

Bernhard Baumann

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

123
papers

4,612
citations

36
h-index

65
g-index

162
ext. papers

5,686
ext. citations

3.9
avg, IF

5.39
L-index

#	Paper	IF	Citations
123	Pulsatile tissue deformation dynamics of the murine retina and choroid mapped by 4D optical coherence tomography.. <i>Biomedical Optics Express</i> , 2022 , 13, 647-661	3.5	0
122	Multicontrast investigation of in vivo wildtype zebrafish in three development stages using polarization-sensitive optical coherence tomography.. <i>Journal of Biomedical Optics</i> , 2022 , 27,	3.5	2
121	The Digital Brain Tumour Atlas, an open histopathology resource.. <i>Scientific Data</i> , 2022 , 9, 55	8.2	
120	Non-destructive characterization of adult zebrafish models using Jones matrix optical coherence tomography.. <i>Biomedical Optics Express</i> , 2022 , 13, 2202-2223	3.5	1
119	Quantitative spectroscopic comparison of the optical properties of mouse cochlea microstructures using optical coherence tomography at 1.06 μm and 1.3 μm wavelengths. <i>Biomedical Optics Express</i> , 2021 , 12, 2339-2352	3.5	0
118	Improved accuracy of quantitative birefringence imaging by polarization sensitive OCT with simple noise correction and its application to neuroimaging. <i>Journal of Biophotonics</i> , 2021 , 14, e202000323	3.1	3
117	High-resolution, depth-resolved vascular leakage measurements using contrast-enhanced, correlation-gated optical coherence tomography in mice. <i>Biomedical Optics Express</i> , 2021 , 12, 1774-1791	3.5	0
116	Reconstruction of visible light optical coherence tomography images retrieved from discontinuous spectral data using a conditional generative adversarial network. <i>Biomedical Optics Express</i> , 2021 , 12, 6780-6795	3.5	1
115	Investigation of the scattering and attenuation properties of cataracts formed in mouse eyes with 1060-nm and 1310-nm swept-source optical coherence tomography. <i>Biomedical Optics Express</i> , 2021 , 12, 6391-6406	3.5	0
114	Relationship between morphological and vascular alterations in geographic atrophy using a multimodal imaging approach. <i>Acta Ophthalmologica</i> , 2020 , 98, e700-e708	3.7	1
113	Multi-Habitat Radiomics Unravels Distinct Phenotypic Subtypes of Glioblastoma with Clinical and Genomic Significance. <i>Cancers</i> , 2020 , 12,	6.6	6
112	Improved Diagnostic Imaging of Brain Tumors by Multimodal Microscopy and Deep Learning. <i>Cancers</i> , 2020 , 12,	6.6	4
111	NIMG-20. MULTI-HABITAT RADIOMICS UNRAVELS DISTINCT PHENOTYPIC SUBTYPES OF GLIOBLASTOMA WITH CLINICAL AND GENOMIC SIGNIFICANCE. <i>Neuro-Oncology</i> , 2020 , 22, ii151-ii151	1	
110	Retinal analysis of a mouse model of Alzheimer's disease with multicontrast optical coherence tomography. <i>Neurophotonics</i> , 2020 , 7, 015006	3.9	13
109	Three-dimensional visualization of opacifications in the murine crystalline lens by in vivo optical coherence tomography. <i>Biomedical Optics Express</i> , 2020 , 11, 2085-2097	3.5	4
108	Indocyanine green provides absorption and spectral contrast for optical coherence tomography at 840 nm in vivo. <i>Optics Letters</i> , 2020 , 45, 2359-2362	3	3
107	Alzheimer's disease brain tissue investigation: a multiscale approach using 1060-nm swept source optical coherence tomography for a direct correlation to histology. <i>Neurophotonics</i> , 2020 , 7, 035004	3.9	1

106	Attenuation coefficient as a quantitative parameter for analyzing cataracts with optical coherence tomography. <i>EPJ Web of Conferences</i> , 2020 , 238, 04004	0.3	0
105	Optical Coherence Tomography Findings in the Retinas of SOD1 Knockout Mice. <i>Translational Vision Science and Technology</i> , 2020 , 9, 15	3.3	3
104	Identification and Quantification of the Angiofibrotic Switch in Neovascular AMD 2019 , 60, 304-311		14
103	Comparison of Intensity- and Polarization-based Contrast in Amyloid-beta Plaques as Observed by Optical Coherence Tomography. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 2100	2.6	3
102	Investigating spontaneous retinal venous pulsation using Doppler optical coherence tomography. <i>Scientific Reports</i> , 2019 , 9, 4237	4.9	6
101	Optical Coherence Tomography for Brain Imaging. <i>Progress in Optical Science and Photonics</i> , 2019 , 49-68	0.3	
100	Hyperspectral optical coherence tomography for in vivo visualization of melanin in the retinal pigment epithelium. <i>Journal of Biophotonics</i> , 2019 , 12, e201900153	3.1	14
99	Revealing brain pathologies with multimodal visible light optical coherence microscopy and fluorescence imaging. <i>Journal of Biomedical Optics</i> , 2019 , 24, 1-11	3.5	13
98	Signal averaging improves signal-to-noise in OCT images: But which approach works best, and when?. <i>Biomedical Optics Express</i> , 2019 , 10, 5755-5775	3.5	22
97	Polarization-sensitive imaging with simultaneous bright- and dark-field optical coherence tomography. <i>Optics Letters</i> , 2019 , 44, 4040-4043	3	2
96	Ultrahigh Resolution Polarization Sensitive Optical Coherence Tomography of the Human Cornea with Conical Scanning Pattern and Variable Dispersion Compensation. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 4245	2.6	4
95	Evaluating cellularity and structural connectivity on whole brain slides using a custom-made digital pathology pipeline. <i>Journal of Neuroscience Methods</i> , 2019 , 311, 215-221	3	9
94	IMAGING OF VITELLIFORM MACULAR LESIONS USING POLARIZATION-SENSITIVE OPTICAL COHERENCE TOMOGRAPHY. <i>Retina</i> , 2019 , 39, 558-569	3.6	3
93	Impact of drusen and drusenoid retinal pigment epithelium elevation size and structure on the integrity of the retinal pigment epithelium layer. <i>British Journal of Ophthalmology</i> , 2019 , 103, 227-232	5.5	11
92	White light polarization sensitive optical coherence tomography for sub-micron axial resolution and spectroscopic contrast in the murine retina. <i>Biomedical Optics Express</i> , 2018 , 9, 2115-2129	3.5	21
91	Beyond backscattering: optical neuroimaging by BRAD. <i>Biomedical Optics Express</i> , 2018 , 9, 2476-2494	3.5	16
90	The DNA methylation landscape of glioblastoma disease progression shows extensive heterogeneity in time and space. <i>Nature Medicine</i> , 2018 , 24, 1611-1624	50.5	124
89	Adaptable switching schemes for time-encoded multichannel optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2018 , 23, 1-12	3.5	5

88	Polarization-sensitive optical coherence tomography imaging of the anterior mouse eye. <i>Journal of Biomedical Optics</i> , 2018 , 23, 1-12	3.5	12
87	Assessment of pathological features in Alzheimer's disease brain tissue with a large field-of-view visible-light optical coherence microscope. <i>Neurophotonics</i> , 2018 , 5, 035002	3.9	16
86	COMP-12. TOWARDS BIG DATA IN DIGITAL NEUROPATHOLOGY WITH THE DIGITAL BRAIN TUMOR ATLAS. <i>Neuro-Oncology</i> , 2018 , 20, vi66-vi66	1	78
85	Mapping of Corneal Layer Thicknesses With Polarization-Sensitive Optical Coherence Tomography Using a Conical Scan Pattern 2018 , 59, 5579-5588		7
84	Multimodal Optical Medical Imaging Concepts Based on Optical Coherence Tomography. <i>Frontiers in Physics</i> , 2018 , 6,	3.9	19
83	Segmentation of Retinal Layers in OCT Images of the Mouse Eye Utilizing Polarization Contrast. <i>Lecture Notes in Computer Science</i> , 2018 , 310-318	0.9	1
82	In Vivo Characterization of Spontaneous Retinal Neovascularization in the Mouse Eye by Multifunctional Optical Coherence Tomography 2018 , 59, 2054-2068		11
81	Visible light spectral domain optical coherence microscopy system for ex vivo imaging 2017 ,		2
80	Drusen volume development over time and its relevance to the course of age-related macular degeneration. <i>British Journal of Ophthalmology</i> , 2017 , 101, 198-203	5.5	74
79	Retinal pigment epithelial features indicative of neovascular progression in age-related macular degeneration. <i>British Journal of Ophthalmology</i> , 2017 , 101, 1361-1366	5.5	15
78	Visualization of neuritic plaques in Alzheimer's disease by polarization-sensitive optical coherence microscopy. <i>Scientific Reports</i> , 2017 , 7, 43477	4.9	34
77	Evaluating anesthetic protocols for functional blood flow imaging in the rat eye. <i>Journal of Biomedical Optics</i> , 2017 , 22, 16005	3.5	16
76	Ocular fundus pulsations within the posterior rat eye: Choroidal motion and response to elevated intraocular pressure. <i>Scientific Reports</i> , 2017 , 7, 8780	4.9	9
75	Spectroscopic imaging with spectral domain visible light optical coherence microscopy in Alzheimer's disease brain samples. <i>Biomedical Optics Express</i> , 2017 , 8, 4007-4025	3.5	35
74	Visualization of micro-capillaries using optical coherence tomography angiography with and without adaptive optics. <i>Biomedical Optics Express</i> , 2017 , 8, 207-222	3.5	52
73	Conical scan pattern for enhanced visualization of the human cornea using polarization-sensitive OCT. <i>Biomedical Optics Express</i> , 2017 , 8, 2906-2923	3.5	21
72	Multi-directional optical coherence tomography for retinal imaging. <i>Biomedical Optics Express</i> , 2017 , 8, 5560-5578	3.5	20
71	Posterior rat eye during acute intraocular pressure elevation studied using polarization sensitive optical coherence tomography. <i>Biomedical Optics Express</i> , 2017 , 8, 298-314	3.5	9

70	Polarization Sensitive Optical Coherence Tomography: A Review of Technology and Applications. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 474	2.6	61
69	Visible light spectral domain optical coherence microscopy system for ex vivo brain imaging 2017 ,		1
68	Polarization-sensitive optical coherence microscopy of human brain samples 2017 ,		2
67	Sequential multi-channel OCT in the retina using high-speed fiber optic switches 2017 ,		1
66	Total retinal blood flow measurement by three beam Doppler optical coherence tomography. <i>Biomedical Optics Express</i> , 2016 , 7, 287-301	3.5	54
65	Polarisation-sensitive OCT is useful for evaluating retinal pigment epithelial lesions in patients with neovascular AMD. <i>British Journal of Ophthalmology</i> , 2016 , 100, 371-7	5.5	6
64	Total retinal blood flow in healthy and glaucomatous human eyes measured with three beam Doppler optical coherence tomography 2016 ,		1
63	Automated Identification and Quantification of Subretinal Fibrosis in Neovascular Age-Related Macular Degeneration Using Polarization-Sensitive OCT 2016 , 57, 1699-705		29
62	Retinal Pigment Epithelial Features in Central Serous Chorioretinopathy Identified by Polarization-Sensitive Optical Coherence Tomography 2016 , 57, 1595-603		19
61	Multi-Functional OCT Enables Longitudinal Study of Retinal Changes in a VLDLR Knockout Mouse Model. <i>PLoS ONE</i> , 2016 , 11, e0164419	3.7	27
60	Polarization properties of single layers in the posterior eyes of mice and rats investigated using high resolution polarization sensitive optical coherence tomography. <i>Biomedical Optics Express</i> , 2016 , 7, 1479-95	3.5	24
59	Active-passive path-length encoded (APPLE) Doppler OCT. <i>Biomedical Optics Express</i> , 2016 , 7, 5233-5251	3.5	18
58	Analysis of optimum conditions of depolarization imaging by polarization-sensitive optical coherence tomography in the human retina. <i>Journal of Biomedical Optics</i> , 2015 , 20, 016011	3.5	15
57	Progression of retinal pigment epithelial atrophy in antiangiogenic therapy of neovascular age-related macular degeneration. <i>American Journal of Ophthalmology</i> , 2015 , 159, 1100-1114.e1	4.9	54
56	Retinal nerve fiber bundle tracing and analysis in human eye by polarization sensitive OCT. <i>Biomedical Optics Express</i> , 2015 , 6, 1030-54	3.5	28
55	Imaging of retinal vasculature using adaptive optics SLO/OCT. <i>Biomedical Optics Express</i> , 2015 , 6, 1407-18	3.5	28
54	Melanin Pigmentation in Rat Eyes: In Vivo Imaging by Polarization-Sensitive Optical Coherence Tomography and Comparison to Histology 2015 , 56, 7462-72		34
53	Polarization-Sensitive Optical Coherence Tomography and Conventional Retinal Imaging Strategies in Assessing Foveal Integrity in Geographic Atrophy 2015 , 56, 5246-55		17

52	Spectral degree of polarization uniformity for polarization-sensitive OCT. <i>Journal of Modern Optics</i> , 2015 , 62, 1758-1763	1.1	5
51	Identification of Drusen Characteristics in Age-Related Macular Degeneration by Polarization-Sensitive Optical Coherence Tomography. <i>American Journal of Ophthalmology</i> , 2015 , 160, 335-344.e1	4.9	38
50	Optical coherence tomography angiography of optic nerve head and parafovea in multiple sclerosis. <i>British Journal of Ophthalmology</i> , 2014 , 98, 1368-73	5.5	173
49	Adaptive optics SLO/OCT for 3D imaging of human photoreceptors in vivo. <i>Biomedical Optics Express</i> , 2014 , 5, 439-56	3.5	71
48	Single input state polarization sensitive swept source optical coherence tomography based on an all single mode fiber interferometer. <i>Biomedical Optics Express</i> , 2014 , 5, 2798-809	3.5	25
47	Dual modality optical coherence and whole-body photoacoustic tomography imaging of chick embryos in multiple development stages. <i>Biomedical Optics Express</i> , 2014 , 5, 3150-9	3.5	32
46	Retinal pigment epithelium findings in patients with albinism using wide-field polarization-sensitive optical coherence tomography. <i>Retina</i> , 2014 , 34, 2208-17	3.6	16
45	Detection and analysis of hard exudates by polarization-sensitive optical coherence tomography in patients with diabetic maculopathy 2014 , 55, 1564-71		42
44	Peripapillary rat sclera investigated in vivo with polarization-sensitive optical coherence tomography 2014 , 55, 7686-96		24
43	Imaging retinal pigment epithelial proliferation secondary to PASCAL photocoagulation in vivo by polarization-sensitive optical coherence tomography. <i>American Journal of Ophthalmology</i> , 2013 , 155, 1058-1067.e1	4.9	20
42	Retinal polarization-sensitive optical coherence tomography at 1060 nm with 350 kHz A-scan rate using an Fourier domain mode locked laser. <i>Journal of Biomedical Optics</i> , 2013 , 18, 26008	3.5	19
41	Phase-sensitive swept-source optical coherence tomography imaging of the human retina with a vertical cavity surface-emitting laser light source. <i>Optics Letters</i> , 2013 , 38, 338-40	3	111
40	High-speed polarization sensitive optical coherence tomography scan engine based on Fourier domain mode locked laser: erratum. <i>Biomedical Optics Express</i> , 2013 , 4, 241	3.5	2
39	In vivo imaging of the rodent eye with swept source/Fourier domain OCT. <i>Biomedical Optics Express</i> , 2013 , 4, 351-63	3.5	20
38	In vitro and in vivo three-dimensional velocity vector measurement by three-beam spectral-domain Doppler optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2013 , 18, 116010	3.5	41
37	Lesion size detection in geographic atrophy by polarization-sensitive optical coherence tomography and correlation to conventional imaging techniques 2013 , 54, 739-45		29
36	Reproducibility of choroidal thickness measurements across three spectral domain optical coherence tomography systems. <i>Ophthalmology</i> , 2012 , 119, 119-23	7.3	202
35	Speckle reduction in swept source optical coherence tomography images with slow-axis averaging 2012 ,		1

34	Measurement of pulsatile total blood flow in the human and rat retina with ultrahigh speed spectral/Fourier domain OCT. <i>Biomedical Optics Express</i> , 2012 , 3, 1047-61	3.5	56
33	Motion correction in optical coherence tomography volumes on a per A-scan basis using orthogonal scan patterns. <i>Biomedical Optics Express</i> , 2012 , 3, 1182-99	3.5	288
32	Polarization sensitive optical coherence tomography of melanin provides intrinsic contrast based on depolarization. <i>Biomedical Optics Express</i> , 2012 , 3, 1670-83	3.5	108
31	Large-field high-speed polarization sensitive spectral domain OCT and its applications in ophthalmology. <i>Biomedical Optics Express</i> , 2012 , 3, 2720-32	3.5	40
30	High-speed polarization sensitive optical coherence tomography scan engine based on Fourier domain mode locked laser. <i>Biomedical Optics Express</i> , 2012 , 3, 2987-3000	3.5	37
29	Extracting and compensating dispersion mismatch in ultrahigh-resolution Fourier domain OCT imaging of the retina. <i>Optics Express</i> , 2012 , 20, 25357-68	3.3	19
28	Quantitative OCT angiography of optic nerve head blood flow. <i>Biomedical Optics Express</i> , 2012 , 3, 3127-375	3.5	334
27	Swept source/Fourier domain polarization sensitive optical coherence tomography with a passive polarization delay unit. <i>Optics Express</i> , 2012 , 20, 10229-41	3.3	88
26	Morphologic characteristics of idiopathic juxtafoveal telangiectasia using spectral-domain and polarization-sensitive optical coherence tomography. <i>Retina</i> , 2012 , 32, 256-64	3.6	8
25	Total retinal blood flow measurement with ultrahigh speed swept source/Fourier domain OCT. <i>Biomedical Optics Express</i> , 2011 , 2, 1539-52	3.5	141
24	Speckle noise reduction in high speed polarization sensitive spectral domain optical coherence tomography. <i>Optics Express</i> , 2011 , 19, 14568-85	3.3	53
23	Performance of automated drusen detection by polarization-sensitive optical coherence tomography 2011 , 52, 4571-9		55
22	Retinal blood flow measurement with ultrahigh-speed swept-source / Fourier domain optical coherence tomography 2011 ,		1
21	Spectral domain polarization sensitive optical coherence tomography at 1.55 μ m: novel developments and applications for dynamic studies in materials science 2011 ,		3
20	Imaging limbal and scleral vasculature using Swept Source Optical Coherence Tomography. <i>Photonics Letters of Poland</i> , 2011 , 3, 132-134	2.1	7
19	Imaging of the retinal pigment epithelium in age-related macular degeneration using polarization-sensitive optical coherence tomography 2010 , 51, 2149-57		94
18	Segmentation and quantification of retinal lesions in age-related macular degeneration using polarization-sensitive optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2010 , 15, 061704	3.5	73
17	Polarimetric analysis of the human cornea measured by polarization-sensitive optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2010 , 15, 056004	3.5	22

16	Polarization sensitive optical coherence tomography of melanin provides tissue inherent contrast based on depolarization 2010 ,		3
15	Ultrahigh speed 1050nm swept source/Fourier domain OCT retinal and anterior segment imaging at 100,000 to 400,000 axial scans per second. <i>Optics Express</i> , 2010 , 18, 20029-48	3-3	353
14	Dynamic optical studies in materials testing with spectral-domain polarization-sensitive optical coherence tomography. <i>Optics Express</i> , 2010 , 18, 25712-25	3-3	36
13	Extended in vivo anterior eye-segment imaging with full-range complex spectral domain optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2009 , 14, 050501	3-5	24
12	Measurements of depolarization distribution in the healthy human macula by polarization sensitive OCT. <i>Journal of Biophotonics</i> , 2009 , 2, 426-34	3-1	30
11	Phase contrast coherence microscopy based on transverse scanning. <i>Optics Letters</i> , 2009 , 34, 1750-2	3	14
10	Three-dimensional polarization sensitive OCT imaging and interactive display of the human retina. <i>Optics Express</i> , 2009 , 17, 4151-65	3-3	52
9	Polarization maintaining fiber based ultra-high resolution spectral domain polarization sensitive optical coherence tomography. <i>Optics Express</i> , 2009 , 17, 22704-17	3-3	69
8	Modeling human corneal polarization properties and comparison with PS-OCT measurements 2009 ,		1
7	Retinal pigment epithelium segmentation by polarization sensitive optical coherence tomography. <i>Optics Express</i> , 2008 , 16, 16410-22	3-3	216
6	Analysis of the origin of atypical scanning laser polarimetry patterns by polarization-sensitive optical coherence tomography 2008 , 49, 5366-72		29
5	Corneal birefringence compensation for polarization sensitive optical coherence tomography of the human retina. <i>Journal of Biomedical Optics</i> , 2007 , 12, 041210	3-5	43
4	Single camera based spectral domain polarization sensitive optical coherence tomography. <i>Optics Express</i> , 2007 , 15, 1054-63	3-3	56
3	Full range complex spectral domain optical coherence tomography without additional phase shifters. <i>Optics Express</i> , 2007 , 15, 13375-87	3-3	105
2	Simultaneous SLO/OCT imaging of the human retina with axial eye motion correction. <i>Optics Express</i> , 2007 , 15, 16922-32	3-3	56
1	Retinal cone mosaic imaged with transverse scanning optical coherence tomography. <i>Optics Letters</i> , 2006 , 31, 1821-3	3	67