Reinhold Kleiner

List of Publications by Year
in descending order

69	4,988	109311 35	98792 67
papers	citations	h-index	g-index

70	70	70	2345
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Intrinsic Josephson effects inBi2Sr2CaCu2O8single crystals. Physical Review Letters, 1992, 68, 2394-2397.	7.8	1,187
2	High-transition-temperature superconducting quantum interference devices. Reviews of Modern Physics, 1999, 71, 631-686.	45.6	363
3	Superconducting emitters of THz radiation. Nature Photonics, 2013, 7, 702-710.	31.4	228
4	Dynamic behavior of Josephson-coupled layered structures. Physical Review B, 1994, 50, 3942-3952.	3.2	205
5	Coherent Terahertz Emission of Intrinsic Josephson Junction Stacks in the Hot Spot Regime. Physical Review Letters, 2010, 105, 057002.	7.8	187
6	Superconducting quantum interference devices: State of the art and applications. Proceedings of the IEEE, 2004, 92, 1534-1548.	21.3	167
7	Hot Spots and Waves in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:mn mathvariant="bold">O</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:math>Intrinsic Josephson Junction Stacks: A Study by Low Temperature Scanning Laser Microscopy. Physical Review Letters, 2009, 102, 017006.	7.8	165
8	0â˜Ï€Josephson Tunnel Junctions with Ferromagnetic Barrier. Physical Review Letters, 2006, 97, 247001.	7.8	146
9	Quantitative nanoscale vortex imaging using a cryogenic quantum magnetometer. Nature Nanotechnology, 2016, 11, 677-681.	31.5	138
10	Pair Tunneling fromc-AxisYBa2Cu3O7â˜'xto Pb: Evidence fors-Wave Component from Microwave Induced Steps. Physical Review Letters, 1996, 76, 2161-2164.	7.8	128
11	High quality ferromagnetic 0 and Ï€ Josephson tunnel junctions. Applied Physics Letters, 2006, 89, 122511.	3.3	118
12	Tunneling spectroscopy with intrinsic Josephson junctions inBi2Sr2CaCu2O8+Î´andTl2Ba2Ca2Cu3O10+Î´. Physical Review B, 1998, 57, 14518-14536.	3.2	114
13	Interaction of hot spots and terahertz waves in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Bi</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub> Josephson junction stacks of. Physical Review B, 2010, 82, .	3.2	96
14	Dynamics of Semifluxons in Nb Long Josephson0â˜Ï€Junctions. Physical Review Letters, 2004, 92, 057005.	7.8	95
15	Linewidth dependence of coherent terahertz emission from Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>CaCu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	91
16	Terahertz emission and detection both based on high-Tc superconductors: Towards an integrated receiver. Applied Physics Letters, 2013, 102, .	3.3	91
17	Commensurability Effects in Superconducting Nb Films with Quasiperiodic Pinning Arrays. Physical Review Letters, 2006, 97, 147003.	7.8	82
18	Hot-spot formation in stacks of intrinsic Josephson junctions in Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>CaCu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	70

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19	c-axis Josephson tunneling betweenBi2Sr2CaCu2O8+xand Pb. Physical Review B, 1999, 59, 4486-4496.	3.2	68
20	Bi2Sr2CaCu2O8 intrinsic Josephson junction stacks with improved cooling: Coherent emission above 1 THz. Applied Physics Letters, 2014, 105, .	3.3	58
21	Superconducting quantum interference devices with submicron Nb/HfTi/Nb junctions for investigation of small magnetic particles. Applied Physics Letters, 2011, 99, .	3.3	56
22	Stacked long Josephson junctions in zero magnetic field: A numerical study of coupled one-dimensional sine-Gordon equations. Physical Review B, 2000, 62, 4086-4095.	3.2	54
23	Ground states and bias-current-induced rearrangement of semifluxons in0â˜Ï€long Josephson junctions. Physical Review B, 2003, 67, .	3.2	54
24	Low-Noise<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>YBa</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: for Performing Magnetization-Reversal Measurements on Magnetic N. Physical Review Applied, 2015, 3, .	3.8	54
25	Low-Noise Nano Superconducting Quantum Interference Device Operating in Tesla Magnetic Fields. ACS Nano, 2013, 7, 844-850.	14.6	50
26	Nb nano superconducting quantum interference devices with high spin sensitivity for operation in magnetic fields up to 0.5â€‰T. Applied Physics Letters, 2013, 102, .	3.3	47
27	Magnetic hysteresis effects in superconducting coplanar microwave resonators. Physical Review B, 2012, 86, .	3.2	43
28	Josephson Junctions and SQUIDs Created by Focused Helium-Ion-Beam Irradiation of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="normal">Y</mml:mi><mml:mi>Ba</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Cu mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:math>. Physical Review Applied, 2019, 11, .	3.8	41
29	Resistively shunted YBa₂Cu₃O₇grain boundary junctions and low-noise SQUIDs patterned by a focused ion beam down to 80 nm linewidth. Superconductor Science and Technology, 2011, 24, 015015.	3.5	40
30	Terahertz emission from Bi₂Sr₂CaCu₂O_{8+Î´}intrinsic Josephson junction stacks with all-superconducting electrodes. Superconductor Science and Technology, 2012, 25, 075015.	3.5	40
31	Observing electron spin resonance between 0.1 and 67â€‰GHz at temperatures between 50 mK and 300â€‰K using broadband metallic coplanar waveguides. Applied Physics Letters, 2015, 106, .	3.3	40
32	Enhancing the critical current in quasiperiodic pinning arrays below and above the matching magnetic flux. Physical Review B, 2010, 82, .	3.2	38
33	Terahertz emission from Bi2Sr2CaCu2O8+x intrinsic Josephson junction stacks. Journal of Applied Physics, 2019, 126, .	2.5	38
34	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>YBa</mml:mtext></mml:mrow><mml:mn>2</mml:mn><mml:mn>3</mml:mn></mml:ms Physical Review B, 2010, 82, .	3.2	37
35	Broadband electron spin resonance from 500â€‰MHz to 40â€‰GHz using superconducting coplanar waveguides. Applied Physics Letters, 2013, 102, .	3.3	36
36	Compact Superconducting Terahertz Source Operating in Liquid Nitrogen. Physical Review Applied, 2015, 3, .	3.8	35

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37	Ground states of one and two fractional vortices in long Josephson0â^Ïªjunctions. Physical Review B, 2004, 70, .	3.2	34
38	Modeling the linewidth dependence of coherent terahertz emission from intrinsic Josephson junction stacks in the hot-spot regime. Physical Review B, 2013, 88, .	3.2	34
39	Tuning the Terahertz Emission Power of an Intrinsic Josephson-Junction Stack with a Focused Laser Beam. Physical Review Applied, 2015, 3, .	3.8	34
40	Three-Axis Vector Nano Superconducting Quantum Interference Device. ACS Nano, 2016, 10, 8308-8315.	14.6	33
41	Optimizing the spin sensitivity of grain boundary junction nanoSQUIDsâ€”towards detection of small spin systems with single-spin resolution. Superconductor Science and Technology, 2014, 27, 125007.	3.5	29
42	NanoSQUID Magnetometry on Individual As-grown and Annealed Co Nanowires at Variable Temperature. Nano Letters, 2018, 18, 7674-7682.	9.1	29
43	Thermal and electromagnetic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Sr</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">CaCu</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi	3.2	28
44	Terahertz Spectroscopy of Dilute Gases Using <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</m Physical Review Applied, 2017, 8, .	3.8	26
45	Three-Dimensional Simulations of the Electrothermal and Terahertz Emission Properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>2< Physical Review Applied, 2016, 5, .	3.8	25
46	NanoSQUID magnetometry of individual cobalt nanoparticles grown by focused electron beam induced deposition. Superconductor Science and Technology, 2017, 30, 024003.	3.5	23
47	Three-terminal stand-alone superconducting terahertz emitter. Applied Physics Letters, 2015, 107, .	3.3	21
48	Current Filamentation in Large<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow><mml:mn></mml mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>8</mml:m. Physical Review Applied, 2015, 3, .	3.8	21
49	Ultradense Tailored Vortex Pinning Arrays in Superconducting YBa₂Cu₃O_{7â^'Î´}Thin Films Created by Focused He Ion Beam Irradiation for Fluxonics Applications. ACS Applied Nano Materials, 2019, 2, 5108-5115.	5.0	21
50	Resonant Cavity Modes in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:m mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>8</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow></m Intrinsic Josephson Junction Sta. Physical Review Applied, 2019, 11, .	3.8	16
51	Imaging of Order Parameter InducedÏ€Phase Shifts in Cuprate Superconductors by Low-Temperature Scanning Electron Microscopy. Physical Review Letters, 2009, 103, 067011.	7.8	15
52	Metallic coplanar resonators optimized for low-temperature measurements. Journal Physics D: Applied Physics, 2016, 49, 395501.	2.8	14
53	Direct Visualization of Phase-Locking of Large Josephson Junction Arrays by Surface Electromagnetic Waves. Physical Review Applied, 2020, 14, .	3.8	12
54	Superconducting coplanar microwave resonators with operating frequencies up to 50 GHz. Journal Physics D: Applied Physics, 2018, 51, 465301.	2.8	10

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55	YBa2Cu3O7 nano superconducting quantum interference devices on MgO bicrystal substrates. Nanoscale, 2020, 12, 5658-5668.	5.6	8
56	Magnetic field dependence of the critical current in YBa2Cu3O7âˆ’Î´/Au/Nb ramp-zigzag Josephson junctions. Physical Review B, 2012, 86, .	3.2	7
57	Angular magnetic-field dependence of vortex matching in pinning lattices fabricated by focused or masked helium ion beam irradiation of superconducting YBa2Cu3O7âˆ’Î´ thin films. Low Temperature Physics, 2020, 46, 331-337.	0.6	7
58	Resistivity anisotropy and Josephson coupling in lead-substituted bismuth cuprates. Journal De Physique III, 1994, 4, 2249-2257.	0.3	7
59	Combining electron spin resonance spectroscopy with scanning tunneling microscopy at high magnetic fields. Review of Scientific Instruments, 2022, 93, 043705.	1.3	7
60	Low excess flux noise in YBa/sub 2/Cu/sub 3/O/sub 7-x/ dc SQUIDs cooled in static magnetic fields. IEEE Transactions on Applied Superconductivity, 1997, 7, 2772-2775.	1.7	5
61	Niobium stripline resonators for microwave studies on superconductors. Journal of Physics: Conference Series, 2014, 568, 022043.	0.4	4
62	High-quality in situ fabricated Nb Josephson junctions with black phosphorus barriers. Superconductor Science and Technology, 2019, 32, 115005.	3.5	4
63	Characterizing dielectric properties of ultra-thin films using superconducting coplanar microwave resonators. Review of Scientific Instruments, 2019, 90, 114701.	1.3	4
64	Rayleigh analysis and dielectric dispersion in polycrystalline 0.5(Ba0.7Ca0.3)TiO3â€“0.5Ba(Zr0.2Ti0.8)O3 ferroelectric thin films by domain-wall pinning element modeling. Journal of Applied Physics, 2020, 128, .	2.5	3
65	On-Chip Sensing of Hotspots in Superconducting Terahertz Emitters. Nano Letters, 2020, 20, 4197-4203.	9.1	3
66	NanoSQUIDs from YBa2Cu3O7/SrTiO3 superlattices with bicrystal grain boundary Josephson junctions. Nanoscale, 2020, 12, 20016-20024.	5.6	2
67	Vertical Josephson field-effect transistors based on black phosphorus. Applied Physics Letters, 2021, 119, .	3.3	2
68	How the Josephson Effect Started to Dominate My Life in Physics. Journal of Superconductivity and Novel Magnetism, 2021, 34, 1695-1697.	1.8	0
69	Static and dynamic transport properties of multi-terminal, multi-junction microSQUIDs realized with Nb/HfTi/Nb Josephson junctions. Superconductor Science and Technology, 0, , .	3.5	0