Leonid Kuzmin

List of Publications by Year
in descending order

83	1,184	430874 18	454955 30
papers	citations	h-index	g-index

84	84	84	509
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	S-c-S junctions as nonlinear elements of microwave receiving devices. Revue De Physique AppliquÃ©e, 1974, 9, 79-109.	0.4	117
2	Nonequilibrium theory of a hot-electron bolometer with normal metal-insulator-superconductor tunnel junction. Journal of Applied Physics, 2001, 89, 6464-6472.	2.5	100
3	Underdamped Josephson junction as a switching current detector. Applied Physics Letters, 2013, 103, .	3.3	48
4	On the concept of a hot-electron microbolometer with capacitive coupling to the antenna. Physica B: Condensed Matter, 2000, 284-288, 2129-2130.	2.7	40
5	Theory of a Large Thermoelectric Effect in Superconductors Doped with Magnetic Impurities. Physical Review Letters, 2012, 109, 147004.	7.8	40
6	Microwave photon detection by an Al Josephson junction. Beilstein Journal of Nanotechnology, 2020, 11, 960-965.	2.8	37
7	Quantumâ€statistical theory of microwave detection using superconducting tunnel junctions. Journal of Applied Physics, 1986, 60, 1808-1828.	2.5	34
8	Cold-electron bolometer with electronic microrefrigeration and general noise analysis. , 1998, , .		34
9	Optical Response of a Cold-Electron Bolometer Array Integrated in a 345-GHz Cross-Slot Antenna. IEEE Transactions on Applied Superconductivity, 2011, 21, 3635-3639.	1.7	33
10	Single Photon Counter Based on a Josephson Junction at 14 GHz for Searching Galactic Axions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	33
11	Strong tunneling and Coulomb blockade in a single-electron transistor. Physical Review B, 1999, 59, 10599-10602.	3.2	32
12	Ultimate cold-electron bolometer with strong electrothermal feedback. , 2004, , .		32
13	Photon-noise-limited cold-electron bolometer based on strong electron self-cooling for high-performance cosmology missions. Communications Physics, 2019, 2, .	5.3	32
14	Observation of the Correlated Discrete Single-Electron Tunneling. Japanese Journal of Applied Physics, 1987, 26, 1387.	1.5	30
15	On the concept of an optimal hot-electron bolometer with NIS tunnel junctions. Physica C: Superconductivity and Its Applications, 2002, 372-376, 378-382.	1.2	28
16	Symmetrical Josephson vortex interferometer as an advanced ballistic single-shot detector. Applied Physics Letters, 2014, 105, .	3.3	28
17	Observation of photon noise by cold-electron bolometers. Applied Physics Letters, 2017, 110, .	3.3	27
18	A Frequency Selective Surface Based Focal Plane Receiver for the OLIMPO Balloon-Borne Telescope. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 145-152.	3.1	26

#	Article	IF	Citations
19	Towards a microwave single-photon counter for searching axions. Npj Quantum Information, 2022, 8, .	6.7	22
20	Sensitivity to Cosmic Rays of Cold Electron Bolometers for Space Applications. Journal of Low Temperature Physics, 2014, 176, 323.	1.4	20
21	An allâ€chromium single electron transistor: A possible new element of single electronics. Applied Physics Letters, 1996, 68, 2902-2904.	3.3	18
22	Fabrication and characteristics of mesh band-pass filters. Instruments and Experimental Techniques, 2009, 52, 74-78.	0.5	18
23	Charge transport and Zener tunneling in small Josephson junctions with dissipation. Physical Review B, 1996, 54, 10074-10080.	3.2	16
24	Optimization of the Hot-Electron Bolometer and A Cascade Quasiparticle Amplifier for Space Astronomy. , 2002, , 145-154.		16
25	Capacitively coupled hot-electron nanobolometer as far-infrared photon counter. Applied Physics Letters, 2003, 82, 293-295.	3.3	15
26	Linewidth of Bloch oscillations in small Josephson junctions. Physica B: Condensed Matter, 1994, 203, 376-380.	2.7	14
27	A Resonant Cold-Electron Bolometer With a Kinetic Inductance Nanofilter. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 314-320.	3.1	13
28	Dirt absorption on the ski running surface â€" quantification and influence on the gliding ability. Sports Engineering, 2006, 9, 137-146.	1.1	12
29	Approaching microwave photon sensitivity with Al Josephson junctions. Beilstein Journal of Nanotechnology, 0, 13, 582-589.	2.8	12
30	Thin multilayer aluminum structures for superconducting devices. Instruments and Experimental Techniques, 2009, 52, 877-881.	0.5	11
31	Experimental field studies of the cross-country ski running surface interaction with snow. Procedia Engineering, 2011, 13, 23-29.	1.2	11
32	The effect of bias current asymmetry on the flux-flow steps in the grain boundary YBaCuO long Josephson junctions. Journal of Applied Physics, 2013, 114, .	2.5	11
33	Electromagnetic radiation detectors based on Josephson junctions: Effective Hamiltonian. Physical Review B, 2020, 101, .	3.2	11
34	Single-Photon Detection with a Josephson Junction Coupled to a Resonator. Physical Review Applied, 2021, 16, .	3.8	11
35	Record electron self-cooling in cold-electron bolometers with a hybrid superconductor-ferromagnetic nanoabsorber and traps. Scientific Reports, 2020, 10, 21961.	3.3	11
36	Resonant response drives sensitivity of Josephson escape detector. Chaos, Solitons and Fractals, 2021, 148, 111058.	5.1	10

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37	Josephson effect and macroscopic quantum interference in high-T/sub c/ superconducting thin-film weak links at 77 K. IEEE Transactions on Magnetics, 1989, 25, 943-945.	2.1	9
38	Planar Frequency Selective Bolometric Array at 350 GHz. IEEE Transactions on Terahertz Science and Technology, 2014, , 1-7.	3.1	9
39	Superconducting cold-electron bolometer with proximity traps. Microelectronic Engineering, 2003, 69, 309-316.	2.4	8
40	2D array of cold-electron nanobolometers with double polarised cross-dipole antennas. Nanoscale Research Letters, 2012, 7, 224.	5.7	8
41	Multifrequency Seashell Slot Antenna With Cold-Electron Bolometers for Cosmology Space Missions. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-6.	1.7	8
42	Multichroic seashell antenna with internal filters by resonant slots and cold-electron bolometers. Superconductor Science and Technology, 2019, 32, 035009.	3.5	8
43	Measurement of the superconducting single electron transistor in a high impedance environment. Physica B: Condensed Matter, 1994, 203, 347-353.	2.7	7
44	Effective electron microrefrigeration by superconductorâ€“insulatorâ€“normal metal tunnel junctions with advanced geometry of electrodes and normal metal traps. Nanotechnology, 2004, 15, S224-S228.	2.6	7
45	A Superconducting Cold-Electron Bolometer with SISâ€™ and Josephson Tunnel Junctions. Journal of Low Temperature Physics, 2008, 151, 292-297.	1.4	7
46	The relationship between the type of machining of the ski running-surface and its wettability and capillary drag. Sports Technology, 2010, 3, 121-130.	0.4	7
47	A distributed-absorber cold-electron bolometer single pixel at 95â€‰GHz. Applied Physics Letters, 2015, 107, .	3.3	7
48	A Distributed Terahertz Metasurface with Cold-Electron Bolometers for Cosmology Missions. Applied Sciences (Switzerland), 2021, 11, 4459.	2.5	7
49	Experimental evidence for the autonomous Bloch oscillations in single Josephson junctions. IEEE Transactions on Applied Superconductivity, 1993, 3, 1983-1986.	1.7	6
50	Superconducting Cold-Electron Bolometers with JFET Readout for OLIMPO Balloon Telescope. Journal of Physics: Conference Series, 2006, 43, 1298-1302.	0.4	6
51	Multichroic bandpass seashell antenna with cold-electron bolometers for CMB measurements. Proceedings of SPIE, 2016, , .	0.8	6
52	An integrated superconducting phase switch for cosmology instruments. Physica C: Superconductivity and Its Applications, 2007, 466, 115-123.	1.2	5
53	Response of a Cold-Electron Bolometer on THz Radiation from a Long YBa2Cu3O7â^Î´ Bicrystal Josephson Junction. Applied Sciences (Switzerland), 2020, 10, 7667.	2.5	5
54	Cold-Electron Bolometer as a 1-cm-Wavelength Photon Counter. Physical Review Applied, 2020, 13, .	3.8	5

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55	A broadband detector based on series YBCO grain boundary Josephson junctions. Beilstein Journal of Nanotechnology, 2022, 13, 325-333.	2.8	5
56	Optical response of a titanium-based cold-electron bolometer. Superconductor Science and Technology, 2013, 26, 085020.	3.5	4
57	Sensitivity and Noise of Cold-Electron Bolometer Arrays. Radiophysics and Quantum Electronics, 2017, 59, 754-762.	0.5	4
58	Realization of Cold-Electron Bolometers with Ultimate Sensitivity Due to Strong Electron Self-Cooling. , 2017, , .		4
59	Absorption and cross-talk in a multipixel receiving system with cold electron bolometers. Superconductor Science and Technology, 2019, 32, 084001.	3.5	4
60	Wideband Double-Polarized Array of Cold-Electron Bolometers for OLIMPO Balloon Telescope. IEEE Transactions on Antennas and Propagation, 2021, 69, 1427-1432.	5.1	4
61	Application of low temperature scanning electron microscopy for the investigation of singleâ€electron tunneling circuits. Journal of Applied Physics, 1994, 76, 376-384.	2.5	3
62	Tiâ€“TiO₂â€“Al normal metalâ€“insulatorâ€“superconductor tunnel junctions fabricated in direct-write technology. Superconductor Science and Technology, 2007, 20, 865-869.	3.5	3
63	Realization of the Resonant Cold-Electron Bolometer With a Kinetic Inductance Nanofilter for Multichroic Pixels. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.7	3
64	Multifrequency seashell antenna based on resonant cold-electron bolometers with kinetic Inductance Nanofilters for CMB measurements. AIP Advances, 2019, 9, 015321.	1.3	3
65	Saturation of charge noise in Single Electron Tunneling transistor. European Physical Journal D, 1996, 46, 2287-2288.	0.4	2
66	Ultra-sensitive cryogenic thermometer based on an array of the SIN tunnel junctions. Physica C: Superconductivity and Its Applications, 2008, 468, 142-146.	1.2	2
67	Two-dimensional array of cold-electron bolometers for high-sensitivity polarization measurements. Radiophysics and Quantum Electronics, 2012, 54, 548-556.	0.5	2
68	A dual-band cold-electron bolometer with on-chip filters for the 220/240 GHz channels of the LSPE instrument. Superconductor Science and Technology, 2019, 32, 084005.	3.5	2
69	A Study of a Narrow-Band Receiving System of Cold-Electron Bolometers for the 220 and 240 GHz Channels using an Oscillator Based on the High-Temperature YBCO Superconductor. Radiophysics and Quantum Electronics, 2019, 62, 556-561.	0.5	2
70	Spectral Characteristics of the Double-Folded Slot Antennas with Cold-Electron Bolometers for the 220/240 GHz Channels of the LSPE Instrument. Applied Sciences (Switzerland), 2021, 11, 10746.	2.5	2
71	Optimization of the Cold-Electron Bolometer and a Quasiparticle Cascade Amplifier in the Voltage-Biased Mode. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	2
72	Submillimeter Space Telescope Project "Submillimetron". EAS Publications Series, 2002, 4, 255-255.	0.3	1

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73	An array of 100 Alâ€“Al₂O₃â€“Cu SIN tunnel junctions in direct-write trilayer technology. Superconductor Science and Technology, 2007, 20, 1155-1158.	3.5	1
74	Thermo-electric charge-to-voltage converter with superconductorâ€“insulatorâ€“normal tunnel junction for bolometer applications. Physica C: Superconductivity and Its Applications, 2010, 470, 1933-1936.	1.2	1
75	Strong Electron Self-Cooling in the Cold-Electron Bolometers Designed for CMB Measurements. Journal of Physics: Conference Series, 2018, 969, 012069.	0.4	1
76	Cold-electron bolometer as a photon-noise-limited detector with on-chip electron self-cooling. EPJ Web of Conferences, 2018, 195, 05006.	0.3	1
77	Detecting properties of YBaCuO thin film bridges. IEEE Transactions on Magnetics, 1991, 27, 2456-2459.	2.1	0
78	Magnetic field dependence of the current-voltage curve of a superconducting single electron transistor in a high impedance environment. European Physical Journal D, 1996, 46, 2291-2292.	0.4	0
79	Efficient electron cooling in Cold Electron Bolometers. EPJ Web of Conferences, 2018, 195, 05003.	0.3	0
80	YBaCuO Josephson generators fabricated by preliminary topology masks. EPJ Web of Conferences, 2018, 195, 01031.	0.3	0
81	Responsivity and Noise Equivalent Power of a Single Cold-Electron Bolometer. Applied Sciences (Switzerland), 2021, 11, 4608.	2.5	0
82	TWO-FREQUENCY CROSS-SLOT ANTENNA WITH RESONANT COLD ELECTRON BOLOMETERS FOR APPLICATION IN CORE SPACE MISSION. Pribory I Metody Izmerenij, 2017, 8, 101-107.	0.3	0
83	Multichroic Polarization Sensitive Planar Antennas with Resonant Cold-Electron Bolometers for Cosmology Experiments. Nanoscience and Technology, 2018, , 117-127.	1.5	0