Jian-Ping Wang

List of Publications by Year
in descending order

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189	7,015	53660	71532
papers	citations	45 h-index	76 g-index

193	193	193	7260
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Room-temperature high spinâ€“orbit torque due to quantum confinement in sputtered BixSe(1â€“x) films. Nature Materials, 2018, 17, 800-807.	13.3	344
2	Magnetic nanoparticles in nanomedicine: a review of recent advances. Nanotechnology, 2019, 30, 502003.	1.3	340
3	Field-free switching of a perpendicular magnetic tunnel junction through the interplay of spinâ€“orbit and spin-transfer torques. Nature Electronics, 2018, 1, 582-588.	13.1	304
4	Magnetomicelles:Â Composite Nanostructures from Magnetic Nanoparticles and Cross-Linked Amphiphilic Block Copolymers. Nano Letters, 2005, 5, 1987-1991.	4.5	269
5	Giant Spin Pumping and Inverse Spin Hall Effect in the Presence of Surface and Bulk Spinâˆ’Orbit Coupling of Topological Insulator Bi₂Se₃. Nano Letters, 2015, 15, 7126-7132.	4.5	257
6	Spin transfer in nanomagnetic devices with perpendicular anisotropy. Applied Physics Letters, 2006, 88, 172506.	1.5	253
7	Roadmap of Spinâ€“Orbit Torques. IEEE Transactions on Magnetics, 2021, 57, 1-39.	1.2	225
8	Giant Magnetoresistance-based Biosensor for Detection of Influenza A Virus. Frontiers in Microbiology, 2016, 7, 400.	1.5	132
9	Nanotechnology: Review of concepts and potential application of sensing platforms in food safety. Food Microbiology, 2018, 75, 47-54.	2.1	131
10	High-Power Coherent Microwave Emission from Magnetic Tunnel Junction Nano-oscillators with Perpendicular Anisotropy. ACS Nano, 2012, 6, 6115-6121.	7.3	125
11	High-magnetic-moment core-shell-type FeCoâ€“Auâˆ•Ag nanoparticles. Applied Physics Letters, 2005, 87, 152502.	1.5	124
12	A Detection System Based on Giant Magnetoresistive Sensors and Highâ€Moment Magnetic Nanoparticles Demonstrates Zeptomole Sensitivity: Potential for Personalized Medicine. Angewandte Chemie - International Edition, 2009, 48, 2764-2767.	7.2	122
13	Portable GMR Handheld Platform for the Detection of Influenza A Virus. ACS Sensors, 2017, 2, 1594-1601.	4.0	96
14	FePt Magnetic Nanoparticles and Their Assembly for Future Magnetic Media. Proceedings of the IEEE, 2008, 96, 1847-1863.	16.4	92
15	Spin Hall switching of the magnetization in Ta/TbFeCo structures with bulk perpendicular anisotropy. Applied Physics Letters, 2015, 106, .	1.5	88
16	Unidirectional spin-Hall and Rashbaâˆ’Edelstein magnetoresistance in topological insulator-ferromagnet layer heterostructures. Nature Communications, 2018, 9, 111.	5.8	87
17	Programmable spintronics logic device based on a magnetic tunnel junction element. Journal of Applied Physics, 2005, 97, 10D509.	1.1	85
18	Revealing the Origins of 3D Anisotropic Thermal Conductivities of Black Phosphorus. Advanced Electronic Materials, 2016, 2, 1600040.	2.6	85

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19	Magnetic-Nanosensor-Based Virus and Pathogen Detection Strategies before and during COVID-19. ACS Applied Nano Materials, 2020, 3, 9560-9580.	2.4	81
20	Magnetoresistive performance and comparison of supermagnetic nanoparticles on giant magnetoresistive sensor-based detection system. Scientific Reports, 2014, 4, 5716.	1.6	80
21	Magnetic Particle Spectroscopy: A Short Review of Applications Using Magnetic Nanoparticles. ACS Applied Nano Materials, 2020, 3, 4972-4989.	2.4	78
22	All-Optical Switching of Magnetic Tunnel Junctions with Single Subpicosecond Laser Pulses. Physical Review Applied, 2017, 7, .	1.5	76
23	High-magnetic-moment multifunctional nanoparticles for nanomedicine applications. Journal of Magnetism and Magnetic Materials, 2007, 311, 131-134.	1.0	75
24	Fabrication of $hbox{Fe}_{16}hbox{N}_{2}$ Films by Sputtering Process and Experimental Investigation of Origin of Giant Saturation Magnetization in $hbox{Fe}_{16}hbox{N}_{2}$. IEEE Transactions on Magnetics, 2012, 48, 1710-1717.	1.2	75
25	Giant voltage manipulation of MgO-based magnetic tunnel junctions via localized anisotropic strain: A potential pathway to ultra-energy-efficient memory technology. Applied Physics Letters, 2016, 109, .	1.5	75
26	Nanomagnetic Competition Assay for Low-Abundance Protein Biomarker Quantification in Unprocessed Human Sera. Journal of the American Chemical Society, 2010, 132, 4388-4392.	6.6	73
27	Perpendicular magnetic anisotropy and high spin-polarization ratio in epitaxial Fe-N thin films. Physical Review B, 2011, 84, .	1.1	72
28	High Performance MgO-barrier Magnetic Tunnel Junctions for Flexible and Wearable Spintronic Applications. Scientific Reports, 2017, 7, 42001.	1.6	70
29	In-Memory Processing on the Spintronic CRAM: From Hardware Design to Application Mapping. IEEE Transactions on Computers, 2019, 68, 1159-1173.	2.4	69
30	Giant magnetoresistive-based biosensing probe station system for multiplex protein assays. Biosensors and Bioelectronics, 2015, 70, 61-68.	5.3	68
31	Monodispersed and highly ordered L10 FePt nanoparticles prepared in the gas phase. Applied Physics Letters, 2006, 88, 192505.	1.5	62
32	N site ordering effect on partially ordered Fe16N2. Applied Physics Letters, 2011, 98, .	1.5	61
33	Development of a multiplexed giant magnetoresistive biosensor array prototype to quantify ovarian cancer biomarkers. Biosensors and Bioelectronics, 2019, 126, 301-307.	5.3	61
34	Biocompatible high-moment FeCo-Au magnetic nanoparticles for magnetic hyperthermia treatment optimization. Journal of Magnetism and Magnetic Materials, 2009, 321, 1525-1528.	1.0	58
35	Magnetic particle spectroscopy-based bioassays: methods, applications, advances, and future opportunities. Journal Physics D: Applied Physics, 2019, 52, 173001.	1.3	58
36	Magnetic Particle Spectroscopy for Detection of Influenza A Virus Subtype H1N1. ACS Applied Materials & Interfaces, 2020, 12, 13686-13697.	4.0	55

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37	Direct communication between magnetic tunnel junctions for nonvolatile logic fan-out architecture. Applied Physics Letters, 2010, 97, .	1.5	54
38	Detection of Influenza a Virus in Swine Nasal Swab Samples With a Wash-Free Magnetic Bioassay and a Handheld Giant Magnetoresistance Sensing System. Frontiers in Microbiology, 2019, 10, 1077.	1.5	53
39	Advances in Magnetoresistive Biosensors. Micromachines, 2020, 11, 34.	1.4	53
40	Synthesis of Fe16N2 compound Free-Standing Foils with 20 MGOe Magnetic Energy Product by Nitrogen Ion-Implantation. Scientific Reports, 2016, 6, 25436.	1.6	50
41	Low Gilbert Damping Constant in Perpendicularly Magnetized W/CoFeB/MgO Films with High Thermal Stability. Scientific Reports, 2018, 8, 13395.	1.6	50
42	Efficient In-Memory Processing Using Spintronics. IEEE Computer Architecture Letters, 2018, 17, 42-46.	1.0	49
43	Strain induced giant magnetism in epitaxial Fe16N2 thin film. Applied Physics Letters, 2013, 102, .	1.5	48
44	A Three-Layer Competition-Based Giant Magnetoresistive Assay for Direct Quantification of Endoglin from Human Urine. Analytical Chemistry, 2011, 83, 2996-3002.	3.2	46
45	Nanocomposite exchange-spring magnet synthesized by gas phase method: From isotropic to anisotropic. Applied Physics Letters, 2011, 98, 222507.	1.5	45
46	Voltage control of ferrimagnetic order and voltage-assisted writing of ferrimagnetic spin textures. Nature Nanotechnology, 2021, 16, 981-988.	15.6	45
47	Environment-friendly bulk Fe16N2 permanent magnet: Review and prospective. Journal of Magnetism and Magnetic Materials, 2020, 497, 165962.	1.0	44
48	Magnetic Detection of Mercuric Ion Using Giant Magnetoresistance-Based Biosensing System. Analytical Chemistry, 2014, 86, 3712-3716.	3.2	42
49	Real-time measurement of Brownian relaxation of magnetic nanoparticles by a mixing-frequency method. Applied Physics Letters, 2011, 98, .	1.5	41
50	Surface Modification for Protein and DNA Immobilization onto GMR Biosensor. IEEE Transactions on Magnetics, 2013, 49, 296-299.	1.2	40
51	Magnetic Nanoparticle Relaxation Dynamics-Based Magnetic Particle Spectroscopy for Rapid and Wash-Free Molecular Sensing. ACS Applied Materials & Interfaces, 2019, 11, 22979-22986.	4.0	37
52	Tunable charge to spin conversion in strontium iridate thin films. Physical Review Materials, 2019, 3, .	0.9	37
53	Magnetic hyperthermia performance of magnetite nanoparticle assemblies under different driving fields. AIP Advances, 2017, 7, .	0.6	36
54	One-Step, Wash-free, Nanoparticle Clustering-Based Magnetic Particle Spectroscopy Bioassay Method for Detection of SARS-CoV-2 Spike and Nucleocapsid Proteins in the Liquid Phase. ACS Applied Materials & Interfaces, 2021, 13, 44136-44146.	4.0	35

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55	Field-free spin-orbit torque switching of composite perpendicular CoFeB/Gd/CoFeB layers utilized for three-terminal magnetic tunnel junctions. Applied Physics Letters, 2017, 111, .	1.5	34
56	Computing with spins and magnets. MRS Bulletin, 2014, 39, 696-702.	1.7	33
57	Evaluation of Hyperthermia of Magnetic Nanoparticles by Dehydrating DNA. Scientific Reports, 2014, 4, 7216.	1.6	33
58	A Comparative Study Between Spin-Transfer-Torque and Spin-Hall-Effect Switching Mechanisms in PMTJ Using SPICE. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2017, 3, 74-82.	1.1	33
59	Observation of High Spin-to-Charge Conversion by Sputtered Bismuth Selenide Thin Films at Room Temperature. Nano Letters, 2019, 19, 4836-4844.	4.5	33
60	Investigating the effect of magnetic dipoleâ€“dipole interaction on magnetic particle spectroscopy: implications for magnetic nanoparticle-based bioassays and magnetic particle imaging. Journal Physics D: Applied Physics, 2019, 52, 335002.	1.3	32
61	Magnetic nanoparticles colourization by a mixing-frequency method. Journal Physics D: Applied Physics, 2014, 47, 155001.	1.3	31
62	Giant Magnetoresistance Biosensors in Biomedical Applications. ACS Applied Materials & Interfaces, 2022, 14, 9945-9969.	4.0	31
63	Experimental and theoretical investigation of cubic FeCo nanoparticles for magnetic hyperthermia. Journal of Applied Physics, 2009, 105, .	1.1	29
64	Time-Resolved Magneto-Optical Kerr Effect of Magnetic Thin Films for Ultrafast Thermal Characterization. Journal of Physical Chemistry Letters, 2016, 7, 2328-2332.	2.1	29
65	Preparation of an Î±â€³â€Fe₁₆N₂ Magnet via a Ball Milling and Shock Compaction Approach. Advanced Engineering Materials, 2016, 18, 1009-1016.	1.6	29
66	Externalâ€Fieldâ€Free Spin Hall Switching of Perpendicular Magnetic Nanopillar with a Dipoleâ€Coupled Composite Structure. Advanced Electronic Materials, 2020, 6, 1901368.	2.6	29
67	Precessional magnetization induced spin current from CoFeB into Ta. Applied Physics Letters, 2013, 103, .	1.5	27
68	Magnetic Weyl semimetals with diamond structure realized in spinel compounds. Physical Review B, 2020, 101, .	1.1	27
69	Toward the direct deposition of L10 FePt nanoparticles. Journal of Applied Physics, 2005, 97, 10J319.	1.1	26
70	Superparamagnetic nanoparticle-based viscosity test. Applied Physics Letters, 2015, 107, .	1.5	26
71	Characterizing Physical Properties of Superparamagnetic Nanoparticles in Liquid Phase Using Brownian Relaxation. Small, 2017, 13, 1604135.	5.2	26
72	Using Spin-Hall MTJs to Build an Energy-Efficient In-memory Computation Platform. , 2019, , .		26

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73	High-moment magnetic nanoparticles. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	25
74	FeCoâ€“Au core-shell nanocrystals. Applied Physics Letters, 2007, 91, 233107.	1.5	24
75	Magnetic dynamics of ferrofluids: mathematical models and experimental investigations. Journal Physics D: Applied Physics, 2017, 50, 085005.	1.3	24
76	Telegraphic switching signals by magnet tunnel junctions for neural spiking signals with high information capacity. Journal of Applied Physics, 2018, 124, .	1.1	24
77	Deterministic field-free switching of a perpendicularly magnetized ferromagnetic layer via the joint effects of the Dzyaloshinskiiâ€“Moriya interaction and damping- and field-like spinâ€“orbit torques: an appraisal. Journal Physics D: Applied Physics, 2020, 53, 205002.	1.3	24
78	Measurement of Brownian and NÃ©el Relaxation of Magnetic Nanoparticles by a Mixing-Frequency Method. IEEE Transactions on Magnetics, 2013, 49, 227-230.	1.2	23
79	Magnetic properties of cubic FeCo nanoparticles with anisotropic long chain structure. AIP Advances, 2016, 6, .	0.6	23
80	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>L</mml:mi><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mi>Synthetic Antiferromagnet through an fcc Ru Spacer Utilized for Perpendicular Magnetic Tunnel Junctions. Physical Review Applied, 2018, 9, .	1.5	23
81	Room-temperature spin-to-charge conversion in sputtered bismuth selenide thin films via spin pumping from yttrium iron garnet. Applied Physics Letters, 2019, 114, .	1.5	22
82	A single magnetic-tunnel-junction stochastic computing unit. , 2017, , .		21
83	Synthesis of Î±â€³-Fe16N2 foils with an ultralow temperature coefficient of coercivity for rare-earth-free magnets. Acta Materialia, 2020, 184, 143-150.	3.8	21
84	Spin pumping and large field-like torque at room temperature in sputtered amorphous WTe2âˆ’x films. APL Materials, 2020, 8, .	2.2	21
85	Investigation of Commercial Iron Oxide Nanoparticles: Structural and Magnetic Property Characterization. ACS Omega, 2021, 6, 6274-6283.	1.6	21
86	DFT calculation and experimental investigation of Mn doping effect in Fe16N2. AIP Advances, 2016, 6, .	0.6	20
87	Synthesis of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow><mml:mrow><mml:mo>â€²</mml:mo><mathvariant="normal">N</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:Anisotropic Magnet by t. Physical Review Applied, 2016, 6, .	1.5	20
88	Synthesis of Î±â€²â€²-Fe₁₆N₂ribbons with a porous structure. Nanoscale Advances, 2019, 1, 1337-1342.	2.2	20
89	Cubic and Spherical High-Moment FeCo Nanoparticles With Narrow Size Distribution. IEEE Transactions on Magnetics, 2007, 43, 3340-3342.	1.2	19
90	Epitaxial high saturation magnetization FeN thin films on Fe(001) seeded GaAs(001) single crystal wafer using facing target sputterings. Journal of Applied Physics, 2011, 109, 07B767.	1.1	19

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91	Direct synthesis of large size ferromagnetic SmCo5 nanoparticles by a gas-phase condensation method. Journal of Applied Physics, 2013, 113, .	1.1	19
92	A Pathway to Enable Exponential Scaling for the Beyond-CMOS Era. , 2017, , .		19
93	Localized detection of reversal nucleation generated by high moment magnetic nanoparticles using a large-area magnetic sensor. Journal of Applied Physics, 2017, 122, 123901.	1.1	19
94	Experimental Demonstration of Probabilistic Spin Logic by Magnetic Tunnel Junctions. IEEE Magnetics Letters, 2019, 10, 1-5.	0.6	19
95	Biocompatible Feâ€“Si Nanoparticles with Adjustable Self-Regulation of Temperature for Medical Applications. ACS Applied Materials & Interfaces, 2015, 7, 12649-12654.	4.0	18
96	Evaluation of Operating Margin and Switching Probability of Voltage- Controlled Magnetic Anisotropy Magnetic Tunnel Junctions. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2018, 4, 76-84.	1.1	18
97	MOUSE: Inference In Non-volatile Memory for Energy Harvesting Applications. , 2020, , .		18
98	A Portable Magnetic Particle Spectrometer for Future Rapid and Wash-Free Bioassays. ACS Applied Materials & Interfaces, 2021, 13, 7966-7976.	4.0	17
99	The effect of strain induced by Ag underlayer on saturation magnetization of partially ordered Fe16N2 thin films. Applied Physics Letters, 2013, 103, .	1.5	16
100	Minnealloy: a new magnetic material with high saturation flux density and low magnetic anisotropy. Journal Physics D: Applied Physics, 2017, 50, 37LT01.	1.3	16
101	Weak antilocalization and low-temperature characterization of sputtered polycrystalline bismuth selenide. Applied Physics Letters, 2018, 112, .	1.5	16
102	High-frequency magnetoacoustic resonance through strain-spin coupling in perpendicular magnetic multilayers. Science Advances, 2020, 6, .	4.7	16
103	Giant Anomalous Hall Effect due to Double-Degenerate Quasiflat Bands. Physical Review Letters, 2021, 126, 106601.	2.9	16
104	Magnetic nanoparticles and magnetic particle spectroscopy-based bioassays: a 15 year recap. Nano Futures, 2022, 6, 022001.	1.0	16
105	(FeCo)3Siâ€“SiOxcoreâ€“shell nanoparticles fabricated in the gas phase. Nanotechnology, 2007, 18, 065701.	1.3	15
106	Enhancement of tunneling magnetoresistance by inserting a diffusion barrier in L1-FePd perpendicular magnetic tunnel junctions. Applied Physics Letters, 2018, 112, .	1.5	15
107	Voltage-Controlled Antiferromagnetism in Magnetic Tunnel Junctions. Physical Review Letters, 2020, 124, 187701.	2.9	15
108	Bipolar Electric-Field Switching of Perpendicular Magnetic Tunnel Junctions through Voltage-Controlled Exchange Coupling. Nano Letters, 2022, 22, 622-629.	4.5	15

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109	Composition- and Phase-Controlled High-Magnetic-Moment Fe$_{1 - {m x}}$Co$_{m x}$ Nanoparticles for Biomedical Applications. IEEE Transactions on Magnetics, 2013, 49, 197-200.	1.2	14
110	Surface modification and bioconjugation of FeCo magnetic nanoparticles with proteins. Colloids and Surfaces B: Biointerfaces, 2014, 117, 449-456.	2.5	14
111	Comparative analysis of several GMR strip sensor configurations for biological applications. Sensors and Actuators A: Physical, 2014, 216, 349-354.	2.0	14
112	Irregularly Shaped Iron Nitride Nanoparticles as a Potential Candidate for Biomedical Applications: From Synthesis to Characterization. ACS Omega, 2020, 5, 11756-11767.	1.6	14
113	A simulation study on superparamagnetic nanoparticle based multi-tracer tracking. Applied Physics Letters, 2015, 107, .	1.5	13
114	Large-area GMR bio-sensors based on reverse nucleation switching mechanism. Journal of Magnetism and Magnetic Materials, 2019, 473, 484-489.	1.0	13
115	Low Gilbert damping and high thermal stability of Ru-seeded L1-phase FePd perpendicular magnetic thin films at elevated temperatures. Applied Physics Letters, 2020, 117, .	1.5	13
116	A DNA Read Alignment Accelerator Based on Computational RAM. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2020, 6, 80-88.	1.1	13
117	Large unidirectional spin Hall and Rashbaâ''Edelstein magnetoresistance in topological insulator/magnetic insulator heterostructures. Applied Physics Reviews, 2022, 9, .	5.5	13
118	Measurement of Brownian Relaxation of Magnetic Nanoparticle by a Multi-Tone Mixing-Frequency Method. IEEE Transactions on Magnetics, 2012, 48, 3513-3516.	1.2	12
119	Strain effect of multilayer FeN structure on GaAs substrate. Journal of Applied Physics, 2013, 113, 17E149.	1.1	12
120	Quantitative analysis and optimization of magnetization precession initiated by ultrafast optical pulses. Applied Physics Letters, 2018, 113, .	1.5	12
121	Heavyâ€Metalâ€Free, Lowâ€Damping, and Nonâ€Interface Perpendicular Fe 16 N 2 Thin Film and Magnetoresistance Device. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900089.	1.2	12
122	Iron nanoparticles with tunable tetragonal structure and magnetic properties. Physical Review Materials, 2018, 2, .	0.9	12
123	A review on magnetic and spintronic neurostimulation: challenges and prospects. Nanotechnology, 2022, 33, 182004.	1.3	12
124	Perpendicular magnetic tunnel junctions with multi-interface free layer. Applied Physics Letters, 2021, 119, .	1.5	12
125	A method to evaluateÎ±â€³-Fe₁₆N₂volume ratio in FeN bulk material by XPS. Materials Research Express, 2015, 2, 116103.	0.8	11
126	Nitriding and martensitic phase transformation of the copper and boron doped iron nitride magnet. Acta Materialia, 2019, 167, 80-88.	3.8	11

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127	Independent Control of Antiparallel- and Parallel-State Thermal Stability Factors in Magnetic Tunnel Junctions for Telegraphic Signals With Two Degrees of Tunability. IEEE Transactions on Electron Devices, 2019, 66, 5353-5359.	1.6	11
128	A core-shell nanomaterial with endogenous therapeutic and diagnostic functions. Cancer Nanotechnology, 2010, 1, 13-18.	1.9	10
129	High power and low critical current spin torque oscillation from a magnetic tunnel junction with a built-in hard axis polarizer. Applied Physics Letters, 2012, 100, .	1.5	10
130	Thermal stability of partially ordered Fe16N2 film on non-magnetic Ag under layer. Journal of Applied Physics, 2014, 115, .	1.1	10
131	External-field-free magnetic biosensor. Applied Physics Letters, 2014, 104, .	1.5	10
132	Epitaxial Fe16N2 thin film on nonmagnetic seed layer. Applied Physics Letters, 2018, 112, .	1.5	10
133	Magnetic structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mn>16</mml:mn></mml mathvariant="normal">N</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> determined by polarized neutron diffraction on thin-film samples. Physical Review B, 2020, 102, .	1.1	10
134	Large-scale interlayer rotations and Te grain boundaries in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo> <mml:mrow><mn thin films. Physical Review Materials, 2020, 4, .	0.9	10
135	Scaling effect of spin-torque nano-oscillators. AIP Advances, 2017, 7, 056624.	0.6	9
136	High saturation magnetization and low magnetic anisotropy Fe-CN martensite thin film. Applied Physics Letters, 2019, 114, .	1.5	9
137	Spin current nano-oscillator (SCNO) as a potential frequency-based, ultra-sensitive magnetic biosensor: a simulation study. Nanotechnology, 2020, 31, 375501.	1.3	9
138	Critical thickness of Î±â€³-Fe16N2 layer prepared in low-temperature nitriding. Journal of Applied Physics, 2020, 128, .	1.1	9
139	Tunable magnetic skyrmions in spintronic nanostructures for cellular-level magnetic neurostimulation. Journal Physics D: Applied Physics, 2019, 52, 465002.	1.3	8
140	Analyzing the Effects of Interconnect Parasitics in the STT CRAM In-Memory Computational Platform. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2020, 6, 71-79.	1.1	8
141	High-Yield Gas-Phase Condensation Synthesis of Nanoparticles to Enable a Wide Array of Applications. ACS Applied Nano Materials, 2020, 3, 7942-7949.	2.4	8
142	Buffer layer engineering of L1 FePd thin films with large perpendicular magnetic anisotropy. AIP Advances, 2021, 11, .	0.6	8
143	Magnetic Particle Spectroscopy with One-Stage Lock-In Implementation for Magnetic Bioassays with Improved Sensitivities. Journal of Physical Chemistry C, 2021, 125, 17221-17231.	1.5	8
144	Magnetic nanoparticles of core-shell structure for recoverable photocatalysts. Applied Physics Letters, 2013, 102, .	1.5	7

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145	Magnetization Response Spectroscopy of Superparamagnetic Nanoparticles Under Mixing Frequency Fields. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	7
146	Spinâ€“Orbit Torque and Spin Hall Effect-Based Cellular Level Therapeutic Spintronic Neuromodulator: A Simulation Study. Journal of Physical Chemistry C, 2019, 123, 24963-24972.	1.5	7
147	Tunable magnetic domain walls for therapeutic neuromodulation at cellular level: Stimulating neurons through magnetic domain walls. Journal of Applied Physics, 2019, 126, .	1.1	7
148	Estimating saturation magnetization of superparamagnetic nanoparticles in liquid phase. Journal of Magnetism and Magnetic Materials, 2019, 471, 394-399.	1.0	7
149	Large fieldlike torque in amorphous Ru2Sn3 originated from the intrinsic spin Hall effect. Physical Review Materials, 2021, 5, .	0.9	7
150	Influence of Total Ionizing Dose on Magnetic Tunnel Junctions With Perpendicular Anisotropy. IEEE Transactions on Nuclear Science, 2021, 68, 748-755.	1.2	7
151	Ferromagnetic resonance and magnetization switching characteristics of perpendicular magnetic tunnel junctions with synthetic antiferromagnetic free layers. Applied Physics Letters, 2022, 120, .	1.5	7
152	Strength-frequency curve for micromagnetic neurostimulation through excitatory postsynaptic potentials (EPSPs) on rat hippocampal neurons and numerical modeling of magnetic microcoil (Î¼coil). Journal of Neural Engineering, 2022, 19, 016018.	1.8	7
153	Power enhancement of angular polarizer spin torque oscillator in magnetic tunnel junction. Journal of Applied Physics, 2011, 109, .	1.1	6
154	<italic>In Vitro</italic> Viscosity Measurement on Superparamagnetic Nanoparticle Suspensions. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	6
155	Spintronic In-Memory Pattern Matching. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 206-214.	1.1	6
156	Ferromagnetic phase of the spinel compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>MgV</mml:mi><mml:mn>2</mml:mn></mm mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> and its spintronics properties. Physical Review B, 2020, 102, .	1.1	6
157	Magnetocrystalline anisotropy of Î±â€³â€“Fe16N2 under various DFT approaches. AIP Advances, 2021, 11, .	0.6	6
158	Enhancement of voltage controlled magnetic anisotropy (VCMA) through electron depletion. Journal of Applied Physics, 2022, 131, .	1.1	6
159	New insight on the MÃ¶ssbauer spectra for Fe16N2 thin films with high saturation magnetization. Japanese Journal of Applied Physics, 2019, 58, 120907.	0.8	5
160	Annealing Temperature Effects on Spin Hall Magnetoresistance in Perpendicularly Magnetized W/CoFeB Bilayers. IEEE Transactions on Magnetics, 2019, 55, 1-4.	1.2	5
161	Stable and Monodisperse Iron Nitride Nanoparticle Suspension for Magnetic Diagnosis and Treatment: Development of Synthesis and Surface Functionalization Strategies. ACS Applied Nano Materials, 2021, 4, 4409-4418.	2.4	5
162	Bipolar Random Spike and Bipolar Random Number Generation by Two Magnetic Tunnel Junctions. IEEE Transactions on Electron Devices, 2022, 69, 1582-1587.	1.6	5

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163	High-magnetic-moment nanoparticles for biomedicine. , 2009, 2009, 4483-6.		4
164	Viscosity effect on the brownian relaxation based detection for immunoassay applications. , 2014, 2014, 2769-72.		4
165	Energy-efficient and Reliable Inference in Nonvolatile Memory under Extreme Operating Conditions. Transactions on Embedded Computing Systems, 2022, 21, 1-36.	2.1	4
166	A new and facile method for measurement of apparent density of monodisperse polymer beads. Talanta, 2010, 80, 1681-1685.	2.9	3
167	Magnetic field enhanced coercivity of Fe nanoparticles embedded in antiferromagnetic MnN films. Journal Physics D: Applied Physics, 2020, 53, 035003.	1.3	3
168	Surface acoustic wave induced modulation of tunneling magnetoresistance in magnetic tunnel junctions. Journal of Applied Physics, 2021, 130, .	1.1	3
169	Large Superparamagnetic FeCo Nanocubes for Magnetic Theranostics. ACS Applied Nano Materials, 2021, 4, 9382-9390.	2.4	3
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