# Alexander I Omelchenko

List of Publications by Year
in descending order



| 32 | 318 | 1163117 8 | 940533 16 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 32 | 32 | 32 | 191 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Deformations of biological tissues with photothermal nanoparticles under laser irradiation. Yugra State University Bulletin, 2022, 18, 21-31. | 0.1 | 0 |
| 2 | 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 |
| 3 | Electromechanical behavior of cartilage tissue during laser-induced stresses and relaxation. , 2020, , . | | 0 |
| 4 | Revealing structural modifications in thermomechanical reshaping of collagenous tissues using optical coherence elastography. Journal of Biophotonics, 2019, 12, e201800250. | 2.3 | 36 |
| 5 | Controlling the nearâ€infrared transparency of costal cartilage by impregnation with clearing agents and magnetite nanoparticles. Journal of Biophotonics, 2018, 11, e201700105. | 2.3 | 11 |
| 6 | Thermo-mechanical mechanism of laser-induced pore-formationin sclera for glaucoma treatment: AFM and OCT investigations. , 2018, , . | | 1 |
| 7 | Optical coherence elastography for strain dynamics measurements in laser correction of cornea shape. Journal of Biophotonics, 2017, 10, 1450-1463. | 2.3 | 57 |
| 8 | Multiparameter thermo-mechanical OCT-based characterization of laser-induced cornea reshaping. Proceedings of SPIE, 2017, , . | 0.8 | 1 |
| 9 | Laser-assisted correction of eye cornea refraction with ring-shaped laser beam. Proceedings of SPIE, 2017, , . | 0.8 | 1 |
| 10 | 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 |
| 11 | Magnetite nanoparticles for diagnostics and laser repair of cartilage. , 2016, , 443-472. | | 3 |
| 12 | 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 |
| 13 | Laser radiation effect on chondrocytes and intercellular matrix of costal and articular cartilage impregnated with magnetite nanoparticles. Lasers in Surgery and Medicine, 2015, 47, 243-251. | 2.1 | 6 |
| 14 | 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 |
| 15 | Photothermal effects of laser heating iron oxide and oxide bronze nanoparticles in cartilaginous tissues. Nanotechnologies in Russia, 2012, 7, 127-131. | 0.7 | 14 |
| 16 | Effect of repetitive laser pulses on the electrical conductivity of intervertebral disc tissue. Quantum Electronics, 2009, 39, 279-282. | 1.0 | 2 |
| 17 | Laser engineering of spine discs. Laser Physics, 2009, 19, 825-835. | 1.2 | 23 |
| 18 | Imaging of laser-induced thermo-elastic stress in biotissues with shadowgraph. , 2008, , . | | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Eye tissue structure and refraction alterations upon nondestructive laser action. Laser Physics, 2006, 16, 735-740. | 1.2 | 17 |
| 20 | Control of tissue mechanics upon the repetitive-pulse laser heating of cartilage. Laser Physics, 2006, 16, 1681-1688. | 1.2 | 5 |
| 21 | Attenuated total reflection Fourier transform infrared and polarization spectroscopy of in vivo human skin ablated, layer by layer, by erbium:YAG laser. Journal of Biomedical Optics, 2004, 9, 820. | 2.6 | 5 |
| 22 | <title>Cartilage reshaping under nonablative laser radiation: research and clinical applications in ENT</title>. , 2002, 4609, 331. | | 3 |
| 23 | <title>Speckle contrast techniques in the study of tissue thermal modification and denaturation</title>. , 2002, , . | | 0 |
| 24 | Aspects of the structural integrity of chondroitin sulphate after laser irradiation. Carbohydrate Polymers, 2002, 48, 241-245. | 10.2 | 5 |
| 25 | <title>Dynamics of hydrated mucopolysaccharides in cartilaginous tissues treated by laser radiation</title>. , 2001, , . | | 0 |
| 26 | Laser reshaping of nasal septum cartilage: clinical results for 40 patients. , 2000, , . | | 12 |
| 27 | Hydrodynamic study of the behavior of chondroitin sulphate under nondestructive laser irradiation of cartilage. , 2000, , . | | 2 |
| 28 | In-vivo study and histological examination of laser reshaping of cartilage. , 1999, 3590, 222. | | 9 |
| 29 | <title>Mechanism of laser-induced stress relaxation in cartilage</title>. , 1997, 2975, 310. | | 9 |
| 30 | <title>Phenomenon of cartilage shaping using moderate heating and its applications in otorhinolaryngology</title>. , 1996, , . | | 11 |
| 31 | <title>Laser shaping of cartilage</title>. , 1994, , . | | 26 |
| 32 | Contrast agents for optical diagnostics of early osteoarthritis. Annals of Joint, 0, 3, 25-25. | 1.0 | 0 |