A Magnus G Carvalho

List of Publications by Year
in descending order

91 papers	1,898 citations	361413 20 h-index	302126 39 g-index
97 all docs	97 docs citations	97 times ranked	1474 citing authors

#	Article	IF	Citations
1	Giant barocaloric effects in natural graphite/polydimethylsiloxane rubber composites. Journal of Materials Science, 2022, 57, 311-323.	3.7	6
2	Correlation between magnetic and crystal structural sublattices in palladium-doped FeRh alloys: Analysis of the metamagnetic phase transition driving forces. Journal of Alloys and Compounds, 2022, 898, 163092.	5.5	6
3	On the colossal barocaloric effect in higher <i>n</i>-alkanes. Journal of Materials Chemistry A, 2022, 10, 8344-8355.	10.3	9
4	High-field specific heat and entropy obtained from adiabatic temperature change. European Physical Journal Plus, 2021, 136, 1.	2.6	2
5	Refrigeration through Barocaloric Effect Using the Spin Crossover Complex {Fe[H₂B(pz)₂]₂(bipy)}. Physica Status Solidi (B): Basic Research, 2021, 258, 2100108.	1.5	11
6	Giant barocaloric effect in commercial polyurethane. Polymer Testing, 2021, 100, 107251.	4.8	6
7	Correlation between anomalous thermal expansion coefficient and barocaloric effect: Application to spin crossover systems. Solid State Communications, 2021, 336, 114427.	1.9	0
8	Mean-field parameters of some Pr_xTb_(1-x)Al₂ compounds found via searching for the best magnetic heat capacity fitting. Journal of Physics: Conference Series, 2021, 2090, 012081.	0.4	0
9	Magnetic and magnetocaloric properties of (Gd,Nd)5Si4 compounds. Journal of Magnetism and Magnetic Materials, 2020, 493, 165693.	2.3	11
10	The effect of cooling rate on magnetothermal properties of Fe49Rh51. Journal of Magnetism and Magnetic Materials, 2020, 498, 166130.	2.3	32
11	Using thermochemical treatment for facilitating apatite formation on Ti-Nb-Sn alloys. Journal of Materials Science, 2020, 55, 4395-4407.	3.7	3
12	New Multicomponent Forms of the Antiretroviral Nevirapine with Improved Dissolution Performance. Crystal Growth and Design, 2020, 20, 688-698.	3.0	9
13	Supergiant Barocaloric Effects in Acetoxy Silicone Rubber over a Wide Temperature Range: Great Potential for Solid-state Cooling. Chinese Journal of Polymer Science (English Edition), 2020, 38, 999-1005.	3.8	23
14	Unveiling the Origin of the Giant Barocaloric Effect in Natural Rubber. Macromolecules, 2020, 53, 2606-2615.	4.8	15
15	Waste Tire Rubber-based Refrigerants for Solid-state Cooling Devices. Chinese Journal of Polymer Science (English Edition), 2020, 38, 769-775.	3.8	8
16	Giant Reversible Barocaloric Effects in Nitrile Butadiene Rubber around Room Temperature. ACS Applied Polymer Materials, 2019, 1, 1991-1997.	4.4	16
17	Experimental and theoretical evidences that atomic disorder suppresses half-metallicity of Heusler compounds. Intermetallics, 2019, 111, 106502.	3.9	4
18	EXAFS studies of enhancement of L21-B2 chemical disorder induced by ball milling in martensitic Ni50Mn36Sn14 pseudo-Heusler alloy. Materials Characterization, 2019, 158, 109972.	4.4	9

#	ARTICLE	IF	CITATIONS
19	Unusual effects of manual grinding and subsequent annealing process observed in Gd5.09Ge2.03Si1.88 compound. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	1
20	Giant room-temperature barocaloric effects in PDMS rubber at low pressures. European Polymer Journal, 2018, 99, 212-221.	5.4	45
21	Magnetic and magnetocaloric properties in Gd1âˆ’yPryNi2 compounds. Journal of Magnetism and Magnetic Materials, 2018, 449, 308-312.	2.3	10
22	Giant Barocaloric Effects in Natural Rubber: A Relevant Step toward Solid-State Cooling. ACS Macro Letters, 2018, 7, 31-36.	4.8	35
23	X-ray powder diffraction of high-absorption materials at the XRD1 beamline off the best conditions: Application to (Gd, Nd)₅Si₄ compounds. Powder Diffraction, 2017, 32, 10-14.	0.2	20
24	Note: Experimental setup for measuring the barocaloric effect in polymers: Application to natural rubber. Review of Scientific Instruments, 2017, 88, 046103.	1.3	21
25	Tunable magnetocaloric effect around room temperature by Fe doping in Mn0.98Cr(0.02-x)FexAs compound. Journal of Magnetism and Magnetic Materials, 2017, 436, 85-90.	2.3	2
26	Structure of antiferromagnetic NiO/ferrimagnetic NiMn2O4 composite prepared by sorbitol-assisted sol-gel method. Journal of Alloys and Compounds, 2017, 696, 304-309.	5.5	8
27	Large barocaloric effects at low pressures in natural rubber. European Polymer Journal, 2017, 92, 287-293.	5.4	32
28	The influence of crystalline electrical field on magnetic and magnetocaloric properties in Er1âˆ’yTbyAl2 compounds. Journal of Magnetism and Magnetic Materials, 2017, 442, 265-269.	2.3	4
29	A new type of magnetocaloric composite based on conductive polymer and magnetocaloric compound. Journal of Magnetism and Magnetic Materials, 2017, 425, 65-71.	2.3	8
30	X-ray powder diffraction at the XRD1 beamline atÂLNLS. Journal of Synchrotron Radiation, 2016, 23, 1501-1506.	2.4	48
31	Theoretical investigation on the magnetic and electric properties in TbSb compound through an anisotropic microscopic model. Journal of Applied Physics, 2016, 119, .	2.5	6
32	Chemical disorder determines the deviation of the Slaterâ€“Pauling rule for Fe2MnSi-based Heusler alloys: evidences from neutron diffraction and density functional theory. Journal of Physics Condensed Matter, 2016, 28, 476002.	1.8	6
33	Influence of chemical doping and hydrostatic pressure on the magnetic properties ofMn1âˆ’xFexAsmagnetocaloric compounds. Physical Review B, 2016, 93, .	3.2	8
34	Experimental evidences of enhanced magnetocaloric properties at room temperature and half-metallicity on Fe 2 MnSi-based Heusler alloys. Materials Chemistry and Physics, 2016, 174, 23-27.	4.0	11
35	Adiabatic temperature change from non-adiabatic measurements. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	5
36	Characterization of Feâ€“Nb sputtered thin films. Journal of Physics and Chemistry of Solids, 2015, 86, 36-41.	4.0	5

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37	Electric field triggering the spin reorientation and controlling the absorption and release of heat in the induced multiferroic compound EuTiO3. Journal of Applied Physics, 2015, 118, .	2.5	8
38	Effects of Ga substitution on the structural and magnetic properties of half metallic Fe2MnSi Heusler compound. Journal of Applied Physics, 2015, 117, 013902.	2.5	14
39	Analysis of the crystallographic and magnetic structures of the Tb0.1Pr0.9Al2 and Tb0.25Pr0.75Al2 magnetocaloric compounds by means of neutron scattering. Journal of Materials Science, 2015, 50, 2884-2892.	3.7	3
40	Theoretical investigations on magnetocaloric effect in Er1âˆ’Tb Al2 series. Journal of Magnetism and Magnetic Materials, 2015, 379, 112-116.	2.3	15
41	Theoretical investigations on magnetic entropy change in amorphous and crystalline systems: Applications to RAg (R=Tb, Dy, Ho) and GdCuAl. Journal of Magnetism and Magnetic Materials, 2014, 369, 34-39.	2.3	5
42	Calculations of the magnetic entropy change in amorphous through a microscopic anisotropic model: Applications to Dy70Zr30 and DyCo3.4 alloys. Journal of Applied Physics, 2014, 116, 143903.	2.5	5
43	Anisotropic magnetocaloric effect in antiferromagnetic systems: Application to EuTiO3. Journal of Applied Physics, 2014, 116, .	2.5	18
44	Theoretical investigation on the barocaloric and magnetocaloric properties in the Gd5Si2Ge2 compound. Journal of Applied Physics, 2014, 116, .	2.5	6
45	Magnetocaloric effect in Gd(1âˆ’y)DyyAl2. International Journal of Refrigeration, 2014, 37, 297-302.	3.4	12
46	Investigation on the magnetocaloric effect in TbN compound. Journal of Magnetism and Magnetic Materials, 2013, 341, 138-141.	2.3	1
47	Theoretical investigations on the magnetocaloric and barocaloric effects in TbyGd(1âˆ’y)Al2 series. Journal of Alloys and Compounds, 2013, 563, 242-248.	5.5	14
48	Large magnetocaloric effect and refrigerant capacity near room temperature in as-cast Gd5Ge2Si2âˆ’xSnx compounds. Applied Physics Letters, 2013, 102, 192410.	3.3	9
49	Exchange-bias-like effect in Pr0.75Tb0.25Al2 and Pr0.7Tb0.3Al2 samples. Journal of Magnetism and Magnetic Materials, 2013, 339, 6-10.	2.3	7
50	Spin reorientation and the magnetocaloric effect in HoyEr(1âˆ’y)N. Journal of Applied Physics, 2012, 111, .	2.5	10
51	Theoretical investigation on the magnetocaloric effect in MnAs using a microscopic model to describe the magnetic and thermal hysteresis. Solid State Communications, 2012, 152, 951-954.	1.9	13
52	A discussion on the magnetization calculation in polycrystalline antiferromagnetic system: Application to EuTiO3. Journal of Magnetism and Magnetic Materials, 2012, 324, 210-214.	2.3	11
53	The influence of magnetic and electric coupling properties on the magnetocaloric effect in quantum paraelectric EuTiO3. Journal of Magnetism and Magnetic Materials, 2012, 324, 1290-1295.	2.3	11
54	The isothermal variation of the entropy (Î”ST) may be miscalculated from magnetization isotherms in some cases: MnAs and Gd5Ge2Si2 compounds as examples. Journal of Alloys and Compounds, 2011, 509, 3452-3456.	5.5	69

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55	Investigation on the magnetocaloric effect in (Gd,Pr)Al2 solid solutions. Journal of Magnetism and Magnetic Materials, 2011, 323, 794-798.	2.3	18
56	Theoretical investigation on the existence of inverse and direct magnetocaloric effect in perovskite EuZrO3. Journal of Applied Physics, 2011, 109, .	2.5	13
57	Photoacoustic based technique for measuring the magnetocaloric effect. Journal of Physics: Conference Series, 2010, 214, 012137.	0.4	0
58	Magnetocaloric effect in ferromagnetic and ferrimagnetic systems under first and second order phase transition. Journal of Magnetism and Magnetic Materials, 2010, 322, 84-87.	2.3	19
59	Magnetocaloric effect in GdGeSi compounds measured by the acoustic detection technique: Influence of composition and sample treatment. Journal of Applied Physics, 2010, 107, 073524.	2.5	15
60	Pressure tuning the magnetocaloric effect in valence transition compound YbInCu4. Journal of Applied Physics, 2010, 108, 083918.	2.5	4
61	Determination of the entropy change using the acoustic detection technique in the investigation of the magnetocaloric effect. Journal Physics D: Applied Physics, 2010, 43, 445002.	2.8	8
62	The influence of the magnetoelastic interaction on the magnetocaloric effect in ferrimagnetic systems: a theoretical investigation. Journal of Physics Condensed Matter, 2010, 22, 486008.	1.8	7
63	Acoustic detection of the magnetocaloric effect: Application to Gd andGd5.09Ge2.03Si1.88. Physical Review B, 2009, 80, .	3.2	24
64	Theoretical investigation on the magnetocaloric effect in garnets R3Fe5O12 where (R=Y and Dy). Journal of Applied Physics, 2009, 106, 053914.	2.5	9
65	A General Approach to First Order Phase Transitions and the Anomalous Behavior of Coexisting Phases in the Magnetic Case. Advanced Functional Materials, 2009, 19, 942-949.	14.9	15
66	Magnetic coupling between Gd and Pr ions and magnetocaloric effect in Gd0.5Pr0.5Al2 compound. Journal of Magnetism and Magnetic Materials, 2009, 321, 3014-3018.	2.3	11
67	Investigation on the magnetocaloric effect in DyNi2, DyAl2 and Tb1âˆ'Gd Al2 (n=0, 0.4, 0.6) compounds. Journal of Magnetism and Magnetic Materials, 2009, 321, 3462-3465.	2.3	11
68	Investigation of the first-order metamagnetic transitions and the colossal magnetocaloric effect using a Landau expansion applied to MnAs compound. European Physical Journal B, 2009, 68, 67-72.	1.5	23
69	Powder metallurgy influences on the magnetic properties of Gd5.09Ge2.03Si1.88 alloy. Journal of Magnetism and Magnetic Materials, 2008, 320, 1582-1585.	2.3	12
70	Theoretical investigation on the anisotropic magnetocaloric effect: Application to DyAl2. Journal of Magnetism and Magnetic Materials, 2008, 320, e143-e146.	2.3	4
71	The giant anisotropic magnetocaloric effect in DyAl2. Journal of Applied Physics, 2008, 104, .	2.5	31
72	Pressure-induced changes in the magnetic and magnetocaloric properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>R</mml:mi><mml:msub><mml:mrow><mml:mtext>Mn</mml:mtext></mml:mrow><mml:mn>2 xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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73	Isothermal variation of the entropy (Î”ST) for the compound Gd5Ge4 under hydrostatic pressure. Journal of Applied Physics, 2008, 104, 063915.	2.5	8
74	Ambient pressure colossal magnetocaloric effect in Mn1âˆ’xCuxAs compounds. Applied Physics Letters, 2007, 90, 242507.	3.3	48
75	Magnetocaloric effect due to spin reorientation in the crystalline electrical field: Theory applied toDyAl2. Physical Review B, 2007, 75, .	3.2	27
76	Effect of hydrogen on the structural, magnetic and magnetocaloric properties of the Gd5Ge2.1Si1.9 compound. Journal of Alloys and Compounds, 2007, 432, 11-14.	5.5	7
77	The influence of the spin reorientation process on the magnetocaloric effect: Application to PrAl2. Journal of Magnetism and Magnetic Materials, 2007, 313, 176-181.	2.3	7
78	Theoretical description of the colossal entropic magnetocaloric effect: Application to MnAs. Physical Review B, 2006, 73, .	3.2	62
79	Ambient pressure colossal magnetocaloric effect tuned by composition in Mn1âˆ’xFe x As. Nature Materials, 2006, 5, 802-804.	27.5	197
80	Influence of spin reorientation on magnetocaloric effect inNdAl2: A microscopic model. Physical Review B, 2006, 74, .	3.2	15
81	Electron spin resonancegshift inGd5Si4,Gd5Ge4, andGd5.09Ge2.03Si1.88. Physical Review B, 2006, 73, .	3.2	8
82	The magnetic and magnetocaloric properties of Gd5Ge2Si2 compound under hydrostatic pressure. Journal of Applied Physics, 2005, 97, 10M320.	2.5	52
83	Analytical model to understand the colossal magnetocaloric effect. Physical Review B, 2005, 71, .	3.2	65
84	Experimental and theoretical analyses of PrAl2 and NdAl2 composite for use as an active magnetic regenerator. Journal of Applied Physics, 2005, 97, 083905.	2.5	9
85	Electron spin resonance and magnetic characterization of theGd5.09Ge2.03Si1.88. Physical Review B, 2005, 72, .	3.2	13
86	Magnetocaloric effect of La0.8Sr0.2MnO3 compound under pressure. Journal of Applied Physics, 2005, 97, 10M317.	2.5	25
87	Giant magnetocaloric effect in Gd5(Si2Ge2) alloy with low purity Gd. Materials Research, 2004, 7, 535-538.	1.3	16
88	Magnetocaloric effect in theRNi5(R=Pr, Nd, Gd, Tb, Dy, Ho, Er) series. Physical Review B, 2004, 70, .	3.2	84
89	Pressure-Induced Colossal Magnetocaloric Effect in MnAs. Physical Review Letters, 2004, 93, 237202.	7.8	290
90	Experimental study of the magnetocaloric effect in Gd5Sn2Si2 compound. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 2375-2376.	2.3	10

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91	Influence of hydrogen on the magnetic behaviour of Gd5Ge2Si2Hx, 0.1â©½xâ©½2.5. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 2391-2392.	2.3	9