

Zhenchao Wen

List of Publications by Year in descending order

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papers

1,593
citations

279798

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all docs

79
docs citations

79
times ranked

1630
citing authors

#	ARTICLE	IF	CITATIONS
1	Perpendicular magnetization of Co ₂ FeAl full-Heusler alloy films induced by MgO interface. Applied Physics Letters, 2011, 98, .	3.3	119
2	Large perpendicular magnetic anisotropy at Fe/MgO interface. Applied Physics Letters, 2013, 103, .	3.3	100
3	A 4-fold Symmetry Hexagonal Ruthenium for Magnetic Heterostructures Exhibiting Enhanced Perpendicular Magnetic Anisotropy and Tunnel Magnetoresistance. Advanced Materials, 2014, 26, 6483-6490.	21.0	76
4	Room temperature ferromagnetism of Mn-doped SnO ₂ thin films fabricated by sol-gel method. Applied Surface Science, 2008, 254, 7459-7463.	6.1	69
5	Nanoring magnetic tunnel junction and its application in magnetic random access memory demo devices with spin-polarized current switching (invited). Journal of Applied Physics, 2008, 103, .	2.5	66
6	Patterned nanoring magnetic tunnel junctions. Applied Physics Letters, 2007, 91, 122511.	3.3	59
7	Magnetic Tunnel Junctions with Perpendicular Anisotropy Using a Co ₂ FeAl Full-Heusler Alloy. Applied Physics Express, 2012, 5, 063003.	2.4	55
8	Spin-transfer switching in full-Heusler Co ₂ FeAl-based magnetic tunnel junctions. Applied Physics Letters, 2012, 100, .	3.3	45
9	Novel room-temperature ferromagnetism in Gd-doped 2-dimensional Ti ₃ C ₂ T _x MXene semiconductor for spintronics. Journal of Magnetism and Magnetic Materials, 2020, 497, 165954.	2.3	45
10	Magnetic tunnel junction sensor with Co/Pt perpendicular anisotropy ferromagnetic layer. Applied Physics Letters, 2009, 94, 172902.	3.3	44
11	Tunnel Magnetoresistance and Spin-Transfer-Torque Switching in Polycrystalline Co_2FeAl/MgO Magnetic Tunnel Junctions on Amorphous SiO_2	3.3	40
12	Voltage control of magnetic anisotropy in epitaxial Ru/Co ₂ FeAl/MgO heterostructures. Scientific Reports, 2017, 7, 45026.	3.3	40
13	Observation of pure inverse spin Hall effect in ferromagnetic metals via ferromagnetic/antiferromagnetic exchange-bias structures. Physical Review B, 2015, 92, .	3.2	38
14	Fully epitaxial C1b-type NiMnSb half-Heusler alloy films for current-perpendicular-to-plane giant magnetoresistance devices with a Ag spacer. Scientific Reports, 2016, 5, 18387.	3.3	38
15	Lattice-matched magnetic tunnel junctions using a Heusler alloy Co ₂ FeAl and a cation-disorder spinel Mg-Al-O barrier. Applied Physics Letters, 2014, 105, .	3.3	37
16	Large anisotropic Fe orbital moments in perpendicularly magnetized Co ₂ FeAl Heusler alloy thin films revealed by angular-dependent x-ray magnetic circular dichroism. Applied Physics Letters, 2013, 103, .	3.3	36
17	Tunnel magnetoresistance in textured Co ₂ FeAl/MgO/CoFe magnetic tunnel junctions on a Si/SiO ₂ amorphous substrate. Applied Physics Letters, 2011, 98, .	3.3	35
18	Spin-orbit torque in Cr/CoFeAl/MgO and Ru/CoFeAl/MgO epitaxial magnetic heterostructures. AIP Advances, 2016, 6, .	1.3	29

#	ARTICLE	IF	CITATIONS
19	Exceeding 400% tunnel magnetoresistance at room temperature in epitaxial Fe/MgO/Fe(001) spin-valve-type magnetic tunnel junctions. Applied Physics Letters, 2021, 118, .	3.3	27
20	Effects of current on nanoscale ring-shaped magnetic tunnel junctions. Physical Review B, 2008, 77, .	3.2	26
21	Nonlinear electric field effect on perpendicular magnetic anisotropy in Fe/MgO interfaces. Journal Physics D: Applied Physics, 2017, 50, 40LT04.	2.8	25
22	Structural-order dependence of anomalous Hall effect in Co ₂ MnGa topological semimetal thin films. Applied Physics Letters, 2019, 115, .	3.3	25
23	Magnetization switching induced by spin-orbit torque from Co ₂ MnGa magnetic Weyl semimetal thin films. Applied Physics Letters, 2021, 118, 062402.	3.3	25
24	Perpendicular magnetic anisotropy at lattice-matched Co ₂ FeAl/MgAl ₂ O ₄ (001) epitaxial interfaces. Applied Physics Letters, 2017, 110, .	3.3	23
25	Current-induced multiple spin structures in 100 nm ring magnetic tunnel junctions. Physical Review B, 2008, 77, .	3.2	22
26	Interdiffusion in epitaxial ultrathin Co ₂ FeAl/MgO heterostructures with interface-induced perpendicular magnetic anisotropy. Applied Physics Express, 2017, 10, 013003.	2.4	22
27	Current-perpendicular-to-plane giant magnetoresistance effects using Heusler alloys. Journal of Magnetism and Magnetic Materials, 2019, 492, 165667.	2.3	22
28	Increased magnetic damping in ultrathin films of Co ₂ FeAl with perpendicular anisotropy. Applied Physics Letters, 2017, 110, .	3.3	20
29	Giant Coulomb blockade magnetoresistance in magnetic tunnel junctions with a granular layer. Physical Review B, 2010, 81, .	3.2	19
30	Competition between cotunneling, Kondo effect, and direct tunneling in discontinuous high-anisotropy magnetic tunnel junctions. Physical Review B, 2012, 85, .	3.2	19
31	Room temperature ferromagnetism in Sn _{1-x} V _x O ₂ films prepared by sol-gel method. Journal of Applied Physics, 2008, 104, 123909.	2.5	18
32	Current perpendicular-to-plane giant magnetoresistance devices using half-metallic Co ₂ Fe _{0.4} Mn _{0.6} Si electrodes and a Ag ¹⁰⁰ Mg spacer. Journal Physics D: Applied Physics, 2017, 50, 014004.	2.8	17
33	Cotunneling enhancement of magnetoresistance in double magnetic tunnel junctions with embedded superparamagnetic NiFe nanoparticles. Physical Review B, 2010, 82, .	3.2	16
34	Tunable magnetization relaxation of half-metallic Heusler alloys by band structure engineering. Physical Review Materials, 2017, 1, .	2.4	16
35	Spin Hall effect in a spin-1 chiral semimetal. Physical Review Research, 2021, 3, .	3.6	15
36	Current perpendicular-to-plane giant magnetoresistance using an Ag ¹⁰⁰ Mg spacer and half-metallic Heusler alloys by band structure engineering. Physical Review Materials, 2017, 1, .	2.4	15

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37	Crossover behaviors in magnetoresistance oscillations for Nb thin film with rectangular arrays of antidots. <i>Europhysics Letters</i> , 2012, 99, 37006.	2.0	14
38	Manipulation of magnetization switching and tunnel magnetoresistance via temperature and voltage control. <i>Scientific Reports</i> , 2016, 5, 18269.	3.3	14
39	Nanoelliptic Ring-Shaped Magnetic Tunnel Junction and Its Application in MRAM Design With Spin-Polarized Current Switching. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 2957-2961.	2.1	13
40	Design and performance of pseudo-spin-MOSFETs using nano-CMOS devices. , 2012, , .		13
41	Double-pinned magnetic tunnel junction sensors with spin-valve-like sensing layers. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	12
42	Anomaly in anomalous Nernst effect at low temperature for $C_{1-x}B_x$ -type NiMnSb half-Heusler alloy thin film. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SBBI03.	1.5	12
43	Enhanced current-perpendicular-to-plane giant magnetoresistance effect in half-metallic NiMnSb based nanojunctions with multiple Ag spacers. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	11
44	Spin-charge conversion in NiMnSb Heusler alloy films. <i>Science Advances</i> , 2019, 5, eaaw9337.	10.3	11
45	Composite metamaterials with dual-band magnetic resonances in the terahertz frequency regime. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 115420.	2.8	10
46	Pronounced effects of high-magnetic-field solidification on metamagnetic transition in tetragonal Cu_2Sb -type $Mn_{1.8}Cu_{0.2}Sb$ alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 442, 67-71.	2.3	10
47	Structure, optical, and magnetic properties of rutile $Sn_{1-x}Mn_xO_2$ thin films. <i>Applied Surface Science</i> , 2009, 255, 7981-7984.	6.1	9
48	Dual-spacer nanojunctions exhibiting large current-perpendicular-to-plane giant magnetoresistance for ultrahigh density magnetic recording. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	9
49	Tunability of Domain Structure and Magnonic Spectra in Antidot Arrays of Heusler Alloy. <i>Physical Review Applied</i> , 2019, 12, .	3.8	9
50	Enhanced tunnel magnetoresistance in Fe/Mg ₄ Al-O _x /Fe(001) magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	9
51	Wire network behavior in superconducting Nb films with diluted triangular arrays of holes. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 155702.	1.8	8
52	Fabrication of pseudo-spin-MOSFETs using a multi-project wafer CMOS chip. <i>Solid-State Electronics</i> , 2014, 102, 52-58.	1.4	8
53	Spin Polarimetry and Magnetic Dichroism on a Buried Magnetic Layer Using Hard X-ray Photoelectron Spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 016602.	1.5	6
54	Nanoscale-Thick Ni-Based Half-Heusler Alloys with Structural Ordering-Dependent Ultralow Magnetic Damping: Implications for Spintronic Applications. <i>ACS Applied Nano Materials</i> , 2022, 5, 569-577.	5.0	6

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55	Spin-dependent tunneling through NiFe nanoparticles. Journal of Applied Physics, 2009, 105, 07C923.	2.5	5
56	Interface Tailoring Effect for Heusler Based CPP-GMR with an L12-Type Ag3Mg Spacer. Materials, 2018, 11, 219.	2.9	5
57	Spin Polarimetry and Magnetic Dichroism on a Buried Magnetic Layer Using Hard X-ray Photoelectron Spectroscopy. Japanese Journal of Applied Physics, 2012, 51, 016602.	1.5	5
58	Role of defects in magnetic properties of Fe-doped SnO ₂ films fabricated by the Sol-gel method. Chinese Physics B, 2009, 18, 4025-4029.	1.4	4
59	Direct observation of room-temperature ferromagnetism of single-phase Ga _{0.962} Mn _{0.038} N by magnetic force microscopy. Journal of Applied Physics, 2010, 108, 093913.	2.5	4
60	Monolithic integration of pseudo-spin-MOSFETs using a custom CMOS chip fabricated through multi-project wafer service. , 2013, , .		4
61	Relation between electronic structure and magnetic anisotropy in amorphous TbCo films probed by x-ray magnetic circular dichroism. Journal Physics D: Applied Physics, 2016, 49, 205001.	2.8	4
62	Tunnel Magnetoresistance of Ferromagnetic Antiperovskite MnGaN/MgO/CoFeB Perpendicular Magnetic Tunnel Junctions. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	4
63	Optimization of half-Heusler PtMnSb alloy films for spintronic device applications. Journal Physics D: Applied Physics, 2018, 51, 435002.	2.8	4
64	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.	2.3	4
65	Temperature and Bias-Assisted Transport Properties of LSMO/AlO/CoFeB Magnetic Tunnel Junction. IEEE Transactions on Magnetics, 2010, 46, 2383-2386.	2.1	3
66	PATTERNED NANOSCALE MAGNETIC TUNNEL JUNCTIONS WITH DIFFERENT GEOMETRICAL STRUCTURES. Spin, 2011, 01, 109-114.	1.3	3
67	Interstitial vortex in superconducting film with periodic hole arrays. Chinese Physics B, 2012, 21, 087401.	1.4	3
68	Transport measurements on nano-engineered two dimensional superconducting wire networks. Physica C: Superconductivity and Its Applications, 2012, 480, 126-128.	1.2	3
69	Magnetotransport properties in perpendicularly magnetized tunnel junctions using an ultrathin Fe electrode. Journal Physics D: Applied Physics, 2014, 47, 322001.	2.8	3
70	Influence of intrinsic electronic properties on light transmission through subwavelength holes on gold and MgB ₂ thin films. Physical Review B, 2011, 84, .	3.2	2
71	Abnormal magnetoresistance behavior in Nb thin films with rectangular arrays of antidots. Chinese Physics B, 2012, 21, 077401.	1.4	2
72	Epitaxial CuN Films with Highly Tunable Lattice Constant for Lattice-Matched Magnetic Heterostructures with Enhanced Thermal Stability. Advanced Electronic Materials, 2018, 4, 1700367.	5.1	2

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73	Correlation between Electroresistance and Magnetoresistance in Slight Oxygen-Deficient Nd _{0.67} Sr _{0.33} MnO _{3-δ} Polycrystalline Ceramics. Chinese Physics Letters, 2008, 25, 3773-3775.	3.3	1
74	Revisiting Fe/MgO/Fe(001): Giant tunnel magnetoresistance up to ~420% at room temperature. , 2021, , .		1
75	Transmission properties of composite metamaterials in the terahertz domain. , 2008, , .		0
76	Reconfiguration and hysteresis in superconducting Nb film with honeycomb arrays. Journal of Physics: Conference Series, 2012, 400, 042018.	0.4	0
77	Electrical manipulation of magnetization switching in Co ₂ FeAl alloy based magnetic tunnel junctions with in-plane and perpendicular magnetization. , 2015, , .		0