

Ilya Turchin

List of Publications by Year in descending order

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119
papers

1,067
citations

394421

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119
all docs

119
docs citations

119
times ranked

931
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing depth in diffuse reflectance spectroscopy of biotissues: a Monte Carlo study. <i>Laser Physics Letters</i> , 2022, 19, 035602.	1.4	12
2	Noninvasive optoacoustic microangiography reveals dose and size dependency of radiation-induced deep tumor vasculature remodeling. <i>Neoplasia</i> , 2022, 26, 100778.	5.3	9
3	Diffuse Optical Spectroscopy Monitoring of Experimental Tumor Oxygenation after Red and Blue Light Photodynamic Therapy. <i>Photonics</i> , 2022, 9, 19.	2.0	4
4	Combined Fluorescence and Optoacoustic Imaging for Monitoring Treatments against CT26 Tumors with Photoactivatable Liposomes. <i>Cancers</i> , 2022, 14, 197.	3.7	7
5	Optoacoustic and Diffuse Optical Spectroscopy Monitoring of Tumor Response to Radiation Therapy. , 2022, , .		0
6	Quantitative Characterization of Age-Related Changes in Peripheral Vessels of a Human Palm Using Raster-Scan Optoacoustic Angiography. <i>Photonics</i> , 2022, 9, 482.	2.0	0
7	Analytical model of fluorescence intensity for the estimation of fluorophore localisation in biotissue with dual-wavelength fluorescence imaging. <i>Quantum Electronics</i> , 2021, 51, 95-103.	1.0	6
8	Quantification of microvasculature parameters based on optoacoustic angiography data. <i>Laser Physics Letters</i> , 2021, 18, 035602.	1.4	5
9	In vivo applications of raster-scan optoacoustic angiography. , 2021, , .		0
10	Proximal Imaging of Changes in Photochemical Reflectance Index in Leaves Based on Using Pulses of Green-Yellow Light. <i>Remote Sensing</i> , 2021, 13, 1762.	4.0	13
11	Reconstruction of fluorophore concentration distribution in diffuse fluorescence tomography based on Tikhonov regularisation and nonnegativity condition. <i>Quantum Electronics</i> , 2021, 51, 400-407.	1.0	2
12	Dual-Wavelength Fluorescence Monitoring of Photodynamic Therapy: From Analytical Models to Clinical Studies. <i>Cancers</i> , 2021, 13, 5807.	3.7	8
13	Applications of raster-scan optoacoustic angiography in experimental oncology. , 2021, , .		0
14	Quantification of microvasculature parameters in normal and pathological tissues based on three-dimensional raster-scan optoacoustic angiography. , 2021, , .		0
15	Combined Application of Dual-Wavelength Fluorescence Monitoring and Contactless Thermometry during Photodynamic Therapy of Basal Cell Skin Cancer. <i>Sovremennye Tehnologii V Medicine</i> , 2020, 12, 47.	1.1	3
16	In Vivo Raster-Scan Optoacoustic Angiography of Superficial Tissues. , 2020, , .		0
17	Combined fluorescence and optoacoustic imaging for monitoring the efficiency of photodynamic therapy with BPD based nanoconstructs. , 2020, , .		0
18	Development of photodynamic therapy protocols with assistance of optical monitoring techniques. , 2020, , .		0

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19	Dual-wavelength fluorescence imaging for photodynamic therapy planning and monitoring. , 2020, , .		0
20	Complementary fluorescence and optoacoustic imaging for monitoring of photodynamic therapy of glioma employing BPD based nanoconstructs: pilot animal studies. , 2020, , .		1
21	Complementary bimodal approach to monitoring of photodynamic therapy with targeted nanoconstructs: numerical simulations. Quantum Electronics, 2019, 49, 43-51.	1.0	4
22	Monitoring of chlorin-based photosensitizer localisation with dual-wavelength fluorescence imaging: numerical simulations. Quantum Electronics, 2019, 49, 63-69.	1.0	14
23	Quantitative techniques for extraction of blood oxygenation from multispectral optoacoustic measurements. Laser Physics Letters, 2019, 16, 116201.	1.4	6
24	Raster-scan optoacoustic angiography of blood vessel development in colon cancer models. Photoacoustics, 2019, 13, 25-32.	7.8	23
25	Towards Bimodal Optical Monitoring of Photodynamic Therapy with Targeted Nanoconstructs: A Phantom Study. Applied Sciences (Switzerland), 2019, 9, 1918.	2.5	10
26	Diffuse optical spectroscopy assessment of rodent tumor model oxygen state after single-dose irradiation. Biomedical Physics and Engineering Express, 2019, 5, 035010.	1.2	7
27	Evaluation of oxygenation in the surface layers of biological tissues based on diffuse optical spectroscopy with automated calibration of measurements. Quantum Electronics, 2019, 49, 628-632.	1.0	10
28	Comparative analysis of single- and dual-wavelength photodynamic therapy regimes with chlorin-based photosensitizers: animal study. Journal of Biomedical Optics, 2019, 25, 1.	2.6	23
29	Analysis of different approaches for blood oxygenation determination from multispectral optoacoustic measurements. , 2019, , .		0
30	Monitoring of photodynamic therapy with target nanoconstructs by fluorescence and optoacoustic imaging: numerical simulations and phantom study. , 2019, , .		0
31	Red and blue light photodynamic therapy regimes: optical monitoring and histology studies. , 2019, , .		0
32	Dual-wavelength fluorescence localization of chlorin-based photosensitizer. , 2019, , .		0
33	Optoacoustic angiography of experimental tumors. , 2019, , .		0
34	THE ROLE OF DIFFUSE OPTICAL SPECTROSCOPY IN THE DIAGNOSIS OF BREAST CANCER (CASE REPORT). Siberian Journal of Oncology, 2019, 18, 92-101.	0.3	1
35	Raster-scan optoacoustic angiography reveals 3D microcirculatory changes during cuffed occlusion. Laser Physics Letters, 2018, 15, 045602.	1.4	16
36	Optical techniques for advancement of photodynamic therapy: from model experiments to clinical studies. , 2018, , .		0

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37	Estimation of chlorin-based photosensitizer penetration depth prior to photodynamic therapy procedure with dual-wavelength fluorescence imaging. <i>Laser Physics Letters</i> , 2018, 15, 126202.	1.4	23
38	Wideband optoacoustic detectors for multi-scale characterization of the vasculature. , 2018, , .		0
39	High-Resolution Ultrasound Technologies for Studying Biological Objects. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2018, 82, 502-506.	0.6	2
40	Wideband linear detector arrays for optoacoustic imaging based on polyvinylidene difluoride films. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	12
41	Combination of virtual point detector concept and fluence compensation in acoustic resolution photoacoustic microscopy. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	17
42	Estimation of Chlorine-based Photosensitizer Penetration Depth Prior to PDT Procedure from Two-wavelength Excitation Fluorescence Measurements. , 2018, , .		1
43	The Complex Evaluation of Breast Cancer Metabolism and Blood Supply in Neoadjuvant Polychemotherapy. , 2018, , .		0
44	Two-color fluorescence monitoring in PDT treatment. , 2018, , .		0
45	Special Section Guest Editorial: Topical Problems of Biophotonics: from Optical Bioimaging to Clinical Biophotonics. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	2
46	Current Methods for the Assessment of Oxygen Status and Biotissue Microcirculation Condition: Diffuse Optical Spectroscopy (Review). <i>Sovremennye Tehnologii V Medicine</i> , 2018, 10, 183.	1.1	3
47	Method of measuring blood oxygenation based on spectroscopy of diffusely scattered light. <i>Quantum Electronics</i> , 2017, 47, 355-360.	1.0	5
48	Fluence compensated optoacoustic measurements of blood oxygen saturation in vivo at two optimal wavelengths. , 2017, , .		2
49	Diffuse optical spectroscopy monitoring of oxygen state and hemoglobin concentration during SKBR-3 tumor model growth. <i>Laser Physics Letters</i> , 2017, 14, 015601.	1.4	9
50	Fluence compensation in raster-scan optoacoustic angiography. <i>Photoacoustics</i> , 2017, 8, 59-67.	7.8	23
51	Biomedical Optoacoustic Tomograph Based on a Cylindrical Focusing PVDF Antenna. <i>Radiophysics and Quantum Electronics</i> , 2017, 60, 233-239.	0.5	2
52	Dynamic influence of pentoxifylline on the oxygen status of Plissâ€™s lymph sarcoma in rat. <i>Frontiers of Optoelectronics</i> , 2017, 10, 317-322.	3.7	1
53	A technique for measuring oxygen saturation in biological tissues based on diffuse optical spectroscopy. <i>Proceedings of SPIE</i> , 2017, , .	0.8	3
54	Oxygenation level and hemoglobin concentration in experimental tumor estimated by diffuse optical spectroscopy. , 2017, , .		0

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55	Two-Wavelength Fluorescence Monitoring and Planning of Photodynamic Therapy. <i>Sovremennye Tehnologii V Medicine</i> , 2017, 9, 96.	1.1	6
56	Simultaneous in vivo imaging of diffuse optical reflectance, optoacoustic pressure and ultrasonic scattering (Conference Presentation). , 2017, , .		0
57	Quantitative optical diagnostics in pathology recognition and monitoring of tissue reaction to PDT. <i>Proceedings of SPIE</i> , 2017, , .	0.8	1
58	Simultaneous in vivo imaging of diffuse optical reflectance, optoacoustic pressure, and ultrasonic scattering. <i>Biomedical Optics Express</i> , 2016, 7, 3951.	2.9	19
59	Optimal wavelengths for optoacoustic measurements of blood oxygen saturation in biological tissues. <i>Biomedical Optics Express</i> , 2016, 7, 3979.	2.9	23
60	From optical bioimaging to clinical biophotonics. <i>Photonics & Lasers in Medicine</i> , 2016, 5, .	0.2	0
61	Comparing reconstruction algorithms for the 2D optoacoustic tomography of biological tissues. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2016, 80, 1237-1241.	0.6	1
62	Fluorescence imaging for photodynamic therapy of non-melanoma skin malignancies – A retrospective clinical study. <i>Photonics & Lasers in Medicine</i> , 2016, 5, 101-111.	0.2	9
63	Methods of biomedical optical imaging: from subcellular structures to tissues and organs. <i>Physics-Uspexhi</i> , 2016, 59, 487-501.	2.2	17
64	Triple-modality imaging of optoacoustic pressure, ultrasonic scattering, and optical diffuse reflectance with improved resolution and speed. , 2016, , .		0
65	Simultaneous triple-modality imaging of diffuse reflectance, optoacoustic pressure and ultrasonic scattering using an acoustic-resolution photoacoustic microscope: feasibility study. <i>Laser Physics Letters</i> , 2016, 13, 025605.	1.4	16
66	Optical Bioimaging as a Tool for Prognosis of Oncologic and Functional Results of PDT of Non-Melanoma Skin Carcinoma. , 2016, , .		0
67	Optical and ultrasound methods for detection of chemotherapy-induced changes of breast tumors blood supply. , 2016, , .		0
68	Towards PDT with Genetically Encoded Photosensitizer KillerRed: A Comparison of Continuous and Pulsed Laser Regimens in an Animal Tumor Model. <i>PLoS ONE</i> , 2015, 10, e0144617.	2.5	14
69	Fluorescence lifetime imaging for deep-seated fluorophore in turbid medium. , 2015, , .		0
70	Fluorescence lifetime imaging of deep-seated fluorophore in turbid medium. <i>Proceedings of SPIE</i> , 2015, , .	0.8	0
71	Photobleaching and phototoxicity of KillerRed in tumor spheroids induced by continuous wave and pulsed laser illumination. <i>Journal of Biophotonics</i> , 2015, 8, 952-960.	2.3	22
72	Compact and fully automated system for monitoring photodynamic therapy, based on two LEDs and a single CCD. <i>Laser Physics Letters</i> , 2015, 12, 115602.	1.4	20

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73	Simultaneous photoacoustic and optically mediated ultrasound microscopy: an in vivo study. Biomedical Optics Express, 2015, 6, 631.	2.9	28
74	Trans-illumination fluorescence imaging of deep-seated tumors in small animals. Photonics & Lasers in Medicine, 2015, 4, .	0.2	6
75	Fluorescent Monitoring of Photodynamic Therapy for Skin Cancer in Clinical Practice. Sovremennyye Tehnologii V Medicine, 2015, 7, 75-83.	1.1	4
76	A novel far-red fluorescent xenograft model of ovarian carcinoma for preclinical evaluation of HER2-targeted immunotoxins. Oncotarget, 2015, 6, 30919-30928.	1.8	32
77	Biophotonics symposium "A scientific cruise. Photonics & Lasers in Medicine, 2014, 3, .	0.2	0
78	Method of bimodal photoacoustic and ultrasound microscopy for simultaneous structural and functional diagnostics of biotissues. Doklady Physics, 2014, 59, 59-61.	0.7	4
79	Phototoxic effects of fluorescent protein KillerRed on tumor cells in mice. Journal of Biophotonics, 2013, 6, 283-290.	2.3	49
80	Flavoprotein miniSOG as a genetically encoded photosensitizer for cancer cells. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 5059-5067.	2.4	69
81	Method of optical coherence tomography with parallel depth-resolved signal reception and fibre-optic phase modulators. Quantum Electronics, 2013, 43, 1165-1169.	1.0	1
82	Fluorescence diffuse tomography technique with autofluorescence removal based on dispersion of biotissue optical properties. Laser Physics Letters, 2013, 10, 075601.	1.4	8
83	Reconstruction in fluorescence diffuse tomography based on non-negativity condition. Proceedings of SPIE, 2013, , .	0.8	0
84	Tumor-stem cells interactions by fluorescence imaging. Proceedings of SPIE, 2013, , .	0.8	0
85	Simultaneous photoacoustic and optically mediated ultrasound microscopy: phantom study. Optics Letters, 2012, 37, 4606.	3.3	31
86	Three-Dimensional In Vivo Imaging of Tumors Expressing Red Fluorescent Proteins. Methods in Molecular Biology, 2012, 872, 97-114.	0.9	2
87	Correlation characteristics of optical coherence tomography images of turbid media with statistically inhomogeneous optical parameters. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 691-703.	2.3	1
88	Noninvasive estimation of the oxygen status of experimental tumors by diffuse optical spectroscopy. Biophysics (Russian Federation), 2011, 56, 304-308.	0.7	5
89	Study of photosensitizers pharmacokinetics in mouse tumor model by transillumination fluorescence imaging in vivo. , 2011, , .		1
90	Reconstruction of object location for diffuse fluorescence tomography on the basis of hybrid models of light scattering in biotissues. Radiophysics and Quantum Electronics, 2011, 54, 197-209.	0.5	3

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91	Comparative study of tumor hypoxia by diffuse optical spectroscopy and immunohistochemistry in two tumor models. Journal of Biophotonics, 2010, 3, 743-751.	2.3	11
92	Lifetime imaging of FRET between red fluorescent proteins. Journal of Biophotonics, 2010, 3, 774-783.	2.3	25
93	<i>In vivo</i> study of photosensitizer pharmacokinetics by fluorescence transillumination imaging. Journal of Biomedical Optics, 2010, 15, 048004.	2.6	17
94	Spectrally resolved fluorescence diffuse tomography of biological tissues. Quantum Electronics, 2010, 40, 531-537.	1.0	2
95	Fibreoptic fluorescent microscopy in studying biological objects. Quantum Electronics, 2010, 40, 842-846.	1.0	8
96	Whole-body imaging of HER2/neu-overexpressing tumors using scFv-antibody conjugated quantum dots. , 2010, , .		1
97	Multicolor frequency-domain diffuse optical tomography for detection of breast cancer. , 2009, , .		1
98	Fluorescent immunolabeling of cancer cells by quantum dots and antibody scFv fragment. Journal of Biomedical Optics, 2009, 14, 021004.	2.6	31
99	Reconstruction of fluorophore distribution for fluorescence diffuse tomography based on hybrid model. , 2009, , .		0
100	Frequency-domain diffuse optical tomography with single source-detector pair for breast cancer detection. Laser Physics Letters, 2008, 5, 321-327.	1.4	37
101	Fluorescence diffuse tomography for detection of red fluorescent protein expressed tumors in small animals. Journal of Biomedical Optics, 2008, 13, 041310.	2.6	23
102	Shadow noise in OCT images of biological tissues. Quantum Electronics, 2008, 38, 543-550.	1.0	4
103	<i>Frequency domain fluorescence diffuse tomography of small animals</i> . Proceedings of SPIE, 2007, , .	0.8	0
104	<i>Frequency-domain photon density wave setup with multicolor illumination at 684, 794, and 1060 nm</i> . , 2007, , .		0
105	Diffuse fluorescence tomography of exo- and endogenously labeled tumors. Proceedings of SPIE, 2007, , .	0.8	0
106	<i>Fluorescence diffuse tomography for tumor detection and monitoring</i> . , 2007, , .		0
107	Novel optical spectroscopy system for breast cancer diagnostics. , 2007, , .		3
108	Fluorescence diffuse tomography for detection of RFP-expressed tumors in small animals. , 2007, , .		0

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109	Frequency domain fluorescent diffuse tomography of small animals with DsRed2-expressed tumors. , 2006, 6098, 76.		0
110	Fluorescence diffuse tomography of small animals with DsRed2 fluorescent protein. Laser Physics, 2006, 16, 741-746.	1.2	11
111	Imaging of QDs-labeled tumors in small animals by fluorescence diffuse tomography. Laser Physics Letters, 2006, 3, 208-211.	1.4	11
112	<title>Methods of optical tomography in biomedicine</title>. , 2005, , .		0
113	A Diplexer Based on an Open Resonator with Corrugated Mirrors. Technical Physics Letters, 2005, 31, 709.	0.7	15
114	Novel algorithm of processing optical coherence tomography images for differentiation of biological tissue pathologies. Journal of Biomedical Optics, 2005, 10, 064024.	2.6	75
115	New Approaches in Broadband Fiber-Optical Interferometry for Optical Coherent Tomography. Radiophysics and Quantum Electronics, 2003, 46, 550-564.	0.5	5
116	Multiple Backscattering Effects in Optical Coherence Tomography Images of Layered Turbid Media. Radiophysics and Quantum Electronics, 2003, 46, 565-576.	0.5	7
117	Optical coherence tomography for in situ monitoring of laser corneal ablation. Journal of Biomedical Optics, 2002, 7, 633.	2.6	22
118	Complementary use of cross-polarization and standard OCT for differential diagnosis of pathological tissues. Optics Express, 2002, 10, 707.	3.4	76
119	<title>Excimer laser ophthalmic system optical coherence tomography</title>. , 2001, , .		1