

Martin Villiger

List of Publications by Year in descending order

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Version: 2024-02-01

73
papers

1,905
citations

218677

26
h-index

276875

41
g-index

73
all docs

73
docs citations

73
times ranked

1865
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep tissue volume imaging of birefringence through fibre-optic needle probes for the delineation of breast tumour. <i>Scientific Reports</i> , 2016, 6, 28771.	3.3	119
2	Spectral binning for mitigation of polarization mode dispersion artifacts in catheter-based optical frequency domain imaging. <i>Optics Express</i> , 2013, 21, 16353.	3.4	113
3	Birefringence microscopy platform for assessing airway smooth muscle structure and function in vivo. <i>Science Translational Medicine</i> , 2016, 8, 359ra131.	12.4	92
4	Optic axis mapping with catheter-based polarization-sensitive optical coherence tomography. <i>Optica</i> , 2018, 5, 1329.	9.3	68
5	Intravascular optical coherence tomography [Invited]. <i>Biomedical Optics Express</i> , 2017, 8, 2660.	2.9	67
6	Fast three-dimensional imaging of gold nanoparticles in living cells with photothermal optical lock-in Optical Coherence Microscopy. <i>Optics Express</i> , 2012, 20, 21385.	3.4	65
7	Dark-field optical coherence microscopy. <i>Optics Letters</i> , 2010, 35, 3489.	3.3	62
8	Quantitative technique for robust and noise-tolerant speed measurements based on speckle decorrelation in optical coherence tomography. <i>Optics Express</i> , 2014, 22, 24411.	3.4	59
9	Artifacts in polarization-sensitive optical coherence tomography caused by polarization mode dispersion. <i>Optics Letters</i> , 2013, 38, 923.	3.3	54
10	Coronary Plaque Microstructure and Composition Modify Optical Polarization. <i>JACC: Cardiovascular Imaging</i> , 2018, 11, 1666-1676.	5.3	54
11	Label-Free Imaging of Cerebral β -Amyloidosis with Extended-Focus Optical Coherence Microscopy. <i>Journal of Neuroscience</i> , 2012, 32, 14548-14556.	3.6	52
12	Seeing beyond the Bronchoscope to Increase the Diagnostic Yield of Bronchoscopic Biopsy. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2013, 187, 125-129.	5.6	52
13	Robust reconstruction of local optic axis orientation with fiber-based polarization-sensitive optical coherence tomography. <i>Biomedical Optics Express</i> , 2018, 9, 5437.	2.9	48
14	Degree of polarization (uniformity) and depolarization index: unambiguous depolarization contrast for optical coherence tomography. <i>Optics Letters</i> , 2015, 40, 3954.	3.3	46
15	Automatic classification of atherosclerotic plaques imaged with intravascular OCT. <i>Biomedical Optics Express</i> , 2016, 7, 4069.	2.9	45
16	Ultrahigh-resolution optical coherence elastography. <i>Optics Letters</i> , 2016, 41, 21.	3.3	42
17	Depth-resolved birefringence imaging of collagen fiber organization in the human oral mucosa in vivo. <i>Biomedical Optics Express</i> , 2019, 10, 1942.	2.9	41
18	Longitudinal, 3D Imaging of Collagen Remodeling in Murine Hypertrophic Scars In Vivo Using Polarization-Sensitive Optical Frequency Domain Imaging. <i>Journal of Investigative Dermatology</i> , 2016, 136, 84-92.	0.7	40

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19	All-fiber wavelength swept ring laser based on Fabry-Perot filter for optical frequency domain imaging. <i>Optics Express</i> , 2014, 22, 25805.	3.4	39
20	Laser tissue coagulation and concurrent optical coherence tomography through a double-clad fiber coupler. <i>Biomedical Optics Express</i> , 2015, 6, 1293.	2.9	37
21	Intravascular Polarimetry in Patients With Coronary Artery Disease. <i>JACC: Cardiovascular Imaging</i> , 2020, 13, 790-801.	5.3	35
22	An automated image processing method to quantify collagen fibre organization within cutaneous scar tissue. <i>Experimental Dermatology</i> , 2015, 24, 78-80.	2.9	34
23	First-in-man assessment of plaque rupture by polarization-sensitive optical frequency domain imaging <i>in vivo</i> . <i>European Heart Journal</i> , 2016, 37, 1932-1932.	2.2	33
24	Biomechanical Stress Profiling of Coronary Atherosclerosis. <i>JACC: Cardiovascular Imaging</i> , 2020, 13, 804-816.	5.3	32
25	Longitudinal three-dimensional visualisation of autoimmune diabetes by functional optical coherence imaging. <i>Diabetologia</i> , 2016, 59, 550-559.	6.3	30
26	Distinguishing Tumor from Associated Fibrosis to Increase Diagnostic Biopsy Yield with Polarization-Sensitive Optical Coherence Tomography. <i>Clinical Cancer Research</i> , 2019, 25, 5242-5249.	7.0	28
27	Practical decomposition for physically admissible differential Mueller matrices. <i>Optics Letters</i> , 2014, 39, 1779.	3.3	27
28	Robust wavenumber and dispersion calibration for Fourier-domain optical coherence tomography. <i>Optics Express</i> , 2018, 26, 9081.	3.4	26
29	Depolarization signatures map gold nanorods within biological tissue. <i>Nature Photonics</i> , 2017, 11, 583-588.	31.4	25
30	Tissue-like phantoms for quantitative birefringence imaging. <i>Biomedical Optics Express</i> , 2017, 8, 4454.	2.9	23
31	Wide-Field Functional Microscopy of Peripheral Nerve Injury and Regeneration. <i>Scientific Reports</i> , 2018, 8, 14004.	3.3	23
32	Preventing Scars after Injury with Partial Irreversible Electroporation. <i>Journal of Investigative Dermatology</i> , 2016, 136, 2297-2304.	0.7	22
33	Skin regeneration with all accessory organs following ablation with irreversible electroporation. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 98-113.	2.7	22
34	Single input state, single-mode fiber-based polarization-sensitive optical frequency domain imaging by eigenpolarization referencing. <i>Optics Letters</i> , 2015, 40, 2025.	3.3	20
35	Extended bandwidth wavelength swept laser source for high resolution optical frequency domain imaging. <i>Optics Express</i> , 2017, 25, 8255.	3.4	20
36	Vectorial birefringence imaging by optical coherence microscopy for assessing fibrillar microstructures in the cornea and limbus. <i>Biomedical Optics Express</i> , 2020, 11, 1122.	2.9	20

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37	Diabetes imaging—quantitative assessment of islets of Langerhans distribution in murine pancreas using extended-focus optical coherence microscopy. <i>Biomedical Optics Express</i> , 2012, 3, 1365.	2.9	19
38	Quantitative depolarization measurements for fiber-based polarization-sensitive optical frequency domain imaging of the retinal pigment epithelium. <i>Journal of Biophotonics</i> , 2019, 12, e201800156.	2.3	19
39	Repeatability Assessment of Intravascular Polarimetry in Patients. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 1618-1625.	8.9	18
40	Laser thermal therapy monitoring using complex differential variance in optical coherence tomography. <i>Journal of Biophotonics</i> , 2017, 10, 84-91.	2.3	17
41	In vivo imaging of the depth-resolved optic axis of birefringence in human skin. <i>Optics Letters</i> , 2020, 45, 4919.	3.3	17
42	Balloon catheter-based radiofrequency ablation monitoring in porcine esophagus using optical coherence tomography. <i>Biomedical Optics Express</i> , 2019, 10, 2067.	2.9	14
43	Forward multiple scattering dominates speckle decorrelation in whole-blood flowmetry using optical coherence tomography. <i>Biomedical Optics Express</i> , 2020, 11, 1947.	2.9	13
44	Constrained polarization evolution simplifies depth-resolved retardation measurements with polarization-sensitive optical coherence tomography. <i>Biomedical Optics Express</i> , 2019, 10, 5207.	2.9	12
45	Effects of lipid composition on photothermal optical coherence tomography signals. <i>Journal of Biomedical Optics</i> , 2020, 25, .	2.6	12
46	Confocal 3D reflectance imaging through multimode fiber without wavefront shaping. <i>Optica</i> , 2022, 9, 112.	9.3	12
47	Injury depth control from combined wavelength and power tuning in scanned beam laser thermal therapy. <i>Journal of Biomedical Optics</i> , 2011, 16, 118001.	2.6	11
48	A topological encoding convolutional neural network for segmentation of 3D multiphoton images of brain vasculature using persistent homology. , 2020, 2020, 4262-4271.		11
49	Intravascular Polarimetry: Clinical Translation and Future Applications of Catheter-Based Polarization Sensitive Optical Frequency Domain Imaging. <i>Frontiers in Cardiovascular Medicine</i> , 2020, 7, 146.	2.4	10
50	Rapid non-destructive volumetric tumor yield assessment in fresh lung core needle biopsies using polarization sensitive optical coherence tomography. <i>Biomedical Optics Express</i> , 2021, 12, 5597.	2.9	9
51	Rejuvenation of aged rat skin with pulsed electric fields. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 2309-2318.	2.7	8
52	Reciprocity-induced symmetry in the round-trip transmission through complex systems. <i>APL Photonics</i> , 2020, 5, .	5.7	8
53	Spectral- and Polarization-Dependent Scattering of Gold Nanobipyramids for Exogenous Contrast in Optical Coherence Tomography. <i>Nano Letters</i> , 2021, 21, 8595-8601.	9.1	8
54	Transient-Mode Photothermal Optical Coherence Tomography. <i>Optics Letters</i> , 2021, 46, 5703-5706.	3.3	8

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73	Influence of tissue fixation on depth-resolved birefringence of oral cavity tissue samples. Journal of Biomedical Optics, 2020, 25, .	2.6	0