

# Francois Guillou

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

63

papers

1,114

citations

19

h-index

32

g-index

70

ext. papers

1,305

ext. citations

4.1

avg, IF

4.32

L-index

#	Paper	IF	Citations
63	Crystal structures and magnetic properties of Fe <sub>1.93</sub> -Co P <sub>1</sub> -Si compounds. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 903, 163770	5.7	
62	Drastic Influence of Synthesis Conditions on Structural, Magnetic, and Magnetocaloric Properties of Mn(Fe,Ni)(Si,Al) Compounds. <i>Crystals</i> , <b>2022</b> , 12, 233	2.3	2
61	Heat capacity of a MnFe(P,Si,B) compound with first-order magnetic transition. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2022</b> , 541, 168513	2.8	0
60	XAS and XMCD Reveal a Cobalt(II) Imide Undergoes High-Pressure-Induced Spin Crossover. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 5784-5792	3.8	0
59	Two-steps process in the first-order transformation of giant magnetocaloric materials. <i>Acta Materialia</i> , <b>2022</b> , 231, 117869	8.4	1
58	Determination of Absolute Structure of Chiral Crystals Using Three-Wave X-ray Diffraction. <i>Crystals</i> , <b>2021</b> , 11, 1389	2.3	0
57	(Fe,Co) <sub>2</sub> (P,Si) rare-earth free permanent magnets: From macroscopic single crystals to submicron-sized particles. <i>Acta Materialia</i> , <b>2021</b> , 221, 117388	8.4	1
56	Burstlike first-order transformation studied by semi-adiabatic relaxation calorimetry. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 165106	2.5	1
55	Thermodynamic model of the coupled valence and spin state transition in cobaltates. <i>Journal of Physics Condensed Matter</i> , <b>2021</b> , 33, 095801	1.8	0
54	Tuning the Magnetically Segregated Nanolayering in MnNiAs Intermetallics. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 3002-3010	9.6	
53	Structural and magnetic properties of Sc <sub>1</sub> -Nb Fe <sub>2</sub> intermetallics showing anomalous zero thermal expansion. <i>Intermetallics</i> , <b>2021</b> , 136, 107252	3.5	0
52	Free-energy analysis of the nonhysteretic first-order phase transition of Eu <sub>2</sub> In. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	4
51	Structure and magnetic properties of Fe <sub>1.95</sub> -xNi <sub>x</sub> P <sub>1</sub> -ySi <sub>y</sub> alloys. <i>Solid State Communications</i> , <b>2020</b> , 319, 113996	1.6	4
50	Magnetic properties, anisotropy parameters and magnetocaloric effect of flux grown MnFe <sub>4</sub> Si <sub>3</sub> single crystal. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2020</b> , 504, 166597	2.8	4
49	Plastically deformed LaBeSi: Microstructural evolution, magnetocaloric effect and anisotropic thermal conductivity. <i>Acta Materialia</i> , <b>2020</b> , 187, 1-11	8.4	17
48	Magnetocaloric Effect, Magnetoresistance of Sc <sub>0.28</sub> Ti <sub>0.72</sub> Fe <sub>2</sub> , and Phase Diagrams of Sc <sub>0.28</sub> Ti <sub>0.72</sub> Fe <sub>2</sub> T <sub>x</sub> Alloys with T = Mn or Co. <i>Crystals</i> , <b>2020</b> , 10, 410	2.3	2
47	Metamagnetic transition, magnetocaloric effect and electronic structure of the rare-earth anti-perovskite SnOEu <sub>3</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2020</b> , 501, 166405	2.8	3

46	Structural and magnetic phase diagrams of MnFe <sub>0.6</sub> Ni <sub>0.4</sub> (Si,Ge) alloys and their giant magnetocaloric effect probed by heat capacity measurements. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2020</b> , 494, 165785	2.8	7
45	Room temperature magnetic anisotropy in Fe <sub>2</sub> P-type transition metal based alloys. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 800, 403-411	5.7	4
44	Antiferromagnetism of ECe under hydrostatic pressure. <i>Solid State Communications</i> , <b>2019</b> , 294, 36-38	1.6	
43	Revisiting Bond Breaking and Making in EuCo <sub>2</sub> P <sub>2</sub> : Where are the Electrons?. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 5813-5813	4.8	
42	Revisiting Bond Breaking and Making in EuCo <sub>2</sub> P <sub>2</sub> : Where are the Electrons?. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 5865-5869	4.8	4
41	The first-order magnetoelastic transition in Eu <sub>2</sub> In: A <sup>151</sup> Eu Mössbauer study. <i>AIP Advances</i> , <b>2019</b> , 9, 125137	1.7	2
40	Large recalescence-like event at the first cooling across the magnetic transition of (Mn,Fe) <sub>2</sub> (P,Si) magnetocaloric materials. <i>Scripta Materialia</i> , <b>2019</b> , 160, 81-85	5.6	6
39	Non-hysteretic first-order phase transition with large latent heat and giant low-field magnetocaloric effect. <i>Nature Communications</i> , <b>2018</b> , 9, 2925	17.4	54
38	First-order magnetic transition, magnetocaloric effect and moment formation in MnFe(P,Ge) magnetocaloric materials revisited by x-ray magnetic circular dichroism. <i>Physica B: Condensed Matter</i> , <b>2018</b> , 544, 66-72	2.8	5
37	Manipulating the stability of crystallographic and magnetic sub-lattices: A first-order magnetoelastic transformation in transition metal based Laves phase. <i>Acta Materialia</i> , <b>2018</b> , 154, 365-374	8.4	19
36	First-order antiferromagnetic to ferromagnetic transition in Mn(Co,Fe)P probed by x-ray absorption experiments. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 903, 012043	0.3	0
35	Valence and spin-state transition in cobaltates revisited by x-ray magnetic circular dichroism. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	2
34	Crystal, magnetic, calorimetric and electronic structure investigation of GdScGe Sb compounds. <i>Journal of Physics Condensed Matter</i> , <b>2017</b> , 29, 485802	1.8	8
33	Spin Hall magnetoresistance in a canted ferrimagnet. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	55
32	High-resolution hard x-ray magnetic imaging with dichroic ptychography. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	26
31	Efficient Room-Temperature Cooling with Magnets. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 4901-4905	9.6	36
30	Microscopic mechanism of the giant magnetocaloric effect in MnCoGe alloys probed by x-ray magnetic circular dichroism. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 122405	3.4	20
29	High pressure XANES and XMCD in the tender X-ray energy range. <i>High Pressure Research</i> , <b>2016</b> , 36, 445-457	4.5	11

28	Influence of thermal conductivity on the dynamic response of magnetocaloric materials. <i>International Journal of Refrigeration</i> , <b>2015</b> , 59, 29-36	3.8	13
27	Moment evolution across the ferromagnetic phase transition of giant magnetocaloric (Mn,Fe) <sub>2</sub> (P,Si,B) compounds. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	22
26	Field Dependence of the Magnetocaloric Effect in MnFe(P,Si) Materials. <i>IEEE Transactions on Magnetics</i> , <b>2015</b> , 51, 1-4	2	11
25	Structural, magnetic and magnetocaloric properties of (Mn, Co) <sub>2</sub> (Si, P) compounds. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 625, 95-100	5.7	8
24	Electronic and magnetic properties of phosphorus across the first-order ferromagnetic transition of (Mn,Fe) <sub>2</sub> (P,Si,B) giant magnetocaloric materials. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	15
23	First-order ferromagnetic transition in single-crystalline (Mn,Fe) <sub>2</sub> (P,Si). <i>Applied Physics Letters</i> , <b>2015</b> , 107, 162403	3.4	10
22	Effect of boron substitution on the ferromagnetic transition of MnFe <sub>0.95</sub> P <sub>2/3</sub> Si <sub>1/3</sub> . <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 632, 717-722	5.7	29
21	Taming the first-order transition in giant magnetocaloric materials. <i>Advanced Materials</i> , <b>2014</b> , 26, 2671-5, 2615	24	185
20	Boron addition in MnFe(P,Si) magnetocaloric materials: interstitial vs. substitutional scenarii. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2014</b> , 11, 1007-1010		8
19	Direct measurement of the magnetocaloric effect in MnFe(P,X)(X= As, Ge, Si) materials. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 075002	3	76
18	Evolution of spin and valence states of (Pr <sub>0.7</sub> Sm <sub>0.3</sub> ) <sub>0.7</sub> Ca <sub>0.3</sub> CoO <sub>3</sub> at high temperature and high pressure. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	9
17	Determination of the magnetocaloric entropy change in the presence of phase separation and metastability: The case of Eu <sub>0.58</sub> Sr <sub>0.42</sub> MnO <sub>3</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2014</b> , 363, 145-151	2.8	2
16	Magnetocaloric effect, cyclability and coefficient of refrigerant performance in the MnFe(P, Si, B) system. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 063903	2.5	73
15	About the mechanical stability of MnFe(P,Si,B) giant-magnetocaloric materials. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 617, 569-574	5.7	40
14	An experimental comparison of four magnetocaloric regenerators using three different materials. <i>International Journal of Refrigeration</i> , <b>2014</b> , 37, 147-155	3.8	43
13	Cobalt spin state above the valence and spin-state transition in (Pr <sub>0.7</sub> Sm <sub>0.3</sub> ) <sub>0.7</sub> Ca <sub>0.3</sub> CoO <sub>3</sub> . <i>Solid State Sciences</i> , <b>2013</b> , 24, 120-124	3.4	7
12	Tuning the metamagnetic transition in the (Co, Fe)MnP system for magnetocaloric purposes. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 143903	2.5	14
11	Coupled valence and spin state transition in (Pr <sub>0.7</sub> Sm <sub>0.3</sub> ) <sub>0.7</sub> Ca <sub>0.3</sub> CoO <sub>3</sub> . <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	33

10	Jumps in entropy and magnetic susceptibility at the valence and spin-state transition in a cobalt oxide. <i>Journal of Physics Condensed Matter</i> , <b>2013</b> , 25, 246003	1.8	5
9	Development of a new magnetocaloric material used in a magnetic refrigeration device. <i>EPJ Web of Conferences</i> , <b>2012</b> , 29, 00021	0.3	9
8	Ordering process and ferroelectricity in a spinel derived from FeV <sub>2</sub> O <sub>4</sub> . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	61
7	Calorimetric investigation of the magnetocaloric effect in Ni <sub>45</sub> Co <sub>5</sub> Mn <sub>37.5</sub> In <sub>12.5</sub> . <i>Journal Physics D: Applied Physics</i> , <b>2012</b> , 45, 255001	3	21
6	Magnetocaloric effect and improved relative cooling power in (La <sub>0.7</sub> Sr <sub>0.3</sub> )MnO <sub>3</sub> /SrRuO <sub>3</sub> superlattices. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 052201	1.8	30
5	On the derivation of the magnetocaloric properties in ferrimagnetic spinel Mn <sub>3</sub> O <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 053902	2.5	9
4	Magnetic transitions in Mn <sub>3</sub> O <sub>4</sub> and an anomaly at 38 K in magnetization and specific heat. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	24
3	Investigation of the magnetocaloric effect in double distorted perovskites Ca(Cu <sub>3-x</sub> Mnx)Mn <sub>4</sub> O <sub>12</sub> (1-x/2): From standard ferrimagnetism to glassy ferrimagnetism. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	4
2	Anisotropic magnetocaloric effect in all-ferromagnetic (La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> /SrRuO <sub>3</sub> ) superlattices. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 112506	3.4	32
1	Coexistence of inverse and normal magnetocaloric effect in A-site ordered NdBaMn <sub>2</sub> O <sub>6</sub> . <i>Applied Physics Letters</i> , <b>2010</b> , 96, 242506	3.4	23