

# Xiaozhong Zhang

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

58  
papers

730  
citations

18  
h-index

25  
g-index

58  
ext. papers

810  
ext. citations

5.3  
avg, IF

3.89  
L-index

#	Paper	IF	Citations
58	Geometrical enhancement of low-field magnetoresistance in silicon. <i>Nature</i> , <b>2011</b> , 477, 304-7	50.4	75
57	Nanostructure of Calcium Silicate Hydrate Gels in Cement Paste. <i>Journal of the American Ceramic Society</i> , <b>2004</b> , 83, 2600-2604	3.8	68
56	Semiconducting amorphous carbon thin films for transparent conducting electrodes. <i>Carbon</i> , <b>2014</b> , 76, 64-70	10.4	57
55	Spatially Resolved Ferroelectric Domain-Switching-Controlled Magnetism in CoFeB/Pb(MgNb)TiO Multiferroic Heterostructure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 2642-2649	9.5	32
54	Electric and Light Dual-Gate Tunable MoS Memtransistor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 43344-43350	9.5	31
53	Reconfigurable Magnetic Logic Combined with Nonvolatile Memory Writing. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605027	24	28
52	Resistive switching behavior in diamond-like carbon films grown by pulsed laser deposition for resistance switching random access memory application. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 084501	2.5	27
51	A bias voltage dependent positive magnetoresistance in Co <sub>0.1</sub> /Si heterostructure. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 022503	3.4	27
50	Silicon-Based Current-Controlled Reconfigurable Magnetoresistance Logic Combined with Non-Volatile Memory. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 158-166	15.6	26
49	Photoconductivity of iron doped amorphous carbon films on n-type silicon substrates. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 022105	3.4	25
48	Electro- and magneto-transport properties of amorphous carbon films doped with iron. <i>Diamond and Related Materials</i> , <b>2011</b> , 20, 26-30	3.5	24
47	Emulation of Learning and Memory Behaviors by Memristor Based on Ag Migration on 2D MoS <sub>2</sub> Surface. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2019</b> , 216, 1900104	1.6	22
46	Negative magnetoresistance in undoped semiconducting amorphous carbon films. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 123708	2.5	21
45	Magnetotransport properties of undoped amorphous carbon films. <i>Carbon</i> , <b>2013</b> , 59, 278-282	10.4	21
44	Quantum magnetic phase transition in square-octagon lattice. <i>Scientific Reports</i> , <b>2014</b> , 4, 6918	4.9	18
43	Angular magnetoresistance in semiconducting undoped amorphous carbon thin films. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 174503	2.5	18
42	Extremely Large Magnetoresistance at Low Magnetic Field by Coupling the Nonlinear Transport Effect and the Anomalous Hall Effect. <i>Advanced Materials</i> , <b>2016</b> , 28, 2760-4	24	18

41	Atomic-scale study of topological vortex-like domain pattern in multiferroic hexagonal manganites. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 032901	3.4	18
40	Enhanced low field magnetoresistance in germanium and silicon-diode combined device at room temperature. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 193508	3.4	13
39	Structure dependent negative magnetoresistance of amorphous carbon thin films. <i>Diamond and Related Materials</i> , <b>2017</b> , 72, 108-113	3.5	12
38	Transparent magnetic semiconductor with embedded metallic glass nano-granules. <i>Materials and Design</i> , <b>2017</b> , 132, 208-214	8.1	12
37	Magnetoresistance sign change in iron-doped amorphous carbon films at low temperatures. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 215002	3	12
36	Large magnetoresistance of amorphous carbon films. <i>Carbon</i> , <b>2017</b> , 122, 122-127	10.4	11
35	Angle dependent magnetotransport in transfer-free amorphous carbon thin films. <i>Journal Physics D: Applied Physics</i> , <b>2016</b> , 49, 415005	3	11
34	Diode assisted giant positive magnetoresistance in n-type GaAs at room temperature. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 034501	2.5	9
33	Resistance transition assisted geometry enhanced magnetoresistance in semiconductors. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 17A302	2.5	9
32	Electric field induced sp <sup>3</sup> -to-sp <sup>2</sup> conversion and nonlinear electron transport in iron-doped diamond-like carbon thin film. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 013709	2.5	9
31	Structure dependent negative and positive magnetoresistance of amorphous carbon films. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 233903	2.5	8
30	Pressure dependence of phase transition in undoped LaMnO <sub>3</sub> . <i>Physica C: Superconductivity and Its Applications</i> , <b>2002</b> , 371, 330-338	1.3	8
29	Atomistic simulation of dynamical and defect properties of multiferroic hexagonal YMnO <sub>3</sub> . <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2011</b> , 54, 836-840	3.6	6
28	Speed enhancement of magnetic logic-memory device by insulator-to-metal transition. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 022407	3.4	6
27	Electric and magnetic properties of magnetic (CoFeTaB)(100%)Ox films. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 165101	2.5	4
26	Thermal stability of NDR-assisted anomalous Hall effect based magnetic device. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 203901	2.5	4
25	Magnetic field controlled hybrid semiconductor and resistive switching device for non-volatile memory applications. <i>AIP Advances</i> , <b>2019</b> , 9, 105030	1.5	4
24	Condition of the ratchet effect of a magnetic domain wall motion under an asymmetric potential energy. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 07D301	2.5	4

23	Structure and magneto-electrical properties of Fe-C films prepared by magnetron sputtering. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2012</b> , 55, 1594-1598	3.6	4
22	Large Magnetoresistance in Silicon at Room Temperature Induced by Onsite Coulomb Interaction. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700186	6.4	3
21	Study of giant magnetoresistance and giant electroresistance of carbon based thin film. <i>Rare Metals</i> , <b>2006</b> , 25, 617-620	5.5	3
20	Regulation of electrical and magnetic properties in amorphous CoFeTaBO films. <i>Thin Solid Films</i> , <b>2019</b> , 669, 114-119	2.2	3
19	Magnetic logic based on diode-assisted magnetoresistance. <i>AIP Advances</i> , <b>2017</b> , 7, 055920	1.5	2
18	Magnetization of Co-Fe-Ta-B-O Amorphous Thin Films. <i>Chinese Physics Letters</i> , <b>2019</b> , 36, 077502	1.8	2
17	Diode and inhomogeneity assisted extremely large magnetoresistance in silicon. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 042406	3.4	2
16	The dependence of barrier heights of a-C: Fe/n-Si heterojunctions on film-depositing temperatures. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 103706	2.5	2
15	Magnetic properties and magnetoresistance of Co x C1 $\square$ granular films prepared by magnetron sputtering. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2011</b> , 54, 1218-1222	3.6	2
14	Photovoltaic and photoconductivity characteristics of (a-C:Fe)/Al <sub>2</sub> O <sub>3</sub> /Si structure. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2011</b> , 8, 625-627		2
13	Nonvolatile magnetic half adder combined with memory writing. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 182402	3.4	2
12	Electric control of magnetization in an amorphous Co-Fe-Ta-B-O film by resistive switching. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 8672-8678	3.6	1
11	Positive and Negative Magnetoresistance of a-C:Fe/Si Heterojunctions. <i>IEEE Transactions on Magnetics</i> , <b>2009</b> , 45, 3488-3490	2	1
10	Anomalous magnetotransport in LaMn1 $\square$ Te x O3 <b>2009</b> , 52, 987-992		1
9	LOW-FIELD INHOMOGENEITY-INDUCED MAGNETORESISTANCE IN SILICON. <i>Spin</i> , <b>2012</b> , 02, 1250002	1.3	1
8	Ultrafast and Ultralow-Power Voltage-Dominated Magnetic Logic. <i>Advanced Intelligent Systems</i> , 21001576		1
7	A carbon based spintronic material Fe(x)-C(1-x)/Si structure. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 2583-7	1.3	
6	Multifunctional Spintronic Material $\{Fe\}_x\{C\}_{1-x}\{Si\}$ . <i>IEEE Transactions on Magnetics</i> , <b>2011</b> , 47, 3474-3477	2	

- 5 Room-temperature magnetoresistance in a-C:Co/Si system. *Science China: Physics, Mechanics and Astronomy*, **2011**, 54, 1213-1217 3.6
- 4 Magnetic Full Adder Based on NDR-enhanced Anomalous Hall Effect. *IEEE Magnetics Letters*, **2022**, 1-1 1.6
- 3 Basic Logic Operations Achieved in a Single 2D WSe<sub>2</sub> Transistor by Surface-Charge-Transfer Doping. *ACS Applied Electronic Materials*, **2021**, 3, 5059-5065 4
- 2 Experiments and simulations on the magnetization of transparent Co-Fe-Ta-B-O heteroamorphous films. *AIP Advances*, **2020**, 10, 025037 1.5
- 1 Nonvolatile Magnetic Memory Combined With AND/NAND Boolean Logic Gates Based on Geometry-Controlled Magnetization Switching. *IEEE Magnetics Letters*, **2021**, 12, 1-5 1.6