

# Aleksander L Matveyev

## List of Publications by Year in descending order

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44  
papers

702  
citations

623734

14  
h-index

642732

23  
g-index

45  
all docs

45  
docs citations

45  
times ranked

305  
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	Why apparent contrast in elasticity of biological tissues is noticeably different for compression ultrasound elastography and OCE. , 2022, , .		0
3	Compression optical coherence elastography versus strain ultrasound elastography for breast cancer detection and differentiation: pilot study. <i>Biomedical Optics Express</i> , 2022, 13, 2859.	2.9	8
4	Nonlinear Elasticity Assessment with Optical Coherence Elastography for High-Selectivity Differentiation of Breast Cancer Tissues. <i>Materials</i> , 2022, 15, 3308.	2.9	15
5	Novel Elastography-Inspired Approach to Angiographic Visualization in Optical Coherence Tomography. <i>Photonics</i> , 2022, 9, 401.	2.0	1
6	Strain and elasticity imaging in compression optical coherence elastography: The two-decade perspective and recent advances. <i>Journal of Biophotonics</i> , 2021, 14, e202000257.	2.3	77
7	Simulating scan formation in multimodal optical coherence tomography: angular-spectrum formulation based on ballistic scattering of arbitrary-form beams. <i>Biomedical Optics Express</i> , 2021, 12, 7599.	2.9	5
8	Real-Time Strain and Elasticity Imaging in Phase-Sensitive Optical Coherence Elastography Using a Computationally Efficient Realization of the Vector Method. <i>Photonics</i> , 2021, 8, 527.	2.0	16
9	Mapping large strains and supra-pixel displacements in phase-sensitive OCT. , 2021, , .		0
10	Improvement of breast cancer histological examination by means of multimodal OCT. , 2021, , .		0
11	Computationally efficient spectral model of OCT-scan formation with easily accounted scatterer motions for simulating multimodal OCT. , 2021, , .		0
12	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
13	Observation of internal stress relaxation in laser-reshaped cartilaginous implants using OCT-based strain mapping. <i>Laser Physics Letters</i> , 2020, 17, 085603.	1.4	15
14	Diagnostic Accuracy of Cross-Polarization OCT and OCT-Elastography for Differentiation of Breast Cancer Subtypes: Comparative Study. <i>Diagnostics</i> , 2020, 10, 994.	2.6	24
15	Histological validation of in vivo assessment of cancer tissue inhomogeneity and automated morphological segmentation enabled by Optical Coherence Elastography. <i>Scientific Reports</i> , 2020, 10, 11781.	3.3	53
16	Quantitative Mapping of Strains and Young Modulus Based on Phase-Sensitive OCT. , 2020, , .		0
17	In vivo assessment of functional and morphological alterations in tumors under treatment using OCT-angiography combined with OCT-elastography. <i>Biomedical Optics Express</i> , 2020, 11, 1365.	2.9	31
18	Optical coherence elastography for characterization of natural interstitial gaps and laser-irradiation-produced porosity in corneal and cartilaginous samples. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
19	Multimodal OCT for Malignancy Imaging. , 2020, , 425-464.		1
20	Computationally efficient model of OCT scan formation by focused beams and its usage to demonstrate a novel principle of OCT-angiography. Laser Physics Letters, 2020, 17, 115604.	1.4	7
21	Revealing structural modifications in thermomechanical reshaping of collagenous tissues using optical coherence elastography. Journal of Biophotonics, 2019, 12, e201800250.	2.3	36
22	Comparison of elastic properties of tissue samples in various pathological states using optical coherence elastography. , 2019, , .		1
23	Optical coherence elastography as a new method for estimation of chemotherapy efficacy on triple-negative breast cancer in the experiment. , 2019, , .		3
24	Compressional optical coherence elastography for performing histology-like assessment of breast cancers. , 2019, , .		1
25	OCT-elastography-based optical biopsy for breast cancer delineation and express assessment of morphological/molecular subtypes. Biomedical Optics Express, 2019, 10, 2244.	2.9	54
26	Phase-sensitive OCT in monitoring of slow-rate strains in laser tissue reshaping. , 2019, , .		1
27	Assessment of optical coherence tomography speckle patterns in low-scatterer-concentration regions: simulations for lymphatic vessels mapping. , 2019, , .		0
28	Optical coherence elastography for visualization of spatio-temporal strain dynamics in thermo-mechanical modification of corneal and cartilaginous tissues. , 2019, , .		0
29	Optical coherence tomographyâ€based angiography device with realâ€time angiography Bâ€scans visualization and handâ€held probe for everyday clinical use. Journal of Biophotonics, 2018, 11, e201700292.	2.3	47
30	OCT-based characterization of the nonlinear properties of biological tissues in various states. , 2018, , .		2
31	Multimodal OCT characterization of human breast cancer morphological types: preliminary study. , 2018, , .		2
32	Quantitative compressional OCE: obviating pitfalls in using pre-calibrated compliant layers and some other practical obstacles. , 2018, , .		0
33	Two-dimensional OCT-relaxography of collagenous tissues. , 2018, , .		0
34	Optical coherence elastography for strain dynamics measurements in laser correction of cornea shape. Journal of Biophotonics, 2017, 10, 1450-1463.	2.3	57
35	Multimodal OCT for assessment of vasculature-targeted PDT success. , 2017, , .		0
36	Manifestations of nonlinear elasticity of biological tissues in compressional optical coherence elastography. Proceedings of SPIE, 2017, , .	0.8	1

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37	Multimodal OCT for complex assessment of tumors response to therapy. , 2017, , .		1
38	Quasistatic in-depth local strain relaxation/creep rate mapping using phase-sensitive optical coherence tomography. , 2017, , .		0
39	Robust strain mapping in optical coherence elastography by combining local phase-resolved measurements and cumulative displacement tracking. , 2016, , .		0
40	Hybrid method of strain estimation in optical coherence elastography using combined sub-wavelength phase measurements and supra-pixel displacement tracking. Journal of Biophotonics, 2016, 9, 499-509.	2.3	48
41	Optimized phase gradient measurements and phase-amplitude interplay in optical coherence elastography. Journal of Biomedical Optics, 2016, 21, 116005.	2.6	84
42	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
43	Nonlinear scattering of acoustic waves by natural and artificially generated subsurface bubble layers in sea. Journal of the Acoustical Society of America, 2003, 113, 741-749.	1.1	18
44	Application of three-dimensional resonant acoustic spectroscopy method to rock and building materials. Journal of the Acoustical Society of America, 2001, 110, 1770-1777.	1.1	28