Olga Baum

List of Publications by Year
in descending order

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34	541	567281 15	642732 23
papers	citations	h-index	g-index

37	37	37	267
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optical coherence elastography for strain dynamics measurements in laser correction of cornea shape. Journal of Biophotonics, 2017, 10, 1450-1463.	2.3	57
2	Laser reshaping and regeneration of cartilage. Laser Physics Letters, 2007, 4, 488-502.	1.4	53
3	Laser-induced regeneration of cartilage. Journal of Biomedical Optics, 2011, 16, 080902.	2.6	52
4	Optical coherence tomography for visualizing transient strains and measuring large deformations in laser-induced tissue reshaping. Laser Physics Letters, 2016, 13, 115603.	1.4	36
5	Revealing structural modifications in thermomechanical reshaping of collagenous tissues using optical coherence elastography. Journal of Biophotonics, 2019, 12, e201800250.	2.3	36
6	Laser reshaping of costal cartilage for transplantation. Lasers in Surgery and Medicine, 2011, 43, 511-515.	2.1	31
7	Hybrid optoacoustic and ultrasound biomicroscopy monitorsâ€™ laser-induced tissue modifications and magnetite nanoparticle impregnation. Laser Physics Letters, 2014, 11, 125601.	1.4	30
8	Optimization of phase-resolved optical coherence elastography for highly-sensitive monitoring of slow-rate strains. Laser Physics Letters, 2019, 16, 065601.	1.4	20
9	Interplay of temperature, thermalâ€stresses and strains in laserâ€assisted modification of collagenous tissues: Speckleâ€contrast and OCTâ€based studies. Journal of Biophotonics, 2020, 13, e201900199.	2.3	20
10	Thermomechanical effect of pulse-periodic laser radiation on cartilaginous and eye tissues. Laser Physics, 2013, 23, 085602.	1.2	18
11	Control of laser-beam spatial distribution for correcting the shape and refraction of eye cornea. Quantum Electronics, 2020, 50, 87-93.	1.0	18
12	Eye tissue structure and refraction alterations upon nondestructive laser action. Laser Physics, 2006, 16, 735-740.	1.2	17
13	Laser-assisted formation of micropores and nanobubbles in sclera promote stable normalization of intraocular pressure. Laser Physics Letters, 2017, 14, 065601.	1.4	17
14	Laser-induced micropore formation and modification of cartilage structure in osteoarthritis healing. Journal of Biomedical Optics, 2017, 22, 091515.	2.6	17
15	Optical properties of costal cartilage and their variation in the process of non-destructive action of laser radiation with the wavelength 1.56 Î¼m. Quantum Electronics, 2014, 44, 65-68.	1.0	16
16	Microstructural changes in sclera under thermoâ€mechanical effect of 1.56â€‰Âµm laser radiation increasing transscleral humor outflow. Lasers in Surgery and Medicine, 2014, 46, 46-53.	2.1	13
17	New clinical application of laser correction of cartilage shape for implantation in otolaryngology. Laser Physics Letters, 2019, 16, 035603.	1.4	12
18	New laser technologies in ophthalmology for normalisation of intraocular pressure and correction of refraction. Quantum Electronics, 2017, 47, 860-866.	1.0	11

#	Article	IF	Citations
19	Laser-induced modification of structure and shape of cartilage in otolaryngology and orthopaedics. Quantum Electronics, 2017, 47, 935-941.	1.0	10
20	Mechanisms of laser activation of chondrocytes in osteoarthritis healing. Laser Physics Letters, 2018, 15, 085601.	1.4	8
21	Laser effect on paralimbal and trabecular zones of the eye enchases hydraulic conductivity of the sclera toward normalization of the intraocular pressure. Journal of Biomedical Photonics and Engineering, 2017, 3, 010308.	0.7	8
22	Optical Coherence Elastography as a Tool for Studying Deformations in Biomaterials: Spatially-Resolved Osmotic Strain Dynamics in Cartilaginous Samples. Materials, 2022, 15, 904.	2.9	8
23	Laser-induced formation of micro-pores in the tissues for cartilage repair and treatment of glaucoma. , 2015, , .		6
24	Optical methods for diagnostics and feedback control in laser-induced regeneration of spine disc and joint cartilages. , 2011, , .		4
25	Nanoparticles for diagnostics and laser medical treatment of cartilage in orthopaedics. Proceedings of SPIE, 2013, , .	0.8	2
26	Optical transmission and laser ablation of pathologically changed eye lens capsule. Quantum Electronics, 2015, 45, 180-184.	1.0	2
27	Effect of Omnipaque on the optical properties and laser-induced changes in the thermostability of nucleus pulposus of the intervertebral disk. Doklady Biochemistry and Biophysics, 2009, 428, 261-263.	0.9	1
28	Laser-assisted correction of eye cornea refraction with ring-shaped laser beam. Proceedings of SPIE, 2017, , .	0.8	1
29	Effective and safe laser action in the surface fusion of a ternary medium while preserving the functionality of the easily fusible component. Bulletin of the Russian Academy of Sciences: Physics, 2016, 80, 1009-1012.	0.6	0
30	Capabilities of laser technology for manufacturing diagnostic peptide matrices with maximal density. Quantum Electronics, 2016, 46, 173-178.	1.0	0
31	Pore formation in biological tissues under thermo-mechanical effect of laser radiation. , 2014, , .		0
32	New laser technology for open-angle glaucoma treatment. , 2020, , .		0
33	Thermo-mechanical mechanism of laser-assisted microstructure alteration in cartilaginous tissue. , 2020, , .		0
34	Studying slow-deformation phenomena in cartilaginous samples using Optical Coherence Elastography. , 2020, , .		0