

Alexander I Omelchenko

List of Publications by Year in descending order

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32
papers

318
citations

1163117

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32
docs citations

32
times ranked

191
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical coherence elastography for strain dynamics measurements in laser correction of cornea shape. <i>Journal of Biophotonics</i> , 2017, 10, 1450-1463.	2.3	57
2	Optical coherence tomography for visualizing transient strains and measuring large deformations in laser-induced tissue reshaping. <i>Laser Physics Letters</i> , 2016, 13, 115603.	1.4	36
3	Revealing structural modifications in thermomechanical reshaping of collagenous tissues using optical coherence elastography. <i>Journal of Biophotonics</i> , 2019, 12, e201800250.	2.3	36
4	<title>Laser shaping of cartilage</title>. , 1994, , .		26
5	Laser engineering of spine discs. <i>Laser Physics</i> , 2009, 19, 825-835.	1.2	23
6	Eye tissue structure and refraction alterations upon nondestructive laser action. <i>Laser Physics</i> , 2006, 16, 735-740.	1.2	17
7	Photothermal effects of laser heating iron oxide and oxide bronze nanoparticles in cartilaginous tissues. <i>Nanotechnologies in Russia</i> , 2012, 7, 127-131.	0.7	14
8	Microstructural changes in sclera under thermo-mechanical effect of 1.56- μm laser radiation increasing transscleral humor outflow. <i>Lasers in Surgery and Medicine</i> , 2014, 46, 46-53.	2.1	13
9	Laser reshaping of nasal septum cartilage: clinical results for 40 patients. , 2000, , .		12
10	<title>Phenomenon of cartilage shaping using moderate heating and its applications in otorhinolaryngology</title>. , 1996, , .		11
11	Controlling the near-infrared transparency of costal cartilage by impregnation with clearing agents and magnetite nanoparticles. <i>Journal of Biophotonics</i> , 2018, 11, e201700105.	2.3	11
12	<title>Mechanism of laser-induced stress relaxation in cartilage</title>. , 1997, 2975, 310.		9
13	In-vivo study and histological examination of laser reshaping of cartilage. , 1999, 3590, 222.		9
14	Laser effect on paralimbal and trabecular zones of the eye enhances hydraulic conductivity of the sclera toward normalization of the intraocular pressure. <i>Journal of Biomedical Photonics and Engineering</i> , 2017, 3, 010308.	0.7	8
15	Laser radiation effect on chondrocytes and intercellular matrix of costal and articular cartilage impregnated with magnetite nanoparticles. <i>Lasers in Surgery and Medicine</i> , 2015, 47, 243-251.	2.1	6
16	Aspects of the structural integrity of chondroitin sulphate after laser irradiation. <i>Carbohydrate Polymers</i> , 2002, 48, 241-245.	10.2	5
17	Attenuated total reflection Fourier transform infrared and polarization spectroscopy of in vivo human skin ablated, layer by layer, by erbium:YAG laser. <i>Journal of Biomedical Optics</i> , 2004, 9, 820.	2.6	5
18	Control of tissue mechanics upon the repetitive-pulse laser heating of cartilage. <i>Laser Physics</i> , 2006, 16, 1681-1688.	1.2	5

#	ARTICLE	IF	CITATIONS
19	<title>Cartilage reshaping under nonablative laser radiation: research and clinical applications in ENT</title>. , 2002, 4609, 331.		3
20	Magnetite nanoparticles for diagnostics and laser repair of cartilage. , 2016, , 443-472.		3
21	Hydrodynamic study of the behavior of chondroitin sulphate under nondestructive laser irradiation of cartilage. , 2000, , .		2
22	Effect of repetitive laser pulses on the electrical conductivity of intervertebral disc tissue. Quantum Electronics, 2009, 39, 279-282.	1.0	2
23	Imaging of laser-induced thermo-elastic stress in biotissues with shadowgraph. , 2008, , .		1
24	Multiparameter thermo-mechanical OCT-based characterization of laser-induced cornea reshaping. Proceedings of SPIE, 2017, , .	0.8	1
25	Laser-assisted correction of eye cornea refraction with ring-shaped laser beam. Proceedings of SPIE, 2017, , .	0.8	1
26	Thermal expansion of rib cartilage implants at the non-isothermal cooling and heating. Journal of Thermal Analysis and Calorimetry, 2020, 139, 3519-3526.	3.6	1
27	Thermo-mechanical mechanism of laser-induced pore-formation in sclera for glaucoma treatment: AFM and OCT investigations. , 2018, , .		1
28	<title>Dynamics of hydrated mucopolysaccharides in cartilaginous tissues treated by laser radiation</title>. , 2001, , .		0
29	<title>Speckle contrast techniques in the study of tissue thermal modification and denaturation</title>. , 2002, , .		0
30	Contrast agents for optical diagnostics of early osteoarthritis. Annals of Joint, 0, 3, 25-25.	1.0	0
31	Electromechanical behavior of cartilage tissue during laser-induced stresses and relaxation. , 2020, , .		0
32	Deformations of biological tissues with photothermal nanoparticles under laser irradiation. Yugra State University Bulletin, 2022, 18, 21-31.	0.1	0