Valery P Zakharov

List of Publications by Year
in descending order

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Version: 2024-02-01

97	645	567281	677142
papers	citations	15 h-index	22 g-index

97	97	97	634
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Combined Raman and autofluorescence ex vivo diagnostics of skin cancer in near-infrared and visible regions. Journal of Biomedical Optics, 2017, 22, 027005.	2.6	43
2	Comparative analysis of combined spectral and optical tomography methods for detection of skin and lung cancers. Journal of Biomedical Optics, 2015, 20, 025003.	2.6	38
3	Phenological shifts of abiotic events, producers and consumers across a continent. Nature Climate Change, 2021, 11, 241-248.	18.8	37
4	Portable spectroscopic system for in vivo skin neoplasms diagnostics by Raman and autofluorescence analysis. Journal of Biophotonics, 2019, 12, e201800400.	2.3	36
5	Modeling of optical radiation energy distribution in plant tissue. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT /Overlock	0.6	33
6	Three-dimensional computational analysis of optical coherence tomography images for the detection of soft tissue sarcomas. Journal of Biomedical Optics, 2013, 19, 021102.	2.6	31
7	In vivo diagnosis of skin cancer with a portable Raman spectroscopic device. Experimental Dermatology, 2021, 30, 652-663.	2.9	30
8	Optical model of plant tissue. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (Sp	0.6	28
9	Classification of skin cancer using convolutional neural networks analysis of Raman spectra. Computer Methods and Programs in Biomedicine, 2022, 219, 106755.	4.7	28
10	Differences in spatial versus temporal reaction norms for spring and autumn phenological events. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31249-31258.	7.1	25
11	Chronicles of nature calendar, a long-term and large-scale multitaxon database on phenology. Scientific Data, 2020, 7, 47.	5.3	22
12	Medical images classification for skin cancer using quantitative image features with optical coherence tomography. Journal of Innovative Optical Health Sciences, 2016, 09, 1650003.	1.0	20
13	Hyperspectral visualization of skin pathologies in visible region. Computer Optics, 2016, 40, 240-248.	2.2	20
14	In vivo hyperspectral imaging and differentiation of skin cancer. Proceedings of SPIE, 2016, , .	0.8	17
15	Raman spectroscopy of human skin for kidney failure detection. Journal of Biophotonics, 2021, 14, e202000360.	2.3	15
16	Near-infrared autofluorescence spectroscopy of pigmented benign and malignant skin lesions. Optical Engineering, 2020, 59, 1.	1.0	15
17	Hyperspectral in vivo analysis of normal skin chromophores and visualization of oncological pathologies. Computer Optics, 2019, 43, .	2.2	12
18	Method of autofluorescence diagnostics of skin neoplasms in the near infrared region. Journal of Biomedical Photonics and Engineering, 0, , 186-192.	0.7	12

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19	Population inversion in hyperfine states of Rb with a single nanosecond chirped pulse in the framework of a four-level system. Physical Review A, 2014, 89, .	2.5	11
20	Ecological monitoring of megapolis on the basis of differential backscattering control of the wood culture. Laser Physics, 2009, 19, 1366-1372.	1.2	10
21	Optical Biopsy of Amelanotic Melanoma with Raman and Autofluorescence Spectra Stimulated by 785 nm Laser Excitation. Journal of Biomedical Photonics and Engineering, 2021, 7, 020308.	0.7	9
22	Comparative study of multivariative analysis methods of blood Raman spectra classification. Journal of Raman Spectroscopy, 2020, 51, 279-292.	2.5	8
23	Malignant melanoma and basal cell carcinoma detection with 457 nm laser-induced fluorescence. Journal of Biomedical Photonics and Engineering, 0, , 180-185.	0.7	8
24	Multimodal texture analysis of OCT images as a diagnostic application for skin tumors. Journal of Biomedical Photonics and Engineering, 2017, 3, 010307.	0.7	8
25	Improvement in the strength and ductility of Al-Mg-Mn alloys with Zr and Sc additions by equal channel angular pressing. International Journal of Materials Research, 2009, 100, 1697-1704.	0.3	7
26	NOISE REDUCTION METHOD FOR OCT IMAGES BASED ON EMPIRICAL MODE DECOMPOSITION. Journal of Innovative Optical Health Sciences, 2013, 06, 1350009.	1.0	7
27	COMPLEX OPTICAL CHARACTERIZATION OF MESH IMPLANTS AND ENCAPSULATION AREA. Journal of Innovative Optical Health Sciences, 2013, 06, 1350007.	1.0	7
28	Combined Raman spectroscopy and autofluoresence imaging method forin vivoskin tumor diagnosis. Proceedings of SPIE, 2014, , .	0.8	7
29	Measurement of human serum albumin concentration using Raman spectroscopy setup. Optical and Quantum Electronics, 2016, 48, 1.	3.3	7
30	Optical diagnostics of malignant and benign skin neoplasms. Procedia Engineering, 2017, 201, 141-147.	1.2	6
31	Lung neoplasm diagnostics using Raman spectroscopy and autofluorescence analysis. Journal of Biomedical Photonics and Engineering, 2015, 1, 70-76.	0.7	6
32	Diagnostics of skin pathologies based on spectral analysis of backward and raman scattering. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 115, 182-186.	0.6	5
33	Hyperspectral imaging of skin and lung cancers. Proceedings of SPIE, 2016, , .	0.8	5
34	Blood proteins analysis by Raman spectroscopy method. , 2016, , .		5
35	Skin cancer texture analysis of OCT images based on Haralick, fractal dimension, Markov random field features, and the complex directional field features. , 2016, , .		5
36	Application of confocal laser microscopy for monitoring mesh implants in herniology. Quantum Electronics, 2011, 41, 318-323.	1.0	4

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37	Multimodal diagnosis and visualisation of oncologic pathologies. Quantum Electronics, 2014, 44, 726-731.	1.0	4
38	Advances in tumor diagnosis using OCT and Raman spectroscopy. , 2014, , .		4
39	Experimental unit for in vivo measurement of hemoglobin content in blood. Optical and Quantum Electronics, 2016, 48, 1.	3.3	4
40	Two-step Raman spectroscopy method for tumor diagnosis. Proceedings of SPIE, 2014, , .	0.8	3
41	Skin cancer texture analysis of OCT images based on Haralick, fractal dimension and the complex directional field features. Proceedings of SPIE, 2016, , .	0.8	3
42	Multimodal Optical Biopsy and Imaging of Skin Cancer. , 2019, , 449-476.		3
43	Computational analysis of optical coherence tomography images for the detection of soft tissue sarcomas. Proceedings of SPIE, 2013, , .	0.8	2
44	Quantitative assessment of hyaline cartilage elasticity during optical clearing using optical coherence elastography. , 2015, , .		2
45	Dermoscopy analysis of RGB-images based on comparative features. , 2015, , .		2
46	Combined autofluorescence and Raman spectroscopy method for skin tumor detection in visible and near infrared regions. , 2015, , .		2
47	Fluorescence spectroscopy for neoplasms control. Proceedings of SPIE, 2016, , .	0.8	2
48	NIR autofluorescence skin tumor diagnostics. , 2016, , .		2
49	The Effect of Noise in Raman Spectra on the Reconstruction of the Concentration of Amino Acids in the Mixture by Multivariate Curve Resolution (MCR) Analysis. Journal of Biomedical Photonics and Engineering, 2021, 7, 020309.	0.7	2
50	Comparative study of human blood Raman spectra and biochemical analysis of patients with cancer. , 2018, , .		2
51	Deep learning on OCT images of skin cancer. , 2017, , .		2
52	Comparison testing of machine learning algorithms separability on Raman spectra of skin cancer. , 2020, , .		2
53	Raman Spectroscopy Techniques for Skin Cancer Detection and Diagnosis. , 2020, , 359-393.		2
54	Malignant Tissue Optical Properties. , 2020, , 3-106.		2

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55	Study of spatial characteristics of the incomplete surface discharge in atmospheric-pressure air. Bulletin of the Lebedev Physics Institute, 2009, 36, 327-330.	0.6	1
56	The Empirical Mode Decomposition algorithm via Fast Fourier Transform. , 2014, , .		1
57	A complex noise reduction method for improving visualization of SD-OCT skin biomedical images. Proceedings of SPIE, 2014, , .	0.8	1
58	Investigation of changes in fractal dimension from layered retinal structures of healthy and diabetic eyes with optical coherence tomography. Proceedings of SPIE, 2015, , .	0.8	1
59	Comparison of Raman spectroscopy equipment for tissues and biofluids analysis. , 2016, , .		1
60	Portable fluorescence meter with reference backscattering channel. , 2016, , .		1
61	Optimization of surgical treatment of abdominal hernias in patients with obesity. Vestnik Khirurgii Imeni I I Grekova, 2021, 180, 73-80.	0.2	1
62	In Vivo Diagnostics of Malignant and Benign Tumors with Low-Cost Raman Spectrometer. , 2017, , .		1
63	Analysis of 3D OCT images for diagnosis of skin tumors. , 2018, , .		1
64	Multispectral autoflourescence detection of skin neoplasia using steady-state techniques. , 2019, , .		1
65	Additive simulation of Raman light scattering from skin cancer using the Monte Carlo method. , 2020, , .		1
66	Possibilities for decomposing Raman spectra of amino acids mixture by Multivariate Curve Resolution (MCR) analysis. , 2020, , .		1
67	Multispectral fluorescence detection of pigmented cutaneous tumours. , 2020, , .		1
68	Dynamics of Backscattering of Human Tissue on Exposure to a Low-Intensity Optical Radiation. Journal of Applied Spectroscopy, 2003, 70, 644-647.	0.7	0
69	Tissue backscattering dynamics simulation. , 0, , .		0
70	Human body optical-properties kinetics in low-level laser field. , 2003, , .		0
71	Computer optics and photonics for students of laser engineering disciplines. Proceedings of SPIE, 2005, 9664, 171.	0.8	0
72	<title>Spectral kinetics of plant tissues</title>. , 2007, 6535, 511.		0

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73	3D simulation of plant and living tissue superficial lesions. , 2007, 7022, 254.		0
74	Experimental investigation of kinetics spectral characteristics of a plant tissue. , 2007, , .		0
75	<title>3D simulation of tissue pathological changes localization</title>. , 2007, , .		0
76	Localization of tissue pathological changes. Proceedings of SPIE, 2007, , .	0.8	0
77	Multi-parametric function of differential backscattering in 3D biological media with heterogeneities. Laser Physics, 2009, 19, 1361-1365.	1.2	0
78	Optical methods for ecological mapping of urban areas. Bulletin of the Lebedev Physics Institute, 2010, 37, 222-226.	0.6	0
79	Monitoring atmospheric contaminants by a backscattering method. Journal of Optical Technology (A) Tj ETQq1 1 0.784314 rgBT /Ove	0.4	0
80	Complex optical method of cancer detection and visualization. , 2015, , .		0
81	Skin neoplasm diagnostics using combined spectral method in visible and near infrared regions. , 2015, , .		0
82	The plasma protein fractions research by Raman spectroscopy method. , 2016, , .		0
83	Raman spectroscopy of skin neoplasms. AIP Conference Proceedings, 2017, , .	0.4	0
84	Multimodal Method of Virtual Biopsy for Skin Cancer Diagnosis. , 2017, , .		0
85	2D Fourier Fractal Analysis of Optical Coherence Tomography Images of Basal Cell Carcinomas and Melanomas. , 0, , .		0
86	Influence of vessel dimensions on particles homogenization and heat removing in TMF stirrer. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 125-132.	0.9	0
87	Near-infrared autofluorescence spectroscopy and photobleaching detection of melanin-pigmented cutaneous neoplasia. Journal of Physics: Conference Series, 2021, 1859, 012044.	0.4	0
88	Multiple analyze on 3D-OCT images of skin cancer. , 2017, , .		0
89	2D Fourier Fractal Analysis of Skin Tumor with Spectral Domain Optical Coherence Tomography. , 2017, , .		0
90	Microscopic and macroscopic spectral peculiarities of cutaneous tumours. , 2017, , .		0

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91	Modeling of skin cancer dermatoscopy images. , 2018, , .		0
92	Experimental research of fusion splicer software settings impact on micro-lensed optical fiber configuration and geometry parameters. , 2018, , .		0
93	In vivo NIR Raman and autofluorescence spectroscopies of skin neoplasms. , 2018, , .		0
94	Research of laser beam profile structure dependence on micro-lensed optical fiber configuration. , 2019, , .		0
95	The study of ex vivo and in vivo skin neoplasms using near-infrared fluorescence spectroscopy. , 2020, , .		0
96	Multiparametric spectral diagnosis of skin cancer. , 2020, , .		0
97	Additive Approach to Simulation of Malignant Neoplasms Using the Monte Carlo Method. Journal of Biomedical Photonics and Engineering, 0, , 030302.	0.7	0