

Ilya Turchin

List of Publications by Year in descending order

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Version: 2024-02-01

119
papers

1,067
citations

394421

19
h-index

477307

29
g-index

119
all docs

119
docs citations

119
times ranked

931
citing authors

#	ARTICLE	IF	CITATIONS
1	Complementary use of cross-polarization and standard OCT for differential diagnosis of pathological tissues. <i>Optics Express</i> , 2002, 10, 707.	3.4	76
2	Novel algorithm of processing optical coherence tomography images for differentiation of biological tissue pathologies. <i>Journal of Biomedical Optics</i> , 2005, 10, 064024.	2.6	75
3	Flavoprotein miniSOG as a genetically encoded photosensitizer for cancer cells. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 5059-5067.	2.4	69
4	Phototoxic effects of fluorescent protein KillerRed on tumor cells in mice. <i>Journal of Biophotonics</i> , 2013, 6, 283-290.	2.3	49
5	Frequency-domain diffuse optical tomography with single source-detector pair for breast cancer detection. <i>Laser Physics Letters</i> , 2008, 5, 321-327.	1.4	37
6	A novel far-red fluorescent xenograft model of ovarian carcinoma for preclinical evaluation of HER2-targeted immunotoxins. <i>Oncotarget</i> , 2015, 6, 30919-30928.	1.8	32
7	Fluorescent immunolabeling of cancer cells by quantum dots and antibody scFv fragment. <i>Journal of Biomedical Optics</i> , 2009, 14, 021004.	2.6	31
8	Simultaneous photoacoustic and optically mediated ultrasound microscopy: phantom study. <i>Optics Letters</i> , 2012, 37, 4606.	3.3	31
9	Simultaneous photoacoustic and optically mediated ultrasound microscopy: an in vivo study. <i>Biomedical Optics Express</i> , 2015, 6, 631.	2.9	28
10	Lifetime imaging of FRET between red fluorescent proteins. <i>Journal of Biophotonics</i> , 2010, 3, 774-783.	2.3	25
11	Fluorescence diffuse tomography for detection of red fluorescent protein expressed tumors in small animals. <i>Journal of Biomedical Optics</i> , 2008, 13, 041310.	2.6	23
12	Optimal wavelengths for optoacoustic measurements of blood oxygen saturation in biological tissues. <i>Biomedical Optics Express</i> , 2016, 7, 3979.	2.9	23
13	Fluence compensation in raster-scan optoacoustic angiography. <i>Photoacoustics</i> , 2017, 8, 59-67.	7.8	23
14	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
15	Raster-scan optoacoustic angiography of blood vessel development in colon cancer models. <i>Photoacoustics</i> , 2019, 13, 25-32.	7.8	23
16	Comparative analysis of single- and dual-wavelength photodynamic therapy regimes with chlorin-based photosensitizers: animal study. <i>Journal of Biomedical Optics</i> , 2019, 25, 1.	2.6	23
17	Optical coherence tomography for in situ monitoring of laser corneal ablation. <i>Journal of Biomedical Optics</i> , 2002, 7, 633.	2.6	22
18	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

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19	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
20	Simultaneous in vivo imaging of diffuse optical reflectance, optoacoustic pressure, and ultrasonic scattering. <i>Biomedical Optics Express</i> , 2016, 7, 3951.	2.9	19
21	<i>In vivo</i> study of photosensitizer pharmacokinetics by fluorescence transillumination imaging. <i>Journal of Biomedical Optics</i> , 2010, 15, 048004.	2.6	17
22	Methods of biomedical optical imaging: from subcellular structures to tissues and organs. <i>Physics-Uspekh</i> , 2016, 59, 487-501.	2.2	17
23	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
24	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
25	Raster-scan optoacoustic angiography reveals 3D microcirculatory changes during cuffed occlusion. <i>Laser Physics Letters</i> , 2018, 15, 045602.	1.4	16
26	A Diplexer Based on an Open Resonator with Corrugated Mirrors. <i>Technical Physics Letters</i> , 2005, 31, 709.	0.7	15
27	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
28	Monitoring of chlorin-based photosensitiser localisation with dual-wavelength fluorescence imaging: numerical simulations. <i>Quantum Electronics</i> , 2019, 49, 63-69.	1.0	14
29	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
30	Wideband linear detector arrays for optoacoustic imaging based on polyvinylidene difluoride films. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	12
31	Probing depth in diffuse reflectance spectroscopy of biotissues: a Monte Carlo study. <i>Laser Physics Letters</i> , 2022, 19, 035602.	1.4	12
32	Fluorescence diffuse tomography of small animals with DsRed2 fluorescent protein. <i>Laser Physics</i> , 2006, 16, 741-746.	1.2	11
33	Imaging of QDs-labeled tumors in small animals by fluorescence diffuse tomography. <i>Laser Physics Letters</i> , 2006, 3, 208-211.	1.4	11
34	Comparative study of tumor hypoxia by diffuse optical spectroscopy and immunohistochemistry in two tumor models. <i>Journal of Biophotonics</i> , 2010, 3, 743-751.	2.3	11
35	Towards Bimodal Optical Monitoring of Photodynamic Therapy with Targeted Nanoconstructs: A Phantom Study. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1918.	2.5	10
36	Evaluation of oxygenation in the surface layers of biological tissues based on diffuse optical spectroscopy with automated calibration of measurements. <i>Quantum Electronics</i> , 2019, 49, 628-632.	1.0	10

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37	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
38	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
39	Noninvasive optoacoustic microangiography reveals dose and size dependency of radiation-induced deep tumor vasculature remodeling. <i>Neoplasia</i> , 2022, 26, 100778.	5.3	9
40	Fibreoptic fluorescent microscopy in studying biological objects. <i>Quantum Electronics</i> , 2010, 40, 842-846.	1.0	8
41	Fluorescence diffuse tomography technique with autofluorescence removal based on dispersion of biotissue optical properties. <i>Laser Physics Letters</i> , 2013, 10, 075601.	1.4	8
42	Dual-Wavelength Fluorescence Monitoring of Photodynamic Therapy: From Analytical Models to Clinical Studies. <i>Cancers</i> , 2021, 13, 5807.	3.7	8
43	Multiple Backscattering Effects in Optical Coherence Tomography Images of Layered Turbid Media. <i>Radiophysics and Quantum Electronics</i> , 2003, 46, 565-576.	0.5	7
44	Diffuse optical spectroscopy assessment of rodent tumor model oxygen state after single-dose irradiation. <i>Biomedical Physics and Engineering Express</i> , 2019, 5, 035010.	1.2	7
45	Combined Fluorescence and Optoacoustic Imaging for Monitoring Treatments against CT26 Tumors with Photoactivatable Liposomes. <i>Cancers</i> , 2022, 14, 197.	3.7	7
46	Trans-illumination fluorescence imaging of deep-seated tumors in small animals. <i>Photonics & Lasers in Medicine</i> , 2015, 4, .	0.2	6
47	Quantitative techniques for extraction of blood oxygenation from multispectral optoacoustic measurements. <i>Laser Physics Letters</i> , 2019, 16, 116201.	1.4	6
48	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
49	Two-Wavelength Fluorescence Monitoring and Planning of Photodynamic Therapy. <i>Sovremennyye Tehnologii V Medicine</i> , 2017, 9, 96.	1.1	6
50	New Approaches in Broadband Fiber-Optical Interferometry for Optical Coherent Tomography. <i>Radiophysics and Quantum Electronics</i> , 2003, 46, 550-564.	0.5	5
51	Noninvasive estimation of the oxygen status of experimental tumors by diffuse optical spectroscopy. <i>Biophysics (Russian Federation)</i> , 2011, 56, 304-308.	0.7	5
52	Method of measuring blood oxygenation based on spectroscopy of diffusely scattered light. <i>Quantum Electronics</i> , 2017, 47, 355-360.	1.0	5
53	Quantification of microvasculature parameters based on optoacoustic angiography data. <i>Laser Physics Letters</i> , 2021, 18, 035602.	1.4	5
54	Shadow noise in OCT images of biological tissues. <i>Quantum Electronics</i> , 2008, 38, 543-550.	1.0	4

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55	Method of bimodal photoacoustic and ultrasound microscopy for simultaneous structural and functional diagnostics of biotissues. Doklady Physics, 2014, 59, 59-61.	0.7	4
56	Complementary bimodal approach to monitoring of photodynamic therapy with targeted nanoconstructs: numerical simulations. Quantum Electronics, 2019, 49, 43-51.	1.0	4
57	Fluorescent Monitoring of Photodynamic Therapy for Skin Cancer in Clinical Practice. Sovremennye Tehnologii V Medicine, 2015, 7, 75-83.	1.1	4
58	Diffuse Optical Spectroscopy Monitoring of Experimental Tumor Oxygenation after Red and Blue Light Photodynamic Therapy. Photonics, 2022, 9, 19.	2.0	4
59	Novel optical spectroscopy system for breast cancer diagnostics. , 2007, , .		3
60	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
61	A technique for measuring oxygen saturation in biological tissues based on diffuse optical spectroscopy. Proceedings of SPIE, 2017, , .	0.8	3
62	Current Methods for the Assessment of Oxygen Status and Biotissue Microcirculation Condition: Diffuse Optical Spectroscopy (Review). Sovremennye Tehnologii V Medicine, 2018, 10, 183.	1.1	3
63	Combined Application of Dual-Wavelength Fluorescence Monitoring and Contactless Thermometry during Photodynamic Therapy of Basal Cell Skin Cancer. Sovremennye Tehnologii V Medicine, 2020, 12, 47.	1.1	3
64	Spectrally resolved fluorescence diffuse tomography of biological tissues. Quantum Electronics, 2010, 40, 531-537.	1.0	2
65	Three-Dimensional In Vivo Imaging of Tumors Expressing Red Fluorescent Proteins. Methods in Molecular Biology, 2012, 872, 97-114.	0.9	2
66	Fluence compensated optoacoustic measurements of blood oxygen saturation in vivo at two optimal wavelengths. , 2017, , .		2
67	Biomedical Optoacoustic Tomograph Based on a Cylindrical Focusing PVDF Antenna. Radiophysics and Quantum Electronics, 2017, 60, 233-239.	0.5	2
68	High-Resolution Ultrasound Technologies for Studying Biological Objects. Bulletin of the Russian Academy of Sciences: Physics, 2018, 82, 502-506.	0.6	2
69	Reconstruction of fluorophore concentration distribution in diffuse fluorescence tomography based on Tikhonov regularisation and nonnegativity condition. Quantum Electronics, 2021, 51, 400-407.	1.0	2
70	Special Section Guest Editorial: Topical Problems of Biophotonics: from Optical Bioimaging to Clinical Biophotonics. Journal of Biomedical Optics, 2018, 23, 1.	2.6	2
71	<title>Excimer laser ophthalmic system optical coherence tomography</title>. , 2001, , .		1
72	Multicolor frequency-domain diffuse optical tomography for detection of breast cancer. , 2009, , .		1

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73	Whole-body imaging of HER2/neu-overexpressing tumors using scFv-antibody conjugated quantum dots. , 2010, , .		1
74	Study of photosensitizers pharmacokinetics in mouse tumor model by transillumination fluorescence imaging in vivo. , 2011, , .		1
75	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
76	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
77	Comparing reconstruction algorithms for the 2D optoacoustic tomography of biological tissues. Bulletin of the Russian Academy of Sciences: Physics, 2016, 80, 1237-1241.	0.6	1
78	Dynamic influence of pentoxifylline on the oxygen status of Plissâ€™s lymph sarcoma in rat. Frontiers of Optoelectronics, 2017, 10, 317-322.	3.7	1
79	Quantitative optical diagnostics in pathology recognition and monitoring of tissue reaction to PDT. Proceedings of SPIE, 2017, , .	0.8	1
80	Estimation of Chlorine-based Photosensitizer Penetration Depth Prior to PDT Procedure from Two-wavelength Excitation Fluorescence Measurements. , 2018, , .		1
81	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
82	Complementary fluorescence and optoacoustic imaging for monitoring of photodynamic therapy of glioma employing BPD based nanoconstructs: pilot animal studies. , 2020, , .		1
83	<title>Methods of optical tomography in biomedicine</title>. , 2005, , .		0
84	Frequency domain fluorescent diffuse tomography of small animals with DsRed2-expressed tumors. , 2006, 6098, 76.		0
85	<title>Frequency domain fluorescence diffuse tomography of small animals</title>. Proceedings of SPIE, 2007, , .	0.8	0
86	<title>Frequency-domain photon density wave setup with multicolor illumination at 684, 794, and 1060 nm</title>. , 2007, , .		0
87	Diffuse fluorescence tomography of exo- and endogenously labeled tumors. Proceedings of SPIE, 2007, , .	0.8	0
88	<title>Fluorescence diffuse tomography for tumor detection and monitoring</title>. , 2007, , .		0
89	Fluorescence diffuse tomography for detection of RFP-expressed tumors in small animals. , 2007, , .		0
90	Reconstruction of fluorophore distribution for fluorescence diffuse tomography based on hybrid model. , 2009, , .		0

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91	Reconstruction in fluorescence diffuse tomography based on non-negativity condition. Proceedings of SPIE, 2013, , .	0.8	0
92	Tumor-stem cells interactions by fluorescence imaging. Proceedings of SPIE, 2013, , .	0.8	0
93	Biophotonics symposium "A scientific cruise. Photonics & Lasers in Medicine, 2014, 3, .	0.2	0
94	Fluorescence lifetime imaging for deep-seated fluorophore in turbid medium. , 2015, , .		0
95	Fluorescence lifetime imaging of deep-seated fluorophore in turbid medium. Proceedings of SPIE, 2015, , .	0.8	0
96	From optical bioimaging to clinical biophotonics. Photonics & Lasers in Medicine, 2016, 5, .	0.2	0
97	Triple-modality imaging of optoacoustic pressure, ultrasonic scattering, and optical diffuse reflectance with improved resolution and speed. , 2016, , .		0
98	Oxygenation level and hemoglobin concentration in experimental tumor estimated by diffuse optical spectroscopy. , 2017, , .		0
99	Optical techniques for advancement of photodynamic therapy: from model experiments to clinical studies. , 2018, , .		0
100	Wideband optoacoustic detectors for multi-scale characterization of the vasculature. , 2018, , .		0
101	In vivo applications of raster-scan optoacoustic angiography. , 2021, , .		0
102	Optical Bioimaging as a Tool for Prognosis of Oncologic and Functional Results of PDT of Non-Melanoma Skin Carcinoma. , 2016, , .		0
103	Optical and ultrasound methods for detection of chemotherapy-induced changes of breast tumors blood supply. , 2016, , .		0
104	Simultaneous in vivo imaging of diffuse optical reflectance, optoacoustic pressure and ultrasonic scattering (Conference Presentation). , 2017, , .		0
105	The Complex Evaluation of Breast Cancer Metabolism and Blood Supply in Neoadjuvant Polychemotherapy. , 2018, , .		0
106	Two-color fluorescence monitoring in PDT treatment. , 2018, , .		0
107	Analysis of different approaches for blood oxygenation determination from multispectral optoacoustic measurements. , 2019, , .		0
108	Monitoring of photodynamic therapy with target nanoconstructs by fluorescence and optoacoustic imaging: numerical simulations and phantom study. , 2019, , .		0

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109	Red and blue light photodynamic therapy regimes: optical monitoring and histology studies. , 2019, , .		0
110	Dual-wavelength fluorescence localization of chlorin-based photosensitizer. , 2019, , .		0
111	Optoacoustic angiography of experimental tumors. , 2019, , .		0
112	In Vivo Raster-Scan Optoacoustic Angiography of Superficial Tissues. , 2020, , .		0
113	Combined fluorescence and optoacoustic imaging for monitoring the efficiency of photodynamic therapy with BPD based nanoconstructs. , 2020, , .		0
114	Development of photodynamic therapy protocols with assistance of optical monitoring techniques. , 2020, , .		0
115	Dual-wavelength fluorescence imaging for photodynamic therapy planning and monitoring. , 2020, , .		0
116	Applications of raster-scan optoacoustic angiography in experimental oncology. , 2021, , .		0
117	Quantification of microvasculature parameters in normal and pathological tissues based on three-dimensional raster-scan optoacoustic angiography. , 2021, , .		0
118	Optoacoustic and Diffuse Optical Spectroscopy Monitoring of Tumor Response to Radiation Therapy. , 2022, , .		0
119	Quantitative Characterization of Age-Related Changes in Peripheral Vessels of a Human Palm Using Raster-Scan Optoacoustic Angiography. Photonics, 2022, 9, 482.	2.0	0