

Alexey V Borisov

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

192
citations

1477746

6
h-index

1199166

12
g-index

49
all docs

49
docs citations

49
times ranked

141
citing authors

#	ARTICLE	IF	CITATIONS
1	Exhaled air analysis using wideband wave number tuning range infrared laser photoacoustic spectroscopy. <i>Journal of Biomedical Optics</i> , 2017, 22, 017002.	1.4	26
2	Application of multiphoton imaging and machine learning to lymphedema tissue analysis. <i>Biomedical Optics Express</i> , 2019, 10, 3353.	1.5	22
3	Application of machine learning and laser optical-acoustic spectroscopy to study the profile of exhaled air volatile markers of acute myocardial infarction. <i>Journal of Breath Research</i> , 2021, 15, 027104.	1.5	16
4	Paraffin-Embedded Prostate Cancer Tissue Grading Using Terahertz Spectroscopy and Machine Learning. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2020, 41, 1089-1104.	1.2	14
5	Diagnosis of oral lichen planus from analysis of saliva samples using terahertz time-domain spectroscopy and chemometrics. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	1.4	14
6	Applications of principal component analysis to breath air absorption spectra profiles classification. , 2015, , .		12
7	Laser photoacoustic spectroscopy applications in breathomics. <i>Journal of Biomedical Photonics and Engineering</i> , 2019, 5, 010303.	0.4	8
8	Evolution of initial distributions with one and two centers in a two-dimensional model of the reaction-diffusion type with a nonlocal interaction of finite radius. <i>Russian Physics Journal</i> , 2011, 54, 32-38.	0.2	6
9	Numerical simulation of the one-dimensional population dynamics with nonlocal competitive losses and convection. <i>Russian Physics Journal</i> , 2011, 54, 479-484.	0.2	6
10	Monte-Carlo calculation of the electron energy distribution function of a Heâ€“N ₂ plasma of a high-voltage pulsed discharge. <i>Russian Physics Journal</i> , 2013, 56, 486-488.	0.2	6
11	Analysis of the Spectral Characteristics of Promising Liquid Carriers in the Terahertz Spectral Range. <i>Russian Physics Journal</i> , 2019, 62, 400-405.	0.2	6
12	Classification of patients with broncho-pulmonary diseases based on analysis of absorption spectra of exhaled air samples with SVM and neural network algorithm application. , 2016, , .		6
13	Space-time distribution of the electric field in the He-N ₂ -plasma of a beam-type high-voltage pulsed discharge. <i>Russian Physics Journal</i> , 2013, 55, 1222-1228.	0.2	5
14	Determination of component concentrations in models of exhaled air samples using principal component analysis and canonical correlation analysis. , 2015, , .		5
15	Investigation of the spatiotemporal characteristics of the electric field in the Ne-H ₂ plasma of a beam-type high-voltage pulsed discharge. <i>Physics of Plasmas</i> , 2013, 20, 123501.	0.7	4
16	Applications of THz laser spectroscopy and machine learning for medical diagnostics. <i>EPJ Web of Conferences</i> , 2018, 195, 10006.	0.1	4
17	Magneto-Optical Properties of a Magnetic Fluid in the THz Frequency Range. , 2018, , .		4
18	Spectral characteristics of magnetic fluid with particles of different dimensions in the terahertz frequency range. , 2017, , .		3

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19	CREATION OF A MAGNETIC DRIVEN GATE FOR THZ RAYS. Progress in Electromagnetics Research M, 2019, 80, 103-109.	0.5	3
20	Use of Terahertz Spectroscopy for in vivo Studies of Lymphedema Development Dynamics. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2019, 126, 523-529.	0.2	3
21	Medical diagnosis using NIR and THz tissue imaging and machine learning methods. , 2019, , .		3
22	Wavelet based de-noising of breath air absorption spectra profiles for improved classification by principal component analysis. AIP Conference Proceedings, 2015, , .	0.3	2
23	Analysis of the component composition of exhaled air using laser spectroscopy and canonical correlation analysis. , 2015, , .		2
24	The classification of the patients with pulmonary diseases using breath air samples spectral analysis. AIP Conference Proceedings, 2016, , .	0.3	2
25	Electroencephalography Registration of Laser Acupuncture Action on Children with Autism Disorder. , 2020, , .		2
26	Breath air measurement using wide-band frequency tuning IR laser photo-acoustic spectroscopy. , 2016, , .		1
27	Diagnostics of oral lichen planus based on analysis of volatile organic compounds in saliva. , 2017, , .		1
28	Research of Magnetic Fluid in the THz Frequency Range. , 2019, , .		1
29	Measurement and modeling of optical properties of heated adipose tissue in the terahertz range. , 2020, , .		1
30	Possibilities of cytospectrophotometry of oncological prostate cancer tissue analysis in the TGz spectral range. , 2018, , .		1
31	Analysis of exhaled air of patients with myocardial infarction by laser spectroscopy and data mining. , 2018, , .		1
32	Visualization of biological nano-objects with the help of multiphoton microscopy. , 2019, , .		1
33	Breathomics for Lung Cancer Diagnosis. , 2020, , 209-243.		1
34	Statistical approach to the analysis of the composition of multicomponent gas mixtures using absorption laser spectroscopy. Proceedings of SPIE, 2015, , .	0.8	0
35	The reveal of a set of informative features in the task of diagnosis on a base of exhaled air absorption spectra analysis using nonparametric algorithms of pattern recognition. Proceedings of SPIE, 2015, , .	0.8	0
36	Solutions of the Grossâ€Pitaevskii Equation in Prolate Spheroidal Coordinates. Russian Physics Journal, 2015, 57, 1201-1209.	0.2	0

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37	Possibilities of laser spectroscopy for monitoring the profile dynamics of the volatile metabolite in exhaled air. Proceedings of SPIE, 2016, , .	0.8	0
38	Investigation of glycation products by THz time-domain spectroscopy. , 2018, , .		0
39	Transverse Evolution Operator for the Gross-Pitaevskii Equation in Semiclassical Approximation. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2005, , .	0.5	0
40	Investigation of the electric field distribution in the human brain based on MRI and EEG data. , 2018, , .		0
41	Lymphedema tissue analysis using optical imaging and gradient processing. , 2019, , .		0
42	The study of paraffin-embedded tissue using multiphoton microscopy. , 2019, , .		0
43	THz spectroscopy of emanation from the skin of patients the diabetes mellitus. , 2019, , .		0
44	Influence of laser acupuncture on EEG characteristics. , 2019, , .		0
45	Visualization of the lymphedema tissue internal structure by monitoring of backscattering. , 2019, , .		0
46	Structure imaging of biological tissue by optical coherence elastography. , 2019, , .		0
47	Differential diagnostics of paraffin-embedded tissues by IR-THz spectroscopy and machine learning. , 2020, , .		0
48	The study of spectral changes in THz range in normal and pathological skin in vivo depending on the dehydration methods used. , 2020, , .		0
49	Study of wound healing by terahertz spectroscopy. , 2020, , .		0