An Improved Racetrack Structure for Transporting a Sk

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Citation Report

#	Article	IF	CITATIONS
1	Motion of Skyrmions in Well-Separated Two-Lane Racetracks. Spin, 2017, 07, 1740006.	0.6	11
2	Strain-controlled skyrmion creation and propagation in ferroelectric/ferromagnetic hybrid wires. Journal of Magnetism and Magnetic Materials, 2018, 455, 19-24.	1.0	36
3	Skyrmionium – high velocity without the skyrmion Hall effect. Scientific Reports, 2018, 8, 16966.	1.6	75
4	Perspective: Magnetic skyrmions—Overview of recent progress in an active research field. Journal of Applied Physics, 2018, 124, .	1.1	387
5	Dynamics of the antiferromagnetic skyrmion induced by a magnetic anisotropy gradient. Physical Review B, 2018, 98, .	1.1	84
6	A skyrmion-based spin-torque nano-oscillator with enhanced edge. Journal of Magnetism and Magnetic Materials, 2019, 491, 165610.	1.0	36
7	Dynamics of an antiferromagnetic skyrmion in a racetrack with a defect. Physical Review B, 2019, 100, .	1.1	37
8	Spin torque nano-oscillators based on antiferromagnetic skyrmions. Applied Physics Letters, 2019, 114,	1.5	106
9	Effect of Dzyaloshinskii–Moriya Interaction Energy Confinement on Currentâ€Driven Dynamics of Skyrmions. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900090.	1.2	11
10	A novel analytical model for hysteresis loops of exchange-coupled hard-soft magnets. Journal of Rare Earths, 2019, 37, 1034-1039.	2.5	3
11	Gilbert damping of CoFe-alloys. Journal Physics D: Applied Physics, 2019, 52, 325001.	1.3	10
12	Cache Memory Design With Magnetic Skyrmions in a Long Nanotrack. IEEE Transactions on Magnetics, 2019, 55, 1-9.	1.2	6
13	Bilayer skyrmion dynamics on a magnetic anisotropy gradient. New Journal of Physics, 2019, 21, 043006.	1.2	28
14	Manipulation of magnetic skyrmions in a locally modified synthetic antiferromagnetic racetrack. Journal of Magnetism and Magnetic Materials, 2019, 482, 155-159.	1.0	11
15	Frontiers in multidimensional self-trapping of nonlinear fields and matter. Nature Reviews Physics, 2019, 1, 185-197.	11.9	255
16	Building traps for skyrmions by the incorporation of magnetic defects into nanomagnets: Pinning and scattering traps by magnetic properties engineering. Journal of Magnetism and Magnetic Materials, 2019, 480, 171-185.	1.0	24
17	Voltage-Driven High-Speed Skyrmion Motion in a Skyrmion-Shift Device. Physical Review Applied, 2019, 11, .	1.5	41
18	Coupling of the skyrmion velocity to its breathing mode in periodically notched nanotracks. Journal Physics D: Applied Physics, 2019, 52, 024003.	1.3	16

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19	Dynamics of antiskyrmions induced by the voltage-controlled magnetic anisotropy gradient. Journal of Magnetism and Magnetic Materials, 2020, 496, 165922.	1.0	14
20	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
21	SIMBA: A Skyrmionic In-Memory Binary Neural Network Accelerator. IEEE Transactions on Magnetics, 2020, 56, 1-12.	1.2	3
22	Nanoscale Room-Temperature Multilayer Skyrmionic Synapse for Deep Spiking Neural Networks. Physical Review Applied, 2020, 14, .	1.5	26
23	Accurate manipulation of single skyrmion by probe ring. Journal of Applied Physics, 2020, 128, .	1.1	3
24	Magnetic skyrmions in cylindrical ferromagnetic nanostructures with chiral interactions. Physical Review B, 2020, 102, .	1.1	16
25	Mixed topology ring states for Hall effect and orbital magnetism in skyrmions of Weyl semimetals. Physical Review B, 2020, 102, .	1.1	4
26	Guiding of dynamic skyrmions using chiral magnetic domain wall. Applied Physics Express, 2020, 13, 063002.	1.1	11
27	Investigation of the Role of Rare-Earth Elements in Spin-Hall Topological Hall Effect in Pt/Ferrimagnetic-Garnet Bilayers. Nano Letters, 2020, 20, 4667-4672.	4.5	18
28	Thermal Brownian Motion of Skyrmion for True Random Number Generation. IEEE Transactions on Electron Devices, 2020, 67, 2553-2558.	1.6	20
29	Traps for pinning and scattering of antiferromagnetic skyrmions via magnetic properties engineering. Journal of Applied Physics, 2020, 127, .	1.1	11
30	Suppression of the skyrmion Hall effect in planar nanomagnets by the magnetic properties engineering: Skyrmion transport on nanotracks with magnetic strips. Journal of Magnetism and Magnetic Materials, 2020, 504, 166655.	1.0	21
31	Current-induced shuttlecock-like movement of non-axisymmetric chiral skyrmions. Scientific Reports, 2020, 10, 396.	1.6	13
32	Nano-oscillator based on radial vortex by overcoming the switching of core. Journal Physics D: Applied Physics, 2020, 53, 195004.	1.3	6
33	A ferromagnetic skyrmion-based diode with a voltage-controlled potential barrier. Nanoscale, 2020, 12, 9507-9516.	2.8	34
34	Beyond skyrmions: Review and perspectives of alternative magnetic quasiparticles. Physics Reports, 2021, 895, 1-28.	10.3	307
35	Parallel Computation in the Racetrack Memory. IEEE Transactions on Emerging Topics in Computing, 2021, , 1-1.	3.2	3
36	Current-driven skyrmion movement in a curved nanotrack. Journal Physics D: Applied Physics, 2021, 54, 125001.	1.3	6

#	Article	IF	CITATIONS
37	Interlayer coupling effect on skyrmion dynamics in synthetic antiferromagnets. Applied Physics Letters, 2021, 118, .	1.5	7
38	Helium Ions Put Magnetic Skyrmions on the Track. Nano Letters, 2021, 21, 2989-2996.	4.5	79
39	Logic Device Based on Skyrmion Annihilation. IEEE Transactions on Electron Devices, 2021, 68, 1939-1943.	1.6	20
40	Skyrmion devices for memory and logic applications. APL Materials, 2021, 9, .	2.2	89
41	Confinement and Protection of Skyrmions by Patterns of Modified Magnetic Properties. Nano Letters, 2021, 21, 4320-4326.	4.5	32
42	Visualizing the strongly reshaped skyrmion Hall effect in multilayer wire devices. Nature Communications, 2021, 12, 4252.	5.8	21
43	Current-induced H-shaped-skyrmion creation and their dynamics in the helical phase. Journal Physics D: Applied Physics, 2021, 54, 404003.	1.3	3
44	Current-Induced Manipulation of the Exchange Bias in a Pt/Co/NiO Structure. ACS Applied Materials & Interfaces, 2021, 13, 42258-42265.	4.0	7
45	A skyrmion-based non-volatile racetrack with a potential well structure. Journal Physics D: Applied Physics, 2022, 55, 035001.	1.3	1
46	Skyrmion Hall effect in a nanotube driven by a rotating magnetic field. Journal of Magnetism and Magnetic Materials, 2021, 536, 168142.	1.0	4
47	Auto-oscillations for the coupling between breathing mode and chiral switching in magnetic skyrmions. Journal Physics D: Applied Physics, 2021, 54, 015005.	1.3	3
48	Dynamics of ferromagnetic bimerons driven by spin currents and magnetic fields. Physical Review B, 2020, 102, .	1.1	19
49	Skyrmions-based magnetic racetrack memory. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 137510.	0.2	7
50	Edge-guided heart-shaped skyrmion. Rare Metals, 2022, 41, 865-870.	3.6	6
51	Research progress of micromagnetic magnetic skyrmions and applications. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 137504.	0.2	0
52	Dynamics of ferrimagnetic skyrmionium driven by spin-orbit torque. Physical Review B, 2021, 104, .	1.1	12
53	From the Spin Eigenmodes of Isolated Néel Skyrmions to the Magnonic Bands of Skyrmionic Crystals: A Micromagnetic Study as a Function of the Interfacial Dzyaloshinskii-Moriya Interaction and the Exchange Constants. IEEE Magnetics Letters, 2022, 13, 1-5.	0.6	2
54	Zero-field skyrmionic states and in-field edge-skyrmions induced by boundary tuning. Communications Physics, 2022, 5, .	2.0	7

CITATION REPORT

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55	Manipulation of Skyrmion Motion Dynamics for Logical Device Application Mediated by Inhomogeneous Magnetic Anisotropy. Nanomaterials, 2022, 12, 278.	1.9	7
56	Generation and manipulation of skyrmions and other topological spin structures with rare metals. Rare Metals, 2022, 41, 2200-2216.	3.6	24
57	Dynamic properties of a ferromagnetic skyrmion in an in-plane magnetic field. Journal of Applied Physics, 2022, 131, . Physics, 2022, 131, .	1.1	1
58	mathvariant="normal">Ir <mml:mo> </mml:mo> <mml:mi mathvariant="normal">Ir<mml:mo> </mml:mo> <mml:mi mathvariant="normal">Co<mml:mo> </mml:mo> <mml:mi mathvariant="normal">Ptmultilayers using <mml:math< td=""><td>1.1</td><td>17</td></mml:math<></mml:mi </mml:mi </mml:mi 	1.1	17
59	Reconfigurable Logic Operations via Gate Controlled Skyrmion Motion in a Nanomagnetic Device. ACS Applied Electronic Materials, 2022, 4, 2290-2297.	2.0	13
60	Micromagnetic manipulation and spin excitation of skyrmionic structures. Journal Physics D: Applied Physics, 2022, 55, 333001.	1.3	10
61	Spin–orbit torque driven skyrmion motion under unconventional spin Hall effect. New Journal of Physics, 2022, 24, 053053.	1.2	2
62	Programmable Skyrmion Logic Gates Based on Skyrmion Tunneling. Physical Review Applied, 2022, 17, .	1.5	8
63	The skyrmion bags in an anisotropy gradient. Journal of Physics Condensed Matter, 2022, 34, 395801.	0.7	3
64	Realization of the skyrmionic logic gates and diodes in the same racetrack with enhanced and modified edges. Applied Physics Letters, 2022, 121, .	1.5	22
65	Inhibition of Skyrmion Hall Effect by a Stripe Domain Wall. Physical Review Applied, 2022, 18, .	1.5	10
66	Statics and dynamics of skyrmions interacting with disorder and nanostructures. Reviews of Modern Physics, 2022, 94, .	16.4	61
67	Design of a novel bilayered structure of ferromagnetic metal and nonmagnetic insulator wires while maintaining the distance between the constituent skyrmions. Journal Physics D: Applied Physics, 2022, 55, 475002.	1.3	1
68	Clockless skyrmion logic gate based on voltage-controlled skyrmion propagation. Applied Physics Letters, 2022, 121, .	1.5	2
69	Chiral Spin Textures for Next-Generation Memory and Unconventional Computing. ACS Applied Electronic Materials, 2022, 4, 5088-5097.	2.0	4
70	Multifunction spin transfer nano-oscillator based on elliptical skyrmion. Journal of Magnetism and Magnetic Materials, 2022, 564, 170061.	1.0	4
71	Motion of a magnetic skyrmionium driven by acoustic wave. Applied Physics Letters, 2022, 121, .	1.5	4
72	Enhancement of skyrmion density via interface engineering. APL Materials, 2023, 11, .	2.2	3

CITATION REPORT

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73	Rich topological spin textures in single-phase and core-shell magnetic nanodisks. Physical Review B, 2023, 107, .	1.1	2
74	Skyrmion-based reconfigurable logic gates and diodes in a racetrack with hard magnetic material and a notch. Journal of Magnetism and Magnetic Materials, 2023, 568, 170387.	1.0	2
75	The influence of curved surfaces on the propagation of skyrmions in a magnetic racetrack. Journal of Magnetism and Magnetic Materials, 2023, 568, 170386.	1.0	2
76	Skyrmion based 3D low complex runtime reconfigurable architecture design methodology of universal logic gate. Nanotechnology, 2023, 34, 13LT01.	1.3	2
77	Gate-voltage control of alternating-current-driven skyrmion propagation in the ferromagnetic nanotrack devices. Chinese Physics B, 0, , .	0.7	0
78	Room temperature ferromagnetic skyrmion-based artificial neuron device. , 2023, , .		1
79	Influence of magnetic structure on the performance of twisted skyrmion-based nano-oscillator. Journal of Physics Condensed Matter, 2023, 35, 145801.	0.7	0
80	Magnetic skyrmions: Basic properties and potential applications. , 2023, 2, 260-289.		1
81	Programmable skyrmion-based logic gates in a single nanotrack. Physical Review B, 2023, 107, .	1.1	7
82	Driven magnetic skyrmions in a narrow channel. European Physical Journal: Special Topics, 0, , .	1.2	1

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