

João S Amaral

List of Publications by Year in descending order

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93
papers

1,830
citations

331670

21
h-index

302126

39
g-index

95
all docs

95
docs citations

95
times ranked

1624
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal Response of Magnetic Refrigerants: Combined Effect of Temperature Dependent Specific Heat and Thermal Conductivity. Applied Sciences (Switzerland), 2022, 12, 6581.	2.5	0
2	Experimental and numerical analysis of the thermal performance of polyurethane foams panels incorporating phase change material. Energy, 2021, 216, 119213.	8.8	22
3	Enhanced strain-induced magnetoelectric coupling in polarization-free Fe/BaTiO ₃ heterostructures. Physical Chemistry Chemical Physics, 2021, 23, 16053-16059.	2.8	0
4	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} . Journal Physics D: Applied Physics, 2021, 54, 225001.	2.8	2
5	On the efficient removal, regeneration and reuse of quaternary chitosan magnetite nanosorbents for glyphosate herbicide in water. Journal of Environmental Chemical Engineering, 2021, 9, 105189.	6.7	32
6	A geometry-independent moment correction method for the MPMS3 SQUID-based magnetometer. Measurement Science and Technology, 2021, 32, 105602.	2.6	12
7	Direct measurement and imaging of magnetocaloric effect inhomogeneities at the microscale in Ni ₄₄ Co ₆ Mn ₃₀ Ga ₂₀ with infrared thermography. Journal of Magnetism and Magnetic Materials, 2021, 538, 168283.	2.3	4
8	Synthesis and characterisation of lead free BaFe ₁₂ O ₁₉ (K _{0.5} Na _{0.5})NbO ₃ magnetoelectric composites, and the comparison of various synthetic routes. Journal of Alloys and Compounds, 2021, 883, 160819.	5.5	0
9	Effective production of multifunctional magnetic-sensitive biomaterial by an extrusion-based additive manufacturing technique. Biomedical Materials (Bristol), 2021, 16, 015011.	3.3	10
10	Synthesis of red mud derived M-type barium hexaferrites with tuneable coercivity. Ceramics International, 2020, 46, 5757-5764.	4.8	3
11	Development of polyurethane foam incorporating phase change material for thermal energy storage. Journal of Energy Storage, 2020, 28, 101177.	8.1	23
12	Changing the magnetic states of an Fe/BaTiO ₃ interface through crystal field effects controlled by strain. Physical Chemistry Chemical Physics, 2020, 22, 18050-18059.	2.8	1
13	Development of structural layers PVC incorporating phase change materials for thermal energy storage. Applied Thermal Engineering, 2020, 179, 115707.	6.0	11
14	Broad Multi-Parameter Dimensioning of Magnetocaloric Systems Using Statistical Learning Classifiers. Frontiers in Energy Research, 2020, 8, .	2.3	5
15	<i>InSilico</i> Thermodynamic Description of Heusler Compounds Applied to Magnetocalorics by Monte Carlo Simulations Starting from <i>AbInitio</i> . European Journal of Inorganic Chemistry, 2020, 2020, 1271-1277.	2.0	1
16	Magnetic Driven Nanocarriers for pH-Responsive Doxorubicin Release in Cancer Therapy. Molecules, 2020, 25, 333.	3.8	38
17	Bonded ferrite-based exchange-coupled nanocomposite magnet produced by Warm compaction. Journal Physics D: Applied Physics, 2020, 53, 494003.	2.8	8
18	Magnetic nanosorbents with siliceous hybrid shells of alginic acid and carrageenan for removal of ciprofloxacin. International Journal of Biological Macromolecules, 2019, 139, 827-841.	7.5	35

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19	Enhancement of maximum energy product in exchange-coupled BaFe ₁₂ O ₁₉ /Fe ₃ O ₄ core-shell-like nanocomposites. <i>Journal of Alloys and Compounds</i> , 2019, 806, 120-126.	5.5	28
20	Octylamine as a novel fuel for the preparation of magnetic iron oxide particles by an aqueous auto-ignition method. <i>Journal of Alloys and Compounds</i> , 2019, 805, 545-550.	5.5	3
21	Experimental and theoretical evidences that atomic disorder suppresses half-metallicity of Heusler compounds. <i>Intermetallics</i> , 2019, 111, 106502.	3.9	4
22	Novel magnetic stimulation methodology for low-current implantable medical devices. <i>Medical Engineering and Physics</i> , 2019, 73, 77-84.	1.7	9
23	Temperature dependent thermal conductivity of magnetocaloric materials: Impact assessment on the performance of active magnetic regenerative refrigerators. <i>International Journal of Refrigeration</i> , 2019, 106, 181-187.	3.4	8
24	Modeling and computing magnetocaloric systems using the Python framework heatrapy. <i>International Journal of Refrigeration</i> , 2019, 106, 278-282.	3.4	10
25	Electric Field Induced Room Temperature Null to High Spin State Switching: A Computational Prediction. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900005.	2.8	3
26	Cooling by sweeping: A new operation method to achieve ferroic refrigeration without fluids or thermally switchable components. <i>International Journal of Refrigeration</i> , 2019, 101, 98-105.	3.4	9
27	Link of Weak Ferromagnetism to Emergence of Topological Vortices in Bulk Ceramics of h-LuMnxO ₃ Manganite. <i>Journal of Physical Chemistry C</i> , 2019, 123, 6158-6166.	3.1	2
28	On the Optimization of Magneto-Volume Coupling for Practical Applied Field Magnetic Refrigeration. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800419.	1.5	11
29	Enhancing the temperature span of thermal switch-based solid state magnetic refrigerators with field sweeping. <i>International Journal of Energy Research</i> , 2019, 43, 742-748.	4.5	11
30	Effect of surfactants on the optical and magnetic properties of cobalt-zinc ferrite Co _{0.5} Zn _{0.5} Fe ₂ O ₄ . <i>Journal of Alloys and Compounds</i> , 2019, 774, 1250-1259.	5.5	48
31	Experimental realisation of off-stoichiometric Fe-Mn-Si full Heusler alloy with hexagonal crystal structure by pulsed laser deposition. <i>Materials and Design</i> , 2018, 143, 268-273.	7.0	5
32	Enhancement of the dielectric permittivity and magnetic properties of Dy substituted strontium titanate ceramics. <i>Journal of the European Ceramic Society</i> , 2018, 38, 605-611.	5.7	18
33	Heatrapy: A flexible Python framework for computing dynamic heat transfer processes involving caloric effects in 1.5D systems. <i>SoftwareX</i> , 2018, 7, 373-382.	2.6	13
34	Synthesis and Characterization of Rare-Earth Orthoferrite LnFeO ₃ Nanoparticles for Bioimaging. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 3570-3578.	2.0	21
35	Interaction of multiferroic properties and interfaces in hexagonal LuMnO ₃ ceramics. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 055304.	2.8	5
36	Insights on the origin of the TbGe magnetocaloric effect. <i>Physica B: Condensed Matter</i> , 2017, 513, 72-76.	2.7	0

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37	Dielectric spectroscopy and magnetometry investigation of Gd-doped strontium titanate ceramics. Journal of the European Ceramic Society, 2017, 37, 2391-2397.	5.7	18
38	Volume dependence of magnetic properties in $\text{Co}_{1-x}\text{Mn}_x$ thin films. Journal of Magnetism and Magnetic Materials, 2017, 428, 362-367.	2.3	7
39	Interdiffusion Processes in High-Coercivity RF-Sputtered Alnico Thin Films on Si Substrates. Jom, 2017, 69, 1427-1431.	1.9	3
40	On the nature of the (de)coupling of the magnetostructural transition in Er ₅ Si ₄ . Physica Status Solidi (B): Basic Research, 2017, 254, 1700143.	1.5	1
41	Nano-Localized Thermal Analysis and Mapping of Surface and Sub-Surface Thermal Properties Using Scanning Thermal Microscopy (SThM). Microscopy and Microanalysis, 2016, 22, 1270-1280.	0.4	15
42	Scanning Thermal Microscopy: Nano-localized Thermal Analysis and Mapping of Surface and Subsurface Thermal Properties. Microscopy and Microanalysis, 2016, 22, 2-3.	0.4	1
43	Assessing Segregation Effects on Multiferroic Properties of Antiferromagnetic-Weak Ferromagnetic Coupled Systems by Analytical HRTEM. Microscopy and Microanalysis, 2016, 22, 58-59.	0.4	1
44	Tailoring Ca ₃ Co ₄ O ₉ microstructure and performances using a transient liquid phase sintering additive. Journal of the European Ceramic Society, 2016, 36, 1025-1032.	5.7	38
45	Smallest Bimetallic CoPt ₃ Superparamagnetic Nanoparticles. Journal of Physical Chemistry Letters, 2016, 7, 4039-4046.	4.6	12
46	Valorisation of industrial iron oxide waste to produce magnetic barium hexaferrite. ChemistrySelect, 2016, 1, 819-825.	1.5	5
47	A combined thermodynamics and first principles study of the electronic, lattice and magnetic contributions to the magnetocaloric effect in La _{0.75} Ca _{0.25} MnO ₃ . Journal Physics D: Applied Physics, 2016, 49, 285001.	2.8	3
48	Modeling the magnetic properties and magnetocaloric effect of La _{0.7} Sr _{0.3} Mn _{0.9} Ti _{0.1} O ₃ . Journal of Alloys and Compounds, 2016, 685, 633-638.	5.5	11
49	Magnetoelectric effect probe through ppm Fe doping in BaTiO ₃ . Journal of Alloys and Compounds, 2016, 661, 495-500.	5.5	6
50	Structural, magnetic, magneto-transport properties and Rbion model simulation of disorder effects in Cr ³⁺ substituted La _{0.67} Ba _{0.33} MnO ₃ nanocrystalline synthesized by modified Pechini method. RSC Advances, 2016, 6, 32193-32201.	3.6	22
51	Hidden value in low-cost inorganic pigments as potentially valuable magnetic materials. Ceramics International, 2016, 42, 9605-9612.	4.8	7
52	High thermoelectric performance in Bi _{2-x} Pb _x Ba ₂ Co ₂ O _y promoted by directional growth and annealing. Journal of the European Ceramic Society, 2016, 36, 67-74.	5.7	26
53	Modeling the magnetic isotherms of (La _{0.56} Ce _{0.14})Sr _{0.30} MnO ₃ by a mean-field scaling method and estimation of magnetic entropy change. Journal of Magnetism and Magnetic Materials, 2015, 393, 105-109.	2.3	8
54	Crystal structure, magnetic and dielectric behavior of h-LuMnO ₃ ± ceramics (0.95±x±1.04). Journal of Magnetism and Magnetic Materials, 2015, 395, 303-311.	2.3	10

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55	Magnetic wood-based biomorphic Sr ₃ Co ₂ Fe ₂₄ O ₄₁ Z-type hexaferrite ecoceramics made from cork templates. <i>Materials and Design</i> , 2015, 82, 297-303.	7.0	24
56	Peculiar Magnetoelectric Coupling in BaTiO ₃ :Fe ₁₁₃ Nanoscopic Segregations. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 24741-24747.	8.0	9
57	Thermodynamics of the 2-D Ising Model From a Random Path Sampling Method. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	2.1	7
58	Magnetovolume Effects in Heusler Compounds via First-Principles Calculations. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	2.1	7
59	Magnetic Properties of Ferrite Ceramics Made from Wastes. <i>Waste and Biomass Valorization</i> , 2014, 5, 133-138.	3.4	12
60	Disorder effects in giant magnetocaloric materials. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 971-974.	1.8	36
61	Spontaneous magnetization above T _C in polycrystalline La _{0.7} Ca _{0.3} MnO ₃ and La _{0.7} Ba _{0.3} MnO ₃ . <i>Physical Review B</i> , 2014, 90, .	3.2	37
62	Strain induced enhanced ferromagnetic behavior in inhomogeneous low doped La _{0.95} Sr _{0.05} MnO ₃ . <i>Applied Physics Letters</i> , 2013, 102, .	3.3	4
63	The influence of annealing on the bimodal distribution of blocking temperatures of exchange biased bilayers. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013, 7, 676-680.	2.4	2
64	Enhanced ferromagnetism and glassy state in phase separated La _{0.95} Sr _{0.05} MnO ₃ . <i>Journal of Applied Physics</i> , 2012, 112, 103907.	2.5	6
65	Dynamic spin centering of Cr ³⁺ and short-range magneto-electric clusters in CdCr ₂ S ₄ . <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 676-680.	3.2	28
66	Organic-inorganic hybrid materials based on iron(III)-polyoxotungstates and 1-butyl-3-methylimidazolium cations. <i>Dalton Transactions</i> , 2012, 41, 12145.	3.3	21
67	On the Curie temperature dependency of the magnetocaloric effect. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	67
68	Magnetoelectric coupling in multiferroic heterostructure of rf-sputtered Ni _{0.5} Mn _{0.5} Ga thin film on PMN _{0.5} PT. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 1882-1886.	2.3	12
69	Unveiling the (De)coupling of magnetostructural transition nature in magnetocaloric R ₅ Si ₂ Ge ₂ (R = Tb, Dy). <i>Journal of Applied Physics</i> , 2011, 110, 104301.	3.3	14
70	Oxygen ordering in the high-T _c HgBa ₂ CaCu ₃ O _{7-x} superconductor. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 676-680.	3.2	2
71	On estimating the magnetocaloric effect from magnetization measurements. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1552-1557.	2.3	161
72	Estimating spontaneous magnetization from a mean field analysis of the magnetic entropy change. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1569-1571.	2.3	45

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73	Prediction of realistic entropy behavior from mixed state magnetization data for first order phase transition materials. Journal of Applied Physics, 2010, 107, 09A912.	2.5	10
74	Low Temperature Deposition of Ferromagnetic Ni-Mn-Ga Thin Films From Two Different Targets via rf Magnetron Sputtering. Materials Research Society Symposia Proceedings, 2010, 1250, 1.	0.1	2
75	Handling mixed-state magnetization data for magnetocaloric studies—a solution to achieve realistic entropy behaviour. Journal Physics D: Applied Physics, 2010, 43, 152002.	2.8	32
76	Percolation processes and spin-reorientation of $\text{PrNi}_{1-x}\text{Co}_x$ magnetic compounds exploiting its spin reorientation and magnetic transition over a wide temperature zone. Physical Review B, 2009, 79, .	3.2	14
77	Superferromagnetism in mechanically alloyed fcc $\text{Fe}_{23}\text{Cu}_{77}$ with bimodal cluster size distribution. Journal of Physics Condensed Matter, 2009, 21, 046003.	1.8	4
78	High refrigerant capacity of $\text{PrNi}_{5-x}\text{Co}_x$ magnetic compounds exploiting its spin reorientation and magnetic transition over a wide temperature zone. Journal Physics D: Applied Physics, 2009, 42, 055002.	2.8	13
79	The effect of magnetic irreversibility on estimating the magnetocaloric effect from magnetization measurements. Applied Physics Letters, 2009, 94, .	3.3	92
80	The effect of chemical distribution on the magnetocaloric effect: A case study in second-order phase transition manganites. Journal of Non-Crystalline Solids, 2008, 354, 5301-5303.	3.1	34
81	Characterization of electrodeposited Ni and Ni ₈₀ Fe ₂₀ nanowires. Journal of Non-Crystalline Solids, 2008, 354, 5241-5243.	3.1	17
82	Studies of local fields in the $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$ system using perturbed angular correlation spectroscopy. Journal of Non-Crystalline Solids, 2008, 354, 5315-5317.	3.1	4
83	Influence of the Magnetic Anisotropy on the Magnetic Entropy Change of $\text{Ni}_{1-x}\text{Mn}_x$ (T_j ETQq1 1 0.784314 rgBT /Overflow	2.1	2
84	A mean-field scaling method for first- and second-order phase transition ferromagnets and its application in magnetocaloric studies. Applied Physics Letters, 2007, 91, .	3.3	64
85	Processing and phase separation of LSMO-based multiferroic composite ceramics. Journal of the European Ceramic Society, 2007, 27, 3941-3945.	5.7	13
86	Tuning of Magnetocaloric Effect in Ferromagnetic La-Sr Manganites through Er and Eu Doping. Materials Science Forum, 2006, 514-516, 299-303.	0.3	4
87	Magnetocaloric effect in Er- and Eu-substituted ferromagnetic La-Sr manganites. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 686-689.	2.3	172
88	Charge-ordering contribution to the magnetic entropy change of $\text{Ni}_{1-x}\text{Mn}_x$ (T_j ETQq1 1 0.784314 rgBT /Overflow	2.3	8
89	Magnetoelastic coupling influence on the magnetocaloric effect in ferromagnetic materials. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 2104-2105.	2.3	217
90	Magnetocaloric Effect in Manganites: Ferromagnetism and Charge-Ordering Effects. Materials Science Forum, 2004, 455-456, 148-152.	0.3	9

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91	Charge-Ordering and Magnetoelastic Coupling Effects on the Magnetocaloric Properties of Manganites. Acta Physica Polonica A, 2004, 105, 163-171.	0.5	4
92	Raman spectroscopy and dielectric measurements of betaine rubidium iodide dihydrate. Journal of Physics Condensed Matter, 2002, 14, 4553-4565.	1.8	1
93	Phase Separation of $\text{La}_{0.70-x}\text{Er}_x\text{Sr}_{0.30}\text{MnO}_3$ and its Effect on Magnetic and Magnetocaloric Properties. Materials Science Forum, 0, 587-588, 338-342.		2