Weixing Xia

List of Publications by Year
in descending order

80 papers	1,611 citations	361413 20 h-index	315739 38 g-index
80 all docs	80 docs citations	80 times ranked	2101 citing authors

#	Article	IF	Citations
1	Magnetic domain reversal induced by thermal activation in SmCo alloy. Journal of Alloys and Compounds, 2022, 895, 162684.	5.5	3
2	Intergranular interaction in nanocrystalline Ce-Fe-B melt-spinning ribbons via first-order reversal curve analysis. AIP Advances, 2021, 11, 015209.	1.3	6
3	Large and sensitive magnetostriction in ferromagnetic composites with nanodispersive precipitates. NPG Asia Materials, 2021, 13, .	7.9	34
4	Interlayer coupling effect on skyrmion dynamics in synthetic antiferromagnets. Applied Physics Letters, 2021, 118, .	3.3	7
5	A novel strategy for the fabrication of high-performance nanostructured Ce-Fe-B magnetic materials via electron-beam exposure. Science China Materials, 2021, 64, 2519-2529.	6.3	1
6	Directional Magnetization Reversal Enables Ultrahigh Energy Density in Gradient Nanostructures. Advanced Materials, 2021, 33, e2102800.	21.0	49
7	Spin-reorientation transition induced magnetic skyrmion in Nd2Fe14B magnet. Applied Physics Letters, 2020, 117, .	3.3	17
8	Growth of quasi-texture in nanostructured magnets with ultra-high coercivity. Acta Materialia, 2020, 195, 282-291.	7.9	9
9	Efficiently controlling crystallization and magnetic properties of nanostructured Nd-Ce-Fe-B ribbons via electron beam exposure. Journal of Alloys and Compounds, 2019, 807, 151669.	5.5	7
10	Micromagnetic Configuration of Variable Nanostructured Cobalt Ferrite: Modulating and Simulations toward Memory Devices. ACS Applied Materials & Interfaces, 2019, 11, 28442-28448.	8.0	6
11	Grain boundary modification induced magnetization reversal process and giant coercivity enhancement in 2:17 type SmCo magnets. Journal of Alloys and Compounds, 2019, 785, 429-435.	5.5	37
12	Coercivity enhancement and mechanism in a high Ce-containing Ndâ€“Ceâ€“Feâ€“B film by the design of a diffusion layer. Journal of Materials Chemistry C, 2019, 7, 7318-7326.	5.5	5
13	Effect of grain boundary on magnetization behaviors in 2:17 type SmCo magnet. Journal of Magnetism and Magnetic Materials, 2019, 489, 165459.	2.3	21
14	An achiral ferromagnetic/chiral antiferromagnetic bilayer system leading to controllable size and density of skyrmions. Scientific Reports, 2019, 9, 2970.	3.3	8
15	Direct imaging of cross-sectional magnetization reversal in an exchange-biased CoFeB/IrMn bilayer. Physical Review B, 2018, 97, .	3.2	11
16	Direct observation of magnetization reversal of hot-deformed Nd-Fe-B magnet. AIP Advances, 2018, 8, 015227.	1.3	10
17	Direct Observation of Magnetocrystalline Anisotropy Tuning Magnetization Configurations in Uniaxial Magnetic Nanomaterials. ACS Nano, 2018, 12, 3442-3448.	14.6	26
18	Grain boundary restructuring of multi-main-phase Nd-Ce-Fe-B sintered magnets with Nd hydrides. Acta Materialia, 2018, 142, 18-28.	7.9	93

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19	Magnetic hardening of Nd-Ce-Fe-B films with high Ce concentration. Scientific Reports, 2018, 8, 11599.	3.3	10
20	High anisotropic NdFeB submicro/nanoflakes prepared by surfactant-assisted ball milling at low temperature. Journal of Magnetism and Magnetic Materials, 2017, 442, 279-287.	2.3	12
21	Air stable Fe nanostructures with high magnetization prepared by reductive annealing. Journal of Materials Science and Technology, 2017, 33, 1334-1338.	10.7	3
22	Magnetic structure and coercivity mechanism of AlNiCo magnets studied by electron holography. Journal of Alloys and Compounds, 2017, 720, 401-407.	5.5	19
23	Enhanced coercivity of Nd-Ce-Fe-B sintered magnets by adding (Nd, Pr)-H powders. Journal of Alloys and Compounds, 2017, 721, 1-7.	5.5	45
24	Performance enhancement of NdFeB nanoflakes prepared by surfactant-assisted ball milling at low temperature by using different surfactants. Materials Research Express, 2017, 4, 025033.	1.6	7
25	Determination of stress-coefficient of magnetoelastic anisotropy in flexible amorphous CoFeB film by anisotropic magnetoresistance. Applied Physics Letters, 2017, 111, .	3.3	19
26	Achieving a high cutting-off frequency in the oriented CoFe2O4 nanocubes. Applied Physics Letters, 2017, 111, .	3.3	8
27	Effect of exchange coupling on magnetic property in Smâ€“Co/ Î± -Fe layered system. Chinese Physics B, 2016, 25, 037501.	1.4	4
28	Oxygen vacancies controlled multiple magnetic phases in epitaxial single crystal Co0.5(Mg0.55Zn0.45)0.5O1-v thin films. Scientific Reports, 2016, 6, 24188.	3.3	11
29	The structure and magnetic properties of Smâ€“Feâ€“N powders prepared by ball milling at low temperature. Journal of Magnetism and Magnetic Materials, 2016, 410, 116-122.	2.3	22
30	Direct chemical synthesis of well dispersed L1₀-FePt nanoparticles with tunable size and coercivity. Green Chemistry, 2016, 18, 417-422.	9.0	28
31	Chapter 2 Experimental Observation of Magnetic Skyrmions. Series in Materials Science and Engineering, 2016, , 33-62.	0.1	0
32	Evolution of Texture and Magnetic Property in Ndâ€“Prâ€“Feâ€“B-Based Nanocomposite Magnets With Plastic Deformation. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	3
33	Vacancy formation energy in disordered FePt mediated by distortion and magnetism. , 2015, , .		0
34	Synthesis of Ferromagnetic Nd2Fe14B Nanocrystalline via Solvothermal Decomposition and Reductionâ€“Diffusion Calcination. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	1
35	Synthesis of ferromagnetic Nd<inf>2</inf>Fe<inf>14</inf>B nanocrystalline via solvothermal decomposition and reduction-diffusion calcination. , 2015, , .		0
36	Evolution of texture and magnetic properties in NdPrFeB based nanocomposite magnets with plastic deformation. , 2015, , .		0

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37	Influence of the preparation process and target composition on crystal structure and magnetic properties of NdFeB thin films. , 2015, , .		0
38	Orientation Mediated Enhancement on Magnetic Hyperthermia of Fe₃O₄ Nanodisc. Advanced Functional Materials, 2015, 25, 812-820.	14.9	121
39	Skyrmion-skyrmion and skyrmion-edge repulsions in skyrmion-based racetrack memory. Scientific Reports, 2015, 5, 7643.	3.3	360
40	Effects of magnetic field heat treatment on Smâ€“Co/Î±-Fe nanocomposite permanent magnetic materials prepared by high energy ball milling. Journal of Alloys and Compounds, 2015, 647, 375-379.	5.5	28
41	An in-situ study of magnetic domain structures in undercooled Fe-29.5 at. %Pd magnetostrictive alloys by Lorentz microscopy and electron holography. Journal of Applied Physics, 2015, 117, 163909.	2.5	5
42	Enhanced large magnetic entropy change and adiabatic temperature change of Ni43Mn46Sn11 alloys by a rapid solidification method. Scripta Materialia, 2015, 104, 41-44.	5.2	46
43	In-situ observation of domain wall pinning in Sm(Co, Fe, Cu, Zr)<inf>z</inf> magnet by Lorentz microscopy. , 2015, , .		0
44	<italic>In Situ</italic> Observation of Domain Wall Pinning in Sm(Co,Fe,Cu,Zr)_{<italic>z</italic>} Magnet by Lorentz Microscopy. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	8
45	PrCo5 nanoflakes prepared by surfactant-assisted ball milling at low temperature. Journal of Applied Physics, 2015, 117, .	2.5	8
46	The synthesis and magnetic properties of Co(Fe)Pt nanoparticles. , 2015, , .		0
47	Dependency of magnetic microwave absorption on surface architecture of Co₂₀Ni₈₀hierarchical structures studied by electron holography. Nanoscale, 2015, 7, 1736-1743.	5.6	184
48	Growth mechanism and magnetic properties of monodisperse L1₀-Co(Fe)Pt@C coreâ€“shell nanoparticles by one-step solid-phase synthesis. Nanoscale, 2015, 7, 975-980.	5.6	20
49	Highly anisotropic SmCo5 nanoflakes by surfactant-assisted ball milling at low temperature. Journal of Magnetism and Magnetic Materials, 2015, 374, 108-115.	2.3	18
50	Effect of Reaction Temperature on the Shape of FePt Nanoparticles. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	3
51	The microstructure and magnetic properties of anisotropic polycrystalline Nd₂Fe₁₄B nanoflakes prepared by surfactant-assisted cryomilling. Materials Research Express, 2014, 1, 016106.	1.6	11
52	Morphology and magnetic properties of SmCo3/Î±-Fe nanocomposite magnets prepared via severe plastic deformation. Journal of Applied Physics, 2014, 115, .	2.5	11
53	Sm2Fe17Nx nanoflakes prepared by surfactant assisted cryomilling. Journal of Applied Physics, 2014, 115, 17A706.	2.5	7
54	Effect of stoichiometry on the magnetocrystalline anisotropy of Feâ€“Pt and Coâ€“Pt from first-principles calculation. Journal of Physics Condensed Matter, 2014, 26, 386002.	1.8	5

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55	Large magnetic entropy change and enhanced mechanical properties of Niâ€“Mnâ€“Snâ€“C alloys. Scripta Materialia, 2014, 75, 26-29.	5.2	49
56	Effect of ${m H}_{2}$ on the Formation Mechanism and Magnetic Properties of FePt Nanocrystals. IEEE Transactions on Magnetics, 2013, 49, 3307-3309.	2.1	2
57	Growth mechanisms and size control of FePt nanoparticles synthesized using Fe(CO)x (x <) Tj ETQq1 1 0.784314 rgBT /Overlock 10	5.6	23
58	Structure and magnetism of SmCo5 nanoflakes prepared by surfactant-assisted ball milling with different ball sizes. Journal of Magnetism and Magnetic Materials, 2013, 347, 116-123.	2.3	24
59	Electron holography of magnetic field generated by a magnetic recording head. Microscopy (Oxford,) Tj ETQq1 1 0.784314 rgBT /Ove	1.5	5
60	Magnetization distribution of magnetic vortex of amorphous FeSiB investigated by electron holography and computer simulation. Microscopy (Oxford, England), 2012, 61, 71-76.	1.5	2
61	Effect of Rh spacer on Synthetic-Antiferromagnetic Coupling in FeCoB/Rh/FeCoB Films. Journal of Physics: Conference Series, 2011, 266, 012064.	0.4	5
62	Quantitative evaluation of magnetic flux density in a magnetic recording head and pseudo soft underlayer by electron holography. Journal of Electron Microscopy, 2010, 59, 331-337.	0.9	3
63	Changes of Magnetic Anisotropy of CoPtCr Perpendicular Films Due to Ru Intermediate Layer Under High Gas Pressure. IEEE Transactions on Magnetics, 2010, 46, 3711-3714.	2.1	5
64	Investigation of magnetic structure and magnetization process of yttrium iron garnet film by Lorentz microscopy and electron holography. Journal of Applied Physics, 2010, 108, .	2.5	23
65	Lorentz Microscopy Study on Magnetization Reversal Process in Single-Domain State in Perovskite-Type Manganite. Japanese Journal of Applied Physics, 2010, 49, 063003.	1.5	0
66	Changes in switching fields of CoCrPtâ€“SiO2 perpendicular recording media due to Ru intermediate layer under low and high gas pressures. Journal of Applied Physics, 2009, 105, 013926.	2.5	4
67	Observations of a magnetic microstructure in a Co-CoO obliquely evaporated tape using electron holography. Journal of Electron Microscopy, 2008, 58, 7-13.	0.9	3
68	Electron Holography of Charging Effect in ZrO₂ Sintered Body. Materials Transactions, 2007, 48, 2616-2620.	1.2	4
69	Quantitative Electron Holographic Analysis of Electric Potential Distribution around FEG-Emitters. Materials Transactions, 2007, 48, 2631-2635.	1.2	2
70	Electron holography on dynamic motion of secondary electrons around sciatic nerve tissues. Journal of Electron Microscopy, 2007, 56, 1-5.	0.9	19
71	Direct Observation of Field Emission in a Single TaSi2Nanowire. Nano Letters, 2007, 7, 2243-2247.	9.1	33
72	Observation of Magnetization Transition of a Co-CoO Obliquely Evaporated Magnetic Recording Tape. , 2006, , .		0

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73	Magnetic Microstructure of L10 (Fe0.55Pt0.45)78Zr2-4B18-20 Nanocrystalline Alloys Observed by Electron Holography. , 2006, , .		0
74	Reduction of track width in perpendicular magnetic recording. Journal of Magnetism and Magnetic Materials, 2005, 287, 77-82.	2.3	2
75	Analysis of Recorded Track Width Using 3D FEM in Perpendicular Magnetic Recording. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2005, 59, 604-609.	0.1	0
76	Resolution Improvement of Transition Width With Shielded Pole Writer. IEEE Transactions on Magnetics, 2004, 40, 2365-2367.	2.1	10
77	Influence of Track Width on Reproduction Resolution of a Shielded GMR Head. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2004, 58, 982-986.	0.1	0
78	High-field gradient single-pole head with an improved pole structure. IEEE Transactions on Magnetics, 2002, 38, 2216-2218.	2.1	16
79	High field gradient single pole head with a novel pole structure. , 0, , .		0
80	Microstructure and magnetic anisotropy of SmCo based films prepared via external magnetic field assisted magnetron sputtering. Advanced Engineering Materials, 0, , .	3.5	0