

# Olga Baum

## List of Publications by Year in descending order

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34  
papers

541  
citations

567281

15  
h-index

642732

23  
g-index

37  
all docs

37  
docs citations

37  
times ranked

267  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Coherence Elastography as a Tool for Studying Deformations in Biomaterials: Spatially-Resolved Osmotic Strain Dynamics in Cartilaginous Samples. <i>Materials</i> , 2022, 15, 904.	2.9	8
2	Interplay of temperature, thermal stresses and strains in laser-assisted modification of collagenous tissues: Speckle contrast and OCT-based studies. <i>Journal of Biophotonics</i> , 2020, 13, e201900199.	2.3	20
3	Control of laser-beam spatial distribution for correcting the shape and refraction of eye cornea. <i>Quantum Electronics</i> , 2020, 50, 87-93.	1.0	18
4	New laser technology for open-angle glaucoma treatment. , 2020, , .		0
5	Thermo-mechanical mechanism of laser-assisted microstructure alteration in cartilaginous tissue. , 2020, , .		0
6	Studying slow-deformation phenomena in cartilaginous samples using Optical Coherence Elastography. , 2020, , .		0
7	Optimization of phase-resolved optical coherence elastography for highly-sensitive monitoring of slow-rate strains. <i>Laser Physics Letters</i> , 2019, 16, 065601.	1.4	20
8	New clinical application of laser correction of cartilage shape for implantation in otolaryngology. <i>Laser Physics Letters</i> , 2019, 16, 035603.	1.4	12
9	Revealing structural modifications in thermomechanical reshaping of collagenous tissues using optical coherence elastography. <i>Journal of Biophotonics</i> , 2019, 12, e201800250.	2.3	36
10	Mechanisms of laser activation of chondrocytes in osteoarthritis healing. <i>Laser Physics Letters</i> , 2018, 15, 085601.	1.4	8
11	Laser-assisted formation of micropores and nanobubbles in sclera promote stable normalization of intraocular pressure. <i>Laser Physics Letters</i> , 2017, 14, 065601.	1.4	17
12	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
13	Laser-induced micropore formation and modification of cartilage structure in osteoarthritis healing. <i>Journal of Biomedical Optics</i> , 2017, 22, 091515.	2.6	17
14	Laser-assisted correction of eye cornea refraction with ring-shaped laser beam. <i>Proceedings of SPIE</i> , 2017, , .	0.8	1
15	New laser technologies in ophthalmology for normalisation of intraocular pressure and correction of refraction. <i>Quantum Electronics</i> , 2017, 47, 860-866.	1.0	11
16	Laser-induced modification of structure and shape of cartilage in otolaryngology and orthopaedics. <i>Quantum Electronics</i> , 2017, 47, 935-941.	1.0	10
17	Laser effect on paralimbal and trabecular zones of the eye enchases 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
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	Capabilities of laser technology for manufacturing diagnostic peptide matrices with maximal density. Quantum Electronics, 2016, 46, 173-178.	1.0	0
21	Laser-induced formation of micro-pores in the tissues for cartilage repair and treatment of glaucoma. , 2015, , .		6
22	Optical transmission and laser ablation of pathologically changed eye lens capsule. Quantum Electronics, 2015, 45, 180-184.	1.0	2
23	Optical properties of costal cartilage and their variation in the process of non-destructive action of laser radiation with the wavelength 1.56 $\mu\text{m}$ . Quantum Electronics, 2014, 44, 65-68.	1.0	16
24	Hybrid optoacoustic and ultrasound biomicroscopy monitors <sup>TM</sup> laser-induced tissue modifications and magnetite nanoparticle impregnation. Laser Physics Letters, 2014, 11, 125601.	1.4	30
25	Microstructural changes in sclera under thermo $\epsilon$ mechanical effect of 1.56 $\mu\text{m}$ laser radiation increasing transscleral humor outflow. Lasers in Surgery and Medicine, 2014, 46, 46-53.	2.1	13
26	Pore formation in biological tissues under thermo-mechanical effect of laser radiation. , 2014, , .		0
27	Nanoparticles for diagnostics and laser medical treatment of cartilage in orthopaedics. Proceedings of SPIE, 2013, , .	0.8	2
28	Thermomechanical effect of pulse-periodic laser radiation on cartilaginous and eye tissues. Laser Physics, 2013, 23, 085602.	1.2	18
29	Optical methods for diagnostics and feedback control in laser-induced regeneration of spine disc and joint cartilages. , 2011, , .		4
30	Laser reshaping of costal cartilage for transplantation. Lasers in Surgery and Medicine, 2011, 43, 511-515.	2.1	31
31	Laser-induced regeneration of cartilage. Journal of Biomedical Optics, 2011, 16, 080902.	2.6	52
32	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
33	Laser reshaping and regeneration of cartilage. Laser Physics Letters, 2007, 4, 488-502.	1.4	53
34	Eye tissue structure and refraction alterations upon nondestructive laser action. Laser Physics, 2006, 16, 735-740.	1.2	17