

Barry L Zink

List of Publications by Year in descending order

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54
papers

3,117
citations

218381

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161609

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docs citations

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times ranked

4729
citing authors

#	ARTICLE	IF	CITATIONS
1	High magnetization and antiferromagnetic coupling of the interface between a 20Ånm Y_3O_{12} film and Gd_3O_5 film	0.9	5
2	Negative spin Hall angle and large spin-charge conversion in thermally evaporated chromium thin films. Journal of Applied Physics, 2022, 131, .	1.1	4
3	Field-dependent nonelectronic contributions to thermal conductivity in a metallic ferromagnet with low Gilbert damping. Physical Review Materials, 2021, 5, .	0.9	1
4	Size- and Temperature-Dependent Suppression of Phonon Thermal Conductivity in Carbon Nanotube Thermoelectric Films. Advanced Electronic Materials, 2020, 6, 2000746.	2.6	14
5	Temperature dependence of the anomalous Nernst coefficient for Ni ₈₀ Fe ₂₀ determined with metallic nonlocal spin valves. AIP Advances, 2020, 10, .	0.6	6
6	Determining absolute Seebeck coefficients from relative thermopower measurements of thin films and nanostructures. Journal of Applied Physics, 2020, 127, .	1.1	13
7	Violation of the Wiedemann-Franz law through reduction of thermal conductivity in gold thin films. Physical Review Materials, 2020, 4, .	0.9	15
8	Anomalous spin-orbit torques in magnetic single-layer films. Nature Nanotechnology, 2019, 14, 819-824.	15.6	130
9	Thermal gradients and anomalous Nernst effects in membrane-supported nonlocal spin valves. Physical Review B, 2019, 100, .	1.1	7
10	Special issue on spin caloritronics. Journal Physics D: Applied Physics, 2019, 52, 230301.	1.3	12
11	The Heat in Antiferromagnetic Switching. Physics Magazine, 2019, 12, .	0.1	3
12	Relation of planar Hall and planar Nernst effects in thin film permalloy. Journal Physics D: Applied Physics, 2018, 51, 244005.	1.3	9
13	Large n- and p-type thermoelectric power factors from doped semiconducting single-walled carbon nanotube thin films. Energy and Environmental Science, 2017, 10, 2168-2179.	15.6	172
14	Long-distance spin transport in a disordered magnetic insulator. Nature Physics, 2017, 13, 987-993.	6.5	69
15	Interface-induced phenomena in magnetism. Reviews of Modern Physics, 2017, 89, .	16.4	672
16	Efficient spin transport through native oxides of nickel and permalloy with platinum and gold overlayers. Physical Review B, 2016, 93, .	1.1	29
17	Thermal spin injection and interface insensitivity in permalloy/aluminum metallic nonlocal spin valves. Physical Review B, 2016, 94, .	1.1	13
18	Tailored semiconducting carbon nanotube networks with enhanced thermoelectric properties. Nature Energy, 2016, 1, .	19.8	270

#	ARTICLE	IF	CITATIONS
19	Thermal and electrical conductivity of approximately 100-nm permalloy, Ni, Co, Al, and Cu films and examination of the Wiedemann-Franz Law. <i>Physical Review B</i> , 2015, 92, .	1.1	70
20	Peltier Cooling and Onsager Reciprocity in Ferromagnetic Thin Films. <i>Physical Review Letters</i> , 2013, 111, 126602.	2.9	14
21	Lattice Damage in Superconducting Microcalorimeter Detectors. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 2101104-2101104.	1.1	3
22	Heat transport by long mean free path vibrations in amorphous silicon nitride near room temperature. <i>Physical Review B</i> , 2013, 87, .	1.1	54
23	Identification and elimination of anomalous thermal decay in gamma-ray microcalorimeters. <i>Applied Physics Letters</i> , 2013, 103, 212602.	1.5	6
24	Observation of the Planar Nernst Effect in Permalloy and Nickel Thin Films with In-Plane Thermal Gradients. <i>Physical Review Letters</i> , 2012, 109, 196602.	2.9	120
25	Determining the planar Nernst effect from magnetic-field-dependent thermopower and resistance in nickel and permalloy thin films. <i>Physical Review B</i> , 2012, 86, .	1.1	44
26	Thermopower and resistivity in ferromagnetic thin films near room temperature. <i>Physical Review B</i> , 2011, 83, .	1.1	36
27	Time-Division SQUID Multiplexers With Reduced Sensitivity to External Magnetic Fields. <i>IEEE Transactions on Applied Superconductivity</i> , 2011, 21, 298-301.	1.1	22
28	Exploring thermoelectric effects and Wiedemann-Franz violation in magnetic nanostructures via micromachined thermal platforms. <i>Solid State Communications</i> , 2010, 150, 514-518.	0.9	24
29	Electronic and vibrational density of states through the metal-insulator transition in amorphous yttrium-silicon alloy thin films. <i>Physical Review B</i> , 2009, 79, .	1.1	1
30	Thermal conductivity of micromachined low-stress silicon-nitride beams from 77 to 325 K. <i>Journal of Applied Physics</i> , 2009, 105, .	1.1	79
31	Dependence of Excess Noise on the Partial Derivatives of Resistance in Superconducting Transition Edge Sensors. <i>AIP Conference Proceedings</i> , 2009, , .	0.3	16
32	Design, Fabrication, and Multiplexing of Magnetic Calorimeter X-ray Detectors with High-Efficiency SQUID Readout. <i>Journal of Low Temperature Physics</i> , 2008, 151, 363-368.	0.6	2
33	Toward a 256-Pixel Array of Gamma-Ray Microcalorimeters for Nuclear-Materials Analysis. <i>Journal of Low Temperature Physics</i> , 2008, 151, 754-759.	0.6	5
34	Application of calorimetry on a chip to high-pressure materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 9187-9191.	3.3	12
35	14-pixel, multiplexed array of gamma-ray microcalorimeters with 47eV energy resolution at 103keV. <i>Applied Physics Letters</i> , 2007, 90, 193508.	1.5	58
36	Thermal Conductivity and Specific Heat of Thin-Film Amorphous Silicon. <i>Physical Review Letters</i> , 2006, 96, 055902.	2.9	129

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37	Excess modes and enhanced scattering in rare-earth-doped amorphous silicon thin films. <i>Physical Review B</i> , 2006, 74, .	1.1	6
38	Erbium-doped gold sensor films for magnetic microcalorimeter x-ray detectors. <i>Journal of Applied Physics</i> , 2006, 99, 08B303.	1.1	7
39	Array-compatible transition-edge sensor microcalorimeter $\hat{\beta}$ -ray detector with 42eV energy resolution at 103keV. <i>Applied Physics Letters</i> , 2006, 89, 124101.	1.5	43
40	Si-N membrane-based microcalorimetry: Heat capacity and thermal conductivity of thin films. <i>Thermochimica Acta</i> , 2005, 432, 158-168.	1.2	40
41	Measurement of thermal conductivity of thin films with a Si-N membrane-based microcalorimeter. <i>Review of Scientific Instruments</i> , 2005, 76, 024901.	0.6	46
42	Thermodynamic properties of excess-oxygen-doped $\text{La}_2\text{CuO}_{4.11}$ near a simultaneous transition to superconductivity and long-range magnetic order. <i>Physical Review B</i> , 2004, 69, .	1.1	4
43	Specific heat and thermal conductivity of low-stress amorphous $\text{Si}\hat{\epsilon}\text{N}$ membranes. <i>Solid State Communications</i> , 2004, 129, 199-204.	0.9	101
44	Numerical simulation of the heat transfer in amorphous silicon nitride membrane-based microcalorimeters. <i>Review of Scientific Instruments</i> , 2003, 74, 4389-4403.	0.6	27
45	Finite size effects on the moment and ordering temperature in antiferromagnetic CoO layers. <i>Physical Review B</i> , 2003, 67, .	1.1	85
46	Magnetic moments and interactions near the metal-insulator transition in amorphous magnetic semiconductors. <i>Physical Review B</i> , 2002, 66, .	1.1	16
47	Enhancement of the electronic contribution to the low-temperature specific heat of an Fe/Cr magnetic multilayer. <i>Physical Review B</i> , 2002, 65, .	1.1	21
48	Infrared probe of metal-insulator transition in $\text{Si}_{1-\hat{\alpha}}\text{xGd}_\text{x}$ and $\text{Si}_{1-\hat{\alpha}}\text{xY}_\text{x}$ amorphous alloys in magnetic field. <i>Europhysics Letters</i> , 2002, 57, 240-246.	0.7	9
49	Thin film microcalorimeter for heat capacity measurements in high magnetic fields. <i>Review of Scientific Instruments</i> , 2002, 73, 1841-1844.	0.6	28
50	Critical behavior of $\text{La}_{0.75}\text{Sr}_{0.25}\text{MnO}_3$. <i>Physical Review B</i> , 2002, 65, .	1.1	148
51	Tricritical Point and the Doping Dependence of the Order of the Ferromagnetic Phase Transition of $\text{La}_{1-\hat{\alpha}}\text{xCa}_\text{x}\text{MnO}_3$. <i>Physical Review Letters</i> , 2002, 89, 227202.	2.9	282
52	Spin-Glass Freezing and RKKY Interactions near the Metal-Insulator Transition in Amorphous Gd-Si Alloys. <i>Physical Review Letters</i> , 2000, 84, 5411-5414.	2.9	48
53	Large Magnetic Entropy in Giant Magnetoresistive Amorphous Gadolinium Silicon. <i>Physical Review Letters</i> , 1999, 83, 2266-2269.	2.9	30
54	Low-temperature magnetoresistance in insulating $\hat{\alpha}\text{Gd}_\text{x}\text{Si}_{1-\hat{\alpha}}\text{x}$ alloys. <i>Physical Review B</i> , 1999, 59, R3929-R3933.	1.1	37