

Alexey N Bashkatov

List of Publications by Year in descending order

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125
papers

4,256
citations

218677

26
h-index

189892

50
g-index

127
all docs

127
docs citations

127
times ranked

4409
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical properties of human skin, subcutaneous and mucous tissues in the wavelength range from 400 to 2000nm. Journal Physics D: Applied Physics, 2005, 38, 2543-2555.	2.8	1,340
2	OPTICAL PROPERTIES OF SKIN, SUBCUTANEOUS, AND MUSCLE TISSUES: A REVIEW. Journal of Innovative Optical Health Sciences, 2011, 04, 9-38.	1.0	551
3	Tissue optical immersion clearing. Expert Review of Medical Devices, 2010, 7, 825-842.	2.8	195
4	Glucose and Mannitol Diffusion in Human Dura Mater. Biophysical Journal, 2003, 85, 3310-3318.	0.5	142
5	Gold nanorods with a hematoporphyrin-loaded silica shell for dual-modality photodynamic and photothermal treatment of tumors in vivo. Nano Research, 2014, 7, 325-337.	10.4	136
6	A pilot study of ICG laser therapy of acne vulgaris: Photodynamic and photothermolysis treatment. Lasers in Surgery and Medicine, 2003, 33, 296-310.	2.1	114
7	Optical Properties of the Subcutaneous Adipose Tissue in the Spectral Range 400–2500 nm. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2005, 99, 836.	0.6	107
8	Measurement of tissue optical properties in the context of tissue optical clearing. Journal of Biomedical Optics, 2018, 23, 1.	2.6	90
9	Low-intensity indocyanine-green laser phototherapy of acne vulgaris: Pilot study. Journal of Biomedical Optics, 2004, 9, 828.	2.6	86
10	Optical Clearing for OCT Image Enhancement and In-Depth Monitoring of Molecular Diffusion. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1244-1259.	2.9	84
11	Optical clearing of biological tissues: prospects of application in medical diagnostics and phototherapy. Journal of Biomedical Photonics and Engineering, 2015, 1, 22-58.	0.7	81
12	Optical Clearing of Cranial Bone. Advances in Optical Technologies, 2008, 2008, 1-8.	0.8	74
13	Optical properties of human stomach mucosa in the spectral range from 400 to 2000nm: Prognosis for gastroenterology. Medical Laser Application: International Journal for Laser Treatment and Research, 2007, 22, 95-104.	0.3	69
14	In vitro and in vivo study of dye diffusion into the human skin and hair follicles. Journal of Biomedical Optics, 2002, 7, 471.	2.6	66
15	In vivo investigation of the immersion-liquid-induced human skin clearing dynamics. Technical Physics Letters, 2001, 27, 489-490.	0.7	62
16	<title>Optical properties of human cranial bone in the spectral range from 800 to 2000 nm</title>. , 2006, , .		57
17	Study of the possibility of increasing the probing depth by the method of reflection confocal microscopy upon immersion clearing of near-surface human skin layers. Quantum Electronics, 2002, 32, 875-882.	1.0	52
18	Theoretical study of immersion optical clearing of blood in vessels at local hemolysis. Optics Express, 2004, 12, 2966.	3.4	49

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19	<i>Ex vivo</i> optical measurements of glucose diffusion kinetics in native and diabetic mouse skin. Journal of Biophotonics, 2015, 8, 332-346.	2.3	44
20	Optical properties of brain tissues at the different stages of glioma development in rats: pilot study. Biomedical Optics Express, 2019, 10, 5182.	2.9	42
21	Optical clearing of the eye sclera in vivo caused by glucose. Quantum Electronics, 2006, 36, 1119-1124.	1.0	41
22	Optical coherence tomography monitoring of enhanced skin optical clearing in rats <i>in vivo</i>. Journal of Biomedical Optics, 2013, 19, 021109.	2.6	41
23	Optical clearing of human dura mater. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.6	40
24	Immersion Clearing of Human Blood in the Visible and Near-Infrared Spectral Regions. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2005, 98, 638.	0.6	40
25	<title>Estimation of wavelength dependence of refractive index of collagen fibers of scleral tissue</title>. Proceedings of SPIE, 2000, , .	0.8	39
26	In vivo optical monitoring of transcutaneous delivery of calcium carbonate microcontainers. Biomedical Optics Express, 2016, 7, 2082.	2.9	36
27	<title>In-vivo and in-vitro study of control of rat skin optical properties by action of osmotic liquid</title>. , 2000, 4224, 300.		34
28	<title>Optical properties of melanin in the skin and skinlike phantoms</title>. , 2000, , .		33
29	Transcutaneous delivery of micro- and nanoparticles with laser microporation. Journal of Biomedical Optics, 2013, 18, 111406.	2.6	30
30	Human sclera dynamic spectra: in-vitro and in-vivo measurements. , 1999, , .		25
31	Plasmonic photothermal therapy: Approaches to advanced strategy. Lasers in Surgery and Medicine, 2018, 50, 1025-1033.	2.1	22
32	Adjunctive dental therapy via tooth plaque reduction and gingivitis treatment by blue light-emitting diodes tooth brushing. Journal of Biomedical Optics, 2015, 20, 128004.	2.6	20
33	Optical properties of mucous membrane in the spectral range 350â€”2000 nm. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2004, 97, 978-983.	0.6	19
34	<title>Influence of glycerol on the transport of light in the skin</title>. , 2002, , .		18
35	Study of glycerol diffusion in skin and myocardium ex vivo under the conditions of developing alloxan-induced diabetes. Journal of Biomedical Photonics and Engineering, 2017, 3, 020302.	0.7	18
36	<title>In-vivo and in-vitro study of control of rat skin optical properties by action of 40%-glucose solution</title>. , 2001, , .		17

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37	Estimation of melanin content in iris of human eye. , 2005, 5688, 302.		16
38	Optimized skin optical clearing for optical coherence tomography monitoring of encapsulated drug delivery through the hair follicles. Journal of Biophotonics, 2020, 13, e201960020.	2.3	16
39	Ex vivo investigation of glycerol diffusion in skin tissue. Journal of Biomedical Photonics and Engineering, 2016, 2, 010303-1-010303-5.	0.7	14
40	Effect of ethanol on the transport of methylene blue through stratum corneum. Medical Laser Application: International Journal for Laser Treatment and Research, 2008, 23, 31-38.	0.3	13
41	Rapid Ultrasound Optical Clearing of Human Light and Dark Skin. IEEE Transactions on Medical Imaging, 2020, 39, 3198-3206.	8.9	13
42	<title>Osmotical liquid diffusion within sclera</title>. , 2000, , .		12
43	Kinetics of Rat Skin Optical Clearing at Topical Application of 40%Glucose: <i>Ex Vivo</i> and <i>In Vivo</i> Studies. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-8.	2.9	10
44	<title>In-vitro study of control of human dura mater optical properties by acting of osmotical liquids</title>. , 2000, , .		9
45	<title>In-vitro and in-vivo study of dye diffusion into the human skin and hair follicles</title>. , 2000, , .		9
46	<title>Estimation of glucose diffusion coefficient in scleral tissue</title>. , 2000, 4001, 345.		9
47	The interaction of indocyanine green dye with the human epidermis studied in vivo. Technical Physics Letters, 2001, 27, 602-604.	0.7	9
48	Glycerol effects on optical, weight and geometrical properties of skin tissue. Journal of Innovative Optical Health Sciences, 2021, 14, .	1.0	9
49	<title>Influence of clearing solutions osmolarity on the optical properties of RBC</title>. , 2004, , .		8
50	Monte Carlo study of skin optical clearing to enhance light penetration in the tissue: implications for photodynamic therapy of acne vulgaris. Proceedings of SPIE, 2007, , .	0.8	8
51	Measurement of Retinalamin diffusion coefficient in human sclera by optical spectroscopy. Optics and Lasers in Engineering, 2008, 46, 915-920.	3.8	8
52	Dermal Componentâ€‘Based Optical Modeling of Skin Translucency: Impact on Skin Color. , 2014, , 25-61.		8
53	Quantification of glucose and glycerol diffusion in myocardium. Journal of Innovative Optical Health Sciences, 2015, 08, 1541006.	1.0	8
54	Quantification of tissue optical properties: perspectives for precise optical diagnostics, phototherapy and laser surgery. Journal Physics D: Applied Physics, 2016, 49, 501001.	2.8	8

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55	Delivery and reveal of localization of upconversion luminescent microparticles and quantum dots in the skin in vivo by fractional laser microablation, multimodal imaging, and optical clearing. Journal of Biomedical Optics, 2018, 23, 1.	2.6	8
56	Optical properties of human maxillary sinus mucosa and estimation of Methylene Blue diffusion coefficient in the tissue. , 2005, , .		7
57	PHOTOTHERAPY OF GINGIVITIS: PILOT CLINICAL STUDY. Journal of Innovative Optical Health Sciences, 2011, 04, 437-446.	1.0	7
58	<title>Light-scattering properties for spherical and cylindrical particles: a simple approximation derived from Mie calculations</title>. , 2001, 4241, 247.		6
59	<title>In-vitro study of methylene blue diffusion through the skin tissue</title>. , 2002, 4609, 29.		5
60	<title>Methylene blue diffusion in skin tissue</title>. , 2004, , .		5
61	<title>Monte Carlo modeling of eye iris color</title>. , 2007, , .		5
62	Monte Carlo study of skin optical clearing to enhance light penetration in the tissue. , 2007, , .		5
63	Optical clearing of human eye sclera. Proceedings of SPIE, 2009, , .	0.8	5
64	Optical Clearing of Biological Tissues: Prospects of Application for Multimodal Malignancy Diagnostics. , 2020, , 107-131.		5
65	<title>Diffusion of glucose solution through fibrous tissues: in-vitro optical and weight measurements</title>. , 2000, 4001, 255.		4
66	<title>Effects of scattering particle concentration on light propagation through turbid media</title>. , 2000, , .		4
67	<title>Optical properties of hair shafts estimated using the digital video microscopic system and inverse Monte Carlo method</title>. , 2002, 4609, 1.		4
68	ICG laser therapy of acne vulgaris. , 2004, 5319, 363.		4
69	Estimation of melanin content in iris of human eye: Prognosis for glaucoma diagnostics. , 2006, , .		4
70	<title>Optical clearing of skin tissue produced by application of glucose solution: in vivo study</title>. , 2006, , .		4
71	Impact of optical clearing on <i>ex vivo</i> human skin optical properties characterized by spatially resolved multimodal spectroscopy. Journal of Biophotonics, 2022, 15, e202100202.	2.3	4
72	Immersion optical clearing of adipose tissue in rats: ex vivo and in vivo studies. Journal of Biophotonics, 2022, 15, e202100393.	2.3	4

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73	<title>In-vitro study of penetration of magnetic particles into the human skin</title>. , 2000, 4224, 312.		3
74	<title>Scleral tissue clearing effects</title>. , 2002, , .		3
75	<title>Optical clearing of human cranial bone by administration of immersion agents</title>. , 2006, , .		3
76	<title>Investigation of glucose-hemoglobin interaction by optical coherence tomography</title>. , 2007, , .		3
77	<title>Investigation of skin water loss and glycerol delivery through <emph type="1">stratum corneum</emph></title>. , 2007, , .		3
78	<title>In vitro study of indocyanine green solution interaction with skin</title>. , 2007, , .		3
79	The development of skin immersion clearing method for increasing of laser exposure efficiency on subcutaneous objects. , 2012, , .		3
80	Gold Nanoparticle-Based Technologies in Photothermal/Photodynamic Treatment. , 2018, , 151-173.		3
81	Influence of osmotically active chemical agents on the transport of light in scleral tissue. , 1999, 3726, 403.		2
82	<title>Laser therapy of acute and chronic maxillary sinusitis</title>. , 2006, , .		2
83	<title>Mathematical modeling of clearing liquid penetration into the skin</title>. , 2007, , .		2
84	Integrated effects of fractional laser microablation and sonophoresis on skin immersion optical clearing in vivo. Journal of Biophotonics, 2020, 13, e202000101.	2.3	2
85	Malignant Tissue Optical Properties. , 2020, , 3-106.		2
86	Upper epidermis autofluorescence dynamics under laser UV irradiation. , 1994, 2100, 233.		1
87	<title>Fluorescence dynamics of upper layer of human skin under UV laser irradiation</title>. , 1994, , .		1
88	<title>Mathematical modeling of changes in the optical properties of epidermis due to UV-induced melanogenesis</title>. , 2000, , .		1
89	RGB video microscopic system for in-vitro monitoring of optical properties of hair shaft and follicle. , 2001, , .		1
90	Special training laboratory on optical biophysics. , 2002, , .		1

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91	<title>Optical immersion of erythrocytes in blood: a theoretical modeling</title>. , 2004, 5486, 339.		1
92	Indocyanine green-laser thermolysis of acne vulgaris. , 2005, , .		1
93	<title>Optical clearing of human eye sclera under the action of glucose solution</title>. , 2007, 6535, 365.		1
94	<title>Monte Carlo study of skin optical clearing to enhance light penetration in the tissue</title>. , 2007, , .		1
95	Use of fractional laser microablation of skin for improvement of its immersion clearing. , 2013, , .		1
96	Optical clearing of human skin for the enhancement of optical imaging of proximal interphalangeal joints. , 2014, , .		1
97	Measurement of diffusion coefficient of propylene glycol in skin tissue. Proceedings of SPIE, 2015, , .	0.8	1
98	The assesment of effectiveness of plasmonic resonance photothermal therapy in tumor-bearing rats after multiple intravenous administration of gold nanorods. Proceedings of SPIE, 2017, , .	0.8	1
99	OCT/LCT monitoring of drug action on the structure of the human cornea in vivo. Journal of Biomedical Photonics and Engineering, 2015, 1, 77-80.	0.7	1
100	Corneal permeability for cement dust: prognosis for occupational safety. , 2018, , .		1
101	Optical UV-VIS-NIR spectroscopy of benign, dysplastic and malignant cutaneous lesions ex vivo. , 2018, , .		1
102	Research and development of effective optical technologies for diagnostics in dermatology. , 2019, , .		1
103	Effect of ethanol on the transport of methylene blue through the rat skin ex vivo. , 2019, , .		1
104	<title>Spectral and spatial light absorption by chromophores: skin and phantom</title>. , 1995, , .		0
105	<title>Experimental study of concentration effects in tissue phantoms</title>. , 2001, , .		0
106	<title>In vivo and in vitro study of immersion clearing dynamics of the skin</title>. , 2001, , .		0
107	Spatially resolved microspectrophotometry for hair optical properties and geometry studies: CCD hair tester. , 2001, , .		0
108	Reflectance, transmittance, and polarization of light interacting with immersed tissue: in vitro and in vivo study. , 2003, 4829, 1032.		0

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109	Methylene blue laser therapy for the treatment of chronic maxillary sinusitis. , 2005, , .		0
110	<title>Melanin spatial distribution in the iris of the human eye</title>. , 2006, , .		0
111	Skin optical clearing for improvement of laser tattoo removal. , 2007, 6734, 164.		0
112	<title>Diffusion of <emph type="1">Cortixin</emph> and <emph type="1">Retinalamin</emph> in eye sclera</title>. , 2007, , .		0
113	<title>Optical properties of human stomach mucosa in the spectral range from 400 to 2000 nm</title>. , 2007, , .		0
114	Optical properties of human stomach mucosa in the spectral range from 400 to 2000 nm. Proceedings of SPIE, 2007, , .	0.8	0
115	Estimation of melanin content in iris of human eye: prognosis for glaucoma diagnostics. , 2007, , .		0
116	<title>Mathematical modeling of clearing liquid drop diffusion after intradermal injection</title>. , 2007, , .		0
117	COMPARATIVE TREATMENT OF ACNE VULGARIS USING PALOMAR LUX APPLIQUÃ% TECHNIQUE AND DIRECT INTRALESIONAL INJECTION. Journal of Innovative Optical Health Sciences, 2009, 02, 279-287.	1.0	0
118	Optical properties of parietal peritoneum in the spectral range 350-2500 nm. Proceedings of SPIE, 2014, , .	0.8	0
119	The morphological changes in transplanted tumors in rats at plasmonic photothermal therapy. Proceedings of SPIE, 2016, , .	0.8	0
120	Enhanced biosensing based on chemical or mechanical optical clearing. , 2013, , .		0
121	The inflammation markers in serum of tumor-bearing rats after plasmonic photothermal therapy. , 2018, , .		0
122	Model of optical phantoms thermal response upon irradiation with 975 nm dermatological laser. , 2018, , .		0
123	Investigation of change of tumor optical properties after laser-induced plasmon-resonant photothermal treatment of transplanted tumors in rats. , 2018, , .		0
124	Exogenous agent diffusivity in tissues as a biomarker of diabetes mellitus pathology. , 2019, , .		0
125	Functional and morphological changes in the mother-placenta-fetus system during chronic hypoxia (experimental study). , 2019, , .		0