Lior Klein

List of Publications by Year
in descending order

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116	3,651	159585	138484
papers	citations	30 h-index	58 g-index

119	119	119	3480
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Detection of Low-Frequency Magnetic Fields Down to Sub-pT Resolution With Planar-Hall Effect Sensors. , 2021, 5, 1-4.		9
2	Measurements of nanomagnetic bead relaxation dynamics using planar Hall effect magnetometer. Journal of Applied Physics, 2021, 129, 124506.	2.5	3
3	Two Orders of Magnitude Improvement in the Detection Limit of Droplet-Based Micro-Magnetofluidics with Planar Hall Effect Sensors. Engineering Proceedings, 2021, 6, .	0.4	0
4	Two Orders of Magnitude Boost in the Detection Limit of Droplet-Based Micro-Magnetofluidics with Planar Hall Effect Sensors. ACS Omega, 2020, 5, 20609-20617.	3.5	7
5	A four-state magnetic tunnel junction switchable with spinâ€“orbit torques. Applied Physics Letters, 2020, 117, .	3.3	3
6	Stabilization of exponential number of discrete remanent states with localized spinâ€“orbit torques. Applied Physics Letters, 2020, 116, .	3.3	3
7	Thickness dependence of elliptical planar Hall effect magnetometers. Applied Physics Letters, 2020, 117, 262403.	3.3	12
8	Planar Hall Effect Magnetometer With 5 pT Resolution. , 2019, 3, 1-4.		17
9	Low temperature divergence in the AHE and AMR of ultra-thin Pt/Co/Pt trilayers. Journal of Magnetism and Magnetic Materials, 2019, 485, 314-319.	2.3	1
10	Switching of multi-state magnetic structures via domain wall propagation triggered by spin-orbit torques. Scientific Reports, 2019, 9, 20368.	3.3	7
11	Strain-tunable magnetism at oxide domain walls. Nature Physics, 2019, 15, 269-274.	16.7	65
12	A Low Noise Low Offset Readout Circuit for Magnetic-Random-Access-Memory. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1224-1233.	5.4	1
13	Magnetization switching of multi-state magnetic structures with current-induced torques. Scientific Reports, 2018, 8, 15160.	3.3	6
14	Field tuning of domain-wall type and chirality in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrRuO</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review B, 2017, 95, .	3.2	2
15	Current-induced nonuniform enhancement of sheet resistance in Ar+ -irradiated SrTiO3. Physical Review B, 2017, 95, .	3.2	3
16	Planar Hall Effect (PHE) Magnetometers. Smart Sensors, Measurement and Instrumentation, 2017, , 201-224.	0.6	8
17	Magnetic thermal stability of permalloy microstructures with shape-induced bi-axial anisotropy. Journal of Applied Physics, 2016, 119, .	2.5	7
18	Towards a six-state magnetic memory element. Applied Physics Letters, 2016, 108, .	3.3	13

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19	Composed planar Hall effect sensors with dual-mode operation. AIP Advances, 2016, 6, .	1.3	4
20	A High-Resolution Planar Hall Effect Magnetometer for Ultra-Low Frequencies. IEEE Sensors Journal, 2016, 16, 3224-3230.	4.7	26
21	Intermixing of ordinary and anomalous Hall effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrRuO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> Physical Review B, 2015, 92, .	3.2	7
22	Out of plane anisotropic magnetoresistance and planar Hall effect in epitaxial film of La0.8Sr0.2MnO3. Journal of Applied Physics, 2014, 115, 053709.	2.5	8
23	Monitoring superparamagnetic Langevin behavior of individual SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>nanostructures. Physical Review B, 2014, 89, .	3.2	3
24	Thickness dependence of the resistivity tensor in epitaxial magnetite thin films. Journal of Applied Physics, 2013, 114, 043701.	2.5	5
25	Thermally assisted current-induced magnetization reversal in SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	3.2	3
26	Planar Hall Effect Sensors With Subnanotesla Resolution. IEEE Magnetics Letters, 2013, 4, 6500104-6500104.	1.1	31
27	Low-temperature anisotropic magnetoresistance and planar Hall effect in SrRuO3. Physical Review B, 2013, 87, .	3.2	8
28	Testing dependence of anomalous Hall effect on resistivity inSrRuO3by its increase with electron irradiation. Physical Review B, 2013, 88, .	3.2	2
29	Thermally activated recovery of electrical conductivity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mml:mi mathvariant="normal">SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2013, 87, .	3.2	18
30	Planar Hall effect sensors with shape-induced effective single domain behavior. Journal of Applied Physics, 2012, 111, 07E519.	2.5	23
31	Shape-induced bi-stable magnetic states in submicrometer structures of permalloy films. Journal of Applied Physics, 2012, 111, .	2.5	9
32	Low temperature magnetic force microscope study of magnetization reversal in patterned nanoislands of SrRuO3. Journal of Applied Physics, 2012, 111, 07B901.	2.5	6
33	Current-induced magnetization reversal in SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math> Angular dependence of the Hall effect of La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.8</mml:mn></mml:mrow></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.2</mml:mn></mml:mrow></mml:msub></mml:math>MnO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /></mml:msub></mml:math> Indication for macroscopic quantum tunneling below 10 K in nanostructures of SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 86, .	3.2	4
34	Interplay between sheet resistance increase and magnetotransport properties in LaAlO3/SrTiO3. Physical Review B, 2012, 86, .	3.2	8
35	Indication for macroscopic quantum tunneling below 10 K in nanostructures of SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 86, .	3.2	7
36	Interplay between sheet resistance increase and magnetotransport properties in LaAlO3/SrTiO3. Physical Review B, 2012, 86, .	3.2	12

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37	Scaling of the paramagnetic anomalous Hall effect in SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 86, .	3.2	10
38	Structure, physical properties, and applications of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>SrRuO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>thin films. Reviews of Modern Physics, 2012, 84, 253-298.	45.6	550
39	Field-dependent anisotropic magnetoresistance and planar Hall effect in epitaxial magnetite thin films. Physical Review B, 2011, 84, .	3.2	30
40	Scaling of the anomalous Hall effect in SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2011, 84, .	3.2	47
41	Angular Dependence of the Magnetoresistance of the SrTiO$_{3}$/LaAlO$_{3}$ Interface. IEEE Transactions on Magnetics, 2010, 46, 1630-1632.	2.1	10
42	Coating dielectric substrates by plasma-reduction of metallic ions in solvents. Surface and Coatings Technology, 2010, 204, 1347-1352.	4.8	4
43	The effects of geometry on magnetic response of elliptical PHE sensors. Journal of Applied Physics, 2010, 107, 09E716.	2.5	4
44	Synthesis of ZnO and Zn Nanoparticles in Microwave Plasma and Their Deposition on Glass Slides. Langmuir, 2010, 26, 5976-5984.	3.5	62
45	Antisymmetric magnetoresistance of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrTiO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>Physical Review B, 2009, 80, .	3.2	54
46	Magnetic and transport properties of epitaxial films of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrRuO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>the ultrathin limit. Physical Review B, 2009, 79, .	3.2	31
47	Magnetoresistance tensor ofLa0.8Sr0.2MnO3. Physical Review B, 2009, 79, .	3.2	42
48	Anisotropic magnetoresistance and planar Hall effect in epitaxial films of La0.7Ca0.3MnO3. Journal of Applied Physics, 2009, 106, 023916.	2.5	15
49	Field induced resistivity anisotropy in SrRuO3 films. Journal of Applied Physics, 2009, 105, 07B106.	2.5	6
50	The extraordinary Hall effect of SrRuO3 in the ultrathin limit. Journal of Applied Physics, 2009, 105, 07E906.	2.5	6
51	Deposition of Air-Stable Zinc Nanoparticles on Glass Slides by the Solvent-Assisted Deposition in Plasma (SADIP) Method. Journal of Physical Chemistry C, 2009, 113, 14097-14101.	3.1	7
52	Current-induced magnetic instability in SrRuO3. Journal of Applied Physics, 2008, 103, 07E741.	2.5	8
53	Determination of the resistivity anisotropy ofSrRuO3by measuring the planar Hall effect. Physical Review B, 2007, 75, .	3.2	8
54	Relaxation of transport properties in electron-doped SrTiO3. Applied Physics Letters, 2007, 91, 151104.	3.3	23

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55	Planar Hall effect in epitaxial thin films of magnetite. Journal of Applied Physics, 2007, 101, 09J507.	2.5	17
56	Efficient Current-Induced Domain-Wall Displacement inSrRuO3. Physical Review Letters, 2007, 98, 247204.	7.8	43
57	Anisotropic magnetoresistance in colossal magnetoresistive La1â^'xSrxMnO3 thin films. Journal of Applied Physics, 2007, 102, 103901.	2.5	50
58	Carbon-Coated Core Shell Structured Copper and Nickel Nanoparticles Synthesized in an Ionic Liquid. Journal of Physical Chemistry B, 2006, 110, 17711-17714.	2.6	97
59	Effect of electric field doping on the anisotropic magnetoresistance in doped manganites. Physical Review B, 2006, 74, .	3.2	44
60	The Dependence of the Electronic Conductivity of Carbon Molecular Sieve Electrodes on Their Charging States. Journal of Physical Chemistry B, 2006, 110, 7443-7448.	2.6	25
61	Planar Hall-effect magnetic random access memory. Journal of Applied Physics, 2006, 99, 08R701.	2.5	46
62	Low-temperature magnetoresistance in untwinned CaRuO3 films. Physica B: Condensed Matter, 2006, 378-380, 490-491.	2.7	2
63	Uniaxial magnetocrystalline anisotropy inCaRuO3. Physical Review B, 2006, 73, .	3.2	7
64	Comment on â€œExchange bias-like phenomenon in SrRuO3â€•[Appl. Phys. Lett. 88, 102502 (2006)]. Applied Physics Letters, 2006, 89, 036101.	3.3	38
65	Suppression of the superconducting critical current of Nb in bilayers of Nbâ^•SrRuO3. Journal of Applied Physics, 2005, 97, 10J120.	2.5	12
66	Large anisotropy in the paramagnetic susceptibility ofSrRuO3films. Physical Review B, 2005, 71, .	3.2	30
67	Paramagnetic anisotropic magnetoresistance in thin films of SrRuO3. Journal of Applied Physics, 2004, 95, 6681-6683.	2.5	14
68	Testing the Berry phase model for extraordinary Hall effect inSrRuO3. Physical Review B, 2004, 70, .	3.2	50
69	Giant planar Hall effect in colossal magnetoresistive La0.84Sr0.16MnO3 thin films. Applied Physics Letters, 2004, 84, 2593-2595.	3.3	71
70	Characterization of the magnetic anisotropy in thin films of La1-xSrxMnO3 using the planar Hall effect. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3336-3338.	0.8	3
71	Local measurements of magnetization reversal in thin films of SrRuO3. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3440-3442.	0.8	1
72	Spin accumulation contribution to domain wall resistivity in SrRuO3. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1435-E1436.	2.3	0

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73	Angular dependence of domain wall resistivity inSrRuO3films. Physical Review B, 2003, 67, .	3.2	15
74	Can fractional power-law conductivity explain the deviations from Matthiessen's rule in SrRuO3?. Physica B: Condensed Matter, 2002, 312-313, 793-794.	2.7	4
75	Magnetoresistance scaling in BaRuO3. Physica B: Condensed Matter, 2002, 312-313, 795-796.	2.7	3
76	Domain-wall resistivity in SrRuO3: the influence of domain walls spacing. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 780-781.	2.3	4
77	Negative deviations from Matthiessen's rule for SrRuO 3 and CaRuO 3. Europhysics Letters, 2001, 55, 532-538.	2.0	10
78	Magnetic resistivity inSrRuO3and the ferromagnetic phase transition. Physical Review B, 2001, 63, .	3.2	37
79	Extraordinary Hall effect in SrRuO3. Physica B: Condensed Matter, 2000, 281-282, 608-609.	2.7	4
80	Extraordinary Hall effect inSrRuO3. Physical Review B, 2000, 61, R7842-R7845.	3.2	48
81	Kleinet al.Reply:. Physical Review Letters, 2000, 84, 2280-2280.	7.8	7
82	Domain Wall Resistivity inSrRuO3. Physical Review Letters, 2000, 84, 6090-6093.	7.8	84
83	Temperature-dependent local exchange splitting inSrRuO3. Physical Review B, 1999, 60, R6987-R6990.	3.2	39
84	Lorentz transmission electron microscope study of ferromagnetic domain walls in SrRuO3: Statics, dynamics, and crystal structure correlation. Journal of Applied Physics, 1999, 85, 4131-4140.	2.5	73
85	Is CaRuO3 a non-Fermi liquid metal?. Physica B: Condensed Matter, 1999, 259-261, 431-432.	2.7	14
86	Possible non-Fermi-liquid behavior ofCaRuO3. Physical Review B, 1999, 60, 1448-1451.	3.2	100
87	Large magnetoresistance of single-crystal films of ferromagnetic SrRuO3. Journal of Magnetism and Magnetic Materials, 1998, 188, 319-325.	2.3	24
88	Non-Fermi-Liquid Behavior ofSrRuO3: Evidence from Infrared Conductivity. Physical Review Letters, 1998, 81, 2498-2501.	7.8	203
89	Magnetic and Crystalline Microstructure of SrRuO₃ Thin Films. Materials Research Society Symposia Proceedings, 1997, 474, 223.	0.1	3
90	Magnetic and Crystallographic Microstructure of SrRuO3 Studied by Lorentz Transmission Electron Microscopy. Microscopy and Microanalysis, 1997, 3, 521-522.	0.4	0

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91	Transport and magnetization in the badly metallic itinerant ferromagnet. Journal of Physics Condensed Matter, 1996, 8, 10111-10126.	1.8	177
92	Anomalous Spin Scattering Effects in the Badly Metallic Itinerant FerromagnetSrRuO3. Physical Review Letters, 1996, 77, 2774-2777.	7.8	278
93	Magnetization jumps and irreversibility inBi2Sr2CaCu2O8. Physical Review B, 1996, 53, 11807-11816.	3.2	49
94	Symmetry of the magneto-optic response of the Sagnac interferometer. Journal of Applied Physics, 1996, 79, 6186.	2.5	13
95	Irreversible properties of micrometer-thick, superconducting MoGe/Ge multilayers as a function of anisotropy. Physical Review B, 1995, 51, 6796-6799.	3.2	2
96	Comment on "Spin-Glass Behavior of Mechanically Milled Crystalline GdAl2". Physical Review Letters, 1995, 74, 618-618.	7.8	12
97	Perpendicular magnetic anisotropy and strong magnetoâ€optic properties of SrRuO3 epitaxial films. Applied Physics Letters, 1995, 66, 2427-2429.	3.3	105
98	Peak effect and scaling of irreversible properties in untwinned Y-Ba-Cu-O crystals. Physical Review B, 1994, 49, 4403-4406.	3.2	194
99	Phase diagram of the dilute Ising spin glass in general spatial dimension. Physical Review B, 1994, 49, 8830-8841.	3.2	5
100	Unidirectional pinning in irradiated Bi2Sr2CaCu2O8(invited). Journal of Applied Physics, 1994, 75, 6322-6327.	2.5	4
101	Diverging time scales for onset of irreversibility in high-temperature superconductors. Physica C: Superconductivity and Its Applications, 1994, 224, 213-220.	1.2	25
102	Effects of irradiation on magnetization curves in high temperature superconductors. Applied Superconductivity, 1993, 1, 323-331.	0.5	1
103	Angular dependence of the magnetization curves and interlayer Josephson coupling in Bi2Sr2CaCu2O8. Physica A: Statistical Mechanics and Its Applications, 1993, 200, 413-419.	2.6	6
104	Flux-reorientation in irradiated YBa2Cu3O7 and Bi2Sr2CaCu2O8 crystals. Physica C: Superconductivity and Its Applications, 1993, 209, 251-254.	1.2	13
105	Flux pinning by columnar defects in high-temperature superconducting crystals. Journal of Alloys and Compounds, 1993, 195, 407-410.	5.5	12
106	Flux flop in Y-Ba-Cu-O crystals irradiated with 5.3-GeV Pb ions. Physical Review B, 1993, 47, 12349-12352.	3.2	23
107	Evidence for line vortices inBi2Sr2CaCu2O8. Physical Review B, 1993, 48, 3523-3526.	3.2	67
108	Fluxâ€flop in high temperature superconducting crystals with columnar defects. Journal of Applied Physics, 1993, 73, 5862-5864.	2.5	1

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109	Four-band model for oxygen holes in copper oxide superconductors. II. Phase diagram. Physical Review B, 1992, 45, 9926-9931.	3.2	3
110	Four-band model for oxygen holes in copper oxide superconductors. I. Quasiparticles. Physical Review B, 1992, 45, 9915-9925.	3.2	6
111	Crystal structure, magnetic properties, x-ray-photoemission-spectroscopy, and specific-heat measurements onPr2BaO4andPrBaO3. Physical Review B, 1992, 46, 9132-9141.	3.2	36
112	A percolation model for the role of quenching temperature in doped-high temperature superconductors. Physica A: Statistical Mechanics and Its Applications, 1991, 179, 62-68.	2.6	1
113	Crossover and multicriticality due to the Dzyaloshinsky-Moriya interaction. Physical Review B, 1991, 44, 856-858.	3.2	4
114	Series expansions for the Ising spin glass in general dimension. Physical Review B, 1991, 43, 11249-11273.	3.2	54
115	Low-concentration series in general dimension. Journal of Statistical Physics, 1990, 58, 511-538.	1.2	63
116	Dilute spin glass at zero temperature in general dimension. Physical Review B, 1989, 40, 4824-4832.	3.2	6