Xiaozhong Zhang

List of Publications by Year in Descending Order

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	Magnetic Full Adder Based on NDR-enhanced Anomalous Hall Effect. *IEEE Magnetics Letters*, **2022**, 1-1	1.6	
57	Basic Logic Operations Achieved in a Single 2D WSe2 Transistor by Surface-Charge-Transfer Doping. *ACS Applied Electronic Materials*, **2021**, 3, 5059-5065	4	
56	Nonvolatile magnetic half adder combined with memory writing. *Applied Physics Letters*, **2021**, 118, 182402	3.4	2
55	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	
54	Electric control of magnetization in an amorphous Co-Fe-Ta-B-O film by resistive switching. *Physical Chemistry Chemical Physics*, **2020**, 22, 8672-8678	3.6	1
53	Speed enhancement of magnetic logic-memory device by insulator-to-metal transition. *Applied Physics Letters*, **2020**, 117, 022407	3.4	6
52	Experiments and simulations on the magnetization of transparent Co-Fe-Ta-B-O heteroamorphous films. *AIP Advances*, **2020**, 10, 025037	1.5	
51	Thermal stability of NDR-assisted anomalous Hall effect based magnetic device. *Journal of Applied Physics*, **2019**, 125, 203901	2.5	4
50	Emulation of Learning and Memory Behaviors by Memristor Based on Ag Migration on 2D MoS2 Surface. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1900104	1.6	22
49	Magnetic field controlled hybrid semiconductor and resistive switching device for non-volatile memory applications. *AIP Advances*, **2019**, 9, 105030	1.5	4
48	Electric and Light Dual-Gate Tunable MoS Memtransistor. *ACS Applied Materials & Interfaces*, **2019**, 11, 43344-43350	9.5	31
47	Magnetization of Co-Fe-Ta-B-O Amorphous Thin Films. *Chinese Physics Letters*, **2019**, 36, 077502	1.8	2
46	Regulation of electrical and magnetic properties in amorphous CoFeTaBO films. *Thin Solid Films*, **2019**, 669, 114-119	2.2	3
45	Structure dependent negative magnetoresistance of amorphous carbon thin films. *Diamond and Related Materials*, **2017**, 72, 108-113	3.5	12
44	Magnetic logic based on diode-assisted magnetoresistance. *AIP Advances*, **2017**, 7, 055920	1.5	2
43	Large magnetoresistance of amorphous carbon films. *Carbon*, **2017**, 122, 122-127	10.4	11
42	Spatially Resolved Ferroelectric Domain-Switching-Controlled Magnetism in CoFeB/Pb(MgNb)TiO Multiferroic Heterostructure. *ACS Applied Materials & Interfaces*, **2017**, 9, 2642-2649	9.5	32

41	Structure dependent negative and positive magnetoresistance of amorphous carbon films. *Journal of Applied Physics*, **2017**, 121, 233903	2.5	8
40	Electric and magnetic properties of magnetic (CoFeTaB)(100⊠)Ox films. *Journal of Applied Physics*, **2017**, 122, 165101	2.5	4
39	Diode and inhomogeneity assisted extremely large magnetoresistance in silicon. *Applied Physics Letters*, **2017**, 111, 042406	3.4	2
38	Large Magnetoresistance in Silicon at Room Temperature Induced by Onsite Coulomb Interaction. *Advanced Electronic Materials*, **2017**, 3, 1700186	6.4	3
37	Transparent magnetic semiconductor with embedded metallic glass nano-granules. *Materials and Design*, **2017**, 132, 208-214	8.1	12
36	Reconfigurable Magnetic Logic Combined with Nonvolatile Memory Writing. *Advanced Materials*, **2017**, 29, 1605027	24	28
35	Angle dependent magnetotransport in transfer-free amorphous carbon thin films. *Journal Physics D: Applied Physics*, **2016**, 49, 415005	3	11
34	Extremely Large Magnetoresistance at Low Magnetic Field by Coupling the Nonlinear Transport Effect and the Anomalous Hall Effect. *Advanced Materials*, **2016**, 28, 2760-4	24	18
33	Angular magnetoresistance in semiconducting undoped amorphous carbon thin films. *Journal of Applied Physics*, **2015**, 117, 174503	2.5	18
32	Silicon-Based Current-Controlled Reconfigurable Magnetoresistance Logic Combined with Non-Volatile Memory. *Advanced Functional Materials*, **2015**, 25, 158-166	15.6	26
31	Resistance transition assisted geometry enhanced magnetoresistance in semiconductors. *Journal of Applied Physics*, **2015**, 117, 17A302	2.5	9
30	Quantum magnetic phase transition in square-octagon lattice. *Scientific Reports*, **2014**, 4, 6918	4.9	18
29	Negative magnetoresistance in undoped semiconducting amorphous carbon films. *Journal of Applied Physics*, **2014**, 115, 123708	2.5	21
28	Semiconducting amorphous carbon thin films for transparent conducting electrodes. *Carbon*, **2014**, 76, 64-70	10.4	57
27	Magnetoresistance sign change in iron-doped amorphous carbon films at low temperatures. *Journal Physics D: Applied Physics*, **2014**, 47, 215002	3	12
26	Enhanced low field magnetoresistance in germanium and silicon-diode combined device at room temperature. *Applied Physics Letters*, **2014**, 105, 193508	3.4	13
25	Diode assisted giant positive magnetoresistance in n-type GaAs at room temperature. *Journal of Applied Physics*, **2013**, 114, 034501	2.5	9
24	Magnetotransport properties of undoped amorphous carbon films. *Carbon*, **2013**, 59, 278-282	10.4	21

23	Atomic-scale study of topological vortex-like domain pattern in multiferroic hexagonal manganites. *Applied Physics Letters*, **2013**, 103, 032901	3.4	18
22	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	4
21	Structure and magneto-electrical properties of Fe-C films prepared by magnetron sputtering. *Science China: Physics, Mechanics and Astronomy*, **2012**, 55, 1594-1598	3.6	4
20	LOW-FIELD INHOMOGENEITY-INDUCED MAGNETORESISTANCE IN SILICON. *Spin*, **2012**, 02, 1250002	1.3	1
19	Resistive switching behavior in diamond-like carbon films grown by pulsed laser deposition for resistance switching random access memory application. *Journal of Applied Physics*, **2012**, 111, 084501	2.5	27
18	Electro- and magneto-transport properties of amorphous carbon films doped with iron. *Diamond and Related Materials*, **2011**, 20, 26-30	3.5	24
17	Geometrical enhancement of low-field magnetoresistance in silicon. *Nature*, **2011**, 477, 304-7	50.4	75
16	A carbon based spintronic material Fe(x)-C(1-x)/Si structure. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 2583-7	1.3	
15	The dependence of barrier heights of a-C: Fe/n-Si heterojunctions on film-depositing temperatures. *Journal of Applied Physics*, **2011**, 109, 103706	2.5	2
14	Multifunctional Spintronic Material ${rm Fe}_{rm x}-{rm C}_{1-{rm x}}/{rm Si}$. *IEEE Transactions on Magnetics*, **2011**, 47, 3474-3477	2	
13	Atomistic simulation of dynamical and defect properties of multiferroic hexagonal YMnO3. *Science China: Physics, Mechanics and Astronomy*, **2011**, 54, 836-840	3.6	6
12	Room-temperature magnetoresistance in a-C:Co/Si system. *Science China: Physics, Mechanics and Astronomy*, **2011**, 54, 1213-1217	3.6	
11	Magnetic properties and magnetoresistance of Co x C1 granular films prepared by magnetron sputtering. *Science China: Physics, Mechanics and Astronomy*, **2011**, 54, 1218-1222	3.6	2
10	Photovoltaic and photoconductivity characteristics of (a-C:Fe)/Al2O3/Si structure. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 625-627		2
9	Electric field induced sp3-to-sp2 conversion and nonlinear electron transport in iron-doped diamond-like carbon thin film. *Journal of Applied Physics*, **2010**, 107, 013709	2.5	9
8	Photoconductivity of iron doped amorphous carbon films on n-type silicon substrates. *Applied Physics Letters*, **2009**, 95, 022105	3.4	25
7	Positive and Negative Magnetoresistance of a-C:Fe/Si Heterojunctions. *IEEE Transactions on Magnetics*, **2009**, 45, 3488-3490	2	1
6	Anomalous magnetotransport in LaMn1 Te x O3 **2009**, 52, 987-992		1

5	A bias voltage dependent positive magnetoresistance in Cox□1−x/Si heterostructure. *Applied Physics Letters*, **2009**, 95, 022503	3.4	27
4	Study of giant magnetoresistance and giant electroresistance of carbon based thin film. *Rare Metals*, **2006**, 25, 617-620	5.5	3
3	Nanostructure of Calcium Silicate Hydrate Gels in Cement Paste. *Journal of the American Ceramic Society*, **2004**, 83, 2600-2604	3.8	68
2	Pressure dependence of phase transition in undoped LaMnO3. *Physica C: Superconductivity and Its Applications*, **2002**, 371, 330-338	1.3	8
1	Ultrafast and Ultralow-Power Voltage-Dominated Magnetic Logic. *Advanced Intelligent Systems*,2100157	6	1