

# Minggang Zhu

## List of Publications by Year in descending order

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54  
papers

794  
citations

516710

16  
h-index

580821

25  
g-index

54  
all docs

54  
docs citations

54  
times ranked

316  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superior corrosion resistance and corrosion mechanism of dual-main-phase (Ce <sub>15</sub> Nd <sub>85</sub> ) <sub>30</sub> Fe <sub>14</sub> B <sub>1</sub> M magnets in different solutions. <i>Journal of Rare Earths</i> , 2023, 41, 122-129.	4.8	6
2	Grains orientation and restructure mechanism of Ce-contained magnets processed by reduction diffusion. <i>Journal of Alloys and Compounds</i> , 2022, 891, 161921.	5.5	7
3	Novel design of self-compensated thermally stable Ce magnets without critical elements. <i>Materials and Design</i> , 2022, 216, 110590.	7.0	9
4	Cellular microstructure modification and high temperature performance enhancement for Sm <sub>2</sub> Co <sub>17</sub> -based magnets with different Zr contents. <i>Journal of Materials Science and Technology</i> , 2022, 120, 8-14.	10.7	10
5	High frequency properties of 2D Sm <sub>2</sub> Fe <sub>14</sub> B nanoflakes with bianisotropy. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 529, 167859.	2.3	3
6	Effects of grain boundary ternary alloy doping on corrosion resistance of (Ce,Pr,Nd)-Fe-B permanent magnets. <i>Journal of Rare Earths</i> , 2021, 39, 979-985.	4.8	10
7	Modulation on the magnetic and electrical properties of Fe <sub>3</sub> O <sub>4</sub> thin films through strain relaxation. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 536, 168128.	2.3	3
8	Correlation between anisotropic fractal dimension of fracture surface and coercivity for Nd-Fe-B permanent magnets. <i>Journal of Materials Research and Technology</i> , 2021, 15, 745-753.	5.8	13
9	A unique pathway of PtNi nanoparticle formation observed with liquid cell transmission electron microscopy. <i>Nanoscale</i> , 2020, 12, 1414-1418.	5.6	7
10	Optimization of both coercivity and knee-point magnetic field of Sm <sub>2</sub> Co <sub>17</sub> -type magnets via solid solution process. <i>Journal of Rare Earths</i> , 2020, 38, 1224-1230.	4.8	23
11	Abnormal corrosion behavior of dual-main phase sintered (Ce,Nd)-Fe-B magnets in different sodium solutions. <i>Journal of Rare Earths</i> , 2020, 38, 735-741.	4.8	3
12	Coercivity enhancement of nanocrystalline hot-deformed Nd-Fe-B magnets by low-melting eutectic MM-Cu (MM=La, Ce, Pr, Nd) alloys addition. <i>Journal of Rare Earths</i> , 2020, 38, 594-599.	4.8	10
13	Mechanism of the enhanced coercivity for the dual-main-phase Ce-Fe-B magnet. <i>Scientific Reports</i> , 2020, 10, 17975.	3.3	7
14	Microstructure characteristics and optimization of 2:17-type Sm-Co sintered magnets with different iron content. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 514, 167288.	2.3	9
15	Novel PrNd-Lean Ce-Based R <sub>2</sub> Fe <sub>14</sub> B Permanent Magnets With High Performance. <i>IEEE Transactions on Magnetics</i> , 2020, 56, 1-5.	2.1	3
16	Dependence of macromagnetic properties on the microstructure in high-performance Sm <sub>2</sub> Co <sub>17</sub> -type permanent magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 510, 166942.	2.3	7
17	Magnetic Properties and Microstructures of Sintered Sm <sub>2</sub> Co <sub>17</sub> Alloys With High Knee-Point Coercivity. <i>IEEE Transactions on Magnetics</i> , 2020, 56, 1-5.	2.1	3
18	Optimization of microstructures and magnetic properties of Sm(Co <sub>0.227</sub> Cu <sub>0.07</sub> Zr <sub>0.023</sub> ) <sub>7.6</sub> magnets by sintering treatment. <i>Journal of Rare Earths</i> , 2019, 37, 171-177.	4.8	18

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19	Effects of hot pressing temperature on the alignment and phase composition of hot-deformed nanocrystalline Nd-Fe-B magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 488, 165353.	2.3	9
20	The technology and mechanism of coercivity promotion of Ce-rich dual-main-phase sintered magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 490, 165414.	2.3	21
21	Dependence of magnetic properties on microstructure and composition of Ce-Fe-B sintered magnets. <i>Journal of Rare Earths</i> , 2019, 37, 865-870.	4.8	10
22	Micromagnetic simulations on demagnetization processes in anisotropic Nd <sub>2</sub> Fe <sub>14</sub> B magnets. <i>Journal of Rare Earths</i> , 2019, 37, 628-632.	4.8	5
23	Origins of inhomogeneous microstructure of hot-deformed nanocrystalline cylindrical Nd-Fe-B magnets and its effects on magnetization behaviors. <i>Journal of Alloys and Compounds</i> , 2019, 792, 519-528.	5.5	6
24	Micromagnetic simulations of reversal magnetization in cerium-containing magnets. <i>Chinese Physics B</i> , 2019, 28, 037502.	1.4	5
25	Mechanical and Magnetic Properties of Hot-Deformed Nd-Fe-B Magnets Doped with SiC Whiskers. <i>Jom</i> , 2019, 71, 3107-3112.	1.9	0
26	High temperature properties improvement and microstructure regulation of Sm <sub>2</sub> Co <sub>17</sub> -based permanent magnet. <i>AIP Advances</i> , 2019, 9, 125237.	1.3	4
27	Phase structure of Al doped Ce-rich alloys and its effect on magnetic properties of sintered Ce-Fe-B magnets. <i>Journal of Alloys and Compounds</i> , 2019, 782, 723-728.	5.5	13
28	Anisotropic corrosion behavior of sintered (Ce <sub>0.15</sub> Nd <sub>0.85</sub> ) <sub>30</sub> Fe <sub>70</sub> B permanent magnets. <i>Journal of Rare Earths</i> , 2019, 37, 287-291.	4.8	8
29	Effects of diffusing DyZn film on magnetic properties and thermal stability of sintered NdFeB magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 454, 215-220.	2.3	38
30	The corrosion mechanism of the sintered (Ce, Nd)-Fe-B magnets prepared by double main phase and single main phase approaches. <i>AIP Advances</i> , 2018, 8, 056224.	1.3	4
31	Effect of magnetic layer thickness on magnetic properties of Ce-Fe-B thin films. <i>Journal of Rare Earths</i> , 2018, 36, 619-622.	4.8	2
32	Effect of deformation ratios on grain alignment and magnetic properties of hot pressing/hot deformation Nd-Fe-B magnets. <i>AIP Advances</i> , 2018, 8, 056234.	1.3	4
33	Effect of grain alignment distribution on magnetic properties in (MM, Nd)-Fe-B sintered magnets. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 125001.	2.8	3
34	Intrinsic evolution of novel (Nd, MM) <sub>2</sub> Fe <sub>14</sub> B-system magnetic flakes. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	2.3	3
35	Coercivity temperature dependence of Sm <sub>2</sub> Co <sub>17</sub> -type sintered magnets with different cell and cell boundary microchemistry. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 452, 272-277.	2.3	24
36	Local profile dependence of coercivity in (MM <sub>0.3</sub> Nd <sub>0.7</sub> )-Fe-B sintered magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 449, 390-394.	2.3	9

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37	The microstructure and magnetization reversal behavior of melt-spun (Nd $1-x$ Ce $x$ )-Fe-B ribbons. Journal of Rare Earths, 2018, 36, 95-98.	4.8	15
38	Growth mechanism of core-shell PtNi-Ni nanoparticles using in situ transmission electron microscopy. Nanoscale, 2018, 10, 11281-11286.	5.6	15
39	Crystalline and magnetic microstructures of iron-rich Sm(Co <sub>0.65</sub> Fe <sub>0.26</sub> Cu <sub>0.07</sub> Zr <sub>0.02</sub> ) <sub>7.8</sub> sintered magnets: Isothermal aging effect. Journal of Magnetism and Magnetic Materials, 2018, 465, 569-577.	2.3	33
40	Effect of cerium on the corrosion behaviour of sintered (Nd,Ce)FeB magnet. Journal of Magnetism and Magnetic Materials, 2017, 432, 181-189.	2.3	24
41	The microstructure and magnetic characteristics of Sm(Co <sub>0.1</sub> Fe <sub>0.1</sub> Cu <sub>0.09</sub> Zr <sub>0.03</sub> ) <sub>7.24</sub> high temperature permanent magnets. Scripta Materialia, 2017, 132, 44-48.	5.2	57
42	Microstructural Analysis During the Step-Cooling Annealing of Iron-Rich Sm(Co <sub>0.65</sub> Fe <sub>0.26</sub> Cu <sub>0.07</sub> Zr <sub>0.02</sub> ) <sub>7.8</sub> Anisotropic Sintered Magnets. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	11
43	Revealing on metallurgical behavior of iron-rich Sm(Co <sub>0.65</sub> Fe <sub>0.26</sub> Cu <sub>0.07</sub> Zr <sub>0.02</sub> ) <sub>7.8</sub> sintered magnets. AIP Advances, 2017, 7, .	1.3	27
44	Structure and intrinsic magnetic properties of MM <sub>2</sub> Fe <sub>14</sub> B (MM=La, Ce, Pr, Nd) alloys. Journal of Rare Earths, 2016, 34, 614-617.	4.8	22
45	The coercivity mechanism of sintered SM(Co <sub>0.245</sub> Fe <sub>0.07</sub> Zr <sub>0.02</sub> ) <sub>7.8</sub> permanent magnets with different isothermal annealing time. Physica B: Condensed Matter, 2015, 476, 154-157.	2.7	16
46	Microstructure and Magnetic Properties of High Coercivity Die-Upset Nd-Fe-B Magnets by Nd-Cu Alloy Addition. IEEE Transactions on Magnetics, 2015, 51, 1-3.	2.1	5
47	The microstructure and magnetic properties of melt-spun CeFeB ribbons with varying Ce content. Electronic Materials Letters, 2015, 11, 109-112.	2.2	34
48	An Enhanced Coercivity for (CeNdPr)-Fe-B Sintered Magnet Prepared by Structure Design. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	23
49	Magnetic properties and microstructures of high-performance Sm <sub>2</sub> Co <sub>17</sub> based alloy. Journal of Magnetism and Magnetic Materials, 2015, 378, 214-216.	2.3	33
50	Influence of Ce Content on the Rectangularity of Demagnetization Curves and Magnetic Properties of Re-Fe-B Magnets Sintered by Double Main Phase Alloy Method. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	92
51	Quasi-periodic layer structure of die-upset NdFeB magnets. Journal of Rare Earths, 2013, 31, 679-684.	4.8	48
52	Fractal study for the fractured surface of Nd-Fe-B permanent magnets. Journal of Applied Physics, 2011, 109, 07A706.	2.5	5
53	Effect of Sm-rich liquid phase on magnetic properties and microstructures of sintered 2:17-type Sm-Co magnet. Journal of Rare Earths, 2011, 29, 934-938.	4.8	11
54	Effect of Microstructure on the Corrosion Resistance of Nd-Fe-B Permanent Magnets. Journal of Magnetism, 2011, 16, 304-307.	0.4	4