Yan Zhou

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/307050/publications.pdf

Version: 2024-02-01

242 papers	10,570 citations	46984 47 h-index	37183 96 g-index
244 all docs	244 docs citations	244 times ranked	5805 citing authors

#	Article	IF	Citations
1	Direct observation of the skyrmion Hall effect. Nature Physics, 2017, 13, 162-169.	6.5	858
2	Magnetic skyrmion logic gates: conversion, duplication and merging of skyrmions. Scientific Reports, 2015, 5, 9400.	1.6	610
3	Magnetic bilayer-skyrmions without skyrmion Hall effect. Nature Communications, 2016, 7, 10293.	5.8	384
4	Skyrmion-based artificial synapses for neuromorphic computing. Nature Electronics, 2020, 3, 148-155.	13.1	346
5	Antiferromagnetic Skyrmion: Stability, Creation and Manipulation. Scientific Reports, 2016, 6, 24795.	1.6	306
6	Current-driven dynamics and inhibition of the skyrmion Hall effect of ferrimagnetic skyrmions in GdFeCo films. Nature Communications, 2018, 9, 959.	5.8	301
7	A reversible conversion between a skyrmion and a domain-wall pair in a junction geometry. Nature Communications, 2014, 5, 4652.	5.8	299
8	Precision Measurement of the Electronâ€™s Electric Dipole Moment Using Trapped Molecular Ions. Physical Review Letters, 2017, 119, 153001.	2.9	298
9	Skyrmion-Electronics: An Overview and Outlook. Proceedings of the IEEE, 2016, 104, 2040-2061.	16.4	289
10	Skyrmion-electronics: writing, deleting, reading and processing magnetic skyrmions toward spintronic applications. Journal of Physics Condensed Matter, 2020, 32, 143001.	0.7	268
11	Molecular Orientation and Alignment by Intense Single-Cycle THz Pulses. Physical Review Letters, 2011, 107, 163603.	2.9	261
12	Magnetic skyrmion-based synaptic devices. Nanotechnology, 2017, 28, 08LT02.	1.3	223
13	Magnetic skyrmion transistor: skyrmion motion in a voltage-gated nanotrack. Scientific Reports, 2015, 5, 11369.	1.6	205
14	Voltage Controlled Magnetic Skyrmion Motion for Racetrack Memory. Scientific Reports, 2016, 6, 23164.	1.6	180
15	Dynamically stabilized magnetic skyrmions. Nature Communications, 2015, 6, 8193.	5.8	173
16	Magnetic skyrmion-based artificial neuron device. Nanotechnology, 2017, 28, 31LT01.	1.3	169
17	Skyrmion dynamicsÂin a frustrated ferromagnetic filmÂand current-induced helicity locking-unlocking transition. Nature Communications, 2017, 8, 1717.	5.8	147
18	Control and manipulation of a magnetic skyrmionium in nanostructures. Physical Review B, 2016, 94, .	1.1	137

#	Article	IF	Citations
19	Electric-field-driven non-volatile multi-state switching of individual skyrmions in a multiferroic heterostructure. Nature Communications, 2020, 11, 3577.	5.8	117
20	NÃ©el-type skyrmions and their current-induced motion in van der Waals ferromagnet-based heterostructures. Physical Review B, 2021, 103, .	1.1	110
21	Skyrmion-Based Dynamic Magnonic Crystal. Nano Letters, 2015, 15, 4029-4036.	4.5	109
22	Deterministic creation and deletion of a single magnetic skyrmion observed by direct time-resolved X-ray microscopy. Nature Electronics, 2018, 1, 288-296.	13.1	108
23	Spin torque nano-oscillators based on antiferromagnetic skyrmions. Applied Physics Letters, 2019, 114, .	1.5	106
24	Magnetic skyrmions: intriguing physics and new spintronic device concepts. National Science Review, 2019, 6, 210-212.	4.6	104
25	Spin-torque oscillator with tilted fixed layer magnetization. Applied Physics Letters, 2008, 92, .	1.5	102
26	Electric Field-Induced Creation and Directional Motion of Domain Walls and Skyrmion Bubbles. Nano Letters, 2019, 19, 353-361.	4.5	97
27	A compact skyrmionic leakyâ€“integrateâ€“fire spiking neuron device. Nanoscale, 2018, 10, 6139-6146.	2.8	96
28	An Improved Racetrack Structure for Transporting a Skyrmion. Scientific Reports, 2017, 7, 45330.	1.6	92
29	All-magnetic control of skyrmions in nanowires by a spin wave. Nanotechnology, 2015, 26, 225701.	1.3	86
30	Mechanisms of imprint effect on ferroelectric thin films. Journal of Applied Physics, 2005, 98, 024111.	1.1	85
31	Dynamics of the antiferromagnetic skyrmion induced by a magnetic anisotropy gradient. Physical Review B, 2018, 98, .	1.1	84
32	Current-Induced Dynamics and Chaos of Antiferromagnetic Bimerons. Physical Review Letters, 2020, 124, 037202.	2.9	82
33	Electromagnetically induced absorption in a three-resonator metasurface system. Scientific Reports, 2015, 5, 10737.	1.6	78
34	Magnetic skyrmions for unconventional computing. Materials Horizons, 2021, 8, 854-868.	6.4	74
35	Thermally stable magnetic skyrmions in multilayer synthetic antiferromagnetic racetracks. Physical Review B, 2016, 94, .	1.1	70
36	Complementary Skyrmion Racetrack Memory With Voltage Manipulation. IEEE Electron Device Letters, 2016, 37, 924-927.	2.2	70

#	Article	IF	Citations
37	Phase-locked spin torque oscillators: Impact of device variability and time delay. Journal of Applied Physics, 2007, 101, 09A503.	1.1	69
38	Skyrmions in Magnetic Tunnel Junctions. ACS Applied Materials & Interfaces, 2018, 10, 16887-16892.	4.0	68
39	A Retro Dielsâ€“Alder Route to Diphosphorus Chemistry: Molecular Precursor Synthesis, Kinetics of P₂ Transfer to 1,3-Dienes, and Detection of P₂ by Molecular Beam Mass Spectrometry. Journal of the American Chemical Society, 2014, 136, 13586-13589.	6.6	64
40	Skyrmion domain wall collision and domain wall-gated skyrmion logic. Physical Review B, 2016, 94, .	1.1	63
41	Zero-field precession and hysteretic threshold currents in a spin torque nano device with tilted polarizer. New Journal of Physics, 2009, 11, 103028.	1.2	62
42	Tunable intrinsic phase of a spin torque oscillator. Applied Physics Letters, 2008, 92, .	1.5	60
43	Perpendicular spin torque promotes synchronization of magnetic tunnel junction based spin torque oscillators. Applied Physics Letters, 2009, 94, .	1.5	57
44	Fiber optics for spin waves. NPG Asia Materials, 2016, 8, e246-e246.	3.8	55
45	Intrinsic phase shift between a spin torque oscillator and an alternating current. Journal of Applied Physics, 2007, 101, 09A510.	1.1	50
46	Negative capacitance transistors with monolayer black phosphorus. Npj Quantum Materials, 2016, 1, .	1.8	50
47	Topology-Dependent Brownian Gyromotion of a Single Skyrmion. Physical Review Letters, 2020, 125, 027206.	2.9	50
48	Base-by-Base Dynamics in DNA Hybridization Probed by Fluorescence Correlation Spectroscopy. Journal of the American Chemical Society, 2008, 130, 16947-16952.	6.6	48
49	Currentâ€Induced Helicity Reversal of a Single Skyrmionic Bubble Chain in a Nanostructured Frustrated Magnet. Advanced Materials, 2020, 32, e1904815.	11.1	47
50	Motion of skyrmions in nanowires driven by magnonic momentum-transfer forces. New Journal of Physics, 2017, 19, 065001.	1.2	46
51	Manipulating and trapping skyrmions by magnetic field gradients. New Journal of Physics, 2017, 19, 083008.	1.2	46
52	Current-Induced Dynamics of the Antiferromagnetic Skyrmion and Skyrmionium. Physical Review Applied, 2019, 12, .	1.5	46
53	Microwave generation of tilted-polarizer spin torque oscillator. Journal of Applied Physics, 2009, 105, 07D116.	1.1	45
54	High-efficient catalytic reduction of 4-nitrophenol based on reusable Ag nanoparticles/graphene-loading loofah sponge hybrid. Nanotechnology, 2018, 29, 315702.	1.3	45

#	Article	IF	Citations
55	Dynamics of a magnetic skyrmionium driven by spin waves. Applied Physics Letters, 2018, 112, .	1.5	43
56	Oscillatory transient regime in the forced dynamics of a nonlinear auto oscillator. Physical Review B, 2010, 82, .	1.1	42
57	Realization of Isolated and High-Density Skyrmions at Room Temperature in Uncompensated Synthetic Antiferromagnets. Nano Letters, 2020, 20, 3299-3305.	4.5	42
58	Skyrmion Racetrack Memory With Random Information Update/Deletion/Insertion. IEEE Transactions on Electron Devices, 2018, 65, 87-95.	1.6	41
59	Voltage-Driven High-Speed Skyrmion Motion in a Skyrmion-Shift Device. Physical Review Applied, 2019, 11, .	1.5	41
60	Static and dynamic properties of bimerons in a frustrated ferromagnetic monolayer. Physical Review B, 2020, 101, .	1.1	40
61	Antiferromagnetic skyrmion-based logic gates controlled by electric currents and fields. Applied Physics Letters, 2021, 119, .	1.5	40
62	Current-induced spin-wave excitation in Pt/YIG bilayer. Physical Review B, 2013, 88, .	1.1	39
63	Spin Torque Oscillators and RF Currentsâ€”Modulation, Locking, and Ringing. Integrated Ferroelectrics, 2011, 125, 147-154.	0.3	38
64	Interfacial Dzialoshinskiiâ€“Moriya interaction induced nonreciprocity of spin waves in magnonic waveguides. RSC Advances, 2014, 4, 46454-46459.	1.7	37
65	High-topological-number magnetic skyrmions and topologically protected dissipative structure. Physical Review B, 2016, 93, .	1.1	37
66	Dynamics of an antiferromagnetic skyrmion in a racetrack with a defect. Physical Review B, 2019, 100, .	1.1	37
67	Strain-controlled skyrmion creation and propagation in ferroelectric/ferromagnetic hybrid wires. Journal of Magnetism and Magnetic Materials, 2018, 455, 19-24.	1.0	36
68	A skyrmion-based spin-torque nano-oscillator with enhanced edge. Journal of Magnetism and Magnetic Materials, 2019, 491, 165610.	1.0	36
69	A spiking neuron constructed by the skyrmion-based spin torque nano-oscillator. Applied Physics Letters, 2020, 116, .	1.5	36
70	Global attractors and the difficulty of synchronizing serial spin-torque oscillators. Physical Review B, 2010, 82, .	1.1	34
71	Bimeron clusters in chiral antiferromagnets. Npj Computational Materials, 2020, 6, .	3.5	34
72	A ferromagnetic skyrmion-based diode with a voltage-controlled potential barrier. Nanoscale, 2020, 12, 9507-9516.	2.8	34

#	Article	IF	Citations
73	Parametric autoexcitation of magnetic droplet soliton perimeter modes. Physical Review B, 2017, 95, .	1.1	32
74	Confinement and Protection of Skyrmions by Patterns of Modified Magnetic Properties. Nano Letters, 2021, 21, 4320-4326.	4.5	32
75	Possibility of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mo>=</mml:mo><mml:mn>1</mml:mn></mml:mrow></mml:math>spin liquids with fermionic spinons on triangular lattices. Physical Review B, 2010, 81, .	1.1	31
76	Current-Driven Dynamics of Frustrated Skyrmions in a Synthetic Antiferromagnetic Bilayer. Physical Review Applied, 2019, 11, .	1.5	31
77	Chopping skyrmions from magnetic chiral domains with uniaxial stress in magnetic nanowire. Applied Physics Letters, 2017, 111, .	1.5	30
78	Magnetic skyrmionium diode with a magnetic anisotropy voltage gating. Applied Physics Letters, 2020, 117, .	1.5	30
79	Fermionic theory for quantum antiferromagnets with spin<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mo>></mml:mo><mml:mstyle scriptlevel="1"><mml:mfrac bevelled="false"><mml:mn>1</mml:mn><mml:mn>2</mml:mn></mml:mfrac></mml:mstyle></mml:mrow></mml:math>. Physical Review B, 2010, 82, .	1.1	29
80	Skyrmion dynamics in width-varying nanotracks and implications for skyrmionic applications. Applied Physics Letters, 2017, 111, .	1.5	29
81	A ferromagnetic skyrmion-based nano-oscillator with modified profile of Dzyaloshinskii-Moriya interaction. Journal of Magnetism and Magnetic Materials, 2020, 496, 165912.	1.0	27
82	Dynamics of an elliptical ferromagnetic skyrmion driven by the spinâ€“orbit torque. Applied Physics Letters, 2020, 116, .	1.5	27
83	Recent Progress of Fluxgate Magnetic Sensors: Basic Research and Application. Sensors, 2021, 21, 1500.	2.1	27
84	Magnetoelectric effect of mildly conducting magnetostrictive/piezoelectric particulate composites. Journal of Applied Physics, 2006, 100, 043910.	1.1	26
85	Broadband velocity modulation spectroscopy of ThF+ for use in a measurement of the electron electric dipole moment. Journal of Molecular Spectroscopy, 2016, 319, 1-9.	0.4	26
86	Compact Modeling and Evaluation of Magnetic Skyrmion-Based Racetrack Memory. IEEE Transactions on Electron Devices, 2017, 64, 1060-1068.	1.6	26
87	Interfacial Perpendicular Magnetic Anisotropy in Sub-20 nm Tunnel Junctions for Large-Capacity Spin-Transfer Torque Magnetic Random-Access Memory. IEEE Magnetics Letters, 2017, 8, 1-5.	0.6	25
88	Geometrical and physical conditions for skyrmion stability in a nanowire. AIP Advances, 2015, 5, 047141.	0.6	24
89	Merging droplets in double nanocontact spin torque oscillators. Physical Review B, 2016, 93, .	1.1	24
90	A microwave field-driven transistor-like skyrmionic device with the microwave current-assisted skyrmion creation. Journal of Applied Physics, 2017, 122, .	1.1	24

#	Article	IF	Citations
91	Generation and manipulation of skyrmions and other topological spin structures with rare metals. Rare Metals, 2022, 41, 2200-2216.	3.6	24
92	Pseudo-spin-valve with L10 (111)-oriented FePt fixed layer. Journal of Applied Physics, 2009, 105, 07E910.	1.1	23
93	Gutzwiller projected wave functions in the fermionic theory ofS=1spin chains. Physical Review B, 2012, 85, .	1.1	23
94	Enhanced skyrmion motion via strip domain wall. Physical Review B, 2020, 101, .	1.1	23
95	Magnetic Skyrmion Tubes as Nonplanar Magnonic Waveguides. Physical Review Applied, 2020, 13, .	1.5	23
96	Second-Scale Coherence Measured at the Quantum Projection Noise Limit with Hundreds of Molecular Ions. Physical Review Letters, 2020, 124, 053201.	2.9	23
97	Chirped-Pulse Millimeter-Wave Spectroscopy of Rydberg-Rydberg Transitions. Physical Review Letters, 2011, 107, 143001.	2.9	22
98	General spin-order theory via gauge Landau-Lifshitz equation. Physical Review B, 2011, 84, .	1.1	22
99	Current-driven skyrmionium in a frustrated magnetic system. Applied Physics Letters, 2020, 117, .	1.5	22
100	Coupled perturbed heteroclinic cycles: Synchronization and dynamical behaviors of spin-torque oscillators. Physical Review B, 2011, 84, .	1.1	21
101	Skyrmion stability in nanocontact spin-transfer oscillators. AIP Advances, 2015, 5, .	0.6	21
102	Macrospin and micromagnetic studies of tilted polarizer spin-torque nano-oscillators. Journal of Applied Physics, 2012, 112, 063903.	1.1	20
103	Chirped-pulse millimeter-wave spectroscopy: Spectrum, dynamics, and manipulation of Rydbergâ€“Rydberg transitions. Journal of Chemical Physics, 2013, 138, 014301.	1.2	20
104	Direct detection of Rydbergâ€“Rydberg millimeter-wave transitions in a buffer gas cooled molecular beam. Chemical Physics Letters, 2015, 640, 124-136.	1.2	20
105	Direct imaging of an inhomogeneous electric current distribution using the trajectory of magnetic half-skyrmions. Science Advances, 2020, 6, eaay1876.	4.7	20
106	Capacitance Enhanced Synchronization of Pairs of Spin-Transfer Oscillators. IEEE Transactions on Magnetics, 2009, 45, 2421-2423.	1.2	19
107	Fractional locking of spin-torque oscillator by injected ac current. Physical Review B, 2011, 83, .	1.1	19
108	Direct single-shot observation of millimeter-wave superradiance in Rydberg-Rydberg transitions. Physical Review A, 2017, 95, .	1.0	19

#	Article	IF	Citations
109	Creation, transport and detection of imprinted magnetic solitons stabilized by spin-polarized current. Journal of Magnetism and Magnetic Materials, 2018, 455, 25-31.	1.0	19
110	Logic Gates Based on Synthetic Antiferromagnetic Bilayer Skyrmions. Physical Review Applied, 2021, 16, .	1.5	19
111	Dynamics of ferromagnetic bimerons driven by spin currents and magnetic fields. Physical Review B, 2020, 102, .	1.1	19
112	Controlled Switching of the Number of Skyrmions in a Magnetic Nanodot by Electric Fields. Advanced Materials, 2022, 34, e2107908.	11.1	19
113	Multiple synchronization attractors of serially connected spin-torque nanooscillators. Physical Review B, 2012, 86, .	1.1	18
114	Field-free synthetic-ferromagnet spin torque oscillator. Physical Review B, 2013, 87, .	1.1	18
115	Controllable transport of a skyrmion in a ferromagnetic narrow channel with voltage-controlled magnetic anisotropy. Journal Physics D: Applied Physics, 2018, 51, 205002.	1.3	17
116	Modeling of magnetostriction in particulate composite materials. IEEE Transactions on Magnetics, 2005, 41, 2071-2076.	1.2	16
117	Controlled skyrmion nucleation in extended magnetic layers using a nanocontact geometry. Physical Review B, 2017, 96, .	1.1	16
118	Magnetic domain wall engineering in a nanoscale permalloy junction. Applied Physics Letters, 2017, 111, .	1.5	16
119	Paving Spin-Wave Fibers in Magnonic Nanocircuits Using Spin-Orbit Torque. Physical Review Applied, 2017, 7, .	1.5	16
120	Current-induced dynamics of skyrmion tubes in synthetic antiferromagnetic multilayers. Physical Review B, 2021, 103, .	1.1	16
121	Mechanism of bending electrostriction in thermoplastic polyurethane. Journal of Applied Physics, 2004, 96, 294-299.	1.1	14
122	Microwave field frequency and current density modulated skyrmion-chain in nanotrack. Scientific Reports, 2015, 5, 15154.	1.6	14
123	The influence of the edge effect on the skyrmion generation in a magnetic nanotrack. AIP Advances, 2017, 7, .	0.6	14
124	Generation and Hall effect of skyrmions enabled using nonmagnetic point contacts. Physical Review B, 2019, 100, .	1.1	14
125	Dynamics of antiskyrmions induced by the voltage-controlled magnetic anisotropy gradient. Journal of Magnetism and Magnetic Materials, 2020, 496, 165922.	1.0	14
126	A Comparative Cross-layer Study on Racetrack Memories. ACM Journal on Emerging Technologies in Computing Systems, 2020, 16, 1-17.	1.8	14

#	Article	IF	Citations
127	Configurable pixelated skyrmions on nanoscale magnetic grids. Communications Physics, 2021, 4, .	2.0	14
128	Bifurcation of a topological skyrmion string. Physical Review B, 2022, 105, .	1.1	14
129	Electrostriction of lead zirconate titanate/polyurethane composites. Journal of Applied Physics, 2005, 97, 104112.	1.1	13
130	Micromagnetic study of switching boundary of a spin torque nanodevice. Applied Physics Letters, 2011, 98, 102501.	1.5	13
131	Possible half-metallic phase in bilayer graphene: Calculations based on mean-field theory applied to a two-layer Hubbard model. Physical Review B, 2013, 88, .	1.1	13
132	A frustrated bimeronium: Static structure and dynamics. Applied Physics Letters, 2021, 118, .	1.5	13
133	A ferromagnetic skyrmion-based nano-oscillator with modified perpendicular magnetic anisotropy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 392, 127157.	0.9	12
134	Dynamics of ferrimagnetic skyrmionium driven by spin-orbit torque. Physical Review B, 2021, 104, .	1.1	12
135	Effects of polarization and permittivity gradients and other parameters on the anomalous vertical shift behavior of graded ferroelectric thin films. Journal of Applied Physics, 2005, 98, 034105.	1.1	11
136	Tunneling magnetoresistance modulation in a magnetic tunnel junction with a ferroelectric barrier. Nanotechnology, 2011, 22, 085202.	1.3	11
137	Effect of the field-like spin torque on the switching current and switching speed of magnetic tunnel junction with perpendicularly magnetized free layers. Journal of Applied Physics, 2011, 109, .	1.1	11
138	Spin-Cherenkov effect in a magnetic nanostrip with interfacial Dzyaloshinskii-Moriya interaction. Scientific Reports, 2016, 6, 25189.	1.6	11
139	Manipulation of magnetic skyrmions in a locally modified synthetic antiferromagnetic racetrack. Journal of Magnetism and Magnetic Materials, 2019, 482, 155-159.	1.0	11
140	Ultrafast field-free magnetization switching using bi-directional spin Hall current and antiferromagnetic interlayer exchange. Applied Physics Letters, 2019, 114, 012403.	1.5	11
141	Electrical conductivity enhanced dielectric and ferroelectric properties of interface-coupled ferroelectric superlattices. Journal of Applied Physics, 2006, 100, 024101.	1.1	10
142	Temperature and angular dependences of dynamic spin-polarized resonant tunneling in CoFeBâˆ•MgOâˆ•NiFe junctions. Journal of Applied Physics, 2008, 103, 07A904.	1.1	10
143	Enhancement of photovoltaic effect in nanoscale polarization graded ferroelectrics. Solar Energy, 2012, 86, 811-815.	2.9	10
144	Current-controlled unidirectional edge-meron motion. Journal of Applied Physics, 2016, 120, .	1.1	10

#	Article	IF	Citations
145	A Comparative Study on Racetrack Memories: Domain Wall vs. Skyrmion. , 2018, , .		10
146	Dynamics of magnetic skyrmions under temperature gradients. Applied Physics Letters, 2022, 120, 052402.	1.5	10
147	Enhancement of dielectric and ferroelectric properties in ferroelectric superlattices. Solid State Communications, 2010, 150, 1382-1385.	0.9	9
148	Magnonic analog of relativistic Zitterbewegung in an antiferromagnetic spin chain. Physical Review B, 2017, 96, .	1.1	9
149	Formation and magnetic-field stability of magnetic dipole skyrmions and bubbles in a ferrimagnet. Applied Physics Letters, 2020, 116, .	1.5	9
150	Gutzwiller approach for elementary excitations inS= 1 antiferromagnetic chains. New Journal of Physics, 2014, 16, 083031.	1.2	8
151	Magnonic Band Structure in a Skyrmion Magnonic Crystal. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	8
152	Evidence for ferromagnetic coupling at the doped topological insulator/ferrimagnetic insulator interface. AIP Advances, 2016, 6, 055813.	0.6	8
153	Probing the Buried Magnetic Interfaces. ACS Applied Materials & Interfaces, 2016, 8, 5752-5757.	4.0	8
154	Phase-locking of multiple magnetic droplets by a microwave magnetic field. AIP Advances, 2017, 7, .	0.6	8
155	Impurity-limited quantum transport variability in magnetic tunnel junctions. Frontiers of Physics, 2017, 12, 1.	2.4	8
156	Visible and ultraviolet laser spectroscopy of ThF. Journal of Molecular Spectroscopy, 2019, 358, 1-16.	0.4	8
157	An achiral ferromagnetic/chiral antiferromagnetic bilayer system leading to controllable size and density of skyrmions. Scientific Reports, 2019, 9, 2970.	1.6	8
158	Robust phase shift keying modulation method for spin torque nano-oscillator. Nanotechnology, 2020, 31, 375205.	1.3	8
159	Detection of HIV-1 antigen based on magnetic tunnel junction sensors*. Chinese Physics B, 2020, 29, 088701.	0.7	8
160	Spin-Torque Diode-Based Radio-Frequency Detector by Utilizing Tilted Fixed-Layer Magnetization and In-Plane Free-Layer Magnetization. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	7
161	Spin-torque diode with tunable sensitivity and bandwidth by out-of-plane magnetic field. Applied Physics Letters, 2016, 108, 232407.	1.5	7
162	Magnetic Skyrmion Transport in a Nanotrack With Spatially Varying Damping and Non-adiabatic Torque. IEEE Transactions on Magnetics, 2016, , 1-1.	1.2	7

#	Article	IF	Citations
163	Exchange bias study of sub-100 nm-diameter CoFeB/IrMn antidot and nanodot arrays fabricated by nanosphere lithography. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2709-2714.	0.9	7
164	Complementary Skyrmion Racetrack Memory Enables Voltage-Controlled Local Data Update Functionality. IEEE Transactions on Electron Devices, 2018, 65, 4667-4673.	1.6	7
165	Interlayer coupling effect on skyrmion dynamics in synthetic antiferromagnets. Applied Physics Letters, 2021, 118, .	1.5	7
166	Skyrmions-based magnetic racetrack memory. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 137510.	0.2	7
167	Skyrmion Dynamics in the Presence of Deformation. Physical Review Applied, 2022, 17, .	1.5	7
168	Nonreciprocal dynamics of ferrimagnetic bimerons. Physical Review B, 2022, 105, .	1.1	7
169	Spectroscopy on the electron-electric-dipole-momentâ€“sensitive states of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi mathvariant="normal">ThF</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math>. Physical Review A, 2022, 105, .	1.0	7
170	Dynamic transformation between a skyrmion string and a bimeron string in a layered frustrated system. Physical Review B, 2021, 104, .	1.1	7
171	Mutual conversion between a magnetic NÃ©el hopfion and a NÃ©el toron. Physical Review B, 2022, 105, .	1.1	7
172	Directional Spin Wave in Spin-Torque Oscillators Induced by Interfacial Dzyaloshinskiiâ€“Moriya Interaction. IEEE Magnetics Letters, 2017, 8, 1-4.	0.6	6
173	Vortical structures for nanomagnetic memory induced by dipole-dipole interaction in monolayer disks. Superlattices and Microstructures, 2018, 117, 495-502.	1.4	6
174	Dynamics of Magnetic Skyrmion Clusters Driven by Spin-Polarized Current With a Spatially Varied Polarization. IEEE Magnetics Letters, 2018, 9, 1-5.	0.6	6
175	Tuning Magnetic Droplets in Nanocontact Spin-Torque Oscillators Using Electric Fields. Physical Review Applied, 2020, 14, .	1.5	6
176	Exploring the contribution of trapped magnetic flux on magnetization dynamics in thick Nb/Ni₈₀Fe₂₀/Nb trilayers. Applied Physics Express, 2020, 13, 033002.	1.1	6
177	Write Asymmetry of Spin-Orbit Torque Memory Induced by in-Plane Magnetic Fields. IEEE Electron Device Letters, 2021, 42, 1766-1769.	2.2	6
178	Single-bit full adder and logic gate based on synthetic antiferromagnetic bilayer skyrmions. Rare Metals, 2022, 41, 2249-2258.	3.6	6
179	Molecular Dynamics Simulation of Iron â€” A Review. Spin, 2015, 05, 1540007.	0.6	5
180	Mode coupling in spin torque oscillators. Journal of Magnetism and Magnetic Materials, 2016, 414, 227-242.	1.0	5

#	Article	IF	Citations
181	Nd-Fe-B films with perpendicular magnetic anisotropy and extremely large room temperature coercivity. Journal of Magnetism and Magnetic Materials, 2019, 474, 406-410.	1.0	5
182	Continuous temporal ion detection combined with time-gated imaging: Normalization over a large dynamic range. Journal of Molecular Spectroscopy, 2020, 368, 111257.	0.4	5
183	Domain wall dynamics in ferromagnet/Ru/ferromagnet stacks with a wedged spacer. Applied Physics Letters, 2021, 119, .	1.5	5
184	Overview of magnetic skyrmion-based devices and applications. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 137505.	0.2	5
185	Tunable skyrmionâ€“edge interaction in magnetic multilayers by interlayer exchange coupling. AIP Advances, 2022, 12, .	0.6	5
186	Dynamics of magnetic skyrmions driven by a temperature gradient in a chiral magnet FeGe. Physical Review B, 2022, 106, .	1.1	5
187	Dependence of polarization offset on driving frequency, film thickness and composition gradient in compositionally graded ferroelectric materials. Journal of Electroceramics, 2006, 16, 541-544.	0.8	4
188	Magneto-Electric Coupling in a Multiferroic Tunnel Junction Functioning as a Magnetic-Field-Effect Transistor. IEEE Nanotechnology Magazine, 2012, 11, 77-81.	1.1	4
189	Influence of quantum and thermal noise on spin-torque-driven magnetization switching. Applied Physics Letters, 2013, 103, 022403.	1.5	4
190	Spin-lattice dynamics simulation of external field effect on magnetic order of ferromagnetic iron. AIP Advances, 2014, 4, 037110.	0.6	4
191	Magnetic Skyrmion Spectrum Under Voltage Excitation and its Linear Modulation. Physical Review Applied, 2019, 12, .	1.5	4
192	Signal detection based on the chaotic motion of an antiferromagnetic domain wall. Applied Physics Letters, 2021, 118, .	1.5	4
193	Polarization tunable Rashba effect in 2D LiAlTe2. Applied Physics Letters, 2021, 118, 062404.	1.5	4
194	Amplifying spin waves along NÃ©el domain wall by spinâ€“orbit torque. Applied Physics Letters, 2021, 118, .	1.5	4
195	Unusual behavior of superconductivity induced by anisotropic structure in the ferromagnetic state. Europhysics Letters, 2006, 74, 145-150.	0.7	3
196	Cooperative effects in a dense Rydberg gas. Molecular Physics, 2012, 110, 1909-1915.	0.8	3
197	Edge Effect on Thermally Excited Mag-Noise in Magnetic Tunnel Junction Sensors. IEEE Transactions on Magnetics, 2012, 48, 2831-2834.	1.2	3
198	Investigating the magnetovolume effect in isotropic body-centered-cubic iron using spin-lattice dynamics simulations. AIP Advances, 2014, 4, 087123.	0.6	3

#	Article	IF	Citations
199	Magnetic-field-sensing mechanism based on dual-vortex motion and magnetic noise. Journal of Applied Physics, 2014, 115, 17D142.	1.1	3
200	Injection Locking of Spin-Torque Nano-Oscillators. IEEE Transactions on Magnetics, 2014, 50, 1-3.	1.2	3
201	Magnonic band structure of domain wall magnonic crystals. IEEE Transactions on Magnetics, 2016, , 1-1.	1.2	3
202	Field-angle and DC-bias dependence of spin-torque diode in giant magnetoresistive microstripe. Applied Physics Letters, 2016, 109, 192402.	1.5	3
203	Electric potential invariants and ions-in-molecules effective potentials for molecular Rydberg states. Journal of Chemical Physics, 2016, 145, 234301.	1.2	3
204	Coherent laser-millimeter-wave interactions en route to coherent population transfer. Journal of Chemical Physics, 2017, 147, 144201.	1.2	3
205	Realization of mutual synchronization of spin torque nano-oscillators under room temperature by noise reduction technique. Applied Physics Letters, 2020, 117, .	1.5	3
206	Topological damping Rashba spin-orbit torque in ballistic magnetic domain walls. Physical Review B, 2020, 101, .	1.1	3
207	Transcription and logic operations of magnetic skyrmions in bilayer cross structures. Journal of Physics Condensed Matter, 2021, 33, 404001.	0.7	3
208	Skyrmion Formation in Nanodisks Using Magnetic Force Microscopy Tip. Nanomaterials, 2021, 11, 2627.	1.9	3
209	Capacitance Effect on Microwave Power Spectra of Spin-Torque Oscillator With Thermal Noise. IEEE Transactions on Magnetics, 2009, 45, 2773-2776.	1.2	2
210	Spin-Wave Excitation in Magnetic Insulator Thin Films by Spin-Transfer Torque. Solid State Physics, 2013, 64, 29-51.	1.3	2
211	A dipole lattice model of switching characteristics in ferroelectric superlattices. Journal of Applied Physics, 2013, 114, .	1.1	2
212	Theory and Applications of Spin Torque Nano-Oscillator: A Brief Review. Solid State Phenomena, 0, 232, 147-167.	0.3	2
213	Performance Optimization of Spin-Torque Microwave Detectors with Material and Operational Parameters. Journal of Nanotechnology, 2016, 2016, 1-11.	1.5	2
214	Domain wall motion driven by adiabatic spin transfer torque through excitation of nonlinear dynamics. Journal of Physics Condensed Matter, 2016, 28, 206005.	0.7	2
215	Reduced magnetic coercivity and switching field in NiFeCuMo/Ru/NiFeCuMo synthetic-ferrimagnetic nanodots. Applied Surface Science, 2017, 410, 479-484.	3.1	2
216	Current-induced instability of domain walls in cylindrical nanowires. Journal of Physics Condensed Matter, 2018, 30, 015801.	0.7	2

#	Article	IF	Citations
217	Scaling of the Rashba spin-orbit torque in magnetic domain walls. Journal of Magnetism and Magnetic Materials, 2020, 493, 165694.	1.0	2
218	Noise reduction of spin torque oscillator by phase-locked loop with combinational frequency tuning method. Applied Physics Letters, 2020, 117, 072407.	1.5	2
219	Algebraic decay of the nonadiabaticity arising through chiral spin transfer torque in magnetic domain walls with Rashba spin-orbit interaction. Physical Review B, 2020, 101, .	1.1	2
220	Direct visualization of magnetic domain wall motion in Nd-Fe-B magnets by alternating magnetic force microscopy using Co-GdO superparamagnetic tip. Ultramicroscopy, 2020, 212, 112980.	0.8	2
221	Controlling domain wall and field-free spinâ€“orbit torque switching in synthetic antiferromagnets. Applied Physics Letters, 2022, 120, .	1.5	2
222	Dynamic Control of Tunneling Conductance in Ferroelectric Tunnel Junctions. Chinese Physics Letters, 2013, 30, 107701.	1.3	1
223	Linear Phase Tuning of Spin Torque Oscillators Using In-Plane Microwave Fields. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	1
224	All-magnetic control of skyrmions in nanowire by spin wave. , 2015, , .		1
225	Simulation of spin-torque diode microwave detectors. EPJ Applied Physics, 2015, 69, 10603.	0.3	1
226	Skyrmion Spin Structure of Exchange-Coupled Magnetic Coreâ€“Shell Nanodisk. IEEE Transactions on Magnetics, 2015, 51, 1-3.	1.2	1
227	Motion and Switching of Dual-Vortex Cores in Elliptical Permalloy Nanodisk Stimulated by a Gaussian Magnetic Field Pulse. IEEE Transactions on Magnetics, 2017, 53, 1-6.	1.2	1
228	Dynamics of a magnetic skyrmionium driven by a spin wave. , 2018, , .		1
229	Dynamic properties of a ferromagnetic skyrmion in an in-plane magnetic field. Journal of Applied Physics, 2022, 131, .	1.1	1
230	Geometrical Dependence of Thermally Excited Mag-Noise Spatial Distribution in Magnetic Tunnel Junction Sensors. IEEE Transactions on Magnetics, 2013, 49, 3121-3124.	1.2	0
231	Spin transfer torque in magnetic nanostructures. , 2013, , .		0
232	Capacitance effect on the oscillation and switching characteristics of spin torque oscillators. Nanoscale Research Letters, 2014, 9, 597.	3.1	0
233	Thermally Excited Mag-Noise in Ferromagnetic Ring Structures. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	0
234	Realization of ultra-wide resonance detection regime of spin-torque diode radio-frequency detector by utilizing tilted fixed-layer magnetization. , 2015, , .		0

#	Article	IF	Citations
235	Voltage-gated skyrmion transistor. , 2015, , .		0
236	Skyrmion state of exchange coupled core-shell nanostructure. , 2015, , .		0
237	Magnonic bandstucture in a skyrmion crystal. , 2015, , .		0
238	Current-induced skyrmion dynamics in a frustrated magnetic film. , 2018, , .		0
239	Antiferromagnetic Skyrmions and Bimerons. Topics in Applied Physics, 2021, , 441-457.	0.4	0
240	Skyrmions in ferrimagnets. , 2021, , 315-332.		0
241	Conventional applications of skyrmions. , 2021, , 367-391.		0
242	10.1063/5.0012706.3. , 2020, , .		0