Victor V Dremin

List of Publications by Year
in descending order

69 papers	859 citations	471509 17 h-index	526287 27 g-index
72 all docs	72 docs citations	72 times ranked	494 citing authors

#	Article	IF	Citations
1	Hyperspectral imaging of human skin aided by artificial neural networks. Biomedical Optics Express, 2019, 10, 3545.	2.9	68
2	Skin Complications of Diabetes Mellitus Revealed by Polarized Hyperspectral Imaging and Machine Learning. IEEE Transactions on Medical Imaging, 2021, 40, 1207-1216.	8.9	60
3	Interaction of Mitochondrial Calcium and ROS in Neurodegeneration. Cells, 2022, 11, 706.	4.1	54
4	Interaction of Oxidative Stress and Misfolded Proteins in the Mechanism of Neurodegeneration. Life, 2020, 10, 101.	2.4	53
5	Individual variability analysis of fluorescence parameters measured in skin with different levels of nutritive blood flow. Medical Engineering and Physics, 2015, 37, 574-583.	1.7	48
6	Colon cancer detection by using Poincaré sphere and <scp>2D</scp> polarimetric mapping of ex vivo colon samples. Journal of Biophotonics, 2020, 13, e202000082.	2.3	41
7	Multimodal optical measurement for study of lower limb tissue viability in patients with diabetes mellitus. Journal of Biomedical Optics, 2017, 22, 1.	2.6	40
8	Influence of blood pulsation on diagnostic volume in pulse oximetry and photoplethysmography measurements. Applied Optics, 2019, 58, 9398.	1.8	40
9	Spectral analysis of the blood flow in the foot microvascular bed during thermal testing in patients with diabetes mellitus. Microvascular Research, 2018, 120, 13-20.	2.5	36
10	Dynamic evaluation of blood flow microcirculation by combined use of the laser Doppler flowmetry and high-speed videocapillaroscopy methods. Journal of Biophotonics, 2019, 12, e201800317.	2.3	33
11	Polarization and depolarization metrics as optical markers in support to histopathology of ex vivo colon tissue. Biomedical Optics Express, 2021, 12, 4560.	2.9	27
12	How the melanin concentration in the skin affects the fluorescence-spectroscopy signal formation. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2016, 83, 43.	0.4	24
13	Computational model of bladder tissue based on its measured optical properties. Journal of Biomedical Optics, 2016, 21, 025006.	2.6	22
14	Optical percutaneous needle biopsy of the liver: a pilot animal and clinical study. Scientific Reports, 2020, 10, 14200.	3.3	21
15	Laser speckle contrast imaging of blood microcirculation in pancreatic tissues during laparoscopic interventions. Quantum Electronics, 2020, 50, 33-40.	1.0	21
16	Biophotonics methods for functional monitoring of complications of diabetes mellitus. Journal of Biophotonics, 2020, 13, e202000203.	2.3	19
17	Fiber-Optic System for Intraoperative Study of Abdominal Organs during Minimally Invasive Surgical Interventions. Applied Sciences (Switzerland), 2019, 9, 217.	2.5	17
18	Impairments of cerebral blood flow microcirculation in rats brought on by cardiac cessation and respiratory arrest. Journal of Biophotonics, 2021, 14, e202100216.	2.3	16

#	ARTICLE	IF	CITATIONS
19	Wearable Laser Doppler Flowmetry Sensor: A Feasibility Study with Smoker and Non-Smoker Volunteers. Biosensors, 2020, 10, 201.	4.7	15
20	Evaluation of microcirculatory disturbances in patients with rheumatic diseases by the method of diffuse reflectance spectroscopy. Human Physiology, 2017, 43, 222-228.	0.4	13
21	Detection of angiospastic disorders in the microcirculatory bed using laser diagnostics technologies. Journal of Innovative Optical Health Sciences, 2018, 11, 1750016.	1.0	13
22	Multimodal Optical Diagnostics of the Microhaemodynamics in Upper and Lower Limbs. Frontiers in Physiology, 2019, 10, 416.	2.8	13
23	Wavelet Analysis of the Temporal Dynamics of the Laser Speckle Contrast in Human Skin. IEEE Transactions on Biomedical Engineering, 2019, 67, 1-1.	4.2	11
24	Functional Changes in Blood Microcirculation in the Skin of the Foot during Heating Tests in Patients with Diabetes Mellitus. Human Physiology, 2017, 43, 693-699.	0.4	10
25	Optical Diagnostics of the Maxillary Sinuses by Digital Diaphanoscopy Technology. Diagnostics, 2021, 11, 77.	2.6	10
26	Laser speckle contrast imaging and machine learning in application to physiological fluids flow rate recognition. Vibroengineering PROCEDIA, 2021, 38, 50-55.	0.5	9
27	Laser Doppler flowmetry in blood and lymph monitoring, technical aspects and analysis. Proceedings of SPIE, 2017, , .	0.8	8
28	A Complex Approach to Noninvasive Estimation of Microcirculatory Tissue Impairments in Feet of Patients with Diabetes Mellitus using Spectroscopy. Optics and Spectroscopy (English Translation of)		8
29	Machine Learning Aided Photonic Diagnostic System for Minimally Invasive Optically Guided Surgery in the Hepatoduodenal Area. Diagnostics, 2020, 10, 873.	2.6	8
30	Fluorescence lifetime needle optical biopsy discriminates hepatocellular carcinoma. Biomedical Optics Express, 2022, 13, 633.	2.9	8
31	The development of attenuation compensation models of fluorescence spectroscopy signals. Proceedings of SPIE, 2016, , .	0.8	7
32	Optical probe pressure effects on cutaneous blood flow. Clinical Hemorheology and Microcirculation, 2019, 72, 259-267.	1.7	7
33	Spatial heterogeneity of cutaneous blood flow respiratory-related oscillations quantified via laser speckle contrast imaging. PLoS ONE, 2021, 16, e0252296.	2.5	7
34	Monitoring oxidative metabolism while modeling pancreatic ischemia in mice using a multimodal spectroscopy technique. Laser Physics Letters, 2020, 17, 115605.	1.4	7
35	A novel excitation-emission wavelength model to facilitate the diagnosis of urinary bladder diseases. , 2015, , .		6
36	The blood perfusion and NADH/FAD content combined analysis in patients with diabetes foot. Proceedings of SPIE, 2016, , .	0.8	6

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37	Imaging of early stage breast cancer with circularly polarized light. , 2020, , .		6
38	The influence of local pressure on evaluation parameters of skin blood perfusion and fluorescence. Proceedings of SPIE, 2017, , .	0.8	5
39	Optical non-invasive diagnostics of microcirculatory-tissue systems of the human body: questions of metrological and instrumentation provision. Journal of Biomedical Photonics and Engineering, 2016, 2, 040305.	0.7	5
40	Testing a Fine-Needle Optical Probe for Recording Changes in the Fluorescence of Coenzymes of Cellular Respiration. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2020, 128, 742-751.	0.6	4
41	Polyacrylamide-based phantoms of human skin for hyperspectral fluorescence imaging and spectroscopy. Quantum Electronics, 2021, 51, 118-123.	1.0	4
42	Optical fine-needle aspiration biopsy in a rat model. , 2019, , .		4
43	Evaluation of blood microcirculation parameters by combined use of laser Doppler flowmetry and videocapillaroscopy methods. Proceedings of SPIE, 2017, , .	0.8	3
44	Optical fine-needle biopsy approach for intraoperative multimodal diagnostics in minimally invasive abdominal surgery. , 2019, , .		3
45	Fibre-optic probe for fluorescence diagnostics with blood influence compensation. , 2018, , .		3
46	Optical diagnostics of bile duct tissues state with tumor compression. , 2019, , .		3
47	Investigation of Doppler spectra of laser radiation scattered inside hand skin during occlusion test. Journal of Physics: Conference Series, 2017, 929, 012063.	0.4	2
48	Peculiarities of local blood microcirculation in patients with psoriasis. , 2018, , .		2
49	Fluorescence Imaging System for Biological Tissues Diagnosis: Phantom and Animal Studies. Journal of Biomedical Photonics and Engineering, 2020, 6, .	0.7	2
50	Application of optical non-invasive methods to diagnose the state of the lower limb tissues in patients with diabetes mellitus. Journal of Physics: Conference Series, 2017, 929, 012069.	0.4	1
51	Heterogeneity of cutaneous blood flow respiratory-related oscillations quantified via LSCI wavelet decomposition. , 2020, , .		1
52	Laser doppler spectrum decomposition applied in diagnostics of microcirculatory disturbances. , 2018, , .		1
53	Application of the fluorescence spectroscopy for the analysis of the state of abdominal cavity organs tissues in mini-invasive surgery. , 2018, , .		1
54	Blood flow oscillations as a signature of microvascular abnormalities. , 2018, , .		1

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55	Brain metabolism changes in cases of impaired breathing or blood circulation in rodents evaluated by real time optical spectroscopy methods. , 2020, , .		1
56	Tissue mimicking phantoms for fluorescence imaging. , 2020, , .		1
57	Evaluating adaptation options of microcirculatory-tissue systems based on the physiological link of nutritive blood flow and redox ratio. Proceedings of SPIE, 2015, , .	0.8	0
58	Assessment of tissue ischemia of nail fold precapillary zones using a fluorescence capillaroscopy. Proceedings of SPIE, 2017, , .	0.8	0
59	Evaluation of microvascular disturbances in rheumatic diseases by analysis of skin blood flow oscillations. , 2018, , .		0
60	Investigation of blood microcirculation parameters in patients with rheumatic diseases by videocapillaroscopy and laser Doppler flowmetry during cold pressor test. , 2019, , .		0
61	Laser speckle contrast imaging of abdominal organs in mouse model. , 2019, , .		0
62	Fluorescence spectroscopy approach for blood influence compensation. , 2019, , .		0
63	Assessment of age-related skin changes using hyperspectral polarization imaging. , 2019, , .		0
64	Analysis of changes in blood flow oscillations under different probe pressure using laser Doppler spectrum decomposition. , 2019, , .		0
65	Influence of blood pulsation on diagnostic volume in pulse oximetry and photoplethysmography measurements: publisher's note. Applied Optics, 2019, 58, 9688.	1.8	0
66	Optical fine needle biopsy in hepatocellular carcinoma mouse model. , 2020, , .		0
67	Monte Carlo simulation of signals in digital diaphanoscopy of the maxillary sinuses. , 2020, , .		0
68	Multimodal Laparoscopic System for Biological Tissue Perfusion and Metabolism Assessment. , 2021, , .		0
69	Machine Learning aided Fiber-Optical System for Liver Cancer Diagnosis in Minimally Invasive Surgical Interventions. , 2020, , .		0