Evgeny A Zherebtsov

List of Publications by Year
in descending order

90 papers	777 citations	516561 16 h-index	580701 25 g-index
92 all docs	92 docs citations	92 times ranked	447 citing authors

#	Article	IF	Citations
1	Hyperspectral imaging of human skin aided by artificial neural networks. Biomedical Optics Express, 2019, 10, 3545.	1.5	68
2	Skin Complications of Diabetes Mellitus Revealed by Polarized Hyperspectral Imaging and Machine Learning. IEEE Transactions on Medical Imaging, 2021, 40, 1207-1216.	5.4	60
3	Individual variability analysis of fluorescence parameters measured in skin with different levels of nutritive blood flow. Medical Engineering and Physics, 2015, 37, 574-583.	0.8	48
4	Multimodal optical measurement for study of lower limb tissue viability in patients with diabetes mellitus. Journal of Biomedical Optics, 2017, 22, 1.	1.4	40
5	Influence of blood pulsation on diagnostic volume in pulse oximetry and photoplethysmography measurements. Applied Optics, 2019, 58, 9398.	0.9	40
6	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.	1.1	36
7	Dynamic evaluation of blood flow microcirculation by combined use of the laser Doppler flowmetry and highâ€speed videocapillaroscopy methods. Journal of Biophotonics, 2019, 12, e201800317.	1.1	33
8	Substantiation of medical and technical requirements for noninvasive spectrophotometric diagnostic devices. Journal of Biomedical Optics, 2013, 18, 107009.	1.4	27
9	Adrenaline induces calcium signal in astrocytes and vasoconstriction via activation of monoamine oxidase. Free Radical Biology and Medicine, 2020, 159, 15-22.	1.3	24
10	Combined use of laser Doppler flowmetry and skin thermometry for functional diagnostics of intradermal finger vessels. Journal of Biomedical Optics, 2017, 22, 040502.	1.4	23
11	Brain region specificity in reactive oxygen species production and maintenance of redox balance. Free Radical Biology and Medicine, 2021, 174, 195-201.	1.3	22
12	Optical percutaneous needle biopsy of the liver: a pilot animal and clinical study. Scientific Reports, 2020, 10, 14200.	1.6	21
13	Laser speckle contrast imaging of blood microcirculation in pancreatic tissues during laparoscopic interventions. Quantum Electronics, 2020, 50, 33-40.	0.3	21
14	Biophotonics methods for functional monitoring of complications of diabetes mellitus. Journal of Biophotonics, 2020, 13, e202000203.	1.1	19
15	Fiber-Optic System for Intraoperative Study of Abdominal Organs during Minimally Invasive Surgical Interventions. Applied Sciences (Switzerland), 2019, 9, 217.	1.3	17
16	Variability of mitochondrial energy balance across brain regions. Journal of Neurochemistry, 2021, 157, 1234-1243.	2.1	17
17	Evaluation of microcirculatory disturbances in patients with rheumatic diseases by the method of diffuse reflectance spectroscopy. Human Physiology, 2017, 43, 222-228.	0.1	13
18	Multimodal Optical Diagnostics of the Microhaemodynamics in Upper and Lower Limbs. Frontiers in Physiology, 2019, 10, 416.	1.3	13

#	Article	IF	Citations
19	Body Position Affects Capillary Blood Flow Regulation Measured with Wearable Blood Flow Sensors. Diagnostics, 2021, 11, 436.	1.3	12
20	Noninvasive control of the transport function of fluorescent coloured liposomal nanoparticles. Laser Physics Letters, 2017, 14, 065603.	0.6	11
21	Wavelet Analysis of the Temporal Dynamics of the Laser Speckle Contrast in Human Skin. IEEE Transactions on Biomedical Engineering, 2019, 67, 1-1.	2.5	11
22	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.	0.1	10
23	Laser Doppler Spectrum Analysis Based on Calculation of Cumulative Sums Detects Changes in Skin Capillary Blood Flow in Type 2 Diabetes Mellitus. Diagnostics, 2021, 11, 267.	1.3	9
24	Laser Doppler flowmetry in blood and lymph monitoring, technical aspects and analysis. Proceedings of SPIE, 2017, , .	0.8	8
25	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) Tj ETQq1 1 0.784314 rgBT /Ove	0.7	8
26	Novel wearable VCSEL-based blood perfusion sensor. , 2018, , .		8
27	Machine Learning Aided Photonic Diagnostic System for Minimally Invasive Optically Guided Surgery in the Hepatoduodenal Area. Diagnostics, 2020, 10, 873.	1.3	8
28	Two-photon conversion of a bacterial phytochrome. Biophysical Journal, 2021, 120, 964-974.	0.2	8
29	Fluorescence lifetime needle optical biopsy discriminates hepatocellular carcinoma. Biomedical Optics Express, 2022, 13, 633.	1.5	8
30	The development of attenuation compensation models of fluorescence spectroscopy signals. Proceedings of SPIE, 2016, , .	0.8	7
31	Wavelength-Tunable, GaSb-Based, Cascaded Type-I Quantum-Well Laser Emitting Over a Range of 300 nm. IEEE Photonics Technology Letters, 2018, 30, 1941-1943.	1.3	7
32	Optical probe pressure effects on cutaneous blood flow. Clinical Hemorheology and Microcirculation, 2019, 72, 259-267.	0.9	7
33	Novel measure for the calibration of laser Doppler flowmetry devices. , 2014, , .		6
34	Development of a space-borne spectrometer to monitor atmospheric ozone. Applied Optics, 2015, 54, 3315.	2.1	6
35	Study of the functional state of peripheral vessels in fingers of rheumatological patients by means of laser Doppler flowmetry and cutaneous thermometry measurements. , 2016, , .		6
36	The blood perfusion and NADH/FAD content combined analysis in patients with diabetes foot. Proceedings of SPIE, 2016, , .	0.8	6

#	Article	IF	Citations
37	Allocation of rhodamine-loaded nanocapsules from blood circulatory system to adjacent tissues assessedin vivoby fluorescence spectroscopy. Laser Physics Letters, 2018, 15, 105601.	0.6	6
38	Diagnosis of Skin Vascular Complications Revealed by Time-Frequency Analysis and Laser Doppler Spectrum Decomposition. IEEE Transactions on Biomedical Engineering, 2023, 70, 3-14.	2.5	6
39	Digital Laser Doppler Flowmetry: Device, Signal Processing Technique, and Clinical Testing. Bio-Medical Engineering, 2021, 55, 12-16.	0.3	5
40	The influence of local pressure on evaluation parameters of skin blood perfusion and fluorescence. Proceedings of SPIE, 2017, , .	0.8	5
41	Wearable sensor system for multipoint measurements of blood perfusion: pilot studies in patients with diabetes mellitus. , 2019, , .		5
42	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.	0.4	5
43	A Method and a Device for Diagnostics of the Functional State of Peripheral Vessels of the Upper Limbs. Bio-Medical Engineering, 2017, 51, 46-51.	0.3	4
44	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.	0.2	4
45	Polyacrylamide-based phantoms of human skin for hyperspectral fluorescence imaging and spectroscopy. Quantum Electronics, 2021, 51, 118-123.	0.3	4
46	Optical fine-needle aspiration biopsy in a rat model. , 2019, , .		4
47	Evaluation of blood microcirculation parameters by combined use of laser Doppler flowmetry and videocapillaroscopy methods. Proceedings of SPIE, 2017, , .	0.8	3
48	A complex morphofunctional approach for zinc toxicity evaluation in rats. Heliyon, 2020, 6, e03768.	1.4	3
49	Optical fine-needle biopsy approach for intraoperative multimodal diagnostics in minimally invasive abdominal surgery. , 2019, , .		3
50	Fibre-optic probe for fluorescence diagnostics with blood influence compensation. , 2018, , .		3
51	Optical diagnostics of bile duct tissues state with tumor compression. , 2019, , .		3
52	Method and Device for Metrological Control of Laser Doppler Flowmetry Devices. Bio-Medical Engineering, 2014, 48, 191-195.	0.3	2
53	Investigation of Doppler spectra of laser radiation scattered inside hand skin during occlusion test. Journal of Physics: Conference Series, 2017, 929, 012063.	0.3	2
54	Novel wearable VCSEL-based sensors for multipoint measurements of blood perfusion. , 2019, , .		2

#	Article	IF	Citations
55	Pilot studies of age-related changes in blood perfusion in two different types of skin. , 2019, , .		2
56	Studies of age-related changes in blood perfusion coherence using wearable blood perfusion sensor system. , 2019, , .		2
57	Peculiarities of local blood microcirculation in patients with psoriasis. , 2018, , .		2
58	Impact of blood volume changes within the human skin on the diffuse reflectance measurements in visible and NIR spectral ranges. Proceedings of SPIE, 2017, , .	0.8	1
59	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.	0.3	1
60	Ground-Based Field Measurements and Calibrations of a New Satellite Spectrometer for Monitoring the Earthâ€™s Ozone Layer. Izvestiya - Atmospheric and Oceanic Physics, 2018, 54, 1399-1407.	0.2	1
61	Visible to near-infrared broadband fluorescence from Ce-doped silica fiber. Optical Materials Express, 2021, 11, 2528.	1.6	1
62	Laser doppler spectrum decomposition applied in diagnostics of microcirculatory disturbances. , 2018, , .		1
63	Investigation of speckle pattern dynamics by laser speckle contrast imaging. , 2018, , .		1
64	Verification of NADH content measurements by portable optical diagnostic system in living brain tissue. , 2018, , .		1
65	Wearable laser Doppler flowmetry for the analysis of microcirculatory changes during intravenous infusion in patients with diabetes mellitus. , 2020, , .		1
66	Wearable laser Doppler sensors for evaluating the nutritive and shunt blood flow. , 2020, , .		1
67	Application of the fluorescence spectroscopy for the analysis of the state of abdominal cavity organs tissues in mini-invasive surgery. , 2018, , .		1
68	Blood flow oscillations as a signature of microvascular abnormalities. , 2018, , .		1
69	Brain metabolism changes in cases of impaired breathing or blood circulation in rodents evaluated by real time optical spectroscopy methods. , 2020, , .		1
70	Multimodal Optical Diagnostic in Minimally Invasive Surgery. , 2020, , 397-424.		1
71	Skin Blood Perfusion and Fluorescence Parameters in Pregnant Women with Type 1 Diabetes Mellitus. , 2021, , .		1
72	Non-invasive control of influence of polyethylene glycol on transport function of fluorescent colored liposomal nanoparticles. Proceedings of SPIE, 2017, , .	0.8	0

#	Article	IF	Citations
73	Hyperspectral system for Imaging of skin chromophores and blood oxygenation. Proceedings of SPIE, 2017, , .	0.8	0
74	Fluorescence bandwidth of 280nm from broadband Ce³⁺â€“doped silica fiber pumped with blue laser diode. , 2018, , .		0
75	Wavelength-tunable cascade type-I quantum-well GaSb-based diode laser at 3.2 Î¼m. , 2018, , .		0
76	Optical Properties of Ce-Doped Silica Fiber. , 2019, , .		0
77	Assessment of tissue ischemia of nail fold precapillary zones using a fluorescence capillaroscopy. Proceedings of SPIE, 2017, , .	0.8	0
78	Impact of blood volume on the diffuse reflectance spectra of human skin measured in visible and NIR spectral ranges. Proceedings of SPIE, 2017, , .	0.8	0
79	Noninvasive control of rhodamine-loaded capsules distribution in vivo. , 2018, , .		0
80	Use of fluorescent optical fibre probe for recording parameters of brain metabolism in rat model. , 2018, , .		0
81	405-nm pumped Ce3+-doped silica fiber for broadband fluorescence from cyan to red. , 2019, , .		0
82	Investigation of blood microcirculation parameters in patients with rheumatic diseases by videocapillaroscopy and laser Doppler flowmetry during cold pressor test. , 2019, , .		0
83	Fluorescence spectroscopy approach for blood influence compensation. , 2019, , .		0
84	Assessment of age-related skin changes using hyperspectral polarization imaging. , 2019, , .		0
85	Analysis of changes in blood flow oscillations under different probe pressure using laser Doppler spectrum decomposition. , 2019, , .		0
86	Influence of blood pulsation on diagnostic volume in pulse oximetry and photoplethysmography measurements: publisherâ€™s note. Applied Optics, 2019, 58, 9688.	0.9	0
87	Optical fine needle biopsy in hepatocellular carcinoma mouse model. , 2020, , .		0
88	Time-frequency analysis and laser Doppler spectrum decomposition to reveal new feature space for diagnosis of diabetes mellitus vascular complications. , 2020, , .		0
89	Machine Learning aided Fiber-Optical System for Liver Cancer Diagnosis in Minimally Invasive Surgical Interventions. , 2020, , .		0
90	Fluorescence lifetime optical biopsy of the hepatocellular carcinoma in murine model. , 2021, , .		0