Wei-Qiang Liu

List of Publications by Year
in descending order

67 papers	892 citations	471509 17 h-index	552781 26 g-index
67 all docs	67 docs citations	67 times ranked	594 citing authors

#	Article	IF	Citations
1	Magnetic anisotropy in bulk nanocrystalline SmCo5 permanent magnet prepared by hot deformation. Journal of Applied Physics, 2011, 109, .	2.5	69
2	Tb nanoparticles doped Ndâ€"Feâ€"B sintered permanent magnet with enhanced coercivity. Applied Physics Letters, 2009, 94, 092501.	3.3	57
3	Coercivity, microstructure, and thermal stability of sintered Ndâ€"Feâ€"B magnets by grain boundary diffusion with TbH3 nanoparticles. Rare Metals, 2017, 36, 718-722.	7.1	45
4	Magnetic domain switching in Ndâ€"Feâ€"B sintered magnets with superior magnetic properties. Materials Research Letters, 2018, 6, 255-260.	8.7	43
5	Structure and magnetic properties of magnetically isotropic and anisotropic Ndâ€"Feâ€"B permanent magnets prepared by spark plasma sintering technology. Journal of Applied Physics, 2010, 107, .	2.5	35
6	Magnetic properties and thermal stability of MnBi/NdFeB hybrid bonded magnets. Journal of Applied Physics, 2011, 109, .	2.5	35
7	Structural and magnetic properties of bulk MnBi permanent magnets. Journal of Applied Physics, 2011, 109, .	2.5	33
8	Improvement of coercivity and corrosion resistance of Nd-Fe-B sintered magnets by doping aluminium nano-particles. Journal of Rare Earths, 2013, 31, 65-68.	4.8	31
9	Structure and magnetic properties of bulk anisotropic SmCo5/Î±-Fe nanocomposite permanent magnets with different Î±-Fe content. Journal of Applied Physics, 2011, 109, .	2.5	29
10	RO PUF design in FPGAs with new comparison strategies. , 2015, , .		27
11	Crystallographic alignment evolution and magnetic properties of Nd-Fe-B nanoflakes prepared by surfactant-assisted ball milling. Journal of Applied Physics, 2012, 111, .	2.5	25
12	Coercivity enhancement of recycled Ndâ€"Feâ€"B sintered magnets by grain boundary diffusion with DyH3 nano-particles. Physica B: Condensed Matter, 2015, 476, 147-149.	2.7	21
13	High-temperature magnetic properties of anisotropic MnBi/NdFeB hybrid bonded magnets. Rare Metals, 2016, 35, 471-474.	7.1	21
14	Preparation and magnetic properties of bulk nanostructured PrCo5 permanent magnets with strong magnetic anisotropy. Journal of Applied Physics, 2011, 109, .	2.5	20
15	Investigation of Magnetic Properties of MnBi/$alpha$-Fe Nanocomposite Permanent Magnets by Micro-Magnetic Simulation. IEEE Transactions on Magnetics, 2013, 49, 3391-3393.	2.1	20
16	Origin of the coercivity difference in sintered Nd-Fe-B magnets by grain boundary diffusion process using TbH3 nanoparticles and TbF3 microparticles. Intermetallics, 2019, 110, 106464.	3.9	19
17	Recycling of Ndâ€"Feâ€"B Sintered Magnets Sludge via the Reductionâ€"Diffusion Route To Produce Sintered Magnets with Strong Energy Density. ACS Sustainable Chemistry and Engineering, 2018, 6, 6547-6553.	6.7	18
18	Recycled Nd-Fe-B sintered magnets prepared from sludges by calcium reduction-diffusion process. Journal of Rare Earths, 2018, 36, 1284-1291.	4.8	18

#	Article	IF	Citations
19	Origin of low coercivity of high Laâ€“Ce-containing Ndâ€“Feâ€“B sintered magnets. Rare Metals, 2021, 40, 180-184.	7.1	17
20	Improved color quality in double-EML WOLEDs by using a tetradentate Pt(<scp>ii</scp>) complex as a green/red emitter. Journal of Materials Chemistry C, 2021, 9, 3384-3390.	5.5	16
21	Structure and magnetic properties of ternary Tb-Fe-B nanoparticles and nanoflakes. Applied Physics Letters, 2011, 99, 162510.	3.3	14
22	Coercivity enhancement mechanism of Tb-diffusion Ndâ€“Feâ€“B sintered magnets studied by magneto-optical Kerr optical microscope. Rare Metals, 2021, 40, 570-574.	7.1	14
23	Progress in recycling of Ndâ€“Feâ€“B sintered magnet wastes*. Chinese Physics B, 2019, 28, 077506.	1.4	13
24	Electrochemical corrosion behavior of Ndâ€“Feâ€“B permanent magnets with modified microstructure. Journal of Applied Physics, 2009, 105, 07A709.	2.5	12
25	Crystal structure and magnetic properties of SmCo6.6Nb0.4 nanoflakes prepared by surfactant-assisted ball milling. Journal of Rare Earths, 2013, 31, 975-978.	4.8	12
26	Magnetic properties and thermal stability of MnBi/SmFeN hybrid bonded magnets. Journal of Applied Physics, 2014, 115, 17A746.	2.5	12
27	Enhanced Magnetic Properties of Spark Plasma Sintered (La/Ce)â€“Feâ€“B Magnets. IEEE Transactions on Magnetics, 2017, 53, 1-3.	2.1	12
28	Recycling of scrap sintered Ndâ€“Feâ€“B magnets as anisotropic bonded magnets via hydrogen decrepitation process. Journal of Material Cycles and Waste Management, 2015, 17, 547-552.	3.0	11
29	Coercivity enhancement mechanism of grain boundary diffused Nd-Fe-B sintered magnets by magnetic domain evolution observation. Journal of Rare Earths, 2021, 39, 682-688.	4.8	11
30	Structure and magnetic properties of bulk nanocrystalline Dy metal prepared by spark plasma sintering. Applied Physics Letters, 2008, 93, 202501.	3.3	10
31	Ultrahigh coercivity in ternary Tb-Fe-B melt-spun ribbons. Journal of Applied Physics, 2011, 109, 07A760.	2.5	10
32	Enhancement of corrosion resistance in sintered Ndâ€“Feâ€“B permanent magnet doping with different CuZn5 contents. Rare Metals, 2017, 36, 812-815.	7.1	10
33	Microstructure and magnetic properties of SmCo5 sintered magnets. Rare Metals, 2020, 39, 1295-1299.	7.1	10
34	Tuning the distribution of Tb in Nd-Fe-B sintered magnet to overcome the magnetic properties trade-off. Scripta Materialia, 2022, 217, 114789.	5.2	10
35	Microstructure and properties of Nd-Fe-B magnets prepared by spark plasma sintering. Materials Science and Technology, 2004, 20, 666-668.	1.6	9
36	Coercivity enhancement in Nd-Fe-B sintered permanent magnet doped with Pr nanoparticles. Journal of Applied Physics, 2011, 109, 07A749.	2.5	9

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37	Numerical simulation of single roller melt spinning for NdFeB alloy based on finite element method. Rare Metals, 2020, 39, 1145-1150.	7.1	9
38	Effects of Shape Anisotropy on Hardâ€“Soft Exchange-Coupled Permanent Magnets. Nanomaterials, 2022, 12, 1261.	4.1	9
39	Corrosion kinetics of spark plasma sintering Nd-Fe-B magnets in different electrolytes. IEEE Transactions on Magnetics, 2005, 41, 3892-3894.	2.1	8
40	Ternary DyFeB Nanoparticles and Nanoflakes With High Coercivity and Magnetic Anisotropy. IEEE Nanotechnology Magazine, 2012, 11, 651-653.	2.0	8
41	Low-cost Sm0.7Y0.3Co5 sintered magnet produced by traditional powder metallurgical techniques. Rare Metals, 2020, 39, 421-428.	7.1	8
42	Magnetic hardening mechanism of SmCo6.6Nb0.4 nanoflakes prepared by surfactant-assisted ball milling method. Journal of Applied Physics, 2014, 115, 17A713.	2.5	7
43	Mechanical properties of spark plasma sintering Nd-Fe-B permanent magnets. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 4149-4152.	1.8	6
44	Oxidation kinetics of Ndâ€“Feâ€“B permanent magnets with modified microstructure. Journal of Applied Physics, 2008, 103, 07E108.	2.5	5
45	Preparation and Characterization of Phenol Formaldehyde Bonded Ndâ€“Feâ€“B Magnets With High Strength and Heat Resistance. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	5
46	Magnetic properties and structure of bulk nanocrystalline Sm(CoCuFeZr)7.6 sintered magnet. Journal of Applied Physics, 2009, 105, 07A707.	2.5	4
47	Hot Pressed Pr₂(Fe,Co)₁₄B/PrCo₅ Hybrid Magnet Prepared by Spark Plasma Sintering. IEEE Magnetics Letters, 2015, 6, 1-4.	1.1	4
48	Recycle of Waste Ndâ€“Feâ€“B Sintered Magnets via NdHx Nanoparticles Modification. IEEE Transactions on Magnetics, 2015, 51, 1-3.	2.1	4
49	Powdering and SPS sintering effect on the magnetocaloric properties of MnNiSi-based compounds. AIP Advances, 2019, 9, 035205.	1.3	4
50	The Effect of Doping Cu Powders on Mechanical Properties and Magnetic Properties of Sm(CoFeCuZr)_z Sintered Magnets. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	4
51	Improving RO PUF design using frequency distribution characteristics. IEICE Electronics Express, 2015, 12, 20141043-20141043.	0.8	3
52	Intrinsic evolution of novel (Nd, MM)2Fe14B-system magnetic flakes. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	3
53	Effect of ingot cooling rate on Cu distribution and magnetic properties of Sm(CobalFe0.28Cu0.07Zr0.03)7.6 magnets. AIP Advances, 2019, 9, 125142.	1.3	3
54	Micromagnetic Simulation of Nitrogenation Effect on the Magnetic Properties of Sm₂Fe₁₇N₃ Alloy. IEEE Magnetics Letters, 2022, 13, 1-5.	1.1	3

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55	Structural evolution of anisotropic SmCo_{6.8}Hf_{0.2} nanocrystalline magnet prepared by hot deformation. Materials Research Letters, 2022, 10, 648-655.	8.7	3
56	Structural and magnetic properties of bulk nanocrystalline Erbium metal. AIP Advances, 2011, 1, .	1.3	2
57	Crystal structure and magnetic properties of (Nd,Tb)2Fe14B nanoflakes prepared by surfactant-assisted ball milling. AIP Advances, 2017, 7, 056231.	1.3	2
58	Microstructure Characteristics of 2:17 SmCo Commercial Magnets With Different Coercivities. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	2
59	Study on the high temperature magnetization reversal mechanism of grain boundary diffusion Ndâ€“Feâ€“B sintered magnet by magnetic domain evolution observation. Materials Research Express, 2019, 6, 086101.	1.6	2
60	Structure and Thermal Stability of a Bulk Nanocrystalline ${hbox{Sm}}_{0.8}{hbox{Tm}}_{0.2}{hbox{Co}}_{5.2}$ Permanent Magnet. IEEE Transactions on Magnetics, 2014, 50, 1-3.	2.1	1
61	Magnetization reversal behavior of SmCo6.6Nb0.4 nanoflakes prepared by surfactant-assisted ball milling. AIP Advances, 2016, 6, .	1.3	1
62	Phase and Texture Evolution of Hot-Deformed Sm(Co,Fe,Cu,Zr)z Magnet. IEEE Transactions on Magnetics, 2021, 57, 1-5.	2.1	1
63	DDM Curing Enhancement for the Epoxy Resin Binder Bonded Ndâ€“Feâ€“B Magnets. IEEE Transactions on Magnetics, 2021, 57, 1-7.	2.1	1
64	Anisotropic Nanocrystalline SmCo₅ Permanent Magnet Prepared by Hot Extrusion. IEEE Transactions on Magnetics, 2022, 58, 1-5.	2.1	1
65	Phase Structure and Properties of Fe-Rich 2:17-Type Sm-Co Sintered Magnets. IEEE Transactions on Magnetics, 2022, 58, 1-5.	2.1	1
66	Coercivity enhancement in PrCu-doped PrCo5 hot deformed magnet. AIP Advances, 2018, 8, 056212.	1.3	0
67	Grain refinement leading to the ultra-high coercivity in L1₀-Mn_{1.33}Ga bulk magnet via hot deformation. Applied Physics Letters, 2022, 120, 152403.	3.3	0