a Nanomagnet Ensemble. Nano Letters, 2020, 20, 7828-7834.	9.1	5
80	Synthesis and characterization of iron oxide superparticles with various polymers. Journal of Magnetism and Magnetic Materials, 2020, 515, 167265.	2.3	5
81	Magnetic domain wall substructures in Pt/Co/Ni/Ir multi-layers. Journal of Applied Physics, 2021, 130, .	2.5	5
82	Fe(001) on vicinal Au(001): correlation of topography and magnetic surface anisotropy. Journal Physics D: Applied Physics, 2005, 38, 1047-1054.	2.8	4
83	Thermal stability of synthetic antiferromagnet and hard magnet coupled spin valves. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 735-738.	2.1	4
84	Structural and magnetic properties of Cr-diluted CoFeB. Journal of Applied Physics, 2013, 114, 153902.	2.5	4
85	Temperature dependence of magnetic properties on switching energy in magnetic tunnel junction devices with tilted magnetization. Applied Surface Science, 2019, 472, 36-39.	6.1	4
86	Strong interfacial perpendicular anisotropy and interfacial damping in Ni _{0.8} Fe _{0.2} films adjacent to Ru and SiO ₂ . Journal of Applied Physics, 2019, 125, 023901.	2.5	4
87	The thickness and growth temperature dependences of soft magnetic properties and an effective damping parameter of (FeCo)-Si alloy thin films. AIP Advances, 2019, 9, 035139.	1.3	4
88	Limitations of the macrospin approximation of materials with inhomogeneous perpendicular anisotropy. Journal of Applied Physics, 2020, 128, 073910.	2.5	4
89	Soft magnetic and structural properties of (FeCo) _{1-x} (AlSi) _x alloy thin films. Journal of Magnetism and Magnetic Materials, 2020, 507, 166852.	2.3	3
90	Evaluating the effect of Mn composition on chemical partitioning in Co(78-x)Fe ₂ Mn _x B ₁₄ Si ₂ Nb ₄ magnetic amorphous nanocomposites. Journal of Alloys and Compounds, 2021, 875, 159976.	5.5	2

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91	Instability of storage and temperature increment in nanopillars due to human body model electrostatic discharge. Journal of Electrostatics, 2011, 69, 618-622.	1.9	1
92	Investigation of electromagnetic interference effects by ESD simulator on test parameters of tunneling magnetic recording heads. Journal of Magnetism and Magnetic Materials, 2017, 421, 453-456.	2.3	1
93	Ferromagnetic Resonance. , 2021, , 431-452.		1
94	Angular Dependence of Spin Transfer Switching in Spin Valve Nanopillar Based Heusler Alloy. Advances in Materials Science and Engineering, 2016, 2016, 1-7.	1.8	0
95	In Situ Thermomechanical Loading for TEM Studies of Nanocrystalline Alloys. Microscopy and Microanalysis, 2021, 27, 2420-2424.	0.4	0