Jian Wang

List of Publications by Year in descending order

62 papers	6,614 citations	394421 19 h-index	138484 58 g-index
62 all docs	62 docs citations	62 times ranked	7013 citing authors

#	Article	IF	Citations
1	Preparation and magnetic performance optimization of FeSiAl/Al2O3â€“MnOâ€“Al2O3 soft magnetic composites with particle size adjustment. Journal of Materials Science: Materials in Electronics, 2022, 33, 850-860.	2.2	11
2	Nonequilibrium subâ€“10 nm spin-wave soliton formation in FePt nanoparticles. Science Advances, 2022, 8, eabn0523.	10.3	10
3	Reduction of core loss for FeSi soft magnetic composites prepared using atomic layer deposition-based coating and high-temperature annealing. Journal of Alloys and Compounds, 2022, 909, 164655.	5.5	15
4	Evolution of electronic and magnetic properties in the topological semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Sm</mml:mi><mml:msub><mml:mi>Sb</mml:mi><mml:mi><mml:r Physical Review B, 2022, 105, .	3.7	4
5	Structural insight using anomalous XRD into Mn2CoAl Heusler alloy films grown by magnetron sputtering, IBAS, and MBE techniques. Acta Materialia, 2022, 235, 118063.	7.9	2
6	Magneto-optical design of anomalous Nernst thermopile. Scientific Reports, 2021, 11, 11228.	3.3	6
7	Origin of magnetic anisotropy, role of induced magnetic moment, and all-optical magnetization switching for Co100â^’xGdx/Pt multilayers. APL Materials, 2021, 9, .	5.1	5
8	Magnetic Topological Semimetal Phase with Electronic Correlation Enhancement in SmSbTe. Advanced Quantum Technologies, 2021, 4, 2100063.	3.9	11
9	Formation mechanism and magnetic performance of Fe-Si soft magnetic composites coated with MnO-SiO2 composite coatings. Advanced Powder Technology, 2021, 32, 3364-3371.	4.1	18
10	Highly enhancing electromagnetic properties in Fe-Si/MnO-SiO2 soft magnetic composites by improving coating uniformity. Advanced Powder Technology, 2021, 32, 4846-4856.	4.1	13
11	Effect of disorder and vacancy defects on electrical transport properties of Co2MnGa thin films grown by magnetron sputtering. Journal of Applied Physics, 2021, 130, .	2.5	2
12	High performance Fe-Si soft magnetic composites coated with novel insulating-magnetic-insulating (IMI) layer. Journal of Magnetism and Magnetic Materials, 2020, 496, 165937.	2.3	17
13	Microstructure, formation mechanism and magnetic properties of Fe1.82Si0.18@Al2O3 soft magnetic composites. Journal of Magnetism and Magnetic Materials, 2020, 493, 165744.	2.3	26
14	Formation mechanism and enhanced magnetic properties of Feâ€“Si/Fe2SiO4 soft magnetic composites transformed from Fe-6.5â€¯wt%Si/Î±-Fe2O3 core-shell composites. Journal of Alloys and Compounds, 2020, 817, 152803.	5.5	17
15	Control of grain density in FePt-C granular thin films during initial growth. Journal of Magnetism and Magnetic Materials, 2020, 500, 166418.	2.3	20
16	Magneto-optical painting of heat current. Nature Communications, 2020, 11, 2.	12.8	49
17	Properties of Fe2SiO4/SiO2 coated Fe-Si soft magnetic composites prepared by sintering Fe-6.5wt%Si/Fe3O4 composite particles. Journal of Magnetism and Magnetic Materials, 2020, 499, 166278.	2.3	17
18	Preparation and magnetic properties of FeSiAl-based soft magnetic composites with MnO/Al2O3 insulation layer. Journal of Magnetism and Magnetic Materials, 2020, 498, 166084.	2.3	35

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19	Regulation of oxygen reduction reaction by the magnetic effect of L10-PtFe alloy. Applied Catalysis B: Environmental, 2020, 278, 119332.	20.2	34
20	Electronic and magnetic properties of the topological semimetal candidate NdSbTe. Physical Review B, 2020, 101, .	3.2	20
21	Perpendicular exchange bias independent of NiO layer thickness in NiO/CoPt structures with orthogonal spin configuration. Journal Physics D: Applied Physics, 2020, 53, 225002.	2.8	3
22	Core loss reduction for Fe-6.5wt%Si soft magnetic composites doped with Co element. Journal of Magnetism and Magnetic Materials, 2020, 502, 166553.	2.3	28
23	Interlayer exchange coupling modulated all-optical magnetic switching in synthetic ferrimagnetic heterostructures. Journal Physics D: Applied Physics, 2020, 53, 475002.	2.8	4
24	Tunable electron transport with intergranular separation in FePt-C nanogranular films. Materials Research Express, 2020, 7, 046405.	1.6	0
25	Magnetic in-plane components of FePt nanogranular film on polycrystalline MgO underlayer for heat-assisted magnetic recording media. Acta Materialia, 2019, 177, 1-8.	7.9	13
26	Effect of sintering temperature on microstructure and magnetic properties for Fe-Si soft magnetic composites prepared by water oxidation combined with spark plasma sintering. Journal of Magnetism and Magnetic Materials, 2019, 491, 165615.	2.3	9
27	Microstructure, magnetic and transport properties of a Mn2CoAl Heusler compound. Acta Materialia, 2019, 176, 33-42.	7.9	35
28	Influences of Fe₂O₃ content on structure and magnetic performances of FeSiAl soft magnetic composites. Materials Research Express, 2019, 6, 116106.	1.6	2
29	Ultra-low inter-particle eddy current loss of Fe3Si/Al2O3 soft magnetic composites evolved from FeSiAl/Fe3O4 core-shell particles. Journal of Magnetism and Magnetic Materials, 2019, 484, 218-224.	2.3	49
30	High melting point metal (Pt, W) seed layer for grain size refinement of FePt-based heat-assisted magnetic recording media. Applied Physics Express, 2019, 12, 023007.	2.4	2
31	Impact of carbon segregant on microstructure and magnetic properties of FePt-C nanogranular films on MgO (001) substrate. Acta Materialia, 2019, 166, 413-423.	7.9	28
32	Mechanism of strong enhancement of anomalous Nernst effect in Fe by Ga substitution. Physical Review Materials, 2019, 3, .	2.4	42
33	Correlating the microstructure, growth mechanism and magnetic properties of FeSiAl soft magnetic composites fabricated via HNO3 oxidation. Acta Materialia, 2018, 146, 294-303.	7.9	142
34	Magnetic field-mediated two magnetic states in BiFeO3/CoPt layered structures. Journal of Magnetism and Magnetic Materials, 2018, 453, 206-210.	2.3	2
35	Near- T_c Ferromagnetic Resonance and Damping in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Fe</mml:mi><mml:mi>Pt</mml:mi></mml:math> -Based Heat-Assisted Magnetic Recording Media. Physical Review Applied, 2018, 10, .	3.8	15
36	Impact of Intergrain Spin-Transfer Torques Due to Huge Thermal Gradients in Heat-Assisted Magnetic Recording. IEEE Transactions on Magnetics, 2018, 54, 1-11.	2.1	11

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37	Magnetoresistance of oxygen concentration-modulated Coâ€“Tiâ€“O films. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	1
38	Micromagnetic Studies of Laser-Induced Magnetization Dynamics in FePtâ€“C Films. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	2
39	Improved (0 0 1)-texture of FePt-C for heat-assisted magnetic recording media by insertion of Cr buffer layer. Journal of Magnetism and Magnetic Materials, 2017, 432, 129-134.	2.3	8
40	Epitaxial growth of BiFeO3 films on TiN under layers by sputtering deposition. AIP Advances, 2017, 7, 055815.	1.3	1
41	Magnetic Switching in Granular FePt Layers Promoted by Near-Field Laser Enhancement. Nano Letters, 2017, 17, 2426-2432.	9.1	22
42	Micromagnetic Studies at Finite Temperature on FePtâ€“C Granular Films. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	8
43	Origin of in-plane component for L1<inf>0</inf>-FePt granular films deposited on MgO single crystal substrate. , 2017, , .		0
44	Micromagnetic studies at finite temperature on FePt-C granular films. , 2017, , .		0
45	Off-easy-plane antiferromagnetic spin canting in coupled FePt/NiO bilayer structure with perpendicular exchange bias. Physical Review B, 2016, 94, .	3.2	10
46	Accumulative Magnetic Switching of Ultrahigh-Density Recording Media by Circularly Polarized Light. Physical Review Applied, 2016, 6, .	3.8	61
47	Growth Mechanism of Columnar Grains in FePtâ€“C Granular Films for HAMR Media Processed by Compositionally Graded Sputtering. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	4
48	Magnetization reversal of FePt based exchange coupled composite media. Acta Materialia, 2016, 111, 47-55.	7.9	24
49	Structure Optimization of FePtâ€“C Nanogranular Films for Heat-Assisted Magnetic Recording Media. IEEE Transactions on Magnetics, 2016, 52, 1-8.	2.1	9
50	Perpendicular coercivity enhancement of CoPt/TiN films by nitrogen incorporation during deposition. Journal of Applied Physics, 2015, 118, .	2.5	6
51	Columnar Structure in FePtâ€“C Granular Media for Heat-Assisted Magnetic Recording. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	34
52	Magnetoelastically induced perpendicular magnetic anisotropy and perpendicular exchange bias of CoO/CoPt multilayer films. Journal of Magnetism and Magnetic Materials, 2015, 394, 349-353.	2.3	10
53	Control of the perpendicular magnetic anisotropy and microstructure of L1₀-CoPt/TiN multilayer films with the TiN layer on glass substrates. Journal Physics D: Applied Physics, 2015, 48, 155001.	2.8	3
54	Effect of MgO underlayer misorientation on the texture and magnetic property of FePtâ€“C granular film. Acta Materialia, 2015, 91, 41-49.	7.9	49

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55	Highly (001) oriented L1-CoPt/TiN multilayer films on glass substrates with perpendicular magnetic anisotropy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	10
56	Mechanism of coercivity enhancement by Ag addition in FePt-C granular films for heat assisted magnetic recording media. Applied Physics Letters, 2014, 104, .	3.3	42
57	Strong perpendicular exchange bias in sputter-deposited CoPt/CoO multilayers. Applied Physics Letters, 2013, 103, 042401.	3.3	17
58	Influence of interface roughness on the exchange bias of Co/CoO multilayers. Journal of Applied Physics, 2013, 113, .	2.5	14
59	Perpendicular magnetic anisotropy and perpendicular exchange bias in sputter-deposited CoO/CoPt multilayer. Journal of Applied Physics, 2013, 113, 17D714.	2.5	4
60	Interface roughness induced asymmetric magnetic property in sputter-deposited Co/CoO/Co exchange coupled trilayers. Journal of Applied Physics, 2012, 111, .	2.5	10
61	Epitaxial BiFeO3 Multiferroic Thin Film Heterostructures. Science, 2003, 299, 1719-1722.	12.6	5,548
62	Antiferromagnetic Layer Thickness Dependence of Exchange Bias in Sputter-Deposited Co/CoO/Co Trilayer. Materials Science Forum, 0, 675-677, 1263-1266.	0.3	0