Xavier Moya

List of Publications by Year
in descending order

101 papers	12,647 citations	57681 46 h-index	39744 98 g-index
105 all docs	105 docs citations	105 times ranked	11030 citing authors

#	Article	IF	Citations
1	Double bond with a licence to chill. Joule, 2022, 6, 289-290.	11.7	3
2	Quasi-indirect measurement of electrocaloric temperature change in PbSc0.5Ta0.5O3 via comparison of adiabatic and isothermal electrical polarization data. APL Materials, 2021, 9, .	2.2	6
3	Melting of hybrid organicâ€“inorganic perovskites. Nature Chemistry, 2021, 13, 778-785.	6.6	65
4	Reversible colossal barocaloric effects near room temperature in 1-X-adamantane (X=Cl, Br) plastic crystals. Applied Materials Today, 2021, 23, 101023.	2.3	33
5	Barocaloric properties of quaternary <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Mn</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">N</mml:mi></mml:math> for room-temperature refrigeration applications. Physical Review B, 2021, 104, .	1.1	7
6	Strain dependence of Berry-phase-induced anomalous Hall effect in the non-collinear antiferromagnet Mn3NiN. Applied Physics Letters, 2021, 119, .	1.5	9
7	Reversible and irreversible colossal barocaloric effects in plastic crystals. Journal of Materials Chemistry A, 2020, 8, 639-647.	5.2	85
8	Near-room-temperature reversible giant barocaloric effects in [(CH₃)₄N]Mn[N₃]₃ hybrid perovskite. Materials Advances, 2020, 1, 3167-3170.	2.6	27
9	Caloric materials for cooling and heating. Science, 2020, 370, 797-803.	6.0	159
10	Itâ€™s not about the mass. Nature Energy, 2020, 5, 941-942.	19.8	4
11	High-contrast imaging of 180Â° ferroelectric domains by optical microscopy using ferroelectric liquid crystals. Applied Physics Letters, 2020, 116, 212901.	1.5	2
12	Large magnetoelectric coupling in multiferroic oxide heterostructures assembled via epitaxial lift-off. Nature Communications, 2020, 11, 3190.	5.8	48
13	Voltage-driven annihilation and creation of magnetic vortices in Ni discs. Nanoscale, 2020, 12, 5652-5657.	2.8	10
14	Heat flow in electrocaloric multilayer capacitors. Journal of Alloys and Compounds, 2020, 834, 155042.	2.8	13
15	Multicalorics. Journal of Applied Physics, 2020, 128, .	1.1	6
16	Voltage-driven displacement of magnetic vortex cores. Journal Physics D: Applied Physics, 2020, 53, 434003.	1.3	6
17	Suppression of acoustic emission during superelastic tensile cycling of polycrystalline <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ni</mml:mi><mml:mrow><mml:mn>50.4</mml:mn> Physical Review Materials, 2020, 4, .	2.4	2
18	Giant and Reversible Inverse Barocaloric Effects near Room Temperature in Ferromagnetic MnCoGeB_{0.03}. Advanced Materials, 2019, 31, e1903577.	11.1	60

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19	Elastic anomalies associated with domain switching in BaTiO3 single crystals under in situ electrical cycling. APL Materials, 2019, 7, 051109.	2.2	10
20	Electrocaloric Cooling Cycles in Lead Scandium Tantalate with True Regeneration via Field Variation. Physical Review X, 2019, 9, .	2.8	16
21	Shear-strain-mediated magnetoelectric effects revealed by imaging. Nature Materials, 2019, 18, 840-845.	13.3	46
22	Colossal barocaloric effects near room temperature in plastic crystals of neopentylglycol. Nature Communications, 2019, 10, 1803.	5.8	144
23	Large electrocaloric effects in oxide multilayer capacitors over a wide temperature range. Nature, 2019, 575, 468-472.	13.7	171
24	Voltage control of magnetic single domains in Ni discs on ferroelectric BaTiO₃. Journal Physics D: Applied Physics, 2018, 51, 224007.	1.3	23
25	Electrocaloric effects in multilayer capacitors for cooling applications. MRS Bulletin, 2018, 43, 291-294.	1.7	31
26	Multicaloric materials and effects. MRS Bulletin, 2018, 43, 295-299.	1.7	76
27	Multisite Exchange-Enhanced Barocaloric Response in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Mn</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn> Physical Review X, 2018, 8, .	2.8	24
28	Giant barocaloric tunability in [(CH₃CH₂CH₂)₄N]Cd[N(CN)₂]₃ hybrid perovskite. Journal of Materials Chemistry C, 2018, 6, 9867-9874.	2.7	50
29	Enhanced electrocaloric efficiency via energy recovery. Nature Communications, 2018, 9, 1827.	5.8	87
30	Understanding charge transport in lead iodide perovskite thin-film field-effect transistors. Science Advances, 2017, 3, e1601935.	4.7	354
31	Effect of inactive volume on thermocouple measurements of electrocaloric temperature change in multilayer capacitors of 0.9Pb(Mg_{1/3}Nb_{2/3})O₃â€“0.1PbTiO₃. Journal Physics D: Applied Physics, 2017, 50, 424002.	1.3	24
32	Turn your phonon. Nature Materials, 2017, 16, 784-785.	13.3	9
33	Giant barocaloric effects over a wide temperature range in superionic conductor AgI. Nature Communications, 2017, 8, 1851.	5.8	95
34	Preface to Special Topic: Caloric Materials. APL Materials, 2016, 4, .	2.2	5
35	Direct electrocaloric measurement of 0.9Pb(Mg1/3Nb2/3)O3-0.1PbTiO3 films using scanning thermal microscopy. Applied Physics Letters, 2016, 108, .	1.5	46
36	Inverse barocaloric effects in ferroelectric BaTiO3 ceramics. APL Materials, 2016, 4, .	2.2	64

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37	Progress on electrocaloric multilayer ceramic capacitor development. APL Materials, 2016, 4, .	2.2	35
38	Long Spin Diffusion Length in Few-Layer Graphene Flakes. Physical Review Letters, 2016, 117, 147201.	2.9	37
39	Taking the temperature of phase transitions in cool materials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150314.	1.6	0
40	Large electrocaloric effects in single-crystal ammonium sulfate. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150313.	1.6	8
41	Control of Magnetization-Reversal Mechanism via Uniaxial Anisotropy Strength in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>La</mml:mi></mml:mrow><mml:mrow><mml:mn>0.67</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Electrodes for Spintronic. Physical Review Applied, 2015, 4, .	4.6	6
42	Giant barocaloric effects at low pressure in ferrielectric ammonium sulphate. Nature Communications, 2015, 6, 8801.	5.8	160
43	Perpendicular Local Magnetization Under Voltage Control in Ni Films on Ferroelectric BaTiO₃ Substrates. Advanced Materials, 2015, 27, 1460-1465.	11.1	64
44	Too cool to work. Nature Physics, 2015, 11, 202-205.	6.5	221
45	Magnetoelectric CoFe₂O₄/polyvinylidene fluoride electrospun nanofibres. Nanoscale, 2015, 7, 8058-8061.	2.8	78
46	New developments in caloric materials for cooling applications. AIP Advances, 2015, 5, .	0.6	112
47	Restoration of the third law in spin ice thin films. Nature Communications, 2014, 5, 3439.	5.8	40
48	Tuning La0.67Sr0.33MnO3 surface magnetism using LaMnO3 and SrTiO3 caps. Journal of Magnetism and Magnetic Materials, 2014, 355, 331-333.	1.0	4
49	Caloric materials near ferroic phase transitions. Nature Materials, 2014, 13, 439-450.	13.3	1,129
50	Strain-controlled thermal conductivity in ferroic twinned films. Scientific Reports, 2014, 4, 6375.	1.6	39
51	Large linear anhysteretic magnetoelectric voltage coefficients in CoFe2O4/polyvinylidene fluoride 0â€“3 nanocomposites. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	27
52	Direct electrocaloric measurements of a multilayer capacitor using scanning thermal microscopy and infra-red imaging. Applied Physics Letters, 2013, 102, .	1.5	73
53	The Electrocaloric Efficiency of Ceramic and Polymer Films. Advanced Materials, 2013, 25, 3337-3342.	11.1	123
54	Giant and reversible extrinsic magnetocaloric effects in La0.7Ca0.3MnO3 films due to strain. Nature Materials, 2013, 12, 52-58.	13.3	226

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55	Single ferroelectric-domain photovoltaic switch based on lateral BiFeO3 cells. NPG Asia Materials, 2013, 5, e38-e38.	3.8	20
56	Non-volatile electrically-driven repeatable magnetization reversal with no applied magnetic field. Nature Communications, 2013, 4, 1453.	5.8	111
57	Giant Electrocaloric Strength in Singleâ€Crystal BaTiO₃. Advanced Materials, 2013, 25, 1360-1365.	11.1	430
58	Low-temperature transverse magnetic domains in nominally uniaxial La_{0.67}Sr_{0.33}MnO₃ films on NdGaO₃ (0â€‰0â€‰1). Journal Physics D: Applied Physics, 2013, 46, 032002.	1.3	4
59	Evidence of high rate visible light photochemical decolourisation of Rhodamine B with BiFeO3 nanoparticles associated with BiFeO3 photocorrosion. RSC Advances, 2012, 2, 11843.	1.7	44
60	Atomic and Electronic Structure of the BaTiO₃/Fe Interface in Multiferroic Tunnel Junctions. Nano Letters, 2012, 12, 376-382.	4.5	95
61	A ferroelectric memristor. Nature Materials, 2012, 11, 860-864.	13.3	983
62	Solid-state memories based on ferroelectric tunnel junctions. Nature Nanotechnology, 2012, 7, 101-104.	15.6	518
63	Spatially Resolved Photodetection in Leaky Ferroelectric BiFeO₃. Advanced Materials, 2012, 24, OP49-53.	11.1	29
64	Photodetection: Spatially Resolved Photodetection in Leaky Ferroelectric BiFeO3 (Adv. Mater. 10/2012). Advanced Materials, 2012, 24, OP48-OP48.	11.1	0
65	Complex phase separation in La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.6</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Ca<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.4</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>MnO<mml:math	1.1	16
66	Interface-induced room-temperature multiferroicity in BaTiO3. Nature Materials, 2011, 10, 753-758.	13.3	341
67	Linear anhysteretic direct magnetoelectric effect in Ni_{0.5}Zn_{0.5}Fe₂O₄/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 2	1.3	10
68	Sliding charge-density waves in manganites. Nature Materials, 2010, 9, 688-688.	13.3	6
69	The absence of charge-density-wave sliding in epitaxial charge-ordered Pr_{0.48}Ca_{0.52}MnO₃films. Journal of Physics Condensed Matter, 2010, 22, 275602.	0.7	3
70	Ferroelectric Control of Spin Polarization. Science, 2010, 327, 1106-1110.	6.0	632
71	Hysteresis effects in the magnetic-field-induced reverse martensitic transition in magnetic shape-memory alloys. Journal of Applied Physics, 2010, 108, 043914.	1.1	34
72	Fe and Co selective substitution in Ni₂MnGa: Effect of magnetism on relative phase stability. Philosophical Magazine, 2010, 90, 2771-2792.	0.7	86

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73	Lattice dynamics in magnetic superelastic Ni-Mn-In alloys: Neutron scattering and ultrasonic experiments. Physical Review B, 2009, 79, .	1.1	42
74	Premartensitic transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ni</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub> alloys: Acoustic emission study. Physical Review B, 2009, 80, .	1.1	14
75	Mechanical resonance of the austenite/martensite interface and the pinning of the martensitic microstructures by dislocations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Cu</mml:mtext></mml:mrow><mml:mrow><mml:mn>74.08</mml:mn></mml:mrow> Physical Review B, 2009, 80, .	1.1	46
76	An acoustic emission study of the effect of a magnetic field on the martensitic transition in Ni2MnGa. Applied Physics Letters, 2009, 94, .	1.5	21
77	Structural properties and magnetic interactions in martensitic Ni-Mn-Sb alloys. Philosophical Magazine, 2009, 89, 2093-2109.	0.7	53
78	Comment on â€œThe Magnetocaloric Effect of LaFe_{11.6}Si_{1.4}, La_{0.8}Nd_{0.2}Fe_{11.5}Si_{1.5}, and Ni₄₃Mn₄₆Sn₁₁ Compounds in the Vicinity of the Firstâ€Order Phase Transitionâ€• Advanced Materials, 2009, 21, 3725-3726.	11.1	18
79	Large Electric Field Effect in Electrolyte-Gated Manganites. Physical Review Letters, 2009, 102, 136402.	2.9	170
80	Lattice dynamics of Niâ€“Mnâ€“Al Heusler alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 227-230.	2.6	2
81	Niâ€“Mn-based magnetic shape memory alloys: Magnetic properties and martensitic transition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 49-56.	2.6	44
82	Phase diagram of Fe-doped Ni-Mn-Ga ferromagnetic shape-memory alloys. Physical Review B, 2008, 77, .	1.1	59
83	Effects of hydrostatic pressure on the magnetism and martensitic transition of Niâ€“Mnâ€“In magnetic superelastic alloys. Applied Physics Letters, 2008, 92, .	1.5	126
84	The influence of gallium on the magnetocaloric properties of Gd5Si2Ge2. Journal of Alloys and Compounds, 2008, 460, 94-98.	2.8	20
85	Martensitic transformation B2â€“R in Niâ€“Tiâ€“Fe: experimental determination of the Landau potential and quantum saturation of the order parameter. Journal of Physics Condensed Matter, 2008, 20, 275216.	0.7	23
86	Tailoring magnetic and magnetocaloric properties of martensitic transitions in ferromagnetic Heusler alloys. Applied Physics Letters, 2007, 91, .	1.5	110
87	Magnetization easy axis in martensitic Heusler alloys estimated by strain measurements under magnetic field. Applied Physics Letters, 2007, 91, 251915.	1.5	49
88	Effect of Co and Fe on the inverse magnetocaloric properties of Ni-Mn-Sn. Journal of Applied Physics, 2007, 102, .	1.1	174
89	Magnetic superelasticity and inverse magnetocaloric effect in Ni-Mn-In. Physical Review B, 2007, 75, .	1.1	462
90	Cooling and heating by adiabatic magnetization in theNi50Mn34In16magnetic shape-memory alloy. Physical Review B, 2007, 75, .	1.1	156

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91	Magnetocaloric effect in Heusler shape-memory alloys. Journal of Magnetism and Magnetic Materials, 2007, 310, 2767-2769.	1.0	68
92	Electronic aspects of the martensitic transition in Niâ€“Mn based Heusler alloys. Journal of Magnetism and Magnetic Materials, 2007, 310, 2788-2789.	1.0	123
93	Calorimetric study of the inverse magnetocaloric effect in ferromagnetic Niâ€“Mnâ€“Sn. Journal of Magnetism and Magnetic Materials, 2007, 316, e572-e574.	1.0	58
94	Lattice dynamics and phonon softening inNiâˆ’Mnâˆ’AlHeusler alloys. Physical Review B, 2006, 73, .	1.1	30
95	Ferromagnetism in the austenitic and martensitic states ofNiâˆ’Mnâˆ’Inalloys. Physical Review B, 2006, 73, .	1.1	570
96	Martensitic transition and magnetic properties in Niâ€“Mnâ€“X alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 911-915.	2.6	104
97	Temperature and magnetic-field dependence of the elastic constants of Ni-Mn-Al magnetic Heusler alloys. Physical Review B, 2006, 74, .	1.1	22
98	Inverse magnetocaloric effect in ferromagnetic Niâ€“Mnâ€“Sn alloys. Nature Materials, 2005, 4, 450-454.	13.3	1,757
99	Specific heat of single-crystalHfV2: Strong-coupling conventional superconductivity and the effect of the martensitic transition. Physical Review B, 2005, 72, .	1.1	9
100	Martensitic transitions and the nature of ferromagnetism in the austenitic and martensitic states ofNiâˆ’Mnâˆ’Snalloys. Physical Review B, 2005, 72, .	1.1	653
101	Magnetostrain in Multifunctional Ni-Mn Based Magnetic Shape Memory Alloys. Materials Science Forum, 0, 583, 111-117.	0.3	26