

Markus G MÃ¼nzenberg

List of Publications by Year in descending order

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119
papers

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citations

126907

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124
all docs

124
docs citations

124
times ranked

6041
citing authors

#	ARTICLE	IF	CITATIONS
1	Spintronic emitters for super-resolution in THz-spectral imaging. Applied Physics Letters, 2022, 120, .	3.3	10
2	Spin reorientation transition in CoFeB/MgO/CoFeB tunnel junction enabled by ultrafast laser-induced suppression of perpendicular magnetic anisotropy. Nanoscale, 2022, 14, 8153-8162.	5.6	5
3	Frequency-independent Terahertz Anomalous Hall Effect in DyCo ₅ , Co ₃₂ Fe ₆₈ , and Gd ₂₇ Fe ₇₃ Thin Films from DC to 40 THz. Advanced Materials, 2021, 33, e2007398.	21.0	20
4	High-speed spins. Nature Physics, 2021, 17, 985-986.	16.7	3
5	The 2021 Magnonics Roadmap. Journal of Physics Condensed Matter, 2021, 33, 413001.	1.8	287
6	Ultrafast Demagnetization of Iron Induced by Optical versus Terahertz Pulses. Physical Review X, 2021, 11, .	8.9	25
7	Photocurrent measurements in topological insulator Bi ₂ Se ₃ nanowires. Applied Physics Letters, 2020, 116, .	3.3	6
8	Efficiency of ultrafast optically induced spin transfer in Heusler compounds. Physical Review Research, 2020, 2, .	3.6	29
9	The impact of metallic contacts on spin-polarized photocurrents in topological insulator Bi ₂ Se ₃ nanowires. Applied Physics Letters, 2020, 117, .	3.3	4
10	Ultrafast Charge and Spin Dynamics in Ferromagnets. , 2020, , .		0
11	Cell Culture Platforms: Microscaffolds by Direct Laser Writing for Neurite Guidance Leading to Tailor-Made Neuronal Networks (Adv. Biosys. 5/2019). Advanced Biology, 2019, 3, 1970054.	3.0	0
12	Light-wave dynamic control of magnetism. Nature, 2019, 571, 240-244.	27.8	195
13	Microscaffolds by Direct Laser Writing for Neurite Guidance Leading to Tailor-Made Neuronal Networks. Advanced Biology, 2019, 3, e1800329.	3.0	23
14	Remagnetization in arrays of ferromagnetic nanostripes with periodic and quasiperiodic order. Physical Review B, 2019, 99, .	3.2	8
15	Emission Properties of Structured Spintronic Terahertz Emitters. , 2019, , .		0
16	Tunnel magneto-Seebeck effect. Journal Physics D: Applied Physics, 2019, 52, 133001.	2.8	17
17	3D Micro Scaffolds for Tailor-Made Three-Dimensional Neural Network Studies. Biophysical Journal, 2018, 114, 672a-673a.	0.5	1
18	Laser-induced changes of nonlinear electronic transport properties in La _{0.75} Ba _{0.25} MnO ₃ and (La _{0.6} Pr _{0.4}) _{0.67} Ca _{0.33} MnO ₃ . Journal of Physics Condensed Matter, 2018, 30, 045701.	1.8	1

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19	Anomalous Nernst effect and three-dimensional temperature gradients in magnetic tunnel junctions. Communications Physics, 2018, 1, .	5.3	12
20	Driving Magnetization Dynamics in an On-Demand Magnonic Crystal via the Magnetoelastic Interactions. Physical Review Applied, 2018, 10, .	3.8	20
21	Terahertz spectroscopy for all-optical spintronic characterization of the spin-Hall-effect metals Pt, W and Cu ₈₀ Ir ₂₀ . Journal Physics D: Applied Physics, 2018, 51, 364003.	2.8	78
22	Thermal conductivity of thin insulating films determined by tunnel magneto-Seebeck effect measurements and finite-element modeling. Journal Physics D: Applied Physics, 2018, 51, 224006.	2.8	11
23	Femtosecond formation dynamics of the spin Seebeck effect revealed by terahertz spectroscopy. Nature Communications, 2018, 9, 2899.	12.8	131
24	Light-Induced Metastable Magnetic Texture Uncovered by <i>in situ</i> Lorentz Microscopy. Physical Review Letters, 2017, 118, 097203.	7.8	50
25	Pumping laser excited spins through MgO barriers. Journal Physics D: Applied Physics, 2017, 50, 144003.	2.8	6
26	Magnetization dynamics in magnonic structures with different geometries: interfaces, notches and waveguides. Journal of Physics Condensed Matter, 2017, 29, 214001.	1.8	8
27	Spin-Current Manipulation of Photo-Induced Magnetization Dynamics in Heavy Metal/Ferromagnet Double Layer-Based Nanostructures. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	1
28	Analysis of the time-resolved magneto-optical Kerr effect for ultrafast magnetization dynamics in ferromagnetic thin films. Journal of Physics Condensed Matter, 2017, 29, 174002.	1.8	40
29	Terahertz Spin Currents and Inverse Spin Hall Effect in Thin-Film Heterostructures Containing Complex Magnetic Compounds. Spin, 2017, 07, 1740010.	1.3	65
30	Large magneto-Seebeck effect in magnetic tunnel junctions with half-metallic Heusler electrodes. Nature Communications, 2017, 8, 1626.	12.8	43
31	Magnetisation switching of FePt nanoparticle recording medium by femtosecond laser pulses. Scientific Reports, 2017, 7, 4114.	3.3	94
32	Enhancement of thermovoltage and tunnel magneto-Seebeck effect in CoFeB-based magnetic tunnel junctions by variation of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi mathvariant="bold"} \rangle \text{MgAl} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi mathvariant="bold"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 4 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ and MgO barrier thickness. Physical Review B, 2017, 96, .	3.2	16
33	All-optical magnetization switching of FePt magnetic recording medium. , 2017, , .		0
34	Ultrafast spin dynamics and THz spintronics. , 2017, , .		0
35	3D Micropillars Guide the Mechanobiology of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes. Advanced Healthcare Materials, 2016, 5, 335-341.	7.6	12
36	Perspective: Ultrafast magnetism and THz spintronics. Journal of Applied Physics, 2016, 120, .	2.5	267

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37	THz elastic dynamics in finite-size CoFeB-MgO phononic superlattices. Journal of Applied Physics, 2016, 120, 142116.	2.5	6
38	Preface to Special Topic: Cutting Edge Physics in Functional Materials. Journal of Applied Physics, 2016, 120, 142001.	2.5	2
39	Efficient metallic spintronic emitters of ultrabroadband terahertz radiation. Nature Photonics, 2016, 10, 483-488.	31.4	605
40	Stem Cell Mechanobiology: 3D Micropillars Guide the Mechanobiology of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes (Adv. Healthcare Mater. 3/2016). Advanced Healthcare Materials, 2016, 5, 334-334.	7.6	0
41	Comparison of laser-induced and intrinsic tunnel magneto-Seebeck effect in CoFeB/MgO and CoFeB/MgO magnetic tunnel junctions. Physical Review B, 2016, 93, .	3.2	26
42	Ultrafast photocurrents at the surface of the three-dimensional topological insulator Bi ₂ Se ₃ . Nature Communications, 2016, 7, 13259.	12.8	162
43	Confinement of phonon propagation in laser deposited tungsten/polycarbonate multilayers. New Journal of Physics, 2016, 18, 092002.	2.9	12
44	On/off switching of bit readout in bias-enhanced tunnel magneto-Seebeck effect. Scientific Reports, 2015, 5, 8945.	3.3	16
45	Comparison of the magneto-Peltier and magneto-Seebeck effects in magnetic tunnel junctions. Physical Review B, 2015, 92, .	3.2	27
46	Spin-Transfer Torque Switching at Ultra Low Current Densities. Materials Transactions, 2015, 56, 1323-1326.	1.2	15
47	Coherent ultrafast spin-dynamics probed in three dimensional topological insulators. Scientific Reports, 2015, 5, 15304.	3.3	16
48	A scenario for magnonic spin-wave traps. Scientific Reports, 2015, 5, 12824.	3.3	18
49	Multifunctional gold nanorods for selective plasmonic photothermal therapy in pancreatic cancer cells using ultra-short pulse near-infrared laser irradiation. Nanoscale, 2015, 7, 5328-5337.	5.6	49
50	Phonon localization in ultrathin layered structures. Applied Physics A: Materials Science and Processing, 2015, 119, 11-18.	2.3	8
51	The role of weak interlayer coupling in the spin-reorientation of perpendicular ultrathin Co-Fe-B/MgO-based heterostructures. Applied Physics Letters, 2015, 106, .	3.3	26
52	Ultrafast Spin Precession and Transport Controlled and Probed with Terahertz Radiation. Springer Proceedings in Physics, 2015, , 324-326.	0.2	1
53	Spin-Wave Modes in a CoFeB Magnonic Crystal Waveguide. Springer Proceedings in Physics, 2015, , 103-105.	0.2	0
54	Spin-wave and spin-current dynamics in ultrafast demagnetization experiments. Springer Proceedings in Physics, 2015, , 86-88.	0.2	0

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55	Ultrafast spin precession and transport controlled and probed with terahertz radiation. Proceedings of SPIE, 2014, , .	0.8	0
56	Resolving the role of femtosecond heated electrons in ultrafast spin dynamics. Scientific Reports, 2014, 4, 3980.	3.3	100
57	Time-resolved measurement of the tunnel magneto-Seebeck effect in a single magnetic tunnel junction. Review of Scientific Instruments, 2013, 84, 063905.	1.3	43
58	PARAMETER SPACE FOR THERMAL SPIN-TRANSFER TORQUE. Spin, 2013, 03, 1350002.	1.3	29
59	Superconducting Spin Switch with Infinite Magnetoresistance Induced by an Internal Exchange Field. Physical Review Letters, 2013, 110, 097001.	7.8	96
60	Interface-engineered templates for molecular spin memory devices. Nature, 2013, 493, 509-513.	27.8	401
61	Terahertz spin current pulses controlled by magnetic heterostructures. Nature Nanotechnology, 2013, 8, 256-260.	31.5	476
62	Measurement of the magneto-optical response of Fe and CrO ₂ epitaxial films by pump-probe spectroscopy: Evidence for spin-charge separation. Physical Review B, 2013, 87, .	3.2	25
63	Spin-wave modes and band structure of rectangular CoFeB antidot lattices. Journal of Applied Physics, 2012, 112, 083921.	2.5	10
64	Insights into Ultrafast Demagnetization in Pseudogap Half-Metals. Physical Review X, 2012, 2, .	8.9	28
65	Heiße Elektronik. Physik in Unserer Zeit, 2012, 43, 288-295.	0.0	1
66	Tunneling path toward spintronics. Reports on Progress in Physics, 2011, 74, 036501.	20.1	115
67	The building blocks of magnonics. Physics Reports, 2011, 507, 107-136.	25.6	750
68	Seebeck effect in magnetic tunnel junctions. Nature Materials, 2011, 10, 742-746.	27.5	260
69	Tunnel magnetoresistance in alumina, magnesia and composite tunnel barrier magnetic tunnel junctions. Journal of Magnetism and Magnetic Materials, 2011, 323, 1525-1528.	2.3	4
70	Ferromagnets stirred up. Nature Materials, 2010, 9, 184-185.	27.5	18
71	Elastic and inelastic conductance in Co-Fe-B/MgO/Co-Fe-B magnetic tunnel junctions. Physical Review B, 2010, 82, .	3.2	18
72	Analytical expression of the magneto-optical Kerr effect and Brillouin light scattering intensity arising from dynamic magnetization. Journal Physics D: Applied Physics, 2010, 43, 325004.	2.8	20

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73	Evidence for thermal mechanisms in laser-induced femtosecond spin dynamics. <i>Physical Review B</i> , 2010, 81, .	3.2	139
74	Magnonic spin-wave modes in CoFeB antidot lattices. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	79
75	Spin-wave population in nickel after femtosecond laser pulse excitation. <i>Physical Review B</i> , 2010, 82, .	3.2	34
76	Electric breakdown in ultrathin MgO tunnel barrier junctions for spin-transfer torque switching. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	25
77	Long-range order on the atomic scale induced at CoFeB/MgO interfaces. <i>Journal of Applied Physics</i> , 2009, 105, 073701.	2.5	5
78	Spin polarization in half-metals probed by femtosecond spin excitation. <i>Nature Materials</i> , 2009, 8, 56-61.	27.5	223
79	Spin dynamics triggered by subterahertz magnetic field pulses. <i>Journal of Applied Physics</i> , 2008, 103, 123905.	2.5	27
80	Disturbance of Tunneling Coherence by Oxygen Vacancy in Epitaxial Fe/MgO/Fe Tunnel Junctions. <i>Physical Review Letters</i> , 2008, 100, 246803.	7.8	96
81	Energy Equilibration Processes of Electrons, Magnons, and Phonons at the Femtosecond Time Scale. <i>Physical Review Letters</i> , 2008, 101, 237401.	7.8	63
82	Direct imaging of the structural change generated by dielectric breakdown in MgO based magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2008, 93, 152508.	3.3	15
83	Magnetization dynamics in optically excited nanostructured nickel films. <i>New Journal of Physics</i> , 2008, 10, 123004.	2.9	12
84	Intrinsic and non-local Gilbert damping in polycrystalline nickel studied by Ti:sapphire laser fs spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 164016.	2.8	148
85	Epitaxial growth of MgO and Fe/MgO/Fe magnetic tunnel junctions on (100)-Si by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	45
86	Activation of additional energy dissipation processes in the magnetization dynamics of epitaxial chromium dioxide films. <i>Physical Review B</i> , 2008, 77, .	3.2	26
87	A novel spin transfer torque effect in Ag_2Co granular films. <i>New Journal of Physics</i> , 2007, 9, 329-329.	2.9	3
88	Nanofabrication of spin-transfer torque devices by a polymethylmethacrylate mask one step process: Giant magnetoresistance versus single layer devices. <i>Journal of Applied Physics</i> , 2007, 101, 104302.	2.5	5
89	Connecting the timescales in picosecond remagnetization experiments. <i>Physical Review B</i> , 2007, 75, .	3.2	55
90	Tuning the occupancy of Ce in highly correlated Ce/Si/Fe multilayers: An x-ray absorption spectro	3.2	6

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91	Intrinsic and nonlocal Gilbert damping parameter in all optical pump-probe experiments. Journal of Applied Physics, 2006, 99, 08F308.	2.5	30
92	Comprehensive view on ultrafast dynamics of ferromagnetic films. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1347-1358.	0.8	21
93	Giant nonlocal damping by spin-wave emission: Micromagnetic simulations. Physical Review B, 2006, 74, .	3.2	11
94	Dhesiet al.Reply:. Physical Review Letters, 2005, 94, .	7.8	1
95	Comment on "Isolating the Interface Magnetocrystalline Anisotropy Contributions in Magnetic Multilayers": Physical Review Letters, 2005, 94, 039701; author reply 039702.	7.8	2
96	Superconductor-ferromagnet tunneling measurements indicatesp-spin andd-spin currents. Physical Review B, 2004, 70, .	3.2	38
97	Magnetic texturing of xenon-ion irradiated nickel films. European Physical Journal B, 2004, 42, 193-204.	1.5	23
98	Fabrication and characteristics of ferromagnetic single electron transistors. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1949-1951.	2.3	5
99	Isolating the Interface Magnetocrystalline Anisotropy Contributions in Magnetic Multilayers. Physical Review Letters, 2003, 90, 117204.	7.8	16
100	Magnetic polarization of the La and Ce5dstates near the interfaces ofFe/LaHxandFe/CeHxmultilayers across the metal-insulator transition in the hydrides: An x-ray magnetic circular dichroism study. Physical Review B, 2003, 67, .	3.2	5
101	Highly crystallized as-grown smooth and superconducting MgB2 films by molecular-beam epitaxy. Applied Physics Letters, 2002, 81, 4982-4984.	3.3	72
102	Ultrafast magneto-optical response of iron thin films. Physical Review B, 2002, 65, .	3.2	76
103	Spin reorientation transition in Fe/CeH 2 multilayers probed by soft X-ray resonant magnetic scattering. Applied Physics A: Materials Science and Processing, 2001, 73, 693-696.	2.3	1
104	Ce 5d and Fe 3d magnetic profiles in CeH 2 /Fe multilayers probed by XRMS. Applied Physics A: Materials Science and Processing, 2001, 73, 711-715.	2.3	7
105	Magnetic interface polarization of the La-5d states in Fe/LaH x multilayers. Applied Physics A: Materials Science and Processing, 2001, 73, 717-721.	2.3	0
106	Magnetic Textures in Thin Ion-Irradiated Ni and Fe Films. Acta Physica Polonica A, 2001, 100, 751-760.	0.5	22
107	Chemical and magnetization profile study of Ce in [CeLaCe/Fe] and [LaCeLa/Fe] multilayers by resonant X-ray reflectivity. Physica B: Condensed Matter, 2000, 283, 175-179.	2.7	10
108	Element-specific magnetization reversal in Fe/Ce multilayers:. Journal of Magnetism and Magnetic Materials, 2000, 220, 195-204.	2.3	4

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109	Ion-beam-induced magnetic texturing of thin nickel films. Nuclear Instruments & Methods in Physics Research B, 2000, 161-163, 1016-1021.	1.4	21
110	Imprinting artificial magnetic structures (invited). Journal of Applied Physics, 1999, 85, 5873-5876.	2.5	5
111	Imprinted spiral structures as neutron polarizers. Physica B: Condensed Matter, 1999, 267-268, 352-354.	2.7	5
112	Perpendicular magnetic anisotropy in Fe/CeH ₂ multilayers with reduced pair number. Journal of Magnetism and Magnetic Materials, 1999, 198-199, 351-353.	2.3	0
113	Magnetic spiral structures in La/Fe multilayers. Journal of Magnetism and Magnetic Materials, 1999, 198-199, 440-442.	2.3	3
114	Element-Specific Magnetization Reversal in Fe/Ce Multilayers. Materials Research Society Symposia Proceedings, 1999, 577, 575.	0.1	0
115	Ion-beam induced magnetic anisotropies in iron films. Nuclear Instruments & Methods in Physics Research B, 1998, 139, 332-337.	1.4	28
116	4f and 5d magnetic moments in highly correlated [Ce/La/Fe] and [La/Ce/Fe] multilayers studied by x-ray magnetic circular dichroism. Physical Review B, 1998, 57, 2174-2187.	3.2	24
117	Imprinting magnetic structures. Applied Physics Letters, 1998, 72, 2894-2896.	3.3	17
118	Non-collinear spin structures in CeH ₂ /Fe. Physica B: Condensed Matter, 1997, 234-236, 477-479.	2.7	4
119	Taking advantage of nature for a greener nonvolatile memory. Physics Magazine, 0, 3, .	0.1	3