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	Materials Challenges for High Performance Magnetocaloric Refrigeration Devices. Advanced Energy Materials, 2012, 2, 1288-1318.	19.5	458
2	The performance of a combined solar photovoltaic (PV) and thermoelectric generator (TEG) system. Solar Energy, 2015, 120, 187-194.	6.1	160
3	Review and comparison of magnet designs for magnetic refrigeration. International Journal of Refrigeration, 2010, 33, 437-448.	3.4	138
4	Experimental results for a novel rotary active magnetic regenerator. International Journal of Refrigeration, 2012, 35, 1498-1505.	3.4	127
5	Magnetocaloric properties of LaFe13âˆ'xâˆ'yCoxSiy and commercial grade Gd. Journal of Magnetism and Magnetic Materials, 2010, 322, 3882-3888.	2.3	108
6	Design and experimental tests of a rotary active magnetic regenerator prototype. International Journal of Refrigeration, 2015, 58, 14-21.	3.4	99
7	Detailed numerical modeling of a linear parallel-plate Active Magnetic Regenerator. International Journal of Refrigeration, 2009, 32, 1478-1486.	3.4	79
8	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
9	Optimization and improvement of Halbach cylinder design. Journal of Applied Physics, 2008, 104, .	2.5	64
10	The demagnetizing field of a nonuniform rectangular prism. Journal of Applied Physics, 2010, 107, .	2.5	64
11	The maximum theoretical performance of unconcentrated solar photovoltaic and thermoelectric generator systems. Energy Conversion and Management, 2018, 156, 264-268.	9.2	60
12	Comparison of adjustable permanent magnetic field sources. Journal of Magnetism and Magnetic Materials, 2010, 322, 3664-3671.	2.3	59
13	Development and experimental results from a 1ÂkW prototype AMR. International Journal of Refrigeration, 2014, 37, 78-83.	3.4	59
14	Analysis of the internal heat losses in a thermoelectric generator. International Journal of Thermal Sciences, 2014, 85, 12-20.	4.9	59
15	The Universal Influence of Contact Resistance on the Efficiency of a Thermoelectric Generator. Journal of Electronic Materials, 2015, 44, 2869-2876.	2.2	54
16	An optimized magnet for magnetic refrigeration. Journal of Magnetism and Magnetic Materials, 2010, 322, 3324-3328.	2.3	49
17	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
18	Demagnetization factor for a powder of randomly packed spherical particles. Applied Physics Letters, 2013, 103, .	3.3	35

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19	The lifetime cost of a magnetic refrigerator. International Journal of Refrigeration, 2016, 63, 48-62.	3.4	35
20	Design concepts for a continuously rotating active magnetic regenerator. International Journal of Refrigeration, 2011, 34, 1792-1796.	3.4	30
21	Spatially resolved measurements of the magnetocaloric effect and the local magnetic field using thermography. Journal of Applied Physics, 2010, 108, .	2.5	29
22	Determining the minimum mass and cost of a magnetic refrigerator. International Journal of Refrigeration, 2011, 34, 1805-1816.	3.4	29
23	Segmented Thermoelectric Oxideâ€Based Module for Highâ€Temperature Waste Heat Harvesting. Energy Technology, 2015, 3, 1143-1151.	3.8	29
24	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
25	The sintering behavior of close-packed spheres. Scripta Materialia, 2012, 67, 81-84.	5.2	28
26	Modeling kinetics of distortion in porous bi-layered structures. Journal of the European Ceramic Society, 2013, 33, 1297-1305.	5.7	27
27	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
28	Multi-scale modeling of shape distortions during sintering of bi-layers. Computational Materials Science, 2014, 88, 28-36.	3.0	27
29	Performance of Halbach magnet arrays with finite coercivity. Journal of Magnetism and Magnetic Materials, 2016, 407, 369-376.	2.3	27
30	Topology optimized permanent magnet systems. Journal of Magnetism and Magnetic Materials, 2017, 437, 78-85.	2.3	27
31	Exploring the Galaxy using space probes. International Journal of Astrobiology, 2007, 6, 89-93.	1.6	26
32	Sintering of Multilayered Porous Structures: Part Iâ€Constitutive Models. Journal of the American Ceramic Society, 2013, 96, 2657-2665.	3.8	26
33	Modeling Sintering of Multilayers Under Influence of Gravity. Journal of the American Ceramic Society, 2013, 96, 80-89.	3.8	26
34	Exploring the efficiency potential for an active magnetic regenerator. Science and Technology for the Built Environment, 2016, 22, 527-533.	1.7	26
35	Strain in the mesoscale kinetic Monte Carlo model for sintering. Computational Materials Science, 2014, 82, 293-297.	3.0	25
36	Effects of flow balancing on active magnetic regenerator performance. Applied Thermal Engineering, 2016, 103, 1-8.	6.0	25

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37	Novel design of a high efficiency multi-bed active magnetic regenerator heat pump. International Journal of Refrigeration, 2021, 132, 243-254.	3.4	25
38	A Monolithic Perovskite Structure for Use as a Magnetic Regenerator. Journal of the American Ceramic Society, 2011, 94, 2549-2555.	3.8	22
39	Properties of magnetocaloric materials with a distribution of Curie temperatures. Journal of Magnetism and Magnetic Materials, 2012, 324, 564-568.	2.3	22
40	Direct measurements of the magnetic entropy change. Review of Scientific Instruments, 2015, 86, 103903.	1.3	22
41	A thermoelectric power generating heat exchanger: Part I â€“ Experimental realization. Energy Conversion and Management, 2016, 119, 473-480.	9.2	22
42	Operational test of bonded magnetocaloric plates. International Journal of Refrigeration, 2017, 76, 245-251.	3.4	21
43	The ideal dimensions of a Halbach cylinder of finite length. Journal of Applied Physics, 2011, 109, .	2.5	19
44	A thermoelectric power generating heat exchanger: Part II â€“ Numerical modeling and optimization. Energy Conversion and Management, 2016, 119, 481-487.	9.2	19
45	Analytical Force and Flux for a 1-D Electromagnetic Vibration Energy Harvester. IEEE Transactions on Magnetics, 2020, 56, 1-6.	2.1	17
46	The efficiency and the demagnetization field of a general Halbach cylinder. Journal of Magnetism and Magnetic Materials, 2015, 384, 128-132.	2.3	16
47	An Analytical Model for the Influence of Contact Resistance on Thermoelectric Efficiency. Journal of Electronic Materials, 2016, 45, 1301-1308.	2.2	16
48	Globally Optimal Segmentation of Permanent-Magnet Systems. Physical Review Applied, 2016, 5, .	3.8	15
49	MagTense: A micromagnetic framework using the analytical demagnetization tensor. Journal of Magnetism and Magnetic Materials, 2021, 535, 168057.	2.3	15
50	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
51	Comparing superconducting and permanent magnets for magnetic refrigeration. AIP Advances, 2016, 6, .	1.3	14
52	The age at which Noble Prize research is conducted. Scientometrics, 2019, 119, 931-939.	3.0	14
53	Finite Element Modeling of Camber Evolution During Sintering of Bilayer Structures. Journal of the American Ceramic Society, 2014, 97, 2965-2972.	3.8	13
54	Optimization of the Mechanical and Electrical Performance of a Thermoelectric Module. Journal of Electronic Materials, 2015, 44, 4465-4472.	2.2	13

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55	The demagnetization factor for randomly packed spheroidal particles. Journal of Magnetism and Magnetic Materials, 2019, 476, 417-422.	2.3	13
56	The effect of gelation on statically and dynamically freezeâ€cast structures. Journal of the American Ceramic Society, 2019, 102, 5796-5806.	3.8	12
57	Modeling the Microstructural Evolution During Constrained Sintering. Journal of the American Ceramic Society, 2015, 98, 3490-3495.	3.8	11
58	Influence of magnetization on the applied magnetic field in various AMR regenerators. Journal of Applied Physics, 2017, 122, .	2.5	11
59	The journals in physics that publish Nobel Prize research. Scientometrics, 2020, 122, 817-823.	3.0	11
60	Modeling constrained sintering of bi-layered tubular structures. Journal of the European Ceramic Society, 2015, 35, 941-950.	5.7	10
61	A Passive Permanent Magnetic Bearing With Increased Axial Lift Relative to Radial Stiffness. IEEE Transactions on Magnetics, 2021, 57, 1-8.	2.1	10
62	Inverse Design of Magnetic Fields Using Deep Learning. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	10
63	The full phase space dynamics of a magnetically levitated electromagnetic vibration harvester. Scientific Reports, 2021, 11, 16607.	3.3	10
64	Optimally Segmented Permanent Magnet Structures. IEEE Transactions on Magnetics, 2016, 52, 1-6.	2.1	9
65	Spatially resolved modelling of inhomogeneous materials with a first order magnetic phase transition. Journal Physics D: Applied Physics, 2017, 50, 414002.	2.8	9
66	A topology optimized switchable permanent magnet system. Journal of Magnetism and Magnetic Materials, 2018, 465, 106-113.	2.3	9
67	The Stray and Demagnetizing Field of a Homogeneously Magnetized Tetrahedron. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	9
68	Novel freeze-casting device with high precision thermoelectric temperature control for dynamic freezing conditions. Review of Scientific Instruments, 2020, 91, 033904.	1.3	9
69	Detailed isofield calorimetry of La(Fe,Si,Mn)H reveals distributed magnetocaloric phase transitions. Journal of Applied Physics, 2020, 127, .	2.5	9
70	The magnetic field from a homogeneously magnetized cylindrical tile. Journal of Magnetism and Magnetic Materials, 2020, 507, 166799.	2.3	9
71	Metamaterial anisotropic flux concentrators and magnetic arrays. Journal of Applied Physics, 2013, 114, 053912.	2.5	8
72	Oxide thermoelectrics: From materials to module. , 2020, , 131-156.		6

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73	Time-Enhanced Performance of Oxide Thermoelectric Modules Based on a Hybrid pâ€“n Junction. ACS Omega, 2021, 6, 197-205.	3.5	6
74	Optimal Segmentation of Three-Dimensional Permanent-Magnet Assemblies. Physical Review Applied, 2019, 12, .	3.8	5
75	Functionally graded multi-material freeze-cast structures with continuous microchannels. Journal of the European Ceramic Society, 2020, 40, 1398-1406.	5.7	5
76	A direct method to solve quasistatic micromagnetic problems. Journal of Magnetism and Magnetic Materials, 2020, 510, 166900.	2.3	5
77	Optimizing a Halbach cylinder for field homogeneity by remanence variation. Journal of Magnetism and Magnetic Materials, 2020, 514, 167175.	2.3	5
78	Characterization of Freeze-Cast Micro-Channel Monoliths as Active and Passive Regenerators. Frontiers in Energy Research, 2020, 8, .	2.3	5
79	Topology Optimization of Segmented Thermoelectric Generators. Journal of Electronic Materials, 2018, 47, 6959-6971.	2.2	4
80	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
81	The magnetic properties of the hollow cylindrical ideal remanence magnet. Journal of Magnetism and Magnetic Materials, 2016, 416, 321-324.	2.3	2
82	Symmetry breaking in magnetoresistive devices. Physical Review B, 2022, 106, .	3.2	2
83	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
84	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
85	Direct exchange calculation for unstructured micromagnetic meshes. Journal of Magnetism and Magnetic Materials, 2022, 551, 169093.	2.3	1
86	A conical passive magnetic bearing with constant stiffness. Scientific Reports, 2022, 12, 4130.	3.3	1
87	The sintering behavior of ellipsoidal particles. Journal of the American Ceramic Society, 0, , .	3.8	0