Valery Koshelets

List of Publications by Year
in descending order

258 papers	3,734 citations	136740 32 h-index	182168 51 g-index
260 all docs	260 docs citations	260 times ranked	1429 citing authors

#	Article	IF	Citations
1	Implementation of superconductor/ferromagnet/ superconductor Ï€-shifters in superconducting digital and quantum circuits. Nature Physics, 2010, 6, 593-597.	6.5	205
2	Integrated superconducting receivers. Superconductor Science and Technology, 2000, 13, R53-R69.	1.8	203
3	Thermal Fluctuations in Resonant Motion of Fluxons on a Josephson Transmission Line: Theory and Experiment. Physical Review Letters, 1982, 49, 1093-1096.	2.9	114
4	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:	1.1	91
5	Terahertz emission and detection both based on high-<i>Tc</i> superconductors: Towards an integrated receiver. Applied Physics Letters, 2013, 102, .	1.5	91
6	Self-pumping effects and radiation linewidth of Josephson flux-flow oscillators. Physical Review B, 1997, 56, 5572-5577.	1.1	84
7	Zurek-Kibble Mechanism for the Spontaneous Vortex Formation inNbâˆ'Al/Alox/NbJosephson Tunnel Junctions: New Theory and Experiment. Physical Review Letters, 2006, 96, 180604.	2.9	83
8	Spontaneous fluxoid formation in superconducting loops. Physical Review B, 2009, 80, .	1.1	78
9	Development and characterization of the superconducting integrated receiver channel of the TELIS atmospheric sounder. Superconductor Science and Technology, 2010, 23, 045016.	1.8	74
10	Experimental study of the RSFQ logic elements. IEEE Transactions on Magnetics, 1989, 25, 861-864.	1.2	71
11	First implementation of a superconducting integrated receiver at 450 GHz. Applied Physics Letters, 1996, 68, 1273-1275.	1.5	67
12	Superconducting millimeter wave oscillators and SIS mixers integrated on a chip. IEEE Transactions on Applied Superconductivity, 1993, 3, 2524-2527.	1.1	61
13	High-<i>T_c</i>SQUID biomagnetometers. Superconductor Science and Technology, 2017, 30, 083001.	1.8	60
14	Millimetronâ€"a large Russian-European submillimeter space observatory. Experimental Astronomy, 2009, 23, 221-244.	1.6	58
15	Bi2Sr2CaCu2O8 intrinsic Josephson junction stacks with improved cooling: Coherent emission above 1 THz. Applied Physics Letters, 2014, 105, .	1.5	58
16	High quality Nb-based tunnel junctions for high frequency and digital applications. IEEE Transactions on Applied Superconductivity, 2003, 13, 107-110.	1.1	56
17	Multistability and switching in a superconducting metamaterial. Nature Communications, 2014, 5, 3730.	5.8	55
18	High-$T_{m c}$ DC SQUIDs for Magnetoencephalography. IEEE Transactions on Applied Superconductivity, 2013, 23, 1600705-1600705.	1.1	52

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19	A one-dimensional tunable magnetic metamaterial. Optics Express, 2013, 21, 22540.	1.7	44
20	Optimization of the Phase-Locked Flux-Flow Oscillator for the submm Integrated Receiver. IEEE Transactions on Applied Superconductivity, 2005, 15, 964-967.	1.1	41
21	Spectral linewidth of autonomous and injection-locked flux-flow oscillators. Physical Review B, 1995, 51, 6536-6541.	1.1	39
22	Influence of surface losses and the self-pumping effect on current-voltage characteristics of a long Josephson junction. Physical Review B, 2007, 75, .	1.1	39
23	Phase locked 270â€"440 GHz local oscillator based on flux flow in long Josephson tunnel junctions. Review of Scientific Instruments, 2000, 71, 289-293.	0.6	36
24	Compact Superconducting Terahertz Source Operating in Liquid Nitrogen. Physical Review Applied, 2015, 3, .	1.5	35
25	High-Gap Nb-AlN-NbN SIS Junctions for Frequency Band 790â€"950 GHz. IEEE Transactions on Terahertz Science and Technology, 2016, 6, 127-132.	2.0	35
26	Modeling the linewidth dependence of coherent terahertz emission from intrinsic Josephson junction stacks in the hot-spot regime. Physical Review B, 2013, 88, .	1.1	34
27	Tuning the Terahertz Emission Power of an Intrinsic Josephson-Junction Stack with a Focused Laser Beam. Physical Review Applied, 2015, 3, .	1.5	34
28	Submillimeter superconducting integrated receivers: Fabrication and yield. IEEE Transactions on Applied Superconductivity, 2001, 11, 816-819.	1.1	33
29	Superconducting Integrated Receiver for TELIS. IEEE Transactions on Applied Superconductivity, 2005, 15, 960-963.	1.1	33
30	Experimental realization of a resistive single flux quantum logic circuit. IEEE Transactions on Magnetics, 1987, 23, 755-758.	1.2	32
31	Flux flow oscillators for sub-mm wave integrated receivers. IEEE Transactions on Applied Superconductivity, 1999, 9, 4133-4136.	1.1	32
32	Superconducting Integrated Receiver Based on Nb-AlN-NbN-Nb Circuits. IEEE Transactions on Applied Superconductivity, 2007, 17, 379-382.	1.1	32
33	High quality Nb-AlO/sub x/-Nb junctions for microwave receivers and SFQ logic device. IEEE Transactions on Magnetics, 1991, 27, 3141-3144.	1.2	31
34	Fluxon dynamics in long annular Josephson tunnel junctions. Physical Review B, 1998, 57, 5444-5449.	1.1	31
35	Towards a phase-locked superconducting integrated receiver: prospects and limitations. Physica C: Superconductivity and Its Applications, 2002, 367, 249-255.	0.6	31
36	Linewidth of submillimeter wave fluxâ€flow oscillators. Applied Physics Letters, 1996, 69, 699-701.	1.5	30

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37	Experiments on spontaneous vortex formation in Josephson tunnel junctions. Physical Review B, 2006, 74, .	1.1	30
38	Superconducting Integrated Submillimeter Receiver for TELIS. IEEE Transactions on Applied Superconductivity, 2007, 17, 336-342.	1.1	30
39	Superconducting Integrated Terahertz Spectrometers. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 687-694.	2.0	30
40	Chaos in Josephson tunnel junctions. IEEE Transactions on Magnetics, 1983, 19, 637-639.	1.2	28
41	Experimental implementation of analog-to-digital converter based on the reversible ripple counter. IEEE Transactions on Magnetics, 1991, 27, 2464-2467.	1.2	28
42	Radiation linewidth of flux-flow oscillators. Superconductor Science and Technology, 2001, 14, 1040-1043.	1.8	28
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 mathvariant="normal">O</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:math>intrinsic Josephson	1.1	28
44	Integrated sub-MM wave receivers. IEEE Transactions on Applied Superconductivity, 1995, 5, 3057-3060.	1.1	27
45	Line width of Josephson flux flow oscillators. Physica C: Superconductivity and Its Applications, 2002, 372-376, 316-321.	0.6	27
46	Josephson flux-flow oscillator: The microscopic tunneling approach. Physical Review B, 2017, 96, .	1.1	27
47	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, .	1.5	26
48	An integrated 500 GHz receiver with superconducting local oscillator. IEEE Transactions on Applied Superconductivity, 1997, 7, 3589-3592.	1.1	25
49	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</m Physical Review Applied, 2016, 5, .	1.5	25
50	Superconducting chip receivers for imaging application. IEEE Transactions on Applied Superconductivity, 1999, 9, 3773-3776.	1.1	24
51	Spontaneous fluxon production in annular Josephson tunnel junctions in the presence of a magnetic field. Physical Review B, 2008, 77, .	1.1	23
52	DC SQUID preamplifier for DC-SQUID magnetometer. IEEE Transactions on Magnetics, 1989, 25, 1182-1185.	1.2	22
53	Properties of autonomous and injection locked flux flow oscillators. IEEE Transactions on Applied Superconductivity, 1995, 5, 2951-2954.	1.1	22
54	Balloon-Borne Superconducting Integrated Receiver for Atmospheric Research. IEEE Transactions on Applied Superconductivity, 2011, 21, 612-615.	1.1	22

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55	Integrated rf amplifier based on dc SQUID. IEEE Transactions on Applied Superconductivity, 1995, 5, 3226-3229.	1.1	19
56	A data acquisition system for test and control of superconducting integrated receivers. IEEE Transactions on Applied Superconductivity, 2001, 11, 840-843.	1.1	19
57	Static properties of small Josephson tunnel junctions in a transverse magnetic field. Journal of Applied Physics, 2008, 104, .	1.1	19
58	HCl and ClO in activated Arctic air; first retrieved vertical profiles from TELIS submillimetre limb spectra. Atmospheric Measurement Techniques, 2012, 5, 487-500.	1.2	19
59	Magnetic field dependence of microwave radiation in intermediate-length Josephson junctions. Physical Review B, 1984, 30, 2640-2648.	1.1	18
60	Parallel biased SIS-arrays for mm wave mixers: main ideas and experimental verification. IEEE Transactions on Magnetics, 1991, 27, 2642-2645.	1.2	18
61	A dc SQUID based low-noise 4 GHz amplifier. IEEE Transactions on Applied Superconductivity, 1997, 7, 3496-3499.	1.1	18
62	Compact High- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:math> Superconducting Terahertz emitter operating up to 86 K. Physical Review Applied, 2018, 10, .	1.5	18
63	Flux-flow Josephson oscillator as the broadband tunable terahertz source to open space. Journal of Applied Physics, 2019, 125, .	1.1	18
64	Dynamic characteristics of S-band DC SQUID amplifier. IEEE Transactions on Applied Superconductivity, 2003, 13, 1042-1045.	1.1	17
65	Superfine resonant structure on IV-curves of long Josephson junction and its influence on flux flow oscillator linewidth. IEEE Transactions on Applied Superconductivity, 2001, 11, 1211-1214.	1.1	16
66	STJ X-ray detectors with titanium sublayer. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 520, 250-253.	0.7	16
67	Static properties of small Josephson tunnel junctions in an oblique magnetic field. Physical Review B, 2009, 79, .	1.1	16
68	Magnetoencephalography using a Multilayer hightc DC SQUID Magnetometer. Physics Procedia, 2012, 36, 66-71.	1.2	16
69	Coherent oscillations of driven rf SQUID metamaterials. Physical Review E, 2017, 95, 050201.	0.8	16
70	Superconducting Quantum Interferometers for Nondestructive Evaluation. Sensors, 2017, 17, 2798.	2.1	16
71	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 mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>8</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow> Intrinsic Josephson Junction Sta. Physical Review Applied, 2019, 11, .	1.5	16
72	The Submm Wave Josephson Flux Flow Oscillator; Linewidth Measurements and Simple Theory. IEEE Transactions on Applied Superconductivity, 2005, 15, 968-971.	1.1	15

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73	High-resolution terahertz spectroscopy with a noise radiation source based on high-<i>T</i>_csuperconductors. Journal Physics D: Applied Physics, 2017, 50, 035305.	1.3	15
74	High sensitive magnetometers and gradiometers based on DC SQUIDs with flux focuser. IEEE Transactions on Magnetics, 1991, 27, 2963-2966.	1.2	14
75	Spectral properties of phase-locked flux flow oscillator. Journal of Applied Physics, 2007, 102, 063912.	1.1	14
76	The current stage of development of the receiving complex of the millimetron space observatory. Radiophysics and Quantum Electronics, 2012, 54, 557-568.	0.1	14
77	Terahertz Source Radiating to Open Space Based on the Superconducting Flux-Flow Oscillator: Development and Characterization. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 557-564.	2.0	14
78	Planar Josephson tunnel junctions in a transverse magnetic field. Journal of Applied Physics, 2007, 102, 093911.	1.1	13
79	Superconducting integrated THz receivers: development and applications. Proceedings of SPIE, 2010, , .	0.8	13
80	Bridging the terahertz gap for chaotic sources with superconducting junctions. Physical Review B, 2019, 99, .	1.1	13
81	Ultra-low-noise 100 GHz receiver based on parallel biased SIS arrays. Superconductor Science and Technology, 1991, 4, 406-408.	1.8	12
82	Quasioptical Hilbert transform spectrometer. IEEE Transactions on Applied Superconductivity, 1995, 5, 2686-2689.	1.1	12
83	Niobium tunnel junctions with multi-layered electrodes. IEEE Transactions on Applied Superconductivity, 1999, 9, 3970-3973.	1.1	12
84	An integrated receiver with phase-locked superconducting oscillator. IEEE Transactions on Applied Superconductivity, 2003, 13, 684-687.	1.1	12
85	Self-field effects in window-type Josephson tunnel junctions. Superconductor Science and Technology, 2013, 26, 055021.	1.8	12
86	Protecting SQUID metamaterials against stray magnetic fields. Superconductor Science and Technology, 2013, 26, 094003.	1.8	12
87	Two-stage S-band DC SQUID amplifier. IEEE Transactions on Applied Superconductivity, 1999, 9, 2902-2905.	1.1	11
88	Fabrication and properties of superconducting double-barrier structures. Superconductor Science and Technology, 1991, 4, 476-478.	1.8	10
89	Low-noise S-band DC SQUID based amplifier. IEEE Transactions on Applied Superconductivity, 2001, 11, 1239-1242.	1.1	10
90	ESPRIT: a study concept for a far-infrared interferometer in space. , 2008, , .		10

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91	Harmonic mixer based on superconductor-insulator-superconductor tunnel junction. Journal of Communications Technology and Electronics, 2011, 56, 699-707.	0.2	10
92	Design and experimental study of superconducting left-handed transmission lines with tunable dispersion. Superconductor Science and Technology, 2013, 26, 114003.	1.8	10
93	Design and Performance of a Sideband Separating SIS Mixer for 800â€“950 GHz. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 532-539.	2.0	10
94	The Sub-THz Emission of the Human Body Under Physiological Stress. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 381-388.	2.0	10
95	THz Range Low-Noise SIS Receivers for Space and Ground-Based Radio Astronomy. Applied Sciences (Switzerland), 2021, 11, 10087.	1.3	10
96	Externally phase-locked flux flow oscillator for submm integrated receivers: achievements and limitations. IEEE Transactions on Applied Superconductivity, 2003, 13, 1035-1038.	1.1	9
97	A superconducting phase-locked local oscillator for a submillimetre integrated receiver. Superconductor Science and Technology, 2004, 17, S127-S131.	1.8	9
98	Integration Issues of Graphoepitaxial High- <inline-formula> <tex-math notation="TeX">${m T}_{m c}$</tex-math></inline-formula> SQUIDs Into Multichannel MEG Systems. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	9
99	Slot Lens Antenna Based on Thin Nb Films for the Wideband Josephson Terahertz Oscillator. Physics of the Solid State, 2018, 60, 2173-2177.	0.2	9
100	Experimental investigation of the microwave-impedance peculiarities of superconducting thin-film bridges. IEEE Transactions on Magnetics, 1977, 13, 228-232.	1.2	8
101	Single flux quantum quasi-digital voltage amplifier. Superconductor Science and Technology, 1991, 4, 671-673.	1.8	8
102	Linewidth of frequency locked flux flow oscillators for sub-mm wave receivers. IEEE Transactions on Applied Superconductivity, 1997, 7, 2905-2908.	1.1	8
103	Design and fabrication of Cherenkov flux-flow oscillator. IEEE Transactions on Applied Superconductivity, 1999, 9, 3737-3740.	1.1	8
104	A cryogenic phase locking loop system for a superconducting integrated receiver. Superconductor Science and Technology, 2009, 22, 085012.	1.8	8
105	Long Josephson tunnel junctions with doubly connected electrodes. Physical Review B, 2012, 85, .	1.1	8
106	Self-Mixing Spectra of Terahertz Emitters Based on Bi2Sr2CaCu2O8+Î´ Intrinsic Josephson-Junction Stacks. Physical Review Applied, 2017, 8, .	1.5	8
107	Development of a Josephson vortex two-state system based on a confocal annular Josephson junction. Superconductor Science and Technology, 2018, 31, 025003.	1.8	8
108	Low-Noise Sis Receivers for New Radio-Astronomy Projects. Radiophysics and Quantum Electronics, 2019, 62, 547-555.	0.1	8

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109	SNAP structures with Nb-AlO/sub x/-Nb junctions for MM-wave receivers. IEEE Transactions on Magnetics, 1989, 25, 1060-1063.	1.2	7
110	Electron and phonon effects in superconducting tunnel detectors of x-radiation. Physics of the Solid State, 1999, 41, 1063-1069.	0.2	7
111	New cryogenic heterodyne techniques applied in TELIS: the balloon-borne THz and submillimeter limb sounder for atmospheric research. , 2003, , .		7
112	Cryogenic Phase Detector for Superconducting Integrated Receiver. IEEE Transactions on Applied Superconductivity, 2007, 17, 605-608.	1.1	7
113	Electrothermal behavior and terahertz emission properties of a planar array of two Bi2Sr2CaCu2O8+Î´intrinsic Josephson junction stacks. Superconductor Science and Technology, 2015, 28, 055004.	1.8	7
114	An Antenna with a Feeder for a Superconducting Terahertz Josephson Oscillator with Phase Locking. Journal of Communications Technology and Electronics, 2019, 64, 1081-1086.	0.2	7
115	Microscopic Tunneling Model of Nbâ€“AlNâ€“NbN Josephson Flux-Flow Oscillator. Journal of Low Temperature Physics, 2019, 194, 312-324.	0.6	7
116	Terahertz Spectroscopy of Gas Absorption Using the Superconducting Flux-Flow Oscillator as an Active Source and the Superconducting Integrated Receiver. Sensors, 2020, 20, 7267.	2.1	7
117	Phase locking of 270-440 GHz Josephson flux flow oscillators. Superconductor Science and Technology, 1999, 12, 720-722.	1.8	6
118	Compacted tunable split-ring resonators. Applied Physics Letters, 2013, 103, .	1.5	6
119	Nondestructive Evaluation Using a High-<italic>T</italic>_cSQUID Microscope. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	6
120	Two-tone spectroscopy of a SQUID metamaterial in the nonlinear regime. Physical Review Research, 2019, 1, .	1.3	6
121	Fabrication of Superconducting Nbâ€“AlNâ€“NbN Tunnel Junctions Using Electron-Beam Lithography. Electronics (Switzerland), 2021, 10, 2944.	1.8	6
122	Microwave properties of variable thin-film Josephson bridges. IEEE Transactions on Magnetics, 1979, 15, 284-287.	1.2	5
123	Josephson junctions with silicon interlayer and arrays. IEEE Transactions on Magnetics, 1987, 23, 680-683.	1.2	5
124	RF-Induced Steps in Resonant Josephson Junctions. Japanese Journal of Applied Physics, 1987, 26, 1639.	0.8	5
125	Refractory material SIS junction structures. IEEE Transactions on Magnetics, 1987, 23, 684-687.	1.2	5
126	Single flux quantum digital devices. Superconductor Science and Technology, 1991, 4, 555-560.	1.8	5

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127	Experimental implementation of SFQ NDRO cells and 8-bit ADC. IEEE Transactions on Applied Superconductivity, 1993, 3, 2662-2665.	1.1	5
128	Integrated flux-flow oscillators for submillimeter wave receivers. Physica B: Condensed Matter, 1994, 194-196, 81-82.	1.3	5
129	Forward and backward waves in Cherenkov flux-flow oscillators. Superconductor Science and Technology, 1999, 12, 967-969.	1.8	5
130	Superconducting integrated receiver as 400-600 GHz tester for coolable devices. IEEE Transactions on Applied Superconductivity, 2001, 11, 832-835.	1.1	5
131	Superlattice harmonic mixer for submillimeter frequency synthesis. , 0, , .		5
132	The stability of a terahertz receiver based on a superconducting integrated receiver. Superconductor Science and Technology, 2011, 24, 035003.	1.8	5
133	Gaussianity revisited: exploring the Kibbleâ€“Zurek mechanism with superconducting rings. Journal of Physics Condensed Matter, 2013, 25, 404207.	0.7	5
134	Sub-terahertz sound excitation and detection by a long Josephson junction. Superconductor Science and Technology, 2014, 27, 065010.	1.8	5
135	Tunable superconducting Josephson dielectric metamaterial. AIP Advances, 2019, 9, 105320.	0.6	5
136	A Terahertz Source of Radiation to Open Space Based on a Long Josephson Junction. Physics of the Solid State, 2020, 62, 1543-1548.	0.2	5
137	Superconducting Receivers for Space, Balloon, and Ground-Based Sub-Terahertz Radio Telescopes. Radiophysics and Quantum Electronics, 2020, 63, 479-500.	0.1	5
138	Characterization of superconducting NbTiN films using a dispersive Fourier transform spectrometer. Applied Physics Letters, 2021, 119, .	1.5	5
139	Flux-Pumped Josephson Travelling-Wave Parametric Amplifiers Based on Bi-SQUID Cells. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	5
140	Characterization of the Parameters of Superconducting NbN and NbTiN Films Using Parallel Plate Resonator. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	5
141	Josephson tunnel junction microwave attenuator. Applied Physics Letters, 1993, 63, 3218-3220.	1.5	4
142	STJ X-ray detectors with killed electrode. , 2002, , .		4
143	A pulse-height spectrum from a MÃ¶ssbauer 57Co source registered with a superconducting tunnel detector. Instruments and Experimental Techniques, 2006, 49, 868-871.	0.1	4
144	Quasiparticle recombination in STJ X-rays detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 683-685.	0.7	4

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145	On the possibility of application of superconducting tunnel-junction detectors in MÃ¶ssbauer spectroscopy. Bulletin of the Russian Academy of Sciences: Physics, 2007, 71, 1302-1304.	0.1	4
146	Do superconductors change as fast as possible when quenched?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 2871-2880.	1.6	4
147	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î´</mml:mi></mml:math>-biased Josephson tunnel junctions. Physical Review B, 2010, 81, .	1.1	4
148	Superconducting integrated terahertz receivers. Journal of Physics: Conference Series, 2014, 486, 012026.	0.3	4
149	High- $m{T}_{m{c}}$ Dual-SQUIDs With Graphoepitaxial Step-Edge Junctions. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	4
150	Tuning THz emission properties of Bi₂Sr₂CaCu₂O_{8+<i>Î´</i>}intrinsic Josephson junction stacks by charge carrier injection. Superconductor Science and Technology, 2017, 30, 034006.	1.8	4
151	The 700â€“950 GHz Superconducting Receiving Structures for Radio Astronomy. Radiophysics and Quantum Electronics, 2017, 59, 711-714.	0.1	4
152	Investigation of the Harmonic Mixer and Low-Frequency Converter Regimes in a Superconducting Tunnel Junction. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	4
153	Flip-Chip High-Tc DC SQUID Magnetometer With a Ferromagnetic Flux Antenna. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	4
154	A 0.3-0.7 THz flux-flow oscillator integrated with the slot antenna and elliptical lens. Journal of Physics: Conference Series, 2018, 1124, 071001.	0.3	4
155	Terahertz Imaging System Based on Superconducting Heterodyne Integrated Receiver. NATO Science for Peace and Security Series B: Physics and Biophysics, 2014, , 113-125.	0.2	4
156	Dispersive Spectrometry At Terahertz Frequencies for Probing the Quality of NbTiN Superconducting Films. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-6.	1.1	4
157	Direct Experimental Observation of Harmonics of Josephson Generation in the Flux-Flow Oscillator. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-6.	1.1	4
158	Microwave properties of superconducting tunnel structures based on refractory materials. IEEE Transactions on Magnetics, 1983, 19, 968-971.	1.2	3
159	Single flux quantum voltage amplifiers. Cryogenics, 1992, 32, 509-512.	0.9	3
160	Integrated receiving structure comprising complementary spiral antenna and tuned parallel biased SIS array. IEEE Transactions on Applied Superconductivity, 1993, 3, 2254-2256.	1.1	3
161	Phonon effects in STJ X-ray detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 444, 19-22.	0.7	3
162	Balloon-borne heterodyne stratospheric limb sounder TELIS ready for flight. , 2007, , .		3

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163	Superconducting tunneling-junction detectors of X-ray radiation. Issues concerning the energy resolution. Semiconductors, 2007, 41, 215-222.	0.2	3
164	Bias Voltage Dependence of Quasiparticle Recombination in STJ Detectors with Killed Electrode. Journal of Low Temperature Physics, 2008, 151, 287-291.	0.6	3
165	Model of a long Josephson tunnel junction including surface losses and self-pumping effect. Journal of Physics: Conference Series, 2008, 97, 012303.	0.3	3
166	Josephson tunnel junctions in a magnetic field gradient. Applied Physics Letters, 2011, 98, 072503.	1.5	3
167	Harmonic phase detector for phase locking of cryogenic terahertz oscillators. Applied Physics Letters, 2013, 103, 102601.	1.5	3
168	Spectral Properties of a Terahertz Oscillator Based on the BI2SR2CACU2O8+Î´ Mesastructure. Radiophysics and Quantum Electronics, 2014, 56, 582-590.	0.1	3
169	Observation of nuclear gamma resonance with superconducting tunnel junction detectors. AIP Advances, 2016, 6, 025315.	0.6	3
170	Superconducting integrated terahertz receiver for spectral analysis of gas compounds. Journal of Physics: Conference Series, 2016, 741, 012169.	0.3	3
171	Superconductive Ultracompact Magnetically Coupled Resonator With Twin-Spiral Structure. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	3
172	Interaction of phase-diffusion field with a molecular gas. EPJ Web of Conferences, 2017, 132, 03042.	0.1	3
173	Flux-flow effects in annular Josephson tunnel junctions. Physical Review B, 2019, 100, .	1.1	3
174	Field cooled annular Josephson tunnel junctions. Superconductor Science and Technology, 2020, 33, 075013.	1.8	3
175	Superconducting Structures for Study and Phase Synchronization of Integrated Terahertz Oscillators. Journal of Communications Technology and Electronics, 2021, 66, 473-479.	0.2	3
176	Quasi-optical 0.5 THz SIS receiver with twin junction tuning circuit. , 1993, , .		3
177	Applications in Superconducting SIS Mixers and Oscillators: Toward Integrated Receivers. , 2017, , 185-244.		3
178	Shunted Josephson Junctions and Optimization of Niobium Integrated Matching Circuits. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	3
179	Superconducting Tunnel Junction Noise Generator and SIS Mixers Noise Measurements. , 1990, , .		2
180	Perfectly matched SIS arrays for mm wave receivers. IEEE Transactions on Applied Superconductivity, 1993, 3, 2261-2264.	1.1	2

#	Article	IF	Citations
181	Fourier transform spectrometer studies (300-1000 GHz) of Nb-based quasi-optical SIS detectors. IEEE Transactions on Applied Superconductivity, 1995, 5, 3445-3451.	1.1	2
182	Linewidth and phase locking of Josephson flux-flow oscillators. Physica C: Superconductivity and Its Applications, 2000, 332, 302-307.	0.6	2
183	TELIS: a novel three-channel cryogenic heterodyne receiver for stratospheric research. , 0, , .		2
184	Integrated superconducting spectrometer for atmosphere monitoring. Radiophysics and Quantum Electronics, 2005, 48, 844-850.	0.1	2
185	Recombination losses in STJ X-ray detectors with killed electrode. Journal of Physics: Conference Series, 2006, 43, 1311-1314.	0.3	2
186	A planar picoamperemeter based on a superconducting quantum interferometer. Journal of Communications Technology and Electronics, 2006, 51, 1319-1324.	0.2	2
187	Superconducting integrated on-board spectrometer of the submillimeter-wave range for atmospheric research. Radiophysics and Quantum Electronics, 2007, 50, 847-851.	0.1	2
188	A cryogenic phase detector for a cooled wideband phase-lock loop system. Journal of Communications Technology and Electronics, 2008, 53, 594-599.	0.2	2
189	A quantitative investigation of the effect of a close-fitting superconducting shield on the coil factor of a solenoid. Superconductor Science and Technology, 2009, 22, 095017.	1.8	2
190	Development of the physical principles of the design and implementation of a 500â€“700 GHz spectrometer with a superconducting integrated receiver. Physics of the Solid State, 2010, 52, 2241-2245.	0.2	2
191	Superconducting Integrated THz Receiver. , 2010, , .		2
192	Imaging the electromagnetic response of superconducting metasurfaces. , 2013, , .		2
193	Radiation power and linewidth of a semifluxon-based Josephson oscillator. Applied Physics Letters, 2014, 104, 062603.	1.5	2
194	Registration of MÃ¶ssbauer conversion electrons by an STJ detector. Bulletin of the Russian Academy of Sciences: Physics, 2015, 79, 1062-1066.	0.1	2
195	Investigation of the regimes of mixing of superconducting tunneling structures. Physics of the Solid State, 2016, 58, 2191-2195.	0.2	2
196	Superconducting quantum interference devices based on YBa2Cu3O7â€“x films for nondestructive testing. Journal of Communications Technology and Electronics, 2016, 61, 86-92.	0.2	2
197	High-symmetry DC SQUID based on the Nb/AlOx/Nb Josephson junctions for nondestructive evaluation. Journal of Communications Technology and Electronics, 2017, 62, 1306-1310.	0.2	2
198	Parameters of the Tunnel Barrier of Superconducting Niobium-Based Structures. Physics of the Solid State, 2020, 62, 1534-1538.	0.2	2

#	Article	IF	Citations
199	Fabrication of NIS and SIS Nanojunctions with Aluminum Electrodes and Studies of Magnetic Field Influence on IV Curves. Electronics (Switzerland), 2021, 10, 2894.	1.8	2
200	Terahertz Spectroscopy System of Gas Mixtures Based on a Solid State Superconducting Source and a Terahertz Receiver. Physics of the Solid State, 2021, 63, 1414-1418.	0.2	2
201	X-band radiation from Josephson junctions in magnetic field. IEEE Transactions on Magnetics, 1985, 21, 629-631.	1.2	1
202	DC SQUID RF amplifier with external mm-wave pumping and its testing by SIS junction noise. Superconductor Science and Technology, 1991, 4, 644-646.	1.8	1
203	Tunneling of nonequilibrium quasiparticles excited by x-ray quanta in a nonsymmetric superconducting tunnel detector. Low Temperature Physics, 1997, 23, 889-894.	0.2	1
204	Phase-locked Josephson flux flow local oscillator for sub-mm integrated receivers. Superconductor Science and Technology, 2002, 15, 1701-1705.	1.8	1
205	Analysis of spectral characteristics of a superconducting integrated receiver. Journal of Communications Technology and Electronics, 2006, 51, 596-603.	0.2	1
206	The recombination of quasiparticles in x-ray superconducting tunnel detectors. Measurement Techniques, 2006, 49, 830-838.	0.2	1
207	500-650 GHz spectrometer development for TELIS. , 2006, , .		1
208	Linewidth and DC properties of the flux-flow oscillator with mixed inline-overlap bias. Journal of Physics: Conference Series, 2008, 97, 012291.	0.3	1
209	Quench-induced trapping of magnetic flux in annular Josephson junctions. Journal of Physics: Conference Series, 2008, 97, 012279.	0.3	1
210	Noise equivalent temperature difference of a superconducting integrated terahertz receiver. Journal of Communications Technology and Electronics, 2009, 54, 716-720.	0.2	1
211	Resonant subterahertz coherent acoustic waves excitation by Josephson junction. , 2011, , .		1
212	On the passive electrode signal in X-ray detectors based on superconducting tunnel junctions. Physics of the Solid State, 2011, 53, 1540-1546.	0.2	1
213	The cryogenic phase detector. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 28-31.	0.1	1
214	Developing topologies of thin-film SQUID sensors for measuring extremely subtle magnetic fields. Physics of the Solid State, 2016, 58, 2203-2206.	0.2	1
215	Analysis of high-frequency parameters of superconducting planar structures. Journal of Communications Technology and Electronics, 2016, 61, 1395-1399.	0.2	1
216	Tunnel superconducting junctions for a cryogenic multiplexing system. Journal of Communications Technology and Electronics, 2016, 61, 1064-1068.	0.2	1

#	Article	IF	Citations
217	Gradiometers based on superconducting quantum interference device for nondestructive testing. Journal of Communications Technology and Electronics, 2016, 61, 1383-1389.	0.2	1
218	Application of superconducting integrated receiver in the TELIS instrument for the spectroscopic study of atmosphere. Journal of Communications Technology and Electronics, 2016, 61, 1314-1319.	0.2	1
219	Superconducting terahertz receivers for space-borne and balloon-borne radio telescopes. Bulletin of the Russian Academy of Sciences: Physics, 2016, 80, 471-475.	0.1	1
220	Registering the radiation spectrum of a MÃ¶ssbauer 119mSn source using superconducting tunnel junction detectors. Bulletin of the Russian Academy of Sciences: Physics, 2017, 81, 874-878.	0.1	1
221	A Tunable subTHz Source Based on the Josephson Oscillator with Phase Locking. , 2019, , .		1
222	Determination of the Parameters of Tunneling Barriers of Superconducting Tunnel Structures for Submillimeter Receivers. Journal of Communications Technology and Electronics, 2019, 64, 1144-1148.	0.2	1
223	A superconducting flux-flow oscillator of terahertz range. Journal of Physics: Conference Series, 2020, 1559, 012021.	0.3	1
224	The Influence of LO Power Heating of the Tunnel Junction on the Performance of THz SIS Mixers. IEEE Transactions on Terahertz Science and Technology, 2020, 10, 721-730.	2.0	1
225	Study and Comparison of Laboratory Terahertz Sources Based on a Backward Wave Oscillator, a Semiconductor Microwave Frequency Multiplier with Large Numbers of Harmonics, and a Long Josephson Junction. Journal of Communications Technology and Electronics, 2021, 66, 278-288.	0.2	1
226	A Superconducting Terahertz Flux-Flow Oscillator: Estimation of the Emission Power to Open Space. , 2021, , .		1
227	Flux-Flow Oscillator (FFO) Made with the Fluxon Cloning Circuits. NATO Science for Peace and Security Series B: Physics and Biophysics, 2011, , 29-41.	0.2	1
228	Integrated Submm Wave Receiver: Development and Applications. Nanoscience and Technology, 2011, , 263-296.	1.5	1
229	Low-noise THz-range Nb based SIS Receivers for Radio Astronomy. , 2020, , .		1
230	Ultra low noise sis-receivers for MM wave radic astronomy. Cryogenics, 1992, 32, 497-500.	0.9	0
231	Experimental implementation of the eight bit analog-to-digital converter. Cryogenics, 1992, 32, 558-561.	0.9	0
232	Superconducting millimeter wave oscillators. Cryogenics, 1992, 32, 501-504.	0.9	0
233	Superconducting mm-wave attenuator. Physica B: Condensed Matter, 1994, 194-196, 79-80.	1.3	0
234	<title>Quasi-optical Josephson direct detectors for millimeter wave spectrum analysis</title>. , 1994, 2211, 220.		0

#	Article	IF	Citations
235	A broad band low noise SIS radiometer. IEEE Transactions on Applied Superconductivity, 1999, 9, 4225-4228.	1.1	0
236	Back tunneling and phonon exchange effects in superconducting tunnel junction X-ray detectors. Physica B: Condensed Matter, 1999, 263-264, 613-616.	1.3	0
237	Superconducting Submm Integrated Receiver for TELIS. Journal of Physics: Conference Series, 2006, 43, 1377-1380.	0.3	0
238	Radiation linewidth of the flux-flow oscillator with integrated self-field coil. Journal of Physics: Conference Series, 2006, 43, 1096-1099.	0.3	0
239	Zurekâ€“Kibble Symmetry Breaking Process in Superconducting Rings; Spontaneous Fluxon Formation in Annular Josephson Tunnel Junctions. IEEE Transactions on Applied Superconductivity, 2007, 17, 664-667.	1.1	0
240	Design and performance of the flight configuration SIR on TELIS. , 2007, , .		0
241	First light from the Superconducting Integrated Receiver on board Terahertz Limb Sounder TELIS. , 2008, , .		0
242	The 500–700 GHz spectrometer with superconductive integrated receiver. , 2011, , .		0
243	A STJ X-ray detector with a Î²-tantalum sublayer. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 775-778.	0.1	0
244	Heat release in the cryogenic system of a superconducting integrated detector and the influence of heat on its operation. Technical Physics, 2013, 58, 430-438.	0.2	0
245	Effect of Verb Subdivision and Noun Incorporation on Dependency Parsing. , 2013, , .		0
246	Evaluation of terahertz emission from intrinsic josephson junctions using a high-T<inf>c</inf> superconductor grain boundary Josephson junction. , 2013, , .		0
247	Towards practical applications of THz Josephson oscillators with sub-mW power and 500 GHz frequency tunability. , 2013, , .		0
248	Continuous wave terahertz radiation above 1 THz from Josephson junction arrays. , 2014, , .		0
249	A grain boundary Josephson junction as a mixer to evaluate terahertz emission from intrinsic Josephson junctions. , 2014, , .		0
250	A one-dimensional tunable magnetic metamaterial: erratum. Optics Express, 2014, 22, 13041.	1.7	0
251	Quick Technology for Fabrication of BiSrCaCuO Mesas and Its Application for Spectroscopy. , 2017, , .		0
252	Chaotic flux flow in T-junction Josephson oscillator. , 2017, , .		0

#	Article	IF	Citations
253	Response to â€œComment on â€˜Observation of nuclear gamma resonance with superconducting tunnel junction detectorsâ€™â€•[AIP Advances 9, 059101 (2019)]. AIP Advances, 2019, 9, .	0.6	0
254	A 0.33-0.73 THz source based on phase-locked Josephson flux-flow oscillator. , 2019, , .		0
255	Cryogenic Phase-Locking Loop System Based on SIS Tunnel Junction. Nanoscience and Technology, 2011, , 297-313.	1.5	0
256	Superconducting Terahertz Receivers for Space and Ground-based Radio Astronomy. , 2020, , .		0
257	Study of the THz Oscillator Based on Josephson Junction and Comparative Review with THz Sources â€“ Backward Wave Oscillator and Semiconductor-based Frequency Multiplier. , 2020, , .		0
258	Electron Beam Lithography Fabrication of Superconducting Tunnel Structures. Physics of the Solid State, 2021, 63, 1351-1355.	0.2	0