

Qiming Shao

List of Publications by Year in descending order

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52
papers

3,678
citations

218381

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214527

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53
docs citations

53
times ranked

4405
citing authors

#	ARTICLE	IF	CITATIONS
1	Survey of Temperature Dependence of the Damping Parameter in the Ferrimagnet $Gd_3Fe_5O_{12}$. IEEE Transactions on Magnetics, 2022, 58, 1-6.	1.2	4
2	Skyrmion Dynamics in the Presence of Deformation. Physical Review Applied, 2022, 17, .	1.5	7
3	Nonreciprocal dynamics of ferrimagnetic bimerons. Physical Review B, 2022, 105, .	1.1	7
4	Efficient AI with MRAM. Nature Electronics, 2022, 5, 67-68.	13.1	9
5	Efficient Spin-Orbit Torque Switching of Perpendicular Magnetization using Topological Insulators with High Thermal Tolerance. Advanced Electronic Materials, 2022, 8, .	2.6	6
6	Enhanced spin-orbit torque efficiency in $Pt_{100}Ni_x$ alloy based magnetic bilayer*. Chinese Physics B, 2021, 30, 037503.	0.7	4
7	Efficient High Frequency Spin Wave Excitation with Undulating Ferromagnetic Film. , 2021, , .		0
8	Strongly heat-assisted spin-orbit torque switching of a ferrimagnetic insulator. APL Materials, 2021, 9, .	2.2	17
9	On the temperature-dependent characteristics of perpendicular shape anisotropy-spin transfer torque-magnetic random access memories. Journal of Applied Physics, 2021, 129, .	1.1	4
10	Roadmap of Spin-Orbit Torques. IEEE Transactions on Magnetics, 2021, 57, 1-39.	1.2	225
11	Transferred metal gate to 2D semiconductors for sub-1 V operation and near ideal subthreshold slope. Science Advances, 2021, 7, eabf8744.	4.7	37
12	Editorial for the JEDS Special Issue for EDTM 2021. IEEE Journal of the Electron Devices Society, 2021, 9, 1110-1111.	1.2	0
13	Observation of Quantum Anomalous Hall Effect and Exchange Interaction in Topological Insulator/Antiferromagnet Heterostructure. Advanced Materials, 2020, 32, e2001460.	11.1	27
14	Two-Dimensional Materials for Energy-Efficient Spin-Orbit Torque Devices. ACS Nano, 2020, 14, 9389-9407.	7.3	59
15	Reversible Switching of Interlayer Exchange Coupling through Atomically Thin VO ₂ via Electronic State Modulation. Matter, 2020, 2, 1582-1593.	5.0	202
16	Enhancement of the spin-orbit torque efficiency in W/Cu/CoFeB heterostructures via interface engineering. Applied Physics Letters, 2020, 117, 082409.	1.5	6
17	Probing the low-temperature limit of the quantum anomalous Hall effect. Science Advances, 2020, 6, eaaz3595.	4.7	35
18	Study of the perpendicular magnetic anisotropy, spin-orbit torque, and Dzyaloshinskii-Moriya interaction in the heavy metal/CoFeB bilayers with Ir ₂₂ Mn ₇₈ insertion. Applied Physics Letters, 2020, 116, 242407.	1.5	8

#	ARTICLE	IF	CITATIONS
19	Deterministic Spin-Orbit Torque Switching by a Light-Metal Insertion. Nano Letters, 2020, 20, 3703-3709.	4.5	52
20	Temperature-Driven Gate Geometry Effects in Nanoscale Cryogenic MOSFETs. IEEE Electron Device Letters, 2020, 41, 661-664.	2.2	8
21	Strongly Surface State Carrier-Dependent Spin-Orbit Torque in Magnetic Topological Insulators. Advanced Materials, 2020, 32, e1907661.	11.1	29
22	Skyrmions get pushed beyond the limit. Nature Electronics, 2020, 3, 16-17.	13.1	2
23	Dynamics of an elliptical ferromagnetic skyrmion driven by the spin-orbit torque. Applied Physics Letters, 2020, 116, .	1.5	27
24	Spin transmission in IrMn through measurements of spin Hall magnetoresistance and spin-orbit torque. Physical Review B, 2020, 101, .	1.1	11
25	Spin-Orbit Torque Switching of a Nearly Compensated Ferrimagnet by Topological Surface States. Advanced Materials, 2019, 31, e1901681.	11.1	81
26	Unidirectional Magneto-Resistance in Modulation-Doped Magnetic Topological Insulators. Nano Letters, 2019, 19, 692-698.	4.5	20
27	Highly Efficient Spin-Orbit Torque and Switching of Layered Ferromagnet Fe_3GeTe_2 . Nano Letters, 2019, 19, 4400-4405.	4.5	180
28	Topological Hall effect at above room temperature in heterostructures composed of a magnetic insulator and a heavy metal. Nature Electronics, 2019, 2, 182-186.	13.1	117
29	Spin-orbit torque from a ferromagnetic metal. Physical Review B, 2019, 99, .	1.1	49
30	Exploring interfacial exchange coupling and sublattice effect in heavy metal/ferrimagnetic insulator heterostructures using Hall measurements, x-ray magnetic circular dichroism, and neutron reflectometry. Physical Review B, 2019, 99, .	1.1	39
31	$(\text{Bi}_{0.2}\text{Sb}_{0.8})_2\text{Te}_3$ based dynamic synapses with programmable spatio-temporal dynamics. APL Materials, 2019, 7, 101107.	2.2	8
32	Heat-assisted microwave amplifier. Nature Nanotechnology, 2019, 14, 9-11.	15.6	2
33	Topological spintronics and Majorana fermions. , 2019, , .		1
34	Room-Temperature Skyrmions in an Antiferromagnet-Based Heterostructure. Nano Letters, 2018, 18, 980-986.	4.5	98
35	Room Temperature Highly Efficient Topological Insulator/Mo/CoFeB Spin-Orbit Torque Memory with Perpendicular Magnetic Anisotropy. , 2018, , .		21
36	Spintronic devices for low energy dissipation. , 2018, , .		5

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37	Quantum Ferromagnetic Resonance in WCo Bilayers. <i>Nature Communications</i> , 2018, 9, 3612.	2.3	23
38	Role of dimensional crossover on spin-orbit torque efficiency in magnetic insulator thin films. <i>Nature Communications</i> , 2018, 9, 3612.	5.8	84
39	Topological Transitions Induced by Antiferromagnetism in a Thin-Film Topological Insulator. <i>Physical Review Letters</i> , 2018, 121, 096802.	2.9	42
40	Proximity-Induced Magnetic Order in a Transferred Topological Insulator Thin Film on a Magnetic Insulator. <i>ACS Nano</i> , 2018, 12, 5042-5050.	7.3	41
41	Large Room Temperature Charge-to-Spin Conversion Efficiency in Topological Insulator/CoFeB bilayers. , 2018, , .		4
42	Room-Temperature Skyrmion Shift Device for Memory Application. <i>Nano Letters</i> , 2017, 17, 261-268.	4.5	227
43	Deficiency of the bulk spin Hall effect model for spin-orbit torques in magnetic-insulator/heavy-metal heterostructures. <i>Physical Review B</i> , 2017, 95, .	1.1	23
44	Tailoring exchange couplings in magnetic topological-insulator/antiferromagnet heterostructures. <i>Nature Materials</i> , 2017, 16, 94-100.	13.3	137
45	Spin-torque ferromagnetic resonance measurements utilizing spin Hall magnetoresistance in W/Co40Fe40B20/MgO structures. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	36
46	In-plane current-driven spin-orbit torque switching in perpendicularly magnetized films with enhanced thermal tolerance. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	26
47	Spin-orbit torques in perpendicularly magnetized Ir22Mn78/Co20Fe60B20/MgO multilayer. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	58
48	Electric-Field Control of Spin-Orbit Interaction for Low-Power Spintronics. <i>Proceedings of the IEEE</i> , 2016, 104, 1974-2008.	16.4	53
49	Strong Rashba-Edelstein Effect-Induced Spin-Orbit Torques in Monolayer Transition Metal Dichalcogenide/Ferromagnet Bilayers. <i>Nano Letters</i> , 2016, 16, 7514-7520.	4.5	247
50	Electric-field control of spin-orbit torque in a magnetically doped topological insulator. <i>Nature Nanotechnology</i> , 2016, 11, 352-359.	15.6	212
51	Metal-to-insulator switching in quantum anomalous Hall states. <i>Nature Communications</i> , 2015, 6, 8474.	5.8	136
52	Scale-Invariant Quantum Anomalous Hall Effect in Magnetic Topological Insulators beyond the Two-Dimensional Limit. <i>Physical Review Letters</i> , 2014, 113, 137201.	2.9	453