Vladimir L Vaks

List of Publications by Year
in descending order

Version: 2024-02-01

67 papers	671 citations	623734 14 h-index	642732 23 g-index
67 all docs	67 docs citations	67 times ranked	507 citing authors

#	Article	IF	Citations
1	Investigation of terahertz radiation influence on rat glial cells. Biomedical Optics Express, 2017, 8, 273.	2.9	71
2	Exhaled breath analysis: physical methods, instruments, and medical diagnostics. Physics-Uspekhi, 2014, 57, 684-701.	2.2	43
3	High-Precise Spectrometry of the Terahertz Frequency Range: The Methods, Approaches and Applications. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 43-53.	2.2	40
4	Millimeter Range Spectrometer with Phase Switching-Novel Method for Reaching of the Top Sensitivity. Journal of Infrared, Millimeter and Terahertz Waves, 1999, 20, 883-896.	0.6	38
5	Phase locked 270â€“440 GHz local oscillator based on flux flow in long Josephson tunnel junctions. Review of Scientific Instruments, 2000, 71, 289-293.	1.3	36
6	Fast-passage microwave molecular spectroscopy with frequency sweeping. EPJ Applied Physics, 2004, 25, 203-208.	0.7	32
7	Superconducting Integrated Terahertz Spectrometers. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 687-694.	3.1	30
8	Terahertz generation by gigahertz multiplication in superlattices. Journal of Nanophotonics, 2017, 11, 1.	1.0	30
9	Microwave Detectors Based on Low-Barrier Planar Schottky Diodes and Their Characteristics. Radiophysics and Quantum Electronics, 2005, 48, 485-490.	0.5	22
10	A nonstationary microwave spectrometer. Review of Scientific Instruments, 1999, 70, 3447-3453.	1.3	21
11	New Effect in Near-Field Thermal Emission. Physical Review Letters, 2002, 88, 104302.	7.8	20
12	Terahertz spectroscopy of DNA. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td	0.6	20
13	High resolution terahertz spectroscopy for analytical applications. Physics-Uspekhi, 2020, 63, 708-720.	2.2	18
14	Dissociation of water by microwave radiation. Radiophysics and Quantum Electronics, 1994, 37, 85-88.	0.5	15
15	High-resolution terahertz spectroscopy with a noise radiation source based on high-T_csuperconductors. Journal Physics D: Applied Physics, 2017, 50, 035305.	2.8	15
16	Terahertz spectroscopy of diabetic and non-diabetic human blood plasma pellets. Journal of Biomedical Optics, 2021, 26, .	2.6	11
17	Nonstationary spectroscopy of the 1â€“2.5 THz frequency band with the use of solid-state devices. Radiophysics and Quantum Electronics, 2009, 52, 511-517.	0.5	10
18	Analysis of the products of the natural decay of high explosives by subterahertz and infrared Fourier spectroscopy. Russian Journal of Physical Chemistry A, 2011, 85, 1404-1410.	0.6	10

#	Article	IF	Citations
19	Using the methods and facilities of nonsteady-state spectroscopy of the subterahertz and terahertz frequency ranges for noninvasive medical diagnosis. Journal of Optical Technology (A Translation of) Tj ETQq1 1 0.784314 rgBT /Over		
20	Two-Frequency THz Spectroscopy for Analytical and Dynamical Research. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 845-851.	3.1	10
21	Methods and approaches of high resolution spectroscopy for analytical applications. Optical and Quantum Electronics, 2017, 49, 1.	3.3	9
22	Diagnosis of Diabetes Based on Analysis of Exhaled Air by Terahertz Spectroscopy and Machine Learning. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2020, 128, 809-814.	0.6	9
23	Terahertz high-resolution spectroscopy of thermal decomposition gas products of diabetic and non-diabetic blood plasma and kidney tissue pellets. Journal of Biomedical Optics, 2021, 26, .	2.6	9
24	Phase locking a 4.7 THz quantum cascade laser using a super-lattice diode as harmonic mixer. , 2014, , .		8
25	Thermal Near Field and the Possibilities of Its Use for In-Depth Temperature Diagnostics of Media. Radiophysics and Quantum Electronics, 2002, 45, 7-22.	0.5	7
26	Application of high-resolution IR and microwave spectroscopies for investigation of the impurity composition of silicon tetrafluoride. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 457	0.6	7
27	Application of Microwave Nonstationary Spectroscopy for Noninvasive Medical Diagnostics. Radiophysics and Quantum Electronics, 2008, 51, 493-498.	0.5	7
28	SPECTRAL SIGNATURES OF ACETONE VAPOR FROM ULTRAVIOLET TO MILLIMETER WAVELENGTHS. International Journal of High Speed Electronics and Systems, 2008, 18, 627-637.	0.7	7
29	Spectrochemical properties of some explosives in the vapor state. Russian Journal of Physical Chemistry B, 2013, 7, 203-219.	1.3	7
30	Phase locking of 270-440 GHz Josephson flux flow oscillators. Superconductor Science and Technology, 1999, 12, 720-722.	3.5	6
31	Development and design of a phase-locked loop in the subterahertz and terahertz ranges for a harmonic of the signal of a centimeter-wave synthesizer. Radiophysics and Quantum Electronics, 2005, 48, 831-836.	0.5	6
32	Express analysis of water isotopomers in the atmosphere with the use of nonstationary subterahertz and terahertz spectroscopy methods. Atmospheric and Oceanic Optics, 2011, 24, 402-410.	1.3	6
33	The influence of the diffusion cooling on the noise band of the superconductor NbN hot-electron bolometer operating in the terahertz range. Technical Physics Letters, 2016, 42, 563-566.	0.7	6
34	Phenomenological model and experimental study of DNA absorption spectra in THz range. Optical and Quantum Electronics, 2017, 49, 1.	3.3	6
35	Analysis of the Thermal Decomposition Products of Pathological and Healthy Tissues in Paranasal Sinuses: A High-Resolution Terahertz Gas Spectroscopy Study. Applied Sciences (Switzerland), 2021, 11, 7562.	2.5	6
36	Quantum models of relaxation. Physics-Uspekhi, 1996, 39, 745-750.	2.2	5

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37	Subterahertz and mid IR spectroscopy of explosive substances. , 2009, , .		5
38	High-precision terahertz spectroscopy for noninvasive medicine diagnostics. Photonics & Lasers in Medicine, 2014, 3, .	0.2	5
39	Methods and instruments of high-resolution transient THz spectroscopy for diagnostics of socially important diseases. Physics of Wave Phenomena, 2014, 22, 177-184.	1.1	5
40	The application of high resolution terahertz gas spectroscopy for medical diagnostics based on the analysis of exhaled breath and biological liquid vapor. ITM Web of Conferences, 2019, 30, 13008.	0.5	5
41	High-Resolution Terahertz Spectroscopy for Investigation of Energetic Materials During Their Thermal Decomposition. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 443-453.	3.1	5
42	Spectrochemical features of certain brisant explosives in the vapor state. Atmospheric and Oceanic Optics, 2013, 26, 377-390.	1.3	4
43	Analysis of lewisite decomposition products with the use of subterahertz spectroscopy method. Atmospheric and Oceanic Optics, 2013, 26, 1-4.	1.3	3
44	Terahertz Heterodyne Receiver with an Electron-Heating Mixer and a Heterodyne Based on the Quantum-Cascade Laser. Radiophysics and Quantum Electronics, 2017, 60, 518-524.	0.5	3
45	On the Possibility of Studying the Reactions of the Thermal Decomposition of Energy Substances by the Methods of High-Resolution Terahertz Spectroscopy. Radiophysics and Quantum Electronics, 2018, 60, 750-760.	0.5	3
46	Application of THz Fast Frequency Sweep Spectrometer for Investigation of Chemical Composition of Blood. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 1114-1120.	2.2	3
47	On relaxation times. Physics-Uspekhi, 1999, 42, 1065-1066.	2.2	2
48	The role of neutral defects in the structural chemistry of liquid water. Journal of Structural Chemistry, 2004, 45, 636-642.	1.0	2
49	Measurements of the rotational relaxation times for absorption lines with Voigt profiles. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2006, 100, 173-177.	0.6	2
50	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.	0.6	2
51	Application of high-resolution terahertz gas spectroscopy to the compositional analysis of the thermal decomposition products of paranasal sinus cyst tissue. Journal of Optical Technology (A) Tj ETQq1 1 0.784314 rgBT /Overloc	0.4	1
52	Detection of an N2O J=3â†'4 telluric line. Radiophysics and Quantum Electronics, 1997, 40, 920-923.	0.5	1
53	Phase-locked Josephson flux flow local oscillator for sub-mm integrated receivers. Superconductor Science and Technology, 2002, 15, 1701-1705.	3.5	1
54	Fast sweep solid state spectrometer for sub-THz and THz frequency ranges. , 2008, , .		1

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55	High-Resolution Terahertz Spectrometer Based on Quantum Cascade Lasers. Radiophysics and Quantum Electronics, 2017, 59, 821-832.	0.5	1
56	Using Terahertz Spectrometry to Study the Thermal Decomposition of Energy Materials. Combustion, Explosion and Shock Waves, 2018, 54, 558-562.	0.8	1
57	Sensitivity and Resolution of a Heterodyne Receiver Based on the NbN HEB Mixer with a Quantum-Cascade Laser as a Local Oscillator. Radiophysics and Quantum Electronics, 2018, 60, 988-992.	0.5	1
58	Terahertz High Resolution Gas Spectroscopy for the Analysis of the Composition of Products of Thermal Decomposition of Cereal Grains (Oat, Barley). Journal of Applied Spectroscopy, 2019, 86, 861-866.	0.7	1
59	Laboratory spectroscope based on a multichannel radiometer. Radiophysics and Quantum Electronics, 1998, 41, 610-615.	0.5	0
60	Measurement of the power density of electromagnetic radiation by the method of microwave nonstationary spectroscopy. Radiophysics and Quantum Electronics, 2004, 47, 916-920.	0.5	0
61	Source of Ultra-Wide Band Radiation in Millimeter Waver Range. , 2006, , .		0
62	Development of Nonstantionary Gas Spectroscopy Method for Noninvasive Medical Diagnostics. , 2007, , .		0
63	Methods of microwave physics in developing THz frequency range. , 2010, , .		0
64	SubTHz spectrometer based on a radiation source with stochastic phase. , 2010, , .		0
65	The use of supersonic molecular beams to increase the sensitivity of transient gas spectroscopy in the subterahertz and terahertz frequency ranges. Doklady Physics, 2011, 56, 510-512.	0.7	0
66	Using the methods of multi-frequency spectroscopy for sensing. , 2016, , .		0
67	Development of Wireless Communication Systems in the Subterahertz Frequency Range. Radiophysics and Quantum Electronics, 2019, 61, 763-772.	0.5	0