

Andy Thomas

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1722477/publications.pdf>

Version: 2024-02-01

110
papers

3,501
citations

201385

27
h-index

143772

57
g-index

113
all docs

113
docs citations

113
times ranked

4189
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic layer deposition of yttrium iron garnet thin films. Physical Review Materials, 2022, 6, .	0.9	6
2	Nonreciprocity of spin waves in magnetic nanotubes with helical equilibrium magnetization. Applied Physics Letters, 2021, 118, .	1.5	18
3	Nonlocal magnon-based transport in yttrium-iron-garnet/platinum heterostructures at high temperatures. Physical Review B, 2021, 103, .	1.1	2
4	Anisotropic magnetothermal transport in Co_2MnSi thin films. Physical Review B, 2021, 104, .	1.2	1
5	Signatures of a Charge Density Wave Phase and the Chiral Anomaly in the Fermionic Material Cobalt Monosilicide CoSi. Advanced Electronic Materials, 2020, 6, 1900857.	2.6	8
6	Signatures of the Magnetic Entropy in the Thermopower Signals in Nanoribbons of the Magnetic Weyl Semimetal $\text{Co}_3\text{Sn}_2\text{S}_2$. Nano Letters, 2020, 20, 300-305.	4.5	23
7	Fast Fourier transform and multi-Gaussian fitting of XRR data to determine the thickness of ALD grown thin films within the initial growth regime. Applied Physics Letters, 2020, 117, 213106.	1.5	4
8	Photocurrent measurements in topological insulator Bi_2Se_3 nanowires. Applied Physics Letters, 2020, 116, .	1.5	6
9	Rapid thermal annealing of Sb_2Te_3 thin films grown via atomic layer deposition. Thin Solid Films, 2020, 700, 137922.	0.8	0
10	Thickness dependence of the anomalous Nernst effect and the Mott relation of Weyl semimetal thin films. Physical Review B, 2020, 101, .	1.1	40
11	Efficiency of ultrafast optically induced spin transfer in Heusler compounds. Physical Review Research, 2020, 2, .	1.3	29
12	The impact of metallic contacts on spin-polarized photocurrents in topological insulator Bi_2Se_3 nanowires. Applied Physics Letters, 2020, 117, .	1.5	4
13	Magneto-thermoelectric characterization of a HfTe_5 micro-ribbon. Applied Physics Letters, 2019, 115, .	1.5	5
14	Spin Hall magnetoresistance in heterostructures consisting of noncrystalline paramagnetic YIG and Pt. Applied Physics Letters, 2019, 114, .	1.5	13
15	All Electrical Access to Topological Transport Features in $\text{Mn}_{1.8}\text{PtSn}$ Films. Nano Letters, 2019, 19, 2366-2370.	4.5	14
16	Magnetoresistance and anomalous Hall effect in micro-ribbons of the magnetic Weyl semimetal $\text{Co}_3\text{Sn}_2\text{S}_2$. Applied Physics Letters, 2019, 114, .	1.5	22
17	Tunnel magneto-Seebeck effect. Journal Physics D: Applied Physics, 2019, 52, 133001.	1.3	17
18	2D Transition Metal Dichalcogenide Thin Films Obtained by Chemical Gas Phase Deposition Techniques. Advanced Materials Interfaces, 2019, 6, 1800688.	1.9	21

#	ARTICLE	IF	CITATIONS
19	Bio-inspired Neural Networks. , 2019, , 595-617.		0
20	Evolution of the spin hall magnetoresistance in Cr2O3/Pt bilayers close to the Néel temperature. Applied Physics Letters, 2018, 112, .	1.5	55
21	Surface Modification of VI Semiconductors Using Exchange Reactions within ALD Half-Cycles. Advanced Materials Interfaces, 2018, 5, 1701155.	1.9	1
22	Large anomalous Nernst effect in thin films of the Weyl semimetal Co2MnGa. Applied Physics Letters, 2018, 113, .	1.5	92
23	Anomalous Nernst effect and three-dimensional temperature gradients in magnetic tunnel junctions. Communications Physics, 2018, 1, .	2.0	12
24	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.	1.3	11
25	Frequency linewidth and decay length of spin waves in curved magnetic membranes. Physical Review B, 2018, 98, .	1.1	11
26	Two-Step Magnetization Reversal FORC Fingerprint of Coupled Bi-Segmented Ni/Co Magnetic Nanowire Arrays. Nanomaterials, 2018, 8, 548.	1.9	18
27	Spin-hall-active platinum thin films grown via atomic layer deposition. Applied Physics Letters, 2018, 112, .	1.5	8
28	Technical feasibility study for production of tailored multielectrode arrays and patterning of arranged neuronal networks. PLoS ONE, 2018, 13, e0192647.	1.1	4
29	Pumping laser excited spins through MgO barriers. Journal Physics D: Applied Physics, 2017, 50, 144003.	1.3	6
30	Temperature gradient-induced magnetization reversal of single ferromagnetic nanowires. Journal Physics D: Applied Physics, 2017, 50, 494007.	1.3	7
31	Large magneto-Seebeck effect in magnetic tunnel junctions with half-metallic Heusler electrodes. Nature Communications, 2017, 8, 1626.	5.8	43
32	Enhancement of thermovoltage and tunnel magneto-Seebeck effect in CoFeB-based magnetic tunnel junctions by variation of the $MgAl_2O_4$ and $CoFeB$ thicknesses. Applied Physics Letters, 2017, 111, 112401.	1.1	16
33	Comparison of laser-induced and intrinsic tunnel magneto-Seebeck effect in $CoFeB/MgAl_2O_4/CoFeB$ junctions. Applied Physics Letters, 2017, 111, 112401.	1.1	26
34	Electronic and magnetic structure of epitaxial $CoFeB/MgAl_2O_4/CoFeB$. Physical Review B, 2016, 93, .	1.1	15
35	On/off switching of bit readout in bias-enhanced tunnel magneto-Seebeck effect. Scientific Reports, 2015, 5, 8945.	1.6	16
36	Spin-Transfer Torque Switching at Ultra Low Current Densities. Materials Transactions, 2015, 56, 1323-1326.	0.4	15

#	ARTICLE	IF	CITATIONS
37	Tunnel junction based memristors as artificial synapses. <i>Frontiers in Neuroscience</i> , 2015, 9, 241.	1.4	28
38	Sign change in the tunnel magnetoresistance of Fe ₃ O ₄ /MgO/Co-Fe-B magnetic tunnel junctions depending on the annealing temperature and the interface treatment. <i>AIP Advances</i> , 2015, 5, 047103.	0.6	20
39	Preparation of Ta-O-Based Tunnel Junctions to Obtain Artificial Synapses Based on Memristive Switching. <i>Methods in Molecular Biology</i> , 2015, 1260, 261-267.	0.4	1
40	Accessing the fundamentals of magnetotransport in metals with terahertz probes. <i>Nature Physics</i> , 2015, 11, 761-766.	6.5	103
41	Memristive devices. <i>Semiconductor Science and Technology</i> , 2014, 29, 100301.	1.0	1
42	Temperature and bias-voltage dependence of atomic-layer-deposited HfO ₂ -based magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	8
43	Elektronische Nervenzellen. <i>Physik in Unserer Zeit</i> , 2014, 45, 21-25.	0.0	2
44	Magnetic anisotropy of thin sputtered MgB ₂ films on MgO substrates in high magnetic fields. <i>AIP Advances</i> , 2014, 4, 037115.	0.6	0
45	Bio-inspired Neural Networks. , 2014, , 151-172.		1
46	Fabrication of Superconducting MgB ₂ Thin Films by Magnetron co-Sputtering on (001) MgO Substrates. <i>Journal of Superconductivity and Novel Magnetism</i> , 2013, 26, 1879-1882.	0.8	2
47	Time-resolved measurement of the tunnel magneto-Seebeck effect in a single magnetic tunnel junction. <i>Review of Scientific Instruments</i> , 2013, 84, 063905.	0.6	43
48	PARAMETER SPACE FOR THERMAL SPIN-TRANSFER TORQUE. <i>Spin</i> , 2013, 03, 1350002.	0.6	29
49	Memristor-based neural networks. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 093001.	1.3	307
50	Spin-polarized tunneling in MgO-based tunnel junctions with superconducting electrodes. <i>New Journal of Physics</i> , 2012, 14, 033023.	1.2	5
51	Magnon excitation and temperature dependent transport properties in magnetic tunnel junctions with Heusler compound electrodes. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	7
52	Transport measurements on lateral MgB ₂ /Fe/MgB ₂ junctions. <i>Journal of Applied Physics</i> , 2012, 111, 07E112.	1.1	0
53	Local Charge and Spin Currents in Magnetothermal Landscapes. <i>Physical Review Letters</i> , 2012, 108, 106602.	2.9	225
54	Insights into Ultrafast Demagnetization in Pseudogap Half-Metals. <i>Physical Review X</i> , 2012, 2, .	2.8	28

#	ARTICLE	IF	CITATIONS
55	HeiÄElektronik. Physik in Unserer Zeit, 2012, 43, 288-295.	0.0	1
56	Co/Pt multilayer-based magnetic tunnel junctions with perpendicular magnetic anisotropy. Journal of Applied Physics, 2012, 111, 07C703.	1.1	14
57	A memristor based on current-induced domain-wall motion in a nanostructured giant magnetoresistance device. Journal of Applied Physics, 2012, 111, 07D303.	1.1	23
58	Anomalous Hall effect in the Co-based Heusler compounds Co ₂ FeSi and Co ₂ FeAl. Journal of Applied Physics, 2012, 111, 07D313.	1.1	29
59	The Memristive Magnetic Tunnel Junction as a Nanoscopic SynapseâNeuron System. Advanced Materials, 2012, 24, 762-766.	11.1	184
60	Seebeck effect in magnetic tunnel junctions. Nature Materials, 2011, 10, 742-746.	13.3	260
61	Temperature and bias voltage dependence of Co/Pd multilayer-based magnetic tunnel junctions with perpendicular magnetic anisotropy. Journal of Magnetism and Magnetic Materials, 2011, 323, 198-201.	1.0	18
62	Tunnel magnetoresistance in alumina, magnesia and composite tunnel barrier magnetic tunnel junctions. Journal of Magnetism and Magnetic Materials, 2011, 323, 1525-1528.	1.0	4
63	Scaling Behavior of the Spin Pumping Effect in Ferromagnet-Platinum Bilayers. Physical Review Letters, 2011, 107, 046601.	2.9	232
64	Magnetic microstructure and magnetotransport in Co ₂ FeAl Heusler compound thin films. Applied Physics Letters, 2011, 98, 042501.	1.5	9
65	Improved reliability of magnetic field programmable gate arrays through the use of memristive tunnel junctions. Journal of Applied Physics, 2011, 110, 096105.	1.1	6
66	X-Ray Absorption and Magnetic Circular Dichroism Studies of Co ₂ FeAl in Magnetic Tunnel Junctions. IEEE Transactions on Magnetics, 2010, 46, 1925-1928.	1.2	5
67	Low B ₂ crystallization temperature and high tunnel magnetoresistance in magnetic tunnel junctions. Journal of Magnetism and Magnetic Materials, 2010, 322, 996-998.	1.0	17
68	Structural and magnetic properties of CoâMnâSb thin films. Journal of Applied Physics, 2010, 107, 063901.	1.1	2
69	Direct measurement of the spin polarization of Co ₂ FeAl in combination with MgO tunnel barriers. Journal of Applied Physics, 2010, 107, .	1.1	11
70	Interlayer exchange coupling and current induced magnetization switching in magnetic tunnel junctions with MgO wedge barrier. Journal of Applied Physics, 2010, 107, 093917.	1.1	25
71	Inelastic electron tunneling spectra of MgO-based magnetic tunnel junctions with different electrode designs. Physical Review B, 2009, 79, .	1.1	33
72	Tunneling spectroscopy and magnon excitation in Co ₂ FeAl/MgO/CoâFe magnetic tunnel junctions. Applied Physics Letters, 2009, 95, .	1.5	14

#	ARTICLE	IF	CITATIONS
73	Element-specific study of the temperature dependent magnetization of Co-Mn-Sb thin films. Journal of Applied Physics, 2009, 105, 053906.	1.1	6
74	Dielectric breakdown and inelastic electron tunneling spectroscopy of top and bottom pinned Co-Fe-B/MgO/Co-Fe-B magnetic tunnel junctions. Journal of Applied Physics, 2009, 105, .	1.1	3
75	Current induced resistance change of magnetic tunnel junctions with ultra-thin MgO tunnel barriers. Journal of Magnetism and Magnetic Materials, 2009, 321, 144-147.	1.0	24
76	Memristive switching of MgO based magnetic tunnel junctions. Applied Physics Letters, 2009, 95, .	1.5	69
77	Electric breakdown in ultrathin MgO tunnel barrier junctions for spin-transfer torque switching. Applied Physics Letters, 2009, 95, .	1.5	25
78	Long-range order on the atomic scale induced at CoFeB/MgO interfaces. Journal of Applied Physics, 2009, 105, 073701.	1.1	5
79	Spin polarization in half-metals probed by femtosecond spin excitation. Nature Materials, 2009, 8, 56-61.	13.3	223
80	Preparation of Heusler thin films: The quaternary alloy $\text{Co}_{2-x}\text{Fe}_{0.5}\text{Mn}_{0.5}\text{Si}$. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2298-2301.	0.8	7
81	Structural and tunneling properties of magnetic tunnel junctions with Al ₂ O ₃ and MgO barrier. Vacuum, 2008, 82, 1057-1061.	1.6	7
82	Dielectric breakdown in Co-Fe-B/MgO/Co-Fe-B magnetic tunnel junction. Journal of Applied Physics, 2008, 103, .	1.1	35
83	Direct imaging of the structural change generated by dielectric breakdown in MgO based magnetic tunnel junctions. Applied Physics Letters, 2008, 93, 152508.	1.5	15
84	On the influence of bandstructure on transport properties of magnetic tunnel junctions with Co_2MnSi single and multilayer electrode. Journal of Applied Physics, 2008, 104, 043918.	1.1	45
85	Evidence for band structure effects in the magnetoresistance of Co-based Heusler compounds. Journal of Applied Physics, 2008, 103, 023903.	1.1	8
86	Evidence for strong magnon contribution to the TMR temperature dependence in MgO based tunnel junctions. Physical Review B, 2008, 77, .	1.1	56
87	Transport properties of magnetic tunnel junctions with Co_2MnSi electrodes: The influence of temperature-dependent interface magnetization and electronic band structure. Physical Review B, 2007, 75, .	1.1	42
88	Influence of chemical and magnetic interface properties of Co-Fe-B/MgO/Co-Fe-B tunnel junctions on the annealing temperature dependence of the magnetoresistance. Journal of Applied Physics, 2007, 102, 053907.	1.1	22
89	Half-metallic $\{\text{Co}_2\text{MnSi}/\text{Co}_2\text{FeSi}\}$ multilayered Heusler electrodes in magnetic tunnel junctions. Journal of Magnetism and Magnetic Materials, 2007, 310, 2009-2011.	1.0	4
90	Chemical and Magnetic Interface Properties of Tunnel Junctions With $\text{Co}_2\text{MnSi}/\text{Co}_2\text{FeSi}$ Multilayer Electrode Showing Large Tunneling Magnetoresistance. IEEE Transactions on Magnetics, 2007, 43, 2806-2808.	1.2	3

#	ARTICLE	IF	CITATIONS
91	Magnetic Tunneling Junctions " Materials, Geometry and Applications. Springer Series in Materials Science, 2007, , 147-165.	0.4	0
92	Temperature dependence of the resistance of magnetic tunnel junctions with MgO barrier. Applied Physics Letters, 2006, 88, 212115.	1.5	45
93	Spin-electronic devices with half-metallic Heusler alloys. Journal of Alloys and Compounds, 2006, 423, 148-152.	2.8	13
94	Large tunnel magnetoresistance in tunnel junctions with Co ₂ MnSi/Co ₂ FeSi multilayer electrode. Applied Physics Letters, 2006, 89, 162506.	1.5	42
95	Inverted spin polarization of Heusler alloys for spintronic devices. Applied Physics Letters, 2006, 89, 012502.	1.5	23
96	X-ray absorption and magnetic circular dichroism studies of annealed magnetic tunnel junctions. Journal of Applied Physics, 2005, 97, 123711.	1.1	13
97	Evidence for positive spin polarization in Co with SrTiO ₃ barriers. Journal of Applied Physics, 2005, 97, 10C908.	1.1	23
98	New materials and applications for magnetic tunnel junctions. Physica Status Solidi A, 2004, 201, 1628-1634.	1.7	7
99	The current potential of Co ₂ MnSi Heusler alloy electrodes in magnetic tunnel junctions. Physica Status Solidi A, 2004, 201, 3271-3279.	1.7	14
100	Co ₂ MnSi Heusler alloy as magnetic electrodes in magnetic tunnel junctions. Applied Physics Letters, 2004, 85, 79-81.	1.5	280
101	Impact of Geometry and Material Stacking on the Properties of Magnetic Tunneling Junctions. , 2004, , 57-70.		0
102	Unidirectional anisotropy in MnIr/CoFe/Al ₂ O ₃ /NiFe TMR multilayer systems. Physica Status Solidi A, 2003, 199, 284-288.	1.7	4
103	Spinelectronics and its applications. Physica Status Solidi (B): Basic Research, 2003, 236, 289-302.	0.7	10
104	Room-temperature preparation and magnetic behavior of Co ₂ MnSi thin films. Journal of Applied Physics, 2003, 93, 7945-7947.	1.1	62
105	Noise properties of magnetic and nonmagnetic tunnel junctions. Journal of Applied Physics, 2003, 93, 7020-7022.	1.1	23
106	Temperature and bias voltage dependence of Co-Fe-AlO _x /Py-AlO _x /Co-Fe double-barrier junctions. IEEE Transactions on Magnetics, 2003, 39, 2821-2823.	1.2	1
107	Aluminum oxidation by a remote electron cyclotron resonance plasma in magnetic tunnel junctions. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2120.	1.6	20
108	Stability of Magnetic Tunnel Junctions. Lecture Notes in Physics, 2002, , 91-110.	0.3	0

#	ARTICLE	IF	CITATIONS
109	Evolution of the dielectric breakdown in Co/Al ₂ O ₃ /Co junctions by annealing. Journal of Applied Physics, 2001, 89, 586-589.	1.1	32
110	Temperature and bias voltage dependence of CoFe/AlO/sub x//Py/AlO/sub x//CoFe double barrier junctions. , 0, , .		1