Oliver Gutfleisch

List of Publications by Year
in descending order

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497	21,921	13087	15716
papers	citations	68 h-index	125 g-index

512	512	512	9760
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetic Materials and Devices for the 21st Century: Stronger, Lighter, and More Energy Efficient. Advanced Materials, 2011, 23, 821-842.	11.1	2,546
2	Giant magnetocaloric effect driven by structural transitions. Nature Materials, 2012, 11, 620-626.	13.3	1,266
3	Hydrogen storage in magnesium-based hydrides and hydride composites. Scripta Materialia, 2007, 56, 841-846.	2.6	430
4	REE Recovery from End-of-Life NdFeB Permanent Magnet Scrap: A Critical Review. Journal of Sustainable Metallurgy, 2017, 3, 122-149.	1.1	365
5	Hydrogen sorption properties of MgH2â€“LiBH4 composites. Acta Materialia, 2007, 55, 3951-3958.	3.8	350
6	The 2017 Magnetism Roadmap. Journal Physics D: Applied Physics, 2017, 50, 363001.	1.3	279
7	A quantitative criterion for determining the order of magnetic phase transitions using the magnetocaloric effect. Nature Communications, 2018, 9, 2680.	5.8	273
8	Controlling the properties of high energy density permanent magnetic materials by different processing routes. Journal Physics D: Applied Physics, 2000, 33, R157-R172.	1.3	264
9	Novel Design of La(Fe,Si)₁₃ Alloys Towards High Magnetic Refrigeration Performance. Advanced Materials, 2010, 22, 3735-3739.	11.1	264
10	Mastering hysteresis in magnetocaloric materials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150308.	1.6	210
11	Evolution of magnetic domain structures and coercivity in high-performance SmCo 2:17-type permanent magnets. Acta Materialia, 2006, 54, 997-1008.	3.8	200
12	Understanding the microstructure and coercivity of high performance NdFeB-based magnets. Scripta Materialia, 2012, 67, 536-541.	2.6	192
13	Large reversible magnetocaloric effect in Ni-Mn-In-Co. Applied Physics Letters, 2015, 106, .	1.5	181
14	Systematic study of the microstructure, entropy change and adiabatic temperature change in optimized Laâ€“Feâ€“Si alloys. Acta Materialia, 2011, 59, 3602-3611.	3.8	177
15	Hydrogen storage in different carbon nanostructures. Applied Physics Letters, 2002, 80, 2985-2987.	1.5	171
16	Large magnetocaloric effect in melt-spun LaFe13â^'xSix. Journal of Applied Physics, 2005, 97, 10M305.	1.1	170
17	A multicaloric cooling cycle that exploits thermal hysteresis. Nature Materials, 2018, 17, 929-934.	13.3	158
18	Exploring La(Fe,Si)13-based magnetic refrigerants towards application. Scripta Materialia, 2012, 67, 584-589.	2.6	157

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19	Confinement of NaAlH₄in Nanoporous Carbon: Impact on H₂Release, Reversibility, and Thermodynamics. Journal of Physical Chemistry C, 2010, 114, 4675-4682.	1.5	156
20	Multiple Metamagnetic Transitions in the Magnetic Refrigerant<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>La</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>Fe</mml:mi><mml:mo>,</mml:mo><mml:mi>Si</mml:mi><mml:msub><mml:mo mathvariant="normal">H</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:math>. Physical Review Letters, 2008, 101, 177203.	2.9	155
21	Heavy rare earth free, free rare earth and rare earth free magnets - Vision and reality. Scripta Materialia, 2018, 154, 289-294.	2.6	149
22	Influence of annealing on magnetic field-induced structural transformation and magnetocaloric effect in Niâ€“Mnâ€“Inâ€“Co ribbons. Acta Materialia, 2009, 57, 4911-4920.	3.8	146
23	High performance hard magnetic NdFeB thick films for integration into micro-electro-mechanical systems. Applied Physics Letters, 2007, 90, 092509.	1.5	145
24	Giant adiabatic temperature change in FeRh alloys evidenced by direct measurements under cyclic conditions. Acta Materialia, 2016, 106, 15-21.	3.8	145
25	Making a Cool Choice: The Materials Library of Magnetic Refrigeration. Advanced Energy Materials, 2019, 9, 1901322.	10.2	140
26	Temperature-dependent Dy diffusion processes in Ndâ€“Feâ€“B permanent magnets. Acta Materialia, 2015, 83, 248-255.	3.8	139
27	Correlation of microchemistry of cell boundary phase and interface structure to the coercivity of Sm(Co0.784Fe0.100Cu0.088Zr0.028)7.19 sintered magnets. Acta Materialia, 2017, 126, 1-10.	3.8	129
28	Effects of hydrostatic pressure on the magnetism and martensitic transition of Niâ€“Mnâ€“In magnetic superelastic alloys. Applied Physics Letters, 2008, 92, .	1.5	126
29	FePt Hard Magnets. Advanced Engineering Materials, 2005, 7, 208-212.	1.6	120
30	Hysteresis and magnetocaloric effect at the magnetostructural phase transition of Ni-Mn-Ga and Ni-Mn-Co-Sn Heusler alloys. Physical Review B, 2012, 85, .	1.1	119
31	Textured polymer bonded composites with Niâ€“Mnâ€“Ga magnetic shape memory particles. Acta Materialia, 2007, 55, 2707-2713.	3.8	114
32	Contradictory role of the magnetic contribution in inverse magnetocaloric Heusler materials. Physical Review B, 2016, 93, .	1.1	112
33	Atomic structure and domain wall pinning in samarium-cobalt-based permanent magnets. Nature Communications, 2017, 8, 54.	5.8	112
34	Selective laser melting of La(Fe,Co,Si)13 geometries for magnetic refrigeration. Journal of Applied Physics, 2013, 114, .	1.1	111
35	Grain boundary diffusion of different rare earth elements in Nd-Fe-B sintered magnets by experiment and FEM simulation. Acta Materialia, 2017, 124, 421-429.	3.8	111
36	The role of local anisotropy profiles at grain boundaries on the coercivity of Nd2Fe14B magnets. Applied Physics Letters, 2010, 97, .	1.5	108

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37	Systematic investigation of Mn substituted La(Fe,Si)13 alloys and their hydrides for room-temperature magnetocaloric application. Journal of Alloys and Compounds, 2014, 598, 27-32.	2.8	107
38	Magnetic entropy change in melt-spun MnFePGe (invited). Journal of Applied Physics, 2006, 99, 08K903.	1.1	105
39	Magnetocaloric effect in LaFe11.8â^'xCoxSi1.2 melt-spun ribbons. Journal of Alloys and Compounds, 2008, 450, 18-21.	2.8	103
40	Reversibility of magnetostructural transition and associated magnetocaloric effect in Niâ€“Mnâ€“Inâ€“Co. Applied Physics Letters, 2008, 93, .	1.5	99
41	Peculiarities of the magnetocaloric properties in Ni-Mn-Sn ferromagnetic shape memory alloys. Physical Review B, 2010, 81, .	1.1	96
42	In situ pressure and temperature monitoring during the conversion of Mg into MgH2 by high-pressure reactive ball milling. Journal of Alloys and Compounds, 2007, 427, 204-208.	2.8	93
43	Desorption characteristics of rare earth (R) hydrides (R=Y, Ce, Pr, Nd, Sm, Gd and Tb) in relation to the HDDR behaviour of Râ€“Fe-based-compounds. Journal of Alloys and Compounds, 1997, 253-254, 128-133.	2.8	92
44	Microstructural and magnetic properties of Mn-Fe-P-Si (Fe2 P-type) magnetocaloric compounds. Acta Materialia, 2017, 132, 222-229.	3.8	92
45	Towards high-performance permanent magnets without rare earths. Journal of Physics Condensed Matter, 2014, 26, 064205.	0.7	91
46	Synthesis and decomposition of Mg2FeH6 prepared by reactive milling. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 108, 28-32.	1.7	87
47	Fundamental and practical aspects of the hydrogenation, disproportionation, desorption and recombination process. Journal Physics D: Applied Physics, 1996, 29, 2255-2265.	1.3	86
48	La(Fe,Si)13-based magnetic refrigerants obtained by novel processing routes. Journal of Magnetism and Magnetic Materials, 2008, 320, 2252-2258.	1.0	84
49	Epoxy-bonded Laâ€“Feâ€“Coâ€“Si magnetocaloric plates. Journal of Magnetism and Magnetic Materials, 2015, 375, 65-73.	1.0	82
50	On the S(T) diagram of magnetocaloric materials with first-order transition: Kinetic and cyclic effects of Heusler alloys. Acta Materialia, 2016, 107, 1-8.	3.8	82
51	Magnetic field dependence of the maximum magnetic entropy change. Physical Review B, 2011, 83, .	1.1	81
52	Evolution of interaction domains in textured fine-grained Nd2Fe14B magnets. Journal of Applied Physics, 2007, 102, .	1.1	80
53	Identification and recovery of rare-earth permanent magnets from waste electrical and electronic equipment. Waste Management, 2017, 68, 482-489.	3.7	80
54	Impact of different Nd-rich crystal-phases on the coercivity of Ndâ€“Feâ€“B grain ensembles. Scripta Materialia, 2014, 70, 35-38.	2.6	79

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55	Hysteresis Design of Magnetocaloric Materialsâ€"From Basic Mechanisms to Applications. Energy Technology, 2018, 6, 1397-1428.	1.8	79
56	The study of magnetocaloric effect in R2Fe17(R = Y, Pr) alloys. Journal Physics D: Applied Physics, 2004, 37, 2628-2631.	1.3	78
57	Comprehensive Study of Melt Infiltration for the Synthesis of NaAlH4/C Nanocomposites. Chemistry of Materials, 2010, 22, 2233-2238.	3.2	78
58	Element-Resolved Thermodynamics of Magnetocaloric<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>LaFe</mml:mi><mml:mrow><mml:mn>13</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml Physical Review Letters, 2015, 114, 057202.	2.9	78
59	The effect of the thermal decomposition reaction on the mechanical and magnetocaloric properties of La(Fe,Si,Co)13. Acta Materialia, 2012, 60, 4268-4276.	3.8	76
60	The influence of Co and Ga additions on the corrosion behavior of nanocrystalline NdFeB magnets. Corrosion Science, 2002, 44, 1857-1874.	3.0	75
61	Structure and magnetic entropy change of melt-spun LaFe11.57Si1.43 ribbons. Journal of Applied Physics, 2005, 97, 036102.	1.1	75
62	Direct evidence for Cu concentration variation and its correlation to coercivity in Sm(Co0.74Fe0.1Cu0.12Zr.04)7.4 ribbons. Scripta Materialia, 2009, 60, 764-767.	2.6	75
63	Magnetocrystalline anisotropy in L10FePt and exchange coupling in FePt/Fe3Pt nanocomposites. Journal of Physics Condensed Matter, 2005, 17, 4157-4170.	0.7	74
64	Large magnetostrain in polycrystalline Niâ€"Mnâ€"Inâ€"Co. Applied Physics Letters, 2009, 95, .	1.5	74
65	First-principles calculation of the instability leading to giant inverse magnetocaloric effects. Physical Review B, 2014, 89, .	1.1	73
66	On the preparation of La(Fe,Mn,Si)13H polymer-composites with optimized magnetocaloric properties. Journal of Magnetism and Magnetic Materials, 2015, 396, 228-236.	1.0	73
67	Grain boundary diffusion in nanocrystalline Nd-Fe-B permanent magnets with low-melting eutectics. Acta Materialia, 2016, 115, 354-363.	3.8	73
68	Fast development of high coercivity in melt-spun Sm(Co,Fe,Cu,Zr)z magnets. Applied Physics Letters, 2002, 80, 1243-1245.	1.5	72
69	Reversibility and irreversibility of magnetocaloric effect in a metamagnetic shape memory alloy under cyclic action of a magnetic field. Applied Physics Letters, 2010, 97, 052503.	1.5	71
70	High-performance solid-state cooling materials: Balancing magnetocaloric and non-magnetic properties in dual phase La-Fe-Si. Acta Materialia, 2017, 125, 506-512.	3.8	71
71	Memory of texture during HDDR processing of NdFeB. IEEE Transactions on Magnetics, 2003, 39, 2926-2931.	1.2	70
72	Influence of thermal hysteresis and field cycling on the magnetocaloric effect in LaFe11.6Si1.4. Journal of Alloys and Compounds, 2013, 552, 310-317.	2.8	70

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73	Production and properties of metal-bonded La(Fe,Mn,Si)13H composite material. Acta Materialia, 2017, 127, 389-399.	3.8	70
74	Nanocrystalline high performance permanent magnets. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1277-1283.	1.0	69
75	Ultrastrong and Ductile Soft Magnetic Highâ€Entropy Alloys via Coherent Ordered Nanoprecipitates. Advanced Materials, 2021, 33, e2102139.	11.1	69
76	Absence of magnetic domain wall motion during magnetic field induced twin boundary motion in bulk magnetic shape memory alloys. Applied Physics Letters, 2007, 90, 192504.	1.5	68
77	Dynamical Effects of the Martensitic Transition in Magnetocaloric Heusler Alloys from Direct<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="normal">Î”</mml:mi><mml:msub><mml:mi>T</mml:mi><mml:mi>ad</mml:mi></mml:msub></mml:math>Measurements under Different Magnetic-Field-Sweep Rates. Physical Review Applied, 2016, 5, .	1.5	68
78	Characterisation of solid-HDDR processed Nd16Fe76B8 alloys by means of electron microscopy. Journal of Magnetism and Magnetic Materials, 1995, 147, 320-330.	1.0	67
79	Magnetic field-induced twin boundary motion in polycrystalline Niâ€“Mnâ€“Ga fibres. New Journal of Physics, 2008, 10, 073002.	1.2	67
80	Multi-phase EBSD mapping and local texture analysis in NdFeB sintered magnets. Acta Materialia, 2011, 59, 1026-1036.	3.8	67
81	Al₃Li₄(BH₄)₁₃: A Complex Doubleâ€Cation Borohydride with a New Structure. Chemistry - A European Journal, 2010, 16, 8707-8712.	1.7	66
82	Heat exchangers made of polymer-bonded La(Fe,Si)13. Journal of Applied Physics, 2014, 115, .	1.1	66
83	HRTEM studies of grain boundaries in die-upset Ndâ€“Feâ€“Coâ€“Gaâ€“B magnets. Journal of Alloys and Compounds, 2004, 365, 286-290.	2.8	65
84	Atomic-scale features of phase boundaries in hot deformed Ndâ€“Feâ€“Coâ€“Bâ€“Ga magnets infiltrated with a Ndâ€“Cu eutectic liquid. Acta Materialia, 2014, 77, 111-124.	3.8	65
85	Microstructure and magnetic properties of Mnâ€“Alâ€“C alloy powders prepared by ball milling. Journal of Alloys and Compounds, 2015, 622, 524-528.	2.8	65
86	Tailoring magnetocaloric effect in all-d-metal Ni-Co-Mn-Ti Heusler alloys: a combined experimental and theoretical study. Acta Materialia, 2020, 201, 425-434.	3.8	65
87	Recycling Used Ndâ€Feâ€B Sintered Magnets via a Hydrogenâ€Based Route to Produce Anisotropic, Resin Bonded Magnets. Advanced Energy Materials, 2013, 3, 151-155.	10.2	63
88	Manipulation of matter by electric and magnetic fields: Toward novel synthesis and processing routes of inorganic materials. Materials Today, 2018, 21, 527-536.	8.3	63
89	Influence of defect thickness on the angular dependence of coercivity in rare-earth permanent magnets. Applied Physics Letters, 2014, 104, .	1.5	62
90	Magnetic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:msub><mml:mi>Fe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">B</mml:mi></mml:mrow></mml:math>alloys and the effect of doping by<mml:math xmlns:mml="http://www.w3.org/1998/Mat. Physical Review B, 2015, 92, .	1.1	62

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91	Assessment of the magnetocaloric effect in La,Pr(Fe,Si) under cycling. Journal of Magnetism and Magnetic Materials, 2016, 406, 259-265.	1.0	62
92	Microchemistry and magnetization reversal mechanism in melt-spun 2:17-type Sm-Co magnets. Applied Physics Letters, 2003, 83, 2208-2210.	1.5	60
93	Microstructure, microchemistry, and magnetic properties of melt-spun Sm(Co,Fe,Cu,Zr)z magnets. Journal of Applied Physics, 2003, 93, 7975-7977.	1.1	60
94	Magnetocaloric effect of gadolinium in high magnetic fields. Physical Review B, 2019, 99, .	1.1	60
95	Martensitic transformation and magnetic properties in Niâ€“Feâ€“Gaâ€“Co magnetic shape memory alloys. Acta Materialia, 2008, 56, 3177-3186.	3.8	59
96	Effect of Transition Metal Fluorides on the Sorption Properties and Reversible Formation of Ca(BH₄)₂. Journal of Physical Chemistry C, 2011, 115, 2497-2504.	1.5	58
97	A new type of La(Fe,Si)13-based magnetocaloric composite with amorphous metallic matrix. Scripta Materialia, 2015, 95, 50-53.	2.6	57
98	La(Fe,Si)13-based magnetic refrigerants obtained by novel processing routes. Journal of Magnetism and Magnetic Materials, 2009, 321, 3571-3577.	1.0	55
99	A Matter of Size and Stress: Understanding the Firstâ€Order Transition in Materials for Solidâ€State Refrigeration. Advanced Functional Materials, 2017, 27, 1606735.	7.8	55
100	Texture in a ternary Nd16.2Fe78.2B5.6 powder using a modified hydrogenationâ€“disproportionationâ€“desorptionâ€“recombination process. Journal of Magnetism and Magnetic Materials, 2000, 210, 5-9.	1.0	54
101	Determination of the Heat of Hydride Formation/Decomposition by High-Pressure Differential Scanning Calorimetry (HP-DSC). Journal of Physical Chemistry B, 2007, 111, 13301-13306.	1.2	54
102	Evaluation of the reliability of the measurement of key magnetocaloric properties: A round robin study of La(Fe,Si,Mn)Hî conducted by the SSEEC consortium of European laboratories. International Journal of Refrigeration, 2012, 35, 1528-1536.	1.8	54
103	Asymmetric first-order transition and interlocked particle state in magnetocaloric La(Fe,Si)₁₃. Physica Status Solidi - Rapid Research Letters, 2015, 9, 136-140.	1.2	54
104	Magnetostructural transition and adiabatic temperature change in Mnâ€“Coâ€“Ge magnetic refrigerants. Scripta Materialia, 2012, 66, 642-645.	2.6	53
105	Experimental and computational analysis of magnetization reversal in (Nd,Dy)-Fe-B core shell sintered magnets. Acta Materialia, 2017, 127, 498-504.	3.8	53
106	Critical raw materials â€“ Advanced recycling technologies and processes: Recycling of rare earth metals out of end of life magnets by bioleaching with various bacteria as an example of an intelligent recycling strategy. Minerals Engineering, 2019, 134, 104-117.	1.8	53
107	Resistivity measurements on hydrogenation disproportionation desorption recombination phenomena in Ndî—¸Feî—¸B alloys with Co, Ga and Zr additions. Journal of Alloys and Compounds, 1997, 260, 284-291.	2.8	52
108	Magnetostructural transformation in Niâ€“Mnâ€“Inâ€“Co ribbons. Applied Physics Letters, 2008, 92, 162509.	1.5	52

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109	Magnetic Shape Memory Phenomena. , 2009, , 399-439.		51
110	Near net shape production of radially oriented NdFeB ring magnets by backward extrusion. Journal of Materials Processing Technology, 2003, 135, 358-365.	3.1	50
111	Magnetocaloric materials with first-order phase transition: thermal and magnetic hysteresis in LaFe11.8Si1.2 and Ni2.21Mn0.77Ga1.02 (invited). Journal of Applied Physics, 2012, 111, .	1.1	50
112	Magnetocaloric materials for refrigeration near room temperature. MRS Bulletin, 2018, 43, 269-273.	1.7	50
113	Constrained crystals deep convolutional generative adversarial network for the inverse design of crystal structures. Npj Computational Materials, 2021, 7, .	3.5	50
114	Phase transformations during the disproportionation stage in the solid HDDR process in a Nd16Fe76B8 alloy. Journal of Alloys and Compounds, 1994, 215, 227-233.	2.8	49
115	Corrosion studies on highly textured Ndâ€“Feâ€“B sintered magnets. Journal of Alloys and Compounds, 2006, 415, 111-120.	2.8	49
116	Mechanism of the texture development in hydrogen-disproportionationâ€“desorption-recombination (HDDR) processed Ndâ€“Feâ€“B powders. Acta Materialia, 2015, 85, 42-52.	3.8	49
117	Constraint-dependent twin variant distribution in Ni2MnGa single crystal, polycrystals and thin film: An EBSD study. Acta Materialia, 2010, 58, 4629-4638.	3.8	47
118	Enhancement of coercivity and saturation magnetization of Al3+ substituted M-type Sr-hexaferrites. Journal of Alloys and Compounds, 2017, 690, 979-985.	2.8	47
119	Local texture in Ndâ€“Feâ€“B sintered magnets with maximised energy density. Journal of Alloys and Compounds, 2004, 365, 259-265.	2.8	46
120	Large entropy change, adiabatic temperature change, and small hysteresis in La(Fe,Mn)11.6Si1.4 strip-cast flakes. Journal of Magnetism and Magnetic Materials, 2015, 377, 90-94.	1.0	46
121	Improved hot workability and magnetic properties in NdFeCoGaB hot deformed magnets. IEEE Transactions on Magnetics, 2000, 36, 3288-3290.	1.2	45
122	Thermodynamics of Feâ€“Sm, Feâ€“H, and Hâ€“Sm systems and its application to the hydrogenâ€“disproportionationâ€“desorptionâ€“recombination (HDDR) process for the system Fe17Sm2â€“H2. Journal of Alloys and Compounds, 2002, 339, 118-139.	2.8	45
123	Magnetocaloric effect in reactively-milled LaFe11.57Si1.43Hy intermetallic compounds. Journal of Applied Physics, 2007, 102, 053906.	1.1	45
124	Comparison of local and global texture in HDDR processed Ndâ€“Feâ€“B magnets. Acta Materialia, 2011, 59, 2029-2034.	3.8	45
125	A Comparative Study on the Magnetocaloric Properties of Niâ€Mnâ€X(â€Co) Heusler Alloys. Physica Status Solidi (B): Basic Research, 2018, 255, 1700331.	0.7	45
126	The role of Ni in modifying the order of the phase transition of La(Fe,Ni,Si)13. Acta Materialia, 2018, 160, 137-146.	3.8	45

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127	Tunable first order transition in La(Fe,Cr,Si)13 compounds: Retaining magnetocaloric response despite a magnetic moment reduction. Acta Materialia, 2019, 175, 406-414.	3.8	45
128	Hydrogenation disproportionation desorption recombination in Smâ€“Co alloys by means of reactive milling. Applied Physics Letters, 1998, 73, 3001-3003.	1.5	44
129	Texture memory effect of Ndâ€“Feâ€“B during hydrogen treatment. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1282-1285.	1.0	44
130	Influence of composition and order on the magnetism of Feâ€“Pt alloys: Neutron powder diffraction and theory. Applied Physics Letters, 2006, 89, 032506.	1.5	44
131	Structural, magnetic, and mechanical properties of 5Î¼m thick SmCo films suitable for use in microelectromechanical systems. Journal of Applied Physics, 2008, 103, .	1.1	44
132	Large reversible magnetocaloric effect in RNi compounds. Journal Physics D: Applied Physics, 2008, 41, 245006.	1.3	44
133	Reversible solid-state hydrogen-pump driven by magnetostructural transformation in the prototype system La(Fe,Si)13Hy. Journal of Applied Physics, 2012, 112, .	1.1	44
134	Impact of lattice dynamics on the phase stability of metamagnetic FeRh: Bulk and thin films. Physical Review B, 2016, 94, .	1.1	44
135	Interaction domains in high-performance NdFeB thick films. Scripta Materialia, 2009, 60, 826-829.	2.6	43
136	Experimental Evidence of Ca[B12H12] Formation During Decomposition of a Ca(BH4)2 + MgH2 Based Reactive Hydride Composite. Journal of Physical Chemistry C, 2011, 115, 18010-18014.	1.5	43
137	High-performance nanocrystalline PrFeB-based magnets produced by intensive milling. Journal of Applied Physics, 2002, 91, 8159.	1.1	42
138	High-coercivity Ndâ€“Feâ€“B thick films without heavy rare earth additions. Acta Materialia, 2013, 61, 4920-4927.	3.8	42
139	Effect of milling parameters on SmCo5 nanoflakes prepared by surfactant-assisted high energy ball milling. Journal of Applied Physics, 2013, 113, .	1.1	42
140	Multiferroic Clusters: A New Perspective for Relaxorâ€Type Roomâ€Temperature Multiferroics. Advanced Functional Materials, 2016, 26, 2111-2121.	7.8	42
141	Reversibility of minor hysteresis loops in magnetocaloric Heusler alloys. Applied Physics Letters, 2017, 110, .	1.5	42
142	Grain growth effects on the corrosion behavior of nanocrystalline NdFeB magnets. Corrosion Science, 2002, 44, 1097-1112.	3.0	41
143	Effect of additives on the synthesis and reversibility of Ca(BH4)2. Journal of Alloys and Compounds, 2010, 493, 281-287.	2.8	41
144	Effect of carbon on magnetocaloric effect of LaFe11.6Si1.4 compounds and on the thermal stability of its hydrides. Journal of Applied Physics, 2012, 111, .	1.1	41

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145	In situ magnetic force microscope studies of magnetization reversal of interaction domains in hot deformed Nd-Fe-B magnets. Journal of Applied Physics, 2012, 111, .	1.1	41
146	Database of novel magnetic materials for high-performance permanent magnet development. Computational Materials Science, 2019, 168, 188-202.	1.4	41
147	A comparison of the magnetic properties and deformation behaviour of Nd-Fe-B magnets made from melt-spun, mechanically alloyed and HDDR powders. Journal Physics D: Applied Physics, 1998, 31, 1660-1666.	1.3	39
148	Fully dense MgB2 superconductor textured by hot deformation. Journal of Alloys and Compounds, 2001, 329, 285-289.	2.8	39
149	Hydrogen sorption properties of Mgâ€“1 wt.% Niâ€“0.2 wt.% Pd prepared by reactive milling. Journal of Alloys and Compounds, 2005, 404-406, 413-416.	2.8	39
150	Magnetic field dependence of the maximum adiabatic temperature change. Applied Physics Letters, 2011, 99, .	1.5	39
151	Electrical and magnetic properties of hot-deformed Nd-Fe-B magnets with different DyF3 additions. Journal of Applied Physics, 2013, 114, .	1.1	39
152	The Resource Basis of Magnetic Refrigeration. Journal of Industrial Ecology, 2017, 21, 1291-1300.	2.8	39
153	Texture inducement during HDDR processing of NdFeB. IEEE Transactions on Magnetics, 2002, 38, 2958-2960.	1.2	38
154	NiMnâ€Based Alloys and Composites for Magnetically Controlled Dampers and Actuators. Advanced Engineering Materials, 2012, 14, 653-667.	1.6	38
155	Predicting the tricritical point composition of a series of LaFeSi magnetocaloric alloys via universal scaling. Journal Physics D: Applied Physics, 2017, 50, 414004.	1.3	38
156	Synthesis, morphology, thermal stability and magnetic properties of Î±â€³-Fe16N2 nanoparticles obtained by hydrogen reduction of Î³-Fe2O3 and subsequent nitrogenation. Acta Materialia, 2017, 123, 214-222.	3.8	38
157	Hydrogenation properties of nanocrystalline Mg- and Mg2Ni-based compounds modified with platinum group metals (PGMs). Journal of Alloys and Compounds, 2003, 356-357, 598-602.	2.8	37
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