

# Karl G Sandeman

## List of Publications by Year in descending order

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37  
papers

2,118  
citations

257450

24  
h-index

361022

35  
g-index

37  
all docs

37  
docs citations

37  
times ranked

2131  
citing authors

#	ARTICLE	IF	CITATIONS
1	A bimetallic iron( $\text{Fe}_2$ ) catalyst for $\text{CO}_2$ /epoxide coupling. Chemical Communications, 2011, 47, 212-214.	4.1	390
2	Magnetocaloric materials: The search for new systems. Scripta Materialia, 2012, 67, 566-571.	5.2	259
3	Solid-state cooling with caloric materials. Physics Today, 2015, 68, 48-54.	0.3	149
4	Negative magnetocaloric effect from highly sensitive metamagnetism in $\text{CoMnSi}_2$ . Physical Review B, 2006, 74, .	3.2	121
5	Ferromagnetic Superconductivity Driven by Changing Fermi Surface Topology. Physical Review Letters, 2003, 90, 167005.	7.8	106
6	Giant Magnetoelastic Coupling in a Metallic Helical Metamagnet. Physical Review Letters, 2010, 104, 247202.	7.8	84
7	Reducing extrinsic hysteresis in first-order $\text{La}(\text{Fe}, \text{Co}, \text{Si})_{13}$ magnetocaloric systems. Applied Physics Letters, 2009, 95, .	3.3	83
8	Phase diagram and magnetocaloric effect of $\text{CoMnGe}_{1-x}\text{Ge}_x$ . Journal of Magnetism and Magnetic Materials, 2009, 321, 3535-3540.	2.3	77
9	Giant Barocaloric Effect at the Spin Crossover Transition of a Molecular Crystal. Advanced Materials, 2019, 31, e1807334.	21.0	75
10	Structurally driven metamagnetism in $\text{MnP}$ and related $\text{MnP}_n$ . Physical Review B, 2010, 81, .	3.2	63
11	Capturing first- and second-order behavior in magnetocaloric $\text{CoMnSi}$ . Physical Review B, 2009, 79, .	3.2	59
12	Evaluation of the reliability of the measurement of key magnetocaloric properties: A round robin study of $\text{La}(\text{Fe}, \text{Si}, \text{Mn})\text{Hf}$ conducted by the SSEE consortium of European laboratories. International Journal of Refrigeration, 2012, 35, 1528-1536.	3.4	54
13	Measurement of the magnetocaloric properties of $\text{CoMn}_{1-x}\text{Ge}_x$ . Physical Review B, 2008, 78, .	3.2	51
14	Piezomagnetism as a counterpart of the magnetovolume effect in magnetically frustrated Mn-based antiperovskite nitrides. Physical Review B, 2017, 96, .	3.2	51
15	Frustrated magnetism and caloric effects in Mn-based antiperovskite nitrides: <i>Ab initio</i> theory. Physical Review B, 2017, 95, .	3.2	43
16	Magnetoelastic effects in doped $\text{Fe}_2\text{P}$ . Physical Review B, 2013, 88, .	3.2	40
17	Spontaneous magnetization above $T_C$ in polycrystalline $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ and $\text{La}_{0.7}\text{Ba}_{0.3}\text{MnO}_3$ . Physical Review B, 2014, 90, .	3.2	37
18	Measurement of the magnetocaloric properties of $\text{CoMn}_{0.95}\text{Fe}_{0.05}$ . Large change with Fe substitution. Physical Review B, 2008, 78, .	3.2	36

#	ARTICLE	IF	CITATIONS
19	Magnetoelastic coupling and competing entropy changes in substituted CoMnSi metamagnets. <i>Physical Review B</i> , 2013, 87, .	3.2	36
20	Tuning the metamagnetism of an antiferromagnetic metal. <i>Physical Review B</i> , 2013, 87, .	3.2	34
21	Research Update: The mechanocaloric potential of spin crossover compounds. <i>APL Materials</i> , 2016, 4, .	5.1	32
22	Contributions to the entropy change in melt-spun LaFe <sub>11.6</sub> Si <sub>1.4</sub> . <i>Journal Physics D: Applied Physics</i> , 2010, 43, 132001.	2.8	28
23	History dependence of directly observed magnetocaloric effects in (Mn, Fe)As. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	26
24	Model of anisotropic scattering in a quasi-two-dimensional metal. <i>Physical Review B</i> , 2001, 63, .	3.2	25
25	The magnetocaloric performance in pure and mixed magnetic phase CoMnSi. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 195001.	2.8	21
26	Magnetic refrigeration: phase transitions, itinerant magnetism and spin fluctuations. <i>Philosophical Magazine</i> , 2012, 92, 292-303.	1.6	21
27	Microstructural control and tuning of thermal conductivity in La <sub>0.67</sub> Ca <sub>0.33</sub> MnO <sub>3</sub> ± $\delta$ . <i>Scripta Materialia</i> , 2013, 68, 510-513.	5.2	21
28	The dynamics of spontaneous hydrogen segregation in LaFe <sub>13</sub> Si <sub>x</sub> H <sub>y</sub> . <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	19
29	Extraordinary induction heating effect near the first order Curie transition. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	19
30	Electronic structure, metamagnetism and thermopower of LaSiFe <sub>12</sub> and interstitially doped LaSiFe <sub>12</sub> . <i>Journal Physics D: Applied Physics</i> , 2018, 51, 034003.	2.8	18
31	Room temperature dielectric bistability in solution-processed spin crossover polymer thin films. <i>Journal of Materials Chemistry C</i> , 2016, 4, 6240-6248.	5.5	17
32	The normal-state resistivity of grain boundaries in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> ± $\delta$ . <i>Applied Physics Letters</i> , 2004, 84, 4089-4091.	3.3	11
33	Effect of direct-current magnetic field on the specific absorption rate of metamagnetic CoMnSi: A potential approach to switchable hyperthermia therapy. <i>AIP Advances</i> , 2020, 10, 015128.	1.3	6
34	Contributions to the entropy change in melt-spun LaFe <sub>11.6</sub> Si <sub>1.4</sub> . <i>Journal Physics D: Applied Physics</i> , 2012, 45, 179501.	2.8	2
35	Fabrication of magnetocaloric La(Fe,Si) <sub>13</sub> thick films. <i>Journal of Applied Physics</i> , 2020, 127, 215103.	2.5	2
36	Magnetocaloric Materials and Applications. , 2021, , 1-38.		2

#	ARTICLE	IF	CITATIONS
37	Magnetocaloric Materials and Applications. , 2021, , 1489-1526.		0