Rasmus BjÃ¸rk

List of Publications by Year
in descending order

87 papers	2,829 citations	218677 26 h-index	189892 50 g-index
88 all docs	88 docs citations	88 times ranked	2092 citing authors

#	Article	IF	Citations
1	Direct exchange calculation for unstructured micromagnetic meshes. Journal of Magnetism and Magnetic Materials, 2022, 551, 169093.	2.3	1
2	A conical passive magnetic bearing with constant stiffness. Scientific Reports, 2022, 12, 4130.	3.3	1
3	Symmetry breaking in magnetoresistive devices. Physical Review B, 2022, 106, .	3.2	2
4	A Passive Permanent Magnetic Bearing With Increased Axial Lift Relative to Radial Stiffness. IEEE Transactions on Magnetics, 2021, 57, 1-8.	2.1	10
5	Inverse Design of Magnetic Fields Using Deep Learning. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	10
6	The full phase space dynamics of a magnetically levitated electromagnetic vibration harvester. Scientific Reports, 2021, 11, 16607.	3.3	10
7	Novel design of a high efficiency multi-bed active magnetic regenerator heat pump. International Journal of Refrigeration, 2021, 132, 243-254.	3.4	25
8	MagTense: A micromagnetic framework using the analytical demagnetization tensor. Journal of Magnetism and Magnetic Materials, 2021, 535, 168057.	2.3	15
9	Time-Enhanced Performance of Oxide Thermoelectric Modules Based on a Hybrid pâ€“n Junction. ACS Omega, 2021, 6, 197-205.	3.5	6
10	Functionally graded multi-material freeze-cast structures with continuous microchannels. Journal of the European Ceramic Society, 2020, 40, 1398-1406.	5.7	5
11	The journals in physics that publish Nobel Prize research. Scientometrics, 2020, 122, 817-823.	3.0	11
12	Oxide thermoelectrics: From materials to module. , 2020, , 131-156.		6
13	Response to the comments of Turki et al. on â€œThe journals that publish Nobel Prize researchâ€• Scientometrics, 2020, 124, 791-793.	3.0	1
14	Analytical Force and Flux for a 1-D Electromagnetic Vibration Energy Harvester. IEEE Transactions on Magnetics, 2020, 56, 1-6.	2.1	17
15	A direct method to solve quasistatic micromagnetic problems. Journal of Magnetism and Magnetic Materials, 2020, 510, 166900.	2.3	5
16	Novel freeze-casting device with high precision thermoelectric temperature control for dynamic freezing conditions. Review of Scientific Instruments, 2020, 91, 033904.	1.3	9
17	Optimizing a Halbach cylinder for field homogeneity by remanence variation. Journal of Magnetism and Magnetic Materials, 2020, 514, 167175.	2.3	5
18	Characterization of Freeze-Cast Micro-Channel Monoliths as Active and Passive Regenerators. Frontiers in Energy Research, 2020, 8, .	2.3	5

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19	Detailed isofield calorimetry of La(Fe,Si,Mn)H reveals distributed magnetocaloric phase transitions. Journal of Applied Physics, 2020, 127, .	2.5	9
20	The magnetic field from a homogeneously magnetized cylindrical tile. Journal of Magnetism and Magnetic Materials, 2020, 507, 166799.	2.3	9
21	Heat transfer and flow resistance analysis of a novel freeze-cast regenerator. International Journal of Heat and Mass Transfer, 2020, 155, 119772.	4.8	15
22	The effect of gelation on statically and dynamically freezeâ€cast structures. Journal of the American Ceramic Society, 2019, 102, 5796-5806.	3.8	12
23	The age at which Noble Prize research is conducted. Scientometrics, 2019, 119, 931-939.	3.0	14
24	The demagnetization factor for randomly packed spheroidal particles. Journal of Magnetism and Magnetic Materials, 2019, 476, 417-422.	2.3	13
25	The Stray and Demagnetizing Field of a Homogeneously Magnetized Tetrahedron. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	9
26	Optimal Segmentation of Three-Dimensional Permanent-Magnet Assemblies. Physical Review Applied, 2019, 12, .	3.8	5
27	The maximum theoretical performance of unconcentrated solar photovoltaic and thermoelectric generator systems. Energy Conversion and Management, 2018, 156, 264-268.	9.2	60
28	Topology Optimization of Segmented Thermoelectric Generators. Journal of Electronic Materials, 2018, 47, 6959-6971.	2.2	4
29	A topology optimized switchable permanent magnet system. Journal of Magnetism and Magnetic Materials, 2018, 465, 106-113.	2.3	9
30	Operational test of bonded magnetocaloric plates. International Journal of Refrigeration, 2017, 76, 245-251.	3.4	21
31	Topology optimized permanent magnet systems. Journal of Magnetism and Magnetic Materials, 2017, 437, 78-85.	2.3	27
32	Reply to â€œComment on â€˜Performance of Halbach magnet with finite coercivityâ€™.â€• Journal of Magnetism and Magnetic Materials, 2017, 429, 386-389.	2.3	1
33	Spatially resolved modelling of inhomogeneous materials with a first order magnetic phase transition. Journal Physics D: Applied Physics, 2017, 50, 414002.	2.8	9
34	Influence of magnetization on the applied magnetic field in various AMR regenerators. Journal of Applied Physics, 2017, 122, .	2.5	11
35	Effects of flow balancing on active magnetic regenerator performance. Applied Thermal Engineering, 2016, 103, 1-8.	6.0	25
36	Globally Optimal Segmentation of Permanent-Magnet Systems. Physical Review Applied, 2016, 5, .	3.8	15

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37	Optimally Segmented Permanent Magnet Structures. IEEE Transactions on Magnetics, 2016, 52, 1-6.	2.1	9
38	Comparing superconducting and permanent magnets for magnetic refrigeration. AIP Advances, 2016, 6, .	1.3	14
39	A thermoelectric power generating heat exchanger: Part I â€“ Experimental realization. Energy Conversion and Management, 2016, 119, 473-480.	9.2	22
40	Exploring the efficiency potential for an active magnetic regenerator. Science and Technology for the Built Environment, 2016, 22, 527-533.	1.7	26
41	A thermoelectric power generating heat exchanger: Part II â€“ Numerical modeling and optimization. Energy Conversion and Management, 2016, 119, 481-487.	9.2	19
42	The magnetic properties of the hollow cylindrical ideal remanence magnet. Journal of Magnetism and Magnetic Materials, 2016, 416, 321-324.	2.3	2
43	The lifetime cost of a magnetic refrigerator. International Journal of Refrigeration, 2016, 63, 48-62.	3.4	35
44	Performance of Halbach magnet arrays with finite coercivity. Journal of Magnetism and Magnetic Materials, 2016, 407, 369-376.	2.3	27
45	An Analytical Model for the Influence of Contact Resistance on Thermoelectric Efficiency. Journal of Electronic Materials, 2016, 45, 1301-1308.	2.2	16
46	Direct measurements of the magnetic entropy change. Review of Scientific Instruments, 2015, 86, 103903.	1.3	22
47	Modeling the Microstructural Evolution During Constrained Sintering. Journal of the American Ceramic Society, 2015, 98, 3490-3495.	3.8	11
48	Segmented Thermoelectric Oxideâ€Based Module for Highâ€Temperature Waste Heat Harvesting. Energy Technology, 2015, 3, 1143-1151.	3.8	29
49	The efficiency and the demagnetization field of a general Halbach cylinder. Journal of Magnetism and Magnetic Materials, 2015, 384, 128-132.	2.3	16
50	The performance of a combined solar photovoltaic (PV) and thermoelectric generator (TEG) system. Solar Energy, 2015, 120, 187-194.	6.1	160
51	Design and experimental tests of a rotary active magnetic regenerator prototype. International Journal of Refrigeration, 2015, 58, 14-21.	3.4	99
52	The Universal Influence of Contact Resistance on the Efficiency of a Thermoelectric Generator. Journal of Electronic Materials, 2015, 44, 2869-2876.	2.2	54
53	Optimization of the Mechanical and Electrical Performance of a Thermoelectric Module. Journal of Electronic Materials, 2015, 44, 4465-4472.	2.2	13
54	Modeling constrained sintering of bi-layered tubular structures. Journal of the European Ceramic Society, 2015, 35, 941-950.	5.7	10

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55	Finite Element Modeling of Camber Evolution During Sintering of Bilayer Structures. Journal of the American Ceramic Society, 2014, 97, 2965-2972.	3.8	13
56	Development and experimental results from a 1ÂkW prototype AMR. International Journal of Refrigeration, 2014, 37, 78-83.	3.4	59
57	In situ characterization of delamination and crack growth of a CGOâ€“LSM multi-layer ceramic sample investigated by X-ray tomographic microscopy. Journal of the European Ceramic Society, 2014, 34, 3019-3025.	5.7	3
58	Strain in the mesoscale kinetic Monte Carlo model for sintering. Computational Materials Science, 2014, 82, 293-297.	3.0	25
59	Analysis of the internal heat losses in a thermoelectric generator. International Journal of Thermal Sciences, 2014, 85, 12-20.	4.9	59
60	Multi-scale modeling of shape distortions during sintering of bi-layers. Computational Materials Science, 2014, 88, 28-36.	3.0	27
61	Metamaterial anisotropic flux concentrators and magnetic arrays. Journal of Applied Physics, 2013, 114, 053912.	2.5	8
62	Sintering of Multilayered Porous Structures: Part Iâ€Constitutive Models. Journal of the American Ceramic Society, 2013, 96, 2657-2665.	3.8	26
63	Modeling kinetics of distortion in porous bi-layered structures. Journal of the European Ceramic Society, 2013, 33, 1297-1305.	5.7	27
64	Demagnetization factor for a powder of randomly packed spherical particles. Applied Physics Letters, 2013, 103, .	3.3	35
65	Modeling Sintering of Multilayers Under Influence of Gravity. Journal of the American Ceramic Society, 2013, 96, 80-89.	3.8	26
66	The Effect of Particle Size Distributions on the Microstructural Evolution During Sintering. Journal of the American Ceramic Society, 2013, 96, 103-110.	3.8	71
67	Sintering of Multilayered Porous Structures: Part <scp>II</scp>â€“Experiments and Model Applications. Journal of the American Ceramic Society, 2013, 96, 2666-2673.	3.8	27
68	Experimental results for a novel rotary active magnetic regenerator. International Journal of Refrigeration, 2012, 35, 1498-1505.	3.4	127
69	Materials Challenges for High Performance Magnetocaloric Refrigeration Devices. Advanced Energy Materials, 2012, 2, 1288-1318.	19.5	458
70	The sintering behavior of close-packed spheres. Scripta Materialia, 2012, 67, 81-84.	5.2	28
71	Properties of magnetocaloric materials with a distribution of Curie temperatures. Journal of Magnetism and Magnetic Materials, 2012, 324, 564-568.	2.3	22
72	A Monolithic Perovskite Structure for Use as a Magnetic Regenerator. Journal of the American Ceramic Society, 2011, 94, 2549-2555.	3.8	22

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73	Determining the minimum mass and cost of a magnetic refrigerator. International Journal of Refrigeration, 2011, 34, 1805-1816.	3.4	29
74	Design concepts for a continuously rotating active magnetic regenerator. International Journal of Refrigeration, 2011, 34, 1792-1796.	3.4	30
75	The influence of the magnetic field on the performance of an active magnetic regenerator (AMR). International Journal of Refrigeration, 2011, 34, 192-203.	3.4	28
76	The ideal dimensions of a Halbach cylinder of finite length. Journal of Applied Physics, 2011, 109, .	2.5	19
77	Analysis of the magnetic field, force, and torque for two-dimensional Halbach cylinders. Journal of Magnetism and Magnetic Materials, 2010, 322, 133-141.	2.3	48
78	An optimized magnet for magnetic refrigeration. Journal of Magnetism and Magnetic Materials, 2010, 322, 3324-3328.	2.3	49
79	Comparison of adjustable permanent magnetic field sources. Journal of Magnetism and Magnetic Materials, 2010, 322, 3664-3671.	2.3	59
80	Magnetocaloric properties of LaFe13â^'xâ^'yCoxSiy and commercial grade Gd. Journal of Magnetism and Magnetic Materials, 2010, 322, 3882-3888.	2.3	108
81	Review and comparison of magnet designs for magnetic refrigeration. International Journal of Refrigeration, 2010, 33, 437-448.	3.4	138
82	Spatially resolved measurements of the magnetocaloric effect and the local magnetic field using thermography. Journal of Applied Physics, 2010, 108, .	2.5	29
83	The demagnetizing field of a nonuniform rectangular prism. Journal of Applied Physics, 2010, 107, .	2.5	64
84	Detailed numerical modeling of a linear parallel-plate Active Magnetic Regenerator. International Journal of Refrigeration, 2009, 32, 1478-1486.	3.4	79
85	Optimization and improvement of Halbach cylinder design. Journal of Applied Physics, 2008, 104, .	2.5	64
86	Exploring the Galaxy using space probes. International Journal of Astrobiology, 2007, 6, 89-93.	1.6	26
87	The sintering behavior of ellipsoidal particles. Journal of the American Ceramic Society, 0, , .	3.8	0