

Oliver Gutfleisch

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

482
papers

16,971
citations

62
h-index

109
g-index

512
ext. papers

19,418
ext. citations

4.6
avg, IF

6.78
L-index

#	Paper	IF	Citations
482	Textured (Ce,La,Y)FeB permanent magnets by hot deformation. <i>Journal of Materials Research and Technology</i> , 2022 , 17, 1459-1468	5.5	2
481	Angular dependence of saturation magnetization in single crystals with uniaxial magnetic anisotropy. <i>Journal of Magnetism and Magnetic Materials</i> , 2022 , 547, 168947	2.8	
480	Simultaneous Multi-Property Probing During Magneto-Structural Phase Transitions: An Element-Specific and Macroscopic Hysteresis Characterization at ID12 of the ESRF. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022 , 71, 1-9	5.2	
479	Chemical long range ordering in all-d-metal Heusler alloys. <i>Journal of Applied Physics</i> , 2022 , 131, 073903	2.5	0
478	Formation of pure τ -phase in MnAl by fast annealing using spark plasma sintering. <i>Journal of Materials Science</i> , 2022 , 57, 6056-6065	4.3	1
477	On the β -Phase Transformation and Twinning in L10-MnAl alloys. <i>Acta Materialia</i> , 2022 , 117892	8.4	2
476	Effect of size and disorder on martensitic phase transition and thermal hysteresis in milled Ni-Mn-In-Co microparticles. <i>Journal of Alloys and Compounds</i> , 2022 , 906, 164377	5.7	1
475	Self-diffusion behaviour and microstructure of ultrafine-grained Nd ₂ Fe ₁₄ B with intergranular melting transition. <i>International Journal of Materials Research</i> , 2022 , 95, 895-903	0.5	
474	Microstructure, coercivity and thermal stability of nanostructured (Nd,Ce)-(Fe,Co)-B hot-compacted permanent magnets. <i>Acta Materialia</i> , 2022 , 235, 118062	8.4	1
473	Phase-field modeling of paramagnetic austenite - ferromagnetic martensite transformation coupled with mechanics and micromagnetics. <i>International Journal of Solids and Structures</i> , 2021 , 238, 111365	3.1	2
472	Maximum performance of an active magnetic regenerator. <i>Applied Physics Letters</i> , 2021 , 119, 203901	3.4	1
471	Permanent Magnet Materials and Applications 2021 , 1369-1433		
470	Microstructure engineering of metamagnetic Ni-Mn-based Heusler compounds by Fe-doping: A roadmap towards excellent cyclic stability combined with large elastocaloric and magnetocaloric effects. <i>Acta Materialia</i> , 2021 , 221, 117390	8.4	5
469	Alloying effect on the order-disorder transformation in tetragonal FeNi. <i>Scientific Reports</i> , 2021 , 11, 5252	3.9	2
468	The impact of Pr and Nd substitution on structure, hysteresis and magnetocaloric properties of La _{1-x} (Pr,Nd) _x Fe _{11.6} Si _{1.4} . <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 225001	3	2
467	Neutron study of magnetic correlations in rare-earth-free Mn-Bi magnets. <i>Physical Review Materials</i> , 2021 , 5,	3.2	1
466	Constrained crystals deep convolutional generative adversarial network for the inverse design of crystal structures. <i>Npj Computational Materials</i> , 2021 , 7,	10.9	11

465	Correlating changes of the unit cell parameters and microstructure with magnetic properties in the CeFe ₁₁ Ti compound. <i>Journal of Alloys and Compounds</i> , 2021 , 867, 158805	5.7	1
464	Magnetic properties and microstructure of Sm ₅ Fe ₁₇ -based composite magnets. <i>Acta Materialia</i> , 2021 , 212, 116912	8.4	1
463	Design and Qualification of Pr ₈ Fe ₁₀ Cu ₂ B Alloys for the Additive Manufacturing of Permanent Magnets. <i>Advanced Functional Materials</i> , 2021 , 31, 2102148	15.6	5
462	Multifunctional antiperovskites driven by strong magnetostructural coupling. <i>Npj Computational Materials</i> , 2021 , 7,	10.9	3
461	Large magnetic entropy change in Nd ₂ In near the boiling temperature of natural gas. <i>Applied Physics Letters</i> , 2021 , 119, 022408	3.4	4
460	Synthesis and magnetic properties of bulk $\text{Fe}_{16}\text{N}_2/\text{SrAl}_2\text{Fe}_{10}\text{O}_{19}$ composite magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2021 , 518, 167414	2.8	2
459	A two-sublattice model for extracting rare-earth anisotropy constants from measurements on (Nd,Ce) ₂ (Fe,Co) ₁₄ B single crystals. <i>Journal of Magnetism and Magnetic Materials</i> , 2021 , 520, 167470	2.8	1
458	Permanent Magnet Materials 2021 , 1-65		
457	Combined kinetic and Bean-Rodbell approach for describing field-induced transitions in LaFe _{11.6} Si _{1.4} alloys. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 135003	3	2
456	Intrinsically weak magnetic anisotropy of cerium in potential hard-magnetic intermetallics. <i>Npj Quantum Materials</i> , 2021 , 6,	5	3
455	An accelerating approach of designing ferromagnetic materials via machine learning modeling of magnetic ground state and Curie temperature. <i>Materials Research Letters</i> , 2021 , 9, 169-174	7.4	10
454	Designing of magnetic MAB phases for energy applications. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 8805-8813	13	3
453	Twins Δ A weak link in the magnetic hardening of ThMn ₁₂ -type permanent magnets. <i>Acta Materialia</i> , 2021 , 214, 116968	8.4	11
452	Upscaling the 2-Powder Method for the Manufacturing of Heavy Rare-Earth-Lean Sintered didymium-Based Magnets. <i>Advanced Engineering Materials</i> , 2021 , 23, 2100459	3.5	3
451	Multifunctional Ni-Mn-Ga and Ni-Mn-Cu-Ga Heusler particles towards the nanoscale by ball-milling technique. <i>Journal of Alloys and Compounds</i> , 2021 , 872, 159747	5.7	5
450	Ultrastrong and Ductile Soft Magnetic High-Entropy Alloys via Coherent Ordered Nanoprecipitates. <i>Advanced Materials</i> , 2021 , 33, e2102139	24	18
449	Electric-field manipulation of the magnetocaloric effect in a Fe ₄₉ Rh ₅₁ /PZT composite. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 505002	3	
448	Magnetocaloric effect in the Laves-phase Ho _{1-x} Dy _x Al ₂ family in high magnetic fields. <i>Physical Review Materials</i> , 2021 , 5,	3.2	2

447	Influence of microstructure on the application of Ni-Mn-In Heusler compounds for multicaloric cooling using magnetic field and uniaxial stress. <i>Acta Materialia</i> , 2021 , 217, 117157	8.4	2
446	Influence of martensitic configuration on hysteretic properties of Heusler films studied by advanced imaging in magnetic field and temperature. <i>Acta Materialia</i> , 2021 , 117356	8.4	0
445	Magnetoelectric Tuning of Pinning-Type Permanent Magnets through Atomic-Scale Engineering of Grain Boundaries. <i>Advanced Materials</i> , 2021 , 33, e2006853	24	6
444	Advanced characterization of multicaloric materials in pulsed magnetic fields. <i>Journal of Applied Physics</i> , 2020 , 127, 185107	2.5	13
443	Accelerated crystallization and phase formation in Fe ₄₀ Ni ₄₀ B ₂₀ by electric current assisted annealing technique. <i>Journal of Alloys and Compounds</i> , 2020 , 836, 155338	5.7	4
442	Magnetocaloric effect in GdNi ₂ for cryogenic gas liquefaction studied in magnetic fields up to 50 T. <i>Journal of Applied Physics</i> , 2020 , 127, 233906	2.5	10
441	Pressure Dependence of Magnetic Properties in La(Fe,Si) ₁₃ : Multistimulus Responsiveness of Caloric Effects by Modeling and Experiment. <i>Physical Review Applied</i> , 2020 , 13,	4.3	14
440	Exchange stiffness of ferromagnets. <i>European Physical Journal Plus</i> , 2020 , 135, 1	3.1	3
439	Dynamic unidirectional anisotropy in cubic FeGe with antisymmetric spin-spin-coupling. <i>Scientific Reports</i> , 2020 , 10, 2861	4.9	0
438	Influence of hydrogenation on the vibrational density of states of magnetocaloric LaFe _{11.4} Si _{1.6} H _{1.6} . <i>Physical Review B</i> , 2020 , 101,	3.3	8
437	Magnetic Refrigeration with Recycled Permanent Magnets and Free Rare-Earth Magnetocaloric La-Fe-Si. <i>Energy Technology</i> , 2020 , 8, 1901025	3.5	7
436	Unveiling the mechanism of abnormal magnetic behavior of FeNiCoMnCu high-entropy alloys through a joint experimental-theoretical study. <i>Physical Review Materials</i> , 2020 , 4,	3.2	11
435	Grain boundary segregation, phase formation, and their influence on the coercivity of rapidly solidified SmFe ₁₁ Ti hard magnetic alloys. <i>Physical Review Materials</i> , 2020 , 4,	3.2	3
434	L10 rare-earth-free permanent magnets: The effects of twinning versus dislocations in Mn-Al magnets. <i>Physical Review Materials</i> , 2020 , 4,	3.2	13
433	Influence of the martensitic transformation kinetics on the magnetocaloric effect in Ni-Mn-In. <i>Physical Review Materials</i> , 2020 , 4,	3.2	2
432	Effect of N, C, and B interstitials on the structural and magnetic properties of alloys with Cu ₃ Au structure. <i>Physical Review Research</i> , 2020 , 2,	3.9	1
431	Designing rare-earth free permanent magnets in heusler alloys via interstitial doping. <i>Acta Materialia</i> , 2020 , 186, 355-362	8.4	9
430	Low-temperature synthesis of nanoscale ferromagnetic ϵ -MnB. <i>Dalton Transactions</i> , 2020 , 49, 131-135	4.3	2

429	Anisotropic exchange in NdFeB permanent magnets. <i>Materials Research Letters</i> , 2020 , 8, 89-96	7.4	9
428	Calculating the magnetocaloric effect in second-order-type material by micromagnetic simulations: A case study on Co ₂ B. <i>Scripta Materialia</i> , 2020 , 177, 218-222	5.6	
427	Direct observation of paramagnetic spin fluctuations in LaFeSi. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 115802	1.8	1
426	Element-resolved study on the evolution of magnetic response in Fe _x N compounds. <i>Journal of Magnetism and Magnetic Materials</i> , 2020 , 498, 166219	2.8	0
425	Tailoring magnetocaloric effect in all-d-metal Ni-Co-Mn-Ti Heusler alloys: a combined experimental and theoretical study. <i>Acta Materialia</i> , 2020 , 201, 425-434	8.4	22
424	Nanocrystalline Sm-based 1:12 magnets. <i>Acta Materialia</i> , 2020 , 200, 652-658	8.4	10
423	Multicaloric effects in metamagnetic Heusler Ni-Mn-In under uniaxial stress and magnetic field. <i>Applied Physics Reviews</i> , 2020 , 7, 041406	17.3	14
422	Giant voltage-induced modification of magnetism in micron-scale ferromagnetic metals by hydrogen charging. <i>Nature Communications</i> , 2020 , 11, 4849	17.4	12
421	Production of Fe nanoparticles from Fe ₂ O ₃ by high-pressure hydrogen reduction. <i>Nanoscale Advances</i> , 2020 , 2, 4777-4784	5.1	5
420	Determination of the crystal field parameters in SmFe ₁₁ Ti. <i>Physical Review B</i> , 2020 , 102,	3.3	4
419	HDDR treatment of Ce-substituted Nd ₂ Fe ₁₄ B-based permanent magnet alloys - phase structure evolution, intergranular processes and magnetic property development. <i>Journal of Alloys and Compounds</i> , 2020 , 814, 152215	5.7	5
418	Experimental and computational analysis of binary Fe-Sn ferromagnetic compounds. <i>Acta Materialia</i> , 2019 , 180, 126-140	8.4	7
417	Rapid solidification of Nd _{1+x} Fe ₁₁ Ti compounds: Phase formation and magnetic properties. <i>Acta Materialia</i> , 2019 , 180, 15-23	8.4	13
416	Recyclable Phosphor Films: Three Water-Soluble Binder Systems Enabling the Recovery of Phosphor Powders in White LEDs. <i>Journal of Electronic Materials</i> , 2019 , 48, 2294-2300	1.9	5
415	Ce and La as substitutes for Nd in Nd ₂ Fe ₁₄ B-based melt-spun alloys and hot-deformed magnets: a comparison of structural and magnetic properties. <i>Journal of Magnetism and Magnetic Materials</i> , 2019 , 478, 198-205	2.8	13
414	Tuning the magnetocrystalline anisotropy of Fe ₃ Sn by alloying. <i>Physical Review B</i> , 2019 , 99,	3.3	12
413	Recyclable phosphor sheet based on polyvinyl alcohol for LED lighting using remote phosphor technology. <i>Materials Technology</i> , 2019 , 34, 178-183	2.1	2
412	Tunable first order transition in La(Fe,Cr,Si) ₁₃ compounds: Retaining magnetocaloric response despite a magnetic moment reduction. <i>Acta Materialia</i> , 2019 , 175, 406-414	8.4	31

411	Database of novel magnetic materials for high-performance permanent magnet development. <i>Computational Materials Science</i> , 2019 , 168, 188-202	3.2	21
410	Towards manufacturing of Nd-Fe-B magnets by continuous rotary swaging of cast alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 2019 , 490, 165405	2.8	4
409	Development of high coercivity anisotropic Nd-Fe-B/Fe nanocomposite powder using hydrogenation disproportionation desorption recombination process. <i>Acta Materialia</i> , 2019 , 175, 276-285	8.4	12
408	Structural and magnetic properties of Ce _{1-x} Sm _x Fe ₁₁ Ti _{1-y} V _y . <i>Acta Materialia</i> , 2019 , 172, 131-138	8.4	10
407	Magnetocaloric effect of gadolinium in high magnetic fields. <i>Physical Review B</i> , 2019 , 99,	3.3	31
406	Computational study on microstructure evolution and magnetic property of laser additively manufactured magnetic materials. <i>Computational Mechanics</i> , 2019 , 64, 917-935	4	6
405	Influence of severe plastic deformation on magnetocaloric effect of dysprosium. <i>Journal of Magnetism and Magnetic Materials</i> , 2019 , 479, 307-311	2.8	5
404	The quaternary system Sm-Fe-Mo-Al and the effect of Al substitution on magnetic and structural properties of its ThMn ₁₂ phase. <i>Journal of Alloys and Compounds</i> , 2019 , 770, 301-307	5.7	9
403	Electronic entropy change in Ni-doped FeRh. <i>Materials Today Physics</i> , 2019 , 9, 100129	8	5
402	Calculating temperature-dependent properties of Nd ₂ Fe ₁₄ B permanent magnets by atomistic spin model simulations. <i>Physical Review B</i> , 2019 , 99,	3.3	22
401	Making a Cool Choice: The Materials Library of Magnetic Refrigeration. <i>Advanced Energy Materials</i> , 2019 , 9, 1901322	21.8	68
400	Efficient Process for Li-Ion Battery Recycling via Electrohydraulic Fragmentation. <i>Materials Science Forum</i> , 2019 , 959, 74-78	0.4	6
399	Ab initio phase stabilities of Ce-based hard magnetic materials and comparison with experimental phase diagrams. <i>Physical Review Materials</i> , 2019 , 3,	3.2	9
398	Critical raw materials [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. <i>Minerals Engineering</i> , 2019 , 134, 104-117	4.9	25
397	High-Throughput Screening of Rare-Earth-Lean Intermetallic 1-13-X Compounds for Good Hard-Magnetic Properties. <i>Metals</i> , 2019 , 9, 1096	2.3	6
396	Anisotropy control in magnetic nanostructures through field-assisted chemical vapor deposition. <i>Nanoscale Advances</i> , 2019 , 1, 4290-4295	5.1	2
395	Dynamics of the magnetoelastic phase transition and adiabatic temperature change in Mn _{1.3} Fe _{0.7} P _{0.5} Si _{0.55} . <i>Journal of Magnetism and Magnetic Materials</i> , 2019 , 477, 287-291	2.8	8
394	Magnetic and magnetocaloric properties of the Co _{2-x} Mn _x B system by experiment and density functional theory. <i>Acta Materialia</i> , 2019 , 165, 270-277	8.4	7

393	Intrinsic magnetic properties of hydrided and non-hydrided Nd ₅ Fe ₁₇ single crystals. <i>Journal of Alloys and Compounds</i> , 2018 , 741, 1012-1020	5.7	6
392	Manipulation of matter by electric and magnetic fields: Toward novel synthesis and processing routes of inorganic materials. <i>Materials Today</i> , 2018 , 21, 527-536	21.8	46
391	Magnetocaloric materials for refrigeration near room temperature. <i>MRS Bulletin</i> , 2018 , 43, 269-273	3.2	31
390	Anisotropic local hardening in hot-deformed Nd-Fe-B permanent magnets. <i>Acta Materialia</i> , 2018 , 147, 176-183	8.4	11
389	Heavy rare earth free, free rare earth and rare earth free magnets - Vision and reality. <i>Scripta Materialia</i> , 2018 , 154, 289-294	5.6	96
388	Origin of field-induced discontinuous phase transitions in Nd ₂ Fe ₁₇ . <i>Physical Review B</i> , 2018 , 97,	3.3	3
387	Probing Structural and Magnetic Instabilities and Hysteresis in Heuslers by Density Functional Theory Calculations (Phys. Status Solidi B 2/2018). <i>Physica Status Solidi (B): Basic Research</i> , 2018 , 255, 1870108	1.3	1
386	Microstructural origin of hysteresis in Ni-Mn-In based magnetocaloric compounds. <i>Acta Materialia</i> , 2018 , 147, 342-349	8.4	23
385	In-situ magnetic force microscopy analysis of magnetization and demagnetization behavior in Al ₃ + substituted Sr-hexaferrite. <i>Acta Materialia</i> , 2018 , 146, 85-96	8.4	6
384	Consolidation of cobalt nanorods: A new route for rare-earth free nanostructured permanent magnets. <i>Acta Materialia</i> , 2018 , 145, 290-297	8.4	18
383	Plastically deformed Gd-X (X = Y, In, Zr, Ga, B) solid solutions for magnetocaloric regenerator of parallel plate geometry. <i>Journal of Alloys and Compounds</i> , 2018 , 754, 207-214	5.7	9
382	Moment-Volume Coupling in La(Fe _{1-x} Si _x) ₁₃ . <i>Physica Status Solidi (B): Basic Research</i> , 2018 , 255, 1700465	1.3	9
381	Towards an Alloy Recycling of NdFeB Permanent Magnets in a Circular Economy. <i>Journal of Sustainable Metallurgy</i> , 2018 , 4, 163-175	2.7	14
380	Probing Structural and Magnetic Instabilities and Hysteresis in Heuslers by Density Functional Theory Calculations. <i>Physica Status Solidi (B): Basic Research</i> , 2018 , 255, 1700296	1.3	7
379	Effects of severe plastic deformation on the magnetic properties of terbium. <i>AIP Advances</i> , 2018 , 8, 048103	10.3	9
378	Determining the vibrational entropy change in the giant magnetocaloric material LaFe _{11.6} Si _{1.4} by nuclear resonant inelastic x-ray scattering. <i>Physical Review B</i> , 2018 , 98,	3.3	8
377	Millisecond Dynamics of the Magnetocaloric Effect in a First- and Second-Order Phase Transition Material. <i>Energy Technology</i> , 2018 , 6, 1470-1477	3.5	2
376	A quantitative criterion for determining the order of magnetic phase transitions using the magnetocaloric effect. <i>Nature Communications</i> , 2018 , 9, 2680	17.4	144

375	Hysteresis Design of Magnetocaloric Materials From Basic Mechanisms to Applications. <i>Energy Technology</i> , 2018 , 6, 1397-1428	3.5	46
374	Magnetocaloric effect in cold rolled foils of Gd _{100-x} H (x = 0, 1, 3). <i>Journal of Magnetism and Magnetic Materials</i> , 2018 , 459, 46-48	2.8	9
373	A Comparative Study on the Magnetocaloric Properties of Ni-Mn-X(-Co) Heusler Alloys. <i>Physica Status Solidi (B): Basic Research</i> , 2018 , 255, 1700331	1.3	31
372	Advanced magnetic materials could drive next-generation energy technologies. <i>MRS Bulletin</i> , 2018 , 43, 918-919	3.2	1
371	Probing Glassiness in Heuslers via Density Functional Theory Calculations. <i>Springer Series in Materials Science</i> , 2018 , 153-182	0.9	1
370	A multicaloric cooling cycle that exploits thermal hysteresis. <i>Nature Materials</i> , 2018 , 17, 929-934	27	96
369	The role of Ni in modifying the order of the phase transition of La(Fe,Ni,Si) ₁₃ . <i>Acta Materialia</i> , 2018 , 160, 137-146	8.4	30
368	Infrared heating mediated synthesis and characterization of FeCo/C nanocomposites. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 429, 94-101	2.8	11
367	Experimental and computational analysis of magnetization reversal in (Nd,Dy)-Fe-B core shell sintered magnets. <i>Acta Materialia</i> , 2017 , 127, 498-504	8.4	32
366	Production and properties of metal-bonded La(Fe,Mn,Si) ₁₃ H composite material. <i>Acta Materialia</i> , 2017 , 127, 389-399	8.4	48
365	Viewpoint on the letter "Self pumping magnetic cooling" by V Chaudhary et al (2017 J. Phys. D: Appl. Phys. 50 03LT03). <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 131001	3	2
364	Temperature-dependent first-order reversal curve measurements on unusually hard magnetic low-temperature phase of MnBi. <i>Physical Review B</i> , 2017 , 95,	3.3	17
363	Room-temperature five-tesla coercivity of a rare-earth-free shell-ferromagnet. <i>Applied Physics Letters</i> , 2017 , 110, 192406	3.4	8
362	Heat Exchangers From Metal-Bonded La(Fe,Mn,Si) ₁₃ H _x Powder. <i>IEEE Transactions on Magnetics</i> , 2017 , 53, 1-7	2	11
361	Microstructural and magnetic properties of Mn-Fe-P-Si (Fe ₂ P-type) magnetocaloric compounds. <i>Acta Materialia</i> , 2017 , 132, 222-229	8.4	63
360	Properties of magnetically semi-hard (Fe _x Co _{1-x}) ₃ B compounds. <i>Journal of Alloys and Compounds</i> , 2017 , 696, 543-547	5.7	12
359	Reversibility of minor hysteresis loops in magnetocaloric Heusler alloys. <i>Applied Physics Letters</i> , 2017 , 110, 223904	3.4	30
358	Magnetic properties of Mo-stabilized bulk Fe ₃ B magnet. <i>Scripta Materialia</i> , 2017 , 130, 234-237	5.6	4

357	Correlation of microchemistry of cell boundary phase and interface structure to the coercivity of Sm(Co _{0.784} Fe _{0.100} Cu _{0.088} Zr _{0.028}) _{7.19} sintered magnets. <i>Acta Materialia</i> , 2017 , 126, 1-10	8.4	89
356	High-performance solid-state cooling materials: Balancing magnetocaloric and non-magnetic properties in dual phase La-Fe-Si. <i>Acta Materialia</i> , 2017 , 125, 506-512	8.4	47
355	Influence of magnetic field, chemical pressure and hydrostatic pressure on the structural and magnetocaloric properties of the MnNiTe system. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 464005	3	20
354	Predicting the tricritical point composition of a series of LaFeSi magnetocaloric alloys via universal scaling. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 414004	3	25
353	The 2017 Magnetism Roadmap. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 363001	3	229
352	Bulk combinatorial analysis for searching new rare-earth free permanent magnets: Reactive crucible melting applied to the Fe-Sn binary system. <i>Acta Materialia</i> , 2017 , 141, 434-443	8.4	13
351	Multiscale Examination of Strain Effects in Nd-Fe-B Permanent Magnets. <i>Physical Review Applied</i> , 2017 , 8,	4.3	14
350	A Matter of Size and Stress: Understanding the First-Order Transition in Materials for Solid-State Refrigeration. <i>Advanced Functional Materials</i> , 2017 , 27, 1606735	15.6	45
349	Identification and recovery of rare-earth permanent magnets from waste electrical and electronic equipment. <i>Waste Management</i> , 2017 , 68, 482-489	8.6	46
348	Direct Measurement of the Magnetocaloric Effect in La(Fe,Si,Co) ₁₃ Compounds in Pulsed Magnetic Fields. <i>Physical Review Applied</i> , 2017 , 8,	4.3	14
347	A systematic study of HDDR processing conditions for the recycling of end-of-life Nd-Fe-B magnets. <i>Journal of Alloys and Compounds</i> , 2017 , 724, 51-61	5.7	20
346	Atomic structure and domain wall pinning in samarium-cobalt-based permanent magnets. <i>Nature Communications</i> , 2017 , 8, 54	17.4	72
345	The effect of plastic deformation on magnetic and magnetocaloric properties of Gd-B alloys. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 442, 360-363	2.8	11
344	Synthesis, morphology, thermal stability and magnetic properties of γ -Fe ₁₆ N ₂ nanoparticles obtained by hydrogen reduction of γ -Fe ₂ O ₃ and subsequent nitrogenation. <i>Acta Materialia</i> , 2017 , 123, 214-222	8.4	27
343	Normal and abnormal grain growth in fine-grained Nd-Fe-B sintered magnets prepared from He jet milled powders. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 426, 698-707	2.8	18
342	Enhancement of coercivity and saturation magnetization of Al ³⁺ substituted M-type Sr-hexaferrites. <i>Journal of Alloys and Compounds</i> , 2017 , 690, 979-985	5.7	30
341	REE Recovery from End-of-Life NdFeB Permanent Magnet Scrap: A Critical Review. <i>Journal of Sustainable Metallurgy</i> , 2017 , 3, 122-149	2.7	209
340	The Resource Basis of Magnetic Refrigeration. <i>Journal of Industrial Ecology</i> , 2017 , 21, 1291-1300	7.2	24

339	Grain boundary diffusion of different rare earth elements in Nd-Fe-B sintered magnets by experiment and FEM simulation. <i>Acta Materialia</i> , 2017 , 124, 421-429	8.4	68
338	Behaviour of the Young's modulus at the magnetocaloric transition in La(Fe,Co,Si) ₁₃ . <i>Journal of Alloys and Compounds</i> , 2017 , 697, 427-433	5.7	8
337	High energy proton induced radiation damage of rare earth permanent magnet quadrupoles. <i>Review of Scientific Instruments</i> , 2017 , 88, 125103	1.7	0
336	Microwave synthesis and magnetic properties of Laves-type Ti ₂ M ₃ Si (M = Mn, Fe, Co, Ni). <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2017 , 14, 1700027		2
335	Impact of lattice dynamics on the phase stability of metamagnetic FeRh: Bulk and thin films. <i>Physical Review B</i> , 2016 , 94,	3.3	32
334	Dynamical Effects of the Martensitic Transition in Magnetocaloric Heusler Alloys from Direct μ ad Measurements under Different Magnetic-Field-Sweep Rates. <i>Physical Review Applied</i> , 2016 , 5,	4.3	44
333	Mastering hysteresis in magnetocaloric materials. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016 , 374,	3	146
332	Contradictory role of the magnetic contribution in inverse magnetocaloric Heusler materials. <i>Physical Review B</i> , 2016 , 93,	3.3	88
331	Magnetic anisotropy of Sm ₂ Fe ₁₇ single crystals. <i>Physical Review B</i> , 2016 , 94,	3.3	8
330	Multiferroics: Multiferroic Clusters: A New Perspective for Relaxor-Type Room-Temperature Multiferroics (Adv. Funct. Mater. 13/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 2110-2110	15.6	
329	Magnetic, magnetocaloric and structural properties of manganese based monoborides doped with iron and cobalt \square candidate for thermomagnetic generators. <i>Acta Materialia</i> , 2016 , 113, 213-220	8.4	20
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24	Hydrogenation and disproportionation of Sm ₂ Fe ₁₇ Gax at high hydrogen pressures. <i>Journal of Applied Physics</i> , 1998 , 83, 6905-6907	2.5	19
23	The relation between the micromagnetic and microstructural properties of HDDR-processed Nd - Fe - B-type materials. <i>Journal Physics D: Applied Physics</i> , 1997 , 30, 1854-1860	3	12
22	Further studies of hydrogenation, disproportionation, desorption and recombination processes in a Nd ₅ Fe ₂ B ₆ boride. <i>Journal of Alloys and Compounds</i> , 1997 , 253-254, 134-139	5.7	10
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12	Characterisation of solid-HDDR processed Nd ₁₆ Fe ₇₆ B ₈ alloys by means of electron microscopy. <i>Journal of Magnetism and Magnetic Materials</i> , 1995 , 147, 320-330	2.8	65
11	Detailed TEM analysis of solid-HDDR Nd ₁₆ Fe ₇₆ B ₈ magnetic materials. <i>IEEE Transactions on Magnetics</i> , 1995 , 31, 3635-3637	2	10
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