

# Hong-Guang Piao

## List of Publications by Year in descending order

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85  
papers

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Control of vortex circulation in bistable ultra-small ferromagnetic nanodisk. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 551, 169092.	2.3	1
2	Magnetocaloric effect in Y-doped La <sub>0.6</sub> Ca <sub>0.4</sub> MnO <sub>3</sub> enhanced by Griffiths phase and re-entrance of first-order phase transition. <i>Current Applied Physics</i> , 2022, 42, 7-21.	2.4	2
3	Monolayer Mo <sub>2</sub> B: A non-magnetic metal and potential application as anode material for ion batteries and catalyst for hydrogen evolution. <i>Applied Surface Science</i> , 2021, 538, 148026.	6.1	10
4	Control of magnetic vortex circulation in one-side-flat nanodisk pairs by in-plane magnetic field. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021, .	0.5	1
5	Dynamic magnetic properties of Ni <sub>2</sub> FeGa Heusler alloy nanoparticles. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1.	1.9	2
6	Unidirectional switching of magnetic vortex core in a nanocavity mediated nanodisk: Looking for a reliable low-power-driven and fast switching in terms of geometric parameters. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 527, 167758.	2.3	5
7	Magnetocaloric effect in Ba-doped LaCoO <sub>3</sub> cobaltites showing second-order phase transitions. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 539, 168378.	2.3	7
8	Nano-magnetic tunnel junctions controlled by electric field for straintronics. <i>Nanoscale</i> , 2021, 13, 16113-16121.	5.6	1
9	Using Dipole Interaction to Achieve Nonvolatile Voltage Control of Magnetism in Multiferroic Heterostructures. <i>Advanced Materials</i> , 2021, 33, e2105902.	21.0	11
10	Highly Efficient Magnetic Propulsion of NiFe Nanorod-Based Miniature Swimmers in Three Dimensions. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 58898-58907.	8.0	3
11	Nanocavity-Mediated Fast Magnetic Vortex Core In-Situ Switching by Local Magnetic Field. <i>Chinese Physics Letters</i> , 2021, 38, 127501.	3.3	2
12	Intriguing Hysteresis Dynamics in Ultrafast Photo-Induced Magnetization. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900307.	1.5	3
13	Induced magnetic anisotropy of Ni <sub>42</sub> Co <sub>8</sub> Mn <sub>39</sub> Sn <sub>11</sub> Heusler alloy under magnetic-field-annealing. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 495, 165843.	2.3	6
14	Study on magnetic and electrical properties of CoFeTaBO films with different oxygen content based on two-state model. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 515, 167285.	2.3	0
15	Cherenkov-type three-dimensional breakdown behavior of the Bloch-point domain wall motion in the cylindrical nanowire. <i>Applied Physics Letters</i> , 2020, 117, 062402.	3.3	10
16	Effect of annealing on magnetic and magnetoresistance characteristics of Gd/CoFeTaB multilayer film. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 516, 167334.	2.3	5
17	Ultrafast dynamics of exchange stiffness in Co/Pt multilayer. <i>Communications Physics</i> , 2020, 3, .	5.3	15
18	The effect of magnetic field pretreatment on the corrosion behavior of carbon steel in static seawater. <i>RSC Advances</i> , 2020, 10, 2060-2066.	3.6	11

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19	Periodic vortex core switching in curved magnetic nanodisk. Journal of Magnetism and Magnetic Materials, 2020, 502, 166481.	2.3	9
20	Role of non-thermal electrons in ultrafast spin dynamics of ferromagnetic multilayer. Scientific Reports, 2020, 10, 6355.	3.3	6
21	Asymmetric dynamic behaviors of magnetic domain wall in trapezoid-cross-section nanostrip*. Chinese Physics B, 2020, 29, 097502.	1.4	4
22	Unidirectional switching of magnetic vortex core confined in a cylindrical nanocavity. Japanese Journal of Applied Physics, 2019, 58, 100909.	1.5	2
23	Magnetically Powered Shape-Transformable Liquid Metal Micromotors. Small, 2019, 15, e1905446.	10.0	36
24	Micromagnetic simulation of fast GHz gyromotion of magnetic vortex core in Permalloy disk with antidot. AIP Conference Proceedings, 2019, , .	0.4	0
25	Spin Hall magnetoresistance in Co <sub>2</sub> MnSn/IrMn/Pt heterostructures. Journal of Magnetism and Magnetic Materials, 2019, 477, 62-67.	2.3	1
26	Magnetically Powered Annelid-Worm-Like Microswimmers. Small, 2018, 14, e1704546.	10.0	29
27	Tuning the magnetic phase transition and the magnetocaloric properties of La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> compounds through Sm-doping. AIP Advances, 2018, 8, 056419.	1.3	10
28	Magnetic and magnetocaloric properties in second-order phase transition La <sup>x</sup> K <sub>x</sub> MnO <sub>3</sub> and their composites. Physica B: Condensed Matter, 2018, 532, 166-171.	2.7	19
29	Field-controllable injection of virtual magnetic domain wall in discrete magnetic nanodot chains. Current Applied Physics, 2018, 18, 50-54.	2.4	0
30	Fabrication and magnetic properties of structure-tunable Co <sub>2</sub> FeGa-SiO <sub>2</sub> Heusler nanocompounds. AIP Advances, 2018, 8, .	1.3	12
31	Influence of the two boundaries of the Pt layer on spin current transportation by spin Hall magnetoresistance. Journal of Magnetism and Magnetic Materials, 2018, 465, 585-589.	2.3	0
32	Suppression of Walker breakdown in gapped magnetic nanowires. Journal of Applied Physics, 2018, 124, .	2.5	4
33	A Coexistence of Short- and Long-Range Ferromagnetic Interactions in La <sup>x</sup> K <sub>x</sub> MnO <sub>3</sub> Compounds. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	0
34	Spatially Resolved Ferroelectric Domain-Switching-Controlled Magnetism in Co <sub>40</sub> Fe <sub>40</sub> B <sub>20</sub> /Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> ) <sub>0.7</sub> Ti <sub>0.3</sub> O <sub>3</sub> Multiferroic Heterostructure. ACS Applied Materials & Interfaces, 2017, 9, 2642-2649.	8.0	34
35	Large, Linear, and Tunable Positive Magnetoresistance of Mechanically Stable Graphene Foam-Toward High-Performance Magnetic Field Sensors. ACS Applied Materials & Interfaces, 2017, 9, 1891-1898.	8.0	27
36	Critical properties around the ferromagnetic-paramagnetic phase transition in La <sub>0.7</sub> Ca <sub>0.3-x</sub> A <sub>x</sub> MnO <sub>3</sub> compounds (A = Sr, Ba and x = 0, 0.15, 0.3). Journal of Alloys and Compounds, 2017, 725, 484-495.	5.5	20

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37	Critical behavior near the ferromagnetic-paramagnetic transformation in the austenite phase of Ni <sub>43</sub> Mn <sub>46</sub> Sn <sub>8</sub> X <sub>3</sub> (X = In and Cr) Heusler alloys. Journal of Magnetism and Magnetic Materials, 2017, 443, 171-178.	2.3	6
38	Large Magnetoresistance in Silicon at Room Temperature Induced by Onsite Coulomb Interaction. Advanced Electronic Materials, 2017, 3, 1700186.	5.1	4
39	Ratchet effect of virtual domain wall motion in discrete magnetic nanodot chains. Applied Physics Express, 2017, 10, 125001.	2.4	2
40	Spin-valley-dependent transport and giant tunneling magnetoresistance in silicene with periodic electromagnetic modulations. Chinese Physics B, 2017, 26, 127303.	1.4	1
41	Research Group Status of Magnetism and Magnetic Materials in China. Journal of the Korean Magnetism Society, 2017, 27, 253-259.	0.0	0
42	Collective Magnetoresistance Effect of Ferromagnetic Microparticle Suspension. , 2016, , .		0
43	Magnetic Domain Wall Transfer in Discrete Magnetic Nanodot Chains. , 2016, , .		0
44	Virtual magnetic domain wall motion in discrete magnetic nanodot chains. AIP Advances, 2016, 6, 095006.	1.3	1
45	Collective spin excitation in finite size array of patterned magnonic crystals. Physica B: Condensed Matter, 2016, 486, 24-28.	2.7	2
46	Spin Hall magnetoresistance in Co <sub>2</sub> FeSi/Pt thin films: dependence on Pt thickness and temperature. Journal of Physics Condensed Matter, 2016, 28, 476006.	1.8	5
47	Magnetic and magnetocaloric properties of the first-order phase transition in Sm <sub>0.5+x</sub> Sr <sub>0.5-<sup>~</sup>x</sub> MnO <sub>3</sub> compounds. Journal of the Korean Physical Society, 2016, 69, 316-322.	0.7	0
48	Programmable Logic Based on Large Magnetoresistance of Germanium. Chinese Physics Letters, 2016, 33, 047501.	3.3	0
49	The dependence of electromagnetic noise suppress characteristics on magnetic and high-frequency properties of FeCoSiO thin films. Journal of Alloys and Compounds, 2016, 668, 107-112.	5.5	3
50	Correlation Between Spin Configuration and Magnetostatic Interaction of Ferromagnetic Nanocubes. Journal of Nanoscience and Nanotechnology, 2015, 15, 9234-9239.	0.9	1
51	Enhanced linear magnetoresistance of germanium at room temperature due to surface imperfection. Applied Physics Letters, 2015, 106, .	3.3	12
52	Selective Behavior of Spin Wave Propagation in Asymmetrically Modulated Ferromagnetic Nanowires. IEEE Transactions on Magnetism, 2015, 51, 1-6.	2.1	5
53	RC-Circuit-Like Dynamic Characteristic of the Magnetic Domain Wall in Flat Ferromagnetic Nanowires. Chinese Physics Letters, 2015, 32, 087502.	3.3	6
54	Magnetically Actuated Wormlike Nanomotors for Controlled Cargo Release. ACS Applied Materials & Interfaces, 2015, 7, 26017-26021.	8.0	42

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55	Magnetic field controllable nonvolatile resistive switching effect in silicon device. Applied Physics Letters, 2014, 104, 243511.	3.3	16
56	Large positive magnetoresistance in germanium. Journal of Applied Physics, 2014, 116, .	2.5	17
57	Enhanced low field magnetoresistance in germanium and silicon-diode combined device at room temperature. Applied Physics Letters, 2014, 105, 193508.	3.3	15
58	Current Induced Non-Volatile Resistive Switching Effect in Silicon Devices with Large Magnetoresistance. Chinese Physics Letters, 2014, 31, 077201.	3.3	0
59	Equilibrium position dependent magnetic vortex dip dynamics under rotating magnetic fields. Journal of Applied Physics, 2014, 115, .	2.5	4
60	Magnetic-field-tuned Insulator to Conductor Transition in Magnetorheological Suspension. Journal of Magnetism, 2014, 19, 345-348.	0.4	4
61	Diode assisted giant positive magnetoresistance in n-type GaAs at room temperature. Journal of Applied Physics, 2013, 114, .	2.5	10
62	Oscillatory transformative domain wall inner structure of the depinning domain wall around a notched ferromagnetic wire. Journal of the Korean Physical Society, 2013, 63, 654-658.	0.7	4
63	Position-dependent spontaneous motion of the magnetic domain wall in ferromagnetic nanowires. Journal of the Korean Physical Society, 2013, 62, 288-291.	0.7	1
64	Intrinsic pinning behavior and propagation onset of three-dimensional Bloch-point domain wall in a cylindrical ferromagnetic nanowire. Applied Physics Letters, 2013, 102, .	3.3	32
65	Stepwise behavior of the core trajectory in magnetic vortex dynamics under an alternating-current magnetic field. Journal of Applied Physics, 2013, 113, .	2.5	1
66	Dynamics of Magnetic Vortex Core Reversal under Pulsed Magnetic Fields. New Physics: Sae Mulli, 2013, 63, 666-669.	0.1	0
67	Micromagnetic Study of Forced Oscillation of Magnetic Domain Wall in Ferromagnetic Nanowires with Variation of Damping Constant. Journal of Superconductivity and Novel Magnetism, 2012, 25, 2795-2798.	1.8	2
68	Condition of the ratchet effect of a magnetic domain wall motion under an asymmetric potential energy. Journal of Applied Physics, 2012, 111, 07D301.	2.5	5
69	Three-Dimensional Dynamics of Magnetic Vortex Core in a Nanodisk. Journal of the Korean Magnetism Society, 2012, 22, 195-199.	0.0	1
70	Nonlinear motion of magnetic vortex under alternating-current magnetic field: Dynamic correction of a gyrovectore and a damping tensor of the Thiele's equation. Applied Physics Letters, 2011, 99, .	3.3	7
71	Interaction of Antiparallel Transverse Domain Walls in Ferromagnetic Nanowires. Journal of Nanoscience and Nanotechnology, 2011, 11, 6237-6240.	0.9	1
72	Translational Positioning of a Magnetic Domain Wall in Ferromagnetic Nanowires Using a Stray Field Filter. Journal of Nanoscience and Nanotechnology, 2011, 11, 6122-6125.	0.9	1

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73	Ratchet effect of the domain wall by asymmetric magnetostatic potentials. Applied Physics Letters, 2011, 99, 192512.	3.3	20
74	Calculation of the Gyrovector and the Damping Tensor of a Magnetic Vortex Core Based on the Thiele Equation. New Physics: Sae Mulli, 2011, 61, 601-604.	0.1	0
75	Three-Dimensional Spin Configuration of Ferromagnetic Nanocubes. Journal of Nanoscience and Nanotechnology, 2010, 10, 7212-7216.	0.9	4
76	Micromagnetic Simulation of Damped Oscillatory Behavior of Domain Wall Propagation in Sinusoidal Ferromagnetic Nanowire. IEEE Transactions on Magnetics, 2010, 46, 224-227.	2.1	4
77	Spontaneous Domain Wall Motion at Zero External Magnetic Field in Ferromagnetic Nanowire. IEEE Transactions on Magnetics, 2010, 46, 217-219.	2.1	9
78	Ratchet Effect of Domain Wall Motion by GHz AC Magnetic Field in Asymmetric Sawtooth-Shaped Ferromagnetic Nanowires. IEEE Transactions on Magnetics, 2010, 46, 1844-1847.	2.1	11
79	Asymmetric ground state spin configuration of transverse domain wall on symmetrically notched ferromagnetic nanowires. Applied Physics Letters, 2010, 97, 022511.	3.3	19
80	Multibits magnetic recording using a ferromagnetic element with shifted vortex core position. Applied Physics Letters, 2009, 94, .	3.3	8
81	Domain Wall Propagation in Wavy Ferromagnetic Nanowire. IEEE Transactions on Magnetics, 2009, 45, 3926-3929.	2.1	18
82	Magnetic domain wall collision around the Walker breakdown in ferromagnetic nanowires. Journal of Applied Physics, 2009, 106, .	2.5	17
83	Suppression of Magnetization Ringing After Domain Wall Collision Studied by Micromagnetic Simulation. Journal of Magnetics, 2008, 13, 120-123.	0.4	1
84	The Effect of Electron Screening on the $\hat{\nu}^2$ -decay Rate in Stellar Interior. Chinese Astronomy and Astrophysics, 2007, 31, 229-235.	0.3	1
85	Preparation and magnetic properties of cylindrical permalloy nanowire arrays. MRS Communications, 0, , 1.	1.8	1