Vladimir L Vaks

List of Publications by Year
in descending order

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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	Terahertz spectroscopy of diabetic and non-diabetic human blood plasma pellets. Journal of Biomedical Optics, 2021, 26, .	2.6	11
2	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
3	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 /Overlock	0.4	1
4	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
5	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
6	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
7	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
8	High resolution terahertz spectroscopy for analytical applications. Physics-Uspekhi, 2020, 63, 708-720.	2.2	18
9	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
10	Development of Wireless Communication Systems in the Subterahertz Frequency Range. Radiophysics and Quantum Electronics, 2019, 61, 763-772.	0.5	0
11	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
12	Using Terahertz Spectrometry to Study the Thermal Decomposition of Energy Materials. Combustion, Explosion and Shock Waves, 2018, 54, 558-562.	0.8	1
13	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
14	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
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	Phenomenological model and experimental study of DNA absorption spectra in THz range. Optical and Quantum Electronics, 2017, 49, 1.	3.3	6
17	High-Resolution Terahertz Spectrometer Based on Quantum Cascade Lasers. Radiophysics and Quantum Electronics, 2017, 59, 821-832.	0.5	1
18	Methods and approaches of high resolution spectroscopy for analytical applications. Optical and Quantum Electronics, 2017, 49, 1.	3.3	9

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19	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
20	Investigation of terahertz radiation influence on rat glial cells. Biomedical Optics Express, 2017, 8, 273.	2.9	71
21	Terahertz generation by gigahertz multiplication in superlattices. Journal of Nanophotonics, 2017, 11, 1.	1.0	30
22	Using the methods of multi-frequency spectroscopy for sensing. , 2016, , .		0
23	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
24	Superconducting Integrated Terahertz Spectrometers. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 687-694.	3.1	30
25	Two-Frequency THz Spectroscopy for Analytical and Dynamical Research. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 845-851.	3.1	10
26	Phase locking a 4.7 THz quantum cascade laser using a super-lattice diode as harmonic mixer. , 2014, , .		8
27	High-precision terahertz spectroscopy for noninvasive medicine diagnostics. Photonics & Lasers in Medicine, 2014, 3, .	0.2	5
28	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
29	Exhaled breath analysis: physical methods, instruments, and medical diagnostics. Physics-Uspekhi, 2014, 57, 684-701.	2.2	43
30	Analysis of lewisite decomposition products with the use of subterahertz spectroscopy method. Atmospheric and Oceanic Optics, 2013, 26, 1-4.	1.3	3
31	Terahertz spectroscopy of DNA. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.6	20
32	Spectrochemical properties of some explosives in the vapor state. Russian Journal of Physical Chemistry B, 2013, 7, 203-219.	1.3	7
33	Spectrochemical features of certain brisant explosives in the vapor state. Atmospheric and Oceanic Optics, 2013, 26, 377-390.	1.3	4
34	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 ETQq0 0 0 rgBT /Overlock 10 Tf 5		10
35	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
36	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

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37	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
38	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
39	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
40	Methods of microwave physics in developing THz frequency range. , 2010, , .		0
41	SubTHz spectrometer based on a radiation source with stochastic phase. , 2010, , .		0
42	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
43	Subterahertz and mid IR spectroscopy of explosive substances. , 2009, , .		5
44	Application of Microwave Nonstationary Spectroscopy for Noninvasive Medical Diagnostics. Radiophysics and Quantum Electronics, 2008, 51, 493-498.	0.5	7
45	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
46	Fast sweep solid state spectrometer for sub-THz and THz frequency ranges. , 2008, , .		1
47	Development of Nonstantionary Gas Spectroscopy Method for Noninvasive Medical Diagnostics. , 2007, , .		0
48	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
49	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 ETQq1 1 0.784314 rgBT /Overlock 10		2
50	Source of Ultra-Wide Band Radiation in Millimeter Waver Range. , 2006, , .		0
51	Microwave Detectors Based on Low-Barrier Planar Schottky Diodes and Their Characteristics. Radiophysics and Quantum Electronics, 2005, 48, 485-490.	0.5	22
52	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
53	Fast-passage microwave molecular spectroscopy with frequency sweeping. EPJ Applied Physics, 2004, 25, 203-208.	0.7	32
54	The role of neutral defects in the structural chemistry of liquid water. Journal of Structural Chemistry, 2004, 45, 636-642.	1.0	2

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55	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
56	New Effect in Near-Field Thermal Emission. Physical Review Letters, 2002, 88, 104302.	7.8	20
57	Phase-locked Josephson flux flow local oscillator for sub-mm integrated receivers. Superconductor Science and Technology, 2002, 15, 1701-1705.	3.5	1
58	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
59	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
60	On relaxation times. Physics-Uspekhi, 1999, 42, 1065-1066.	2.2	2
61	Phase locking of 270-440 GHz Josephson flux flow oscillators. Superconductor Science and Technology, 1999, 12, 720-722.	3.5	6
62	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
63	A nonstationary microwave spectrometer. Review of Scientific Instruments, 1999, 70, 3447-3453.	1.3	21
64	Laboratory spectroscope based on a multichannel radiometer. Radiophysics and Quantum Electronics, 1998, 41, 610-615.	0.5	0
65	Detection of an N2O J=3â†'4 telluric line. Radiophysics and Quantum Electronics, 1997, 40, 920-923.	0.5	1
66	Quantum models of relaxation. Physics-Uspekhi, 1996, 39, 745-750.	2.2	5
67	Dissociation of water by microwave radiation. Radiophysics and Quantum Electronics, 1994, 37, 85-88.	0.5	15