

# Chao Zhou

## List of Publications by Year in descending order

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107  
papers

5,582  
citations

81900

39  
h-index

79698

73  
g-index

112  
all docs

112  
docs citations

112  
times ranked

4579  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thymic stromal lymphopoietin‐elicited basophil responses promote eosinophilic esophagitis. <i>Nature Medicine</i> , 2013, 19, 1005-1013.	30.7	351
2	Diffuse optical measurement of blood flow, blood oxygenation, and metabolism in a human brain during sensorimotor cortex activation. <i>Optics Letters</i> , 2004, 29, 1766.	3.3	311
3	Noninvasive Measurement of Cerebral Blood Flow and Blood Oxygenation Using Near-Infrared and Diffuse Correlation Spectroscopies in Critically Brain-Injured Adults. <i>Neurocritical Care</i> , 2010, 12, 173-180.	2.4	255
4	Noninvasive Monitoring of Murine Tumor Blood Flow During and After Photodynamic Therapy Provides Early Assessment of Therapeutic Efficacy. <i>Clinical Cancer Research</i> , 2005, 11, 3543-3552.	7.0	213
5	Validation of diffuse correlation spectroscopy for muscle blood flow with concurrent arterial spin labeled perfusion MRI. <i>Optics Express</i> , 2007, 15, 1064.	3.4	198
6	Diffuse optical correlation tomography of cerebral blood flow during cortical spreading depression in rat brain. <i>Optics Express</i> , 2006, 14, 1125.	3.4	197
7	Time-dependent blood flow and oxygenation in human skeletal muscles measured with noninvasive near-infrared diffuse optical spectroscopies. <i>Journal of Biomedical Optics</i> , 2005, 10, 024027.	2.6	192
8	Self-assembling human heart organoids for the modeling of cardiac development and congenital heart disease. <i>Nature Communications</i> , 2021, 12, 5142.	12.8	177
9	Diffuse optical monitoring of blood flow and oxygenation in human breast cancer during early stages of neoadjuvant chemotherapy. <i>Journal of Biomedical Optics</i> , 2007, 12, 051903.	2.6	169
10	Spatiotemporal Quantification of Cerebral Blood Flow during Functional Activation in Rat Somatosensory Cortex using Laser-Speckle Flowmetry. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2004, 24, 518-525.	4.3	163
11	Diffuse optical monitoring of hemodynamic changes in piglet brain with closed head injury. <i>Journal of Biomedical Optics</i> , 2009, 14, 034015.	2.6	162
12	Cerebral hemodynamics in preterm infants during positional intervention measured with diffuse correlation spectroscopy and transcranial Doppler ultrasound. <i>Optics Express</i> , 2009, 17, 12571.	3.4	159
13	Optical measurement of cerebral hemodynamics and oxygen metabolism in neonates with congenital heart defects. <i>Journal of Biomedical Optics</i> , 2010, 15, 037004.	2.6	157
14	Direct measurement of tissue blood flow and metabolism with diffuse optics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 4390-4406.	3.4	151
15	Transcranial optical monitoring of cerebrovascular hemodynamics in acute stroke patients. <i>Optics Express</i> , 2009, 17, 3884.	3.4	149
16	Diffuse optical measurement of blood flow in breast tumors. <i>Optics Letters</i> , 2005, 30, 2915.	3.3	143
17	Three-dimensional endomicroscopy of the human colon using optical coherence tomography. <i>Optics Express</i> , 2009, 17, 784.	3.4	139
18	Characterization of buried glands before and after radiofrequency ablation by using 3-dimensional optical coherence tomography (with videos). <i>Gastrointestinal Endoscopy</i> , 2012, 76, 32-40.	1.0	117

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19	Ultrahigh speed endoscopic optical coherence tomography using micromotor imaging catheter and VCSEL technology. <i>Biomedical Optics Express</i> , 2013, 4, 1119.	2.9	116
20	Noninvasive diffuse optical measurement of blood flow and blood oxygenation for monitoring radiation therapy in patients with head and neck tumors: a pilot study. <i>Journal of Biomedical Optics</i> , 2006, 11, 064021.	2.6	112
21	Real-time In Situ Monitoring of Human Prostate Photodynamic Therapy with Diffuse Light. <i>Photochemistry and Photobiology</i> , 2006, 82, 1279.	2.5	102
22	Integrated Optical Coherence Tomography and Microscopy for <i>Ex Vivo</i> Multiscale Evaluation of Human Breast Tissues. <i>Cancer Research</i> , 2010, 70, 10071-10079.	0.9	98
23	Fully Three-Dimensional Bioprinted Skin Equivalent Constructs with Validated Morphology and Barrier Function. <i>Tissue Engineering - Part C: Methods</i> , 2019, 25, 334-343.	2.1	88
24	Photothermal optical coherence tomography in ex vivo human breast tissues using gold nanoshells. <i>Optics Letters</i> , 2010, 35, 700.	3.3	86
25	Effective treatment of chronic radiation proctitis using radiofrequency ablation. <i>Therapeutic Advances in Gastroenterology</i> , 2009, 2, 149-156.	3.2	80
26	Three-dimensional optical coherence tomography of Barrett's esophagus and buried glands beneath neosquamous epithelium following radiofrequency ablation. <i>Endoscopy</i> , 2009, 41, 773-776.	1.8	70
27	Optical Coherence Tomography Detects Necrotic Regions and Volumetrically Quantifies Multicellular Tumor Spheroids. <i>Cancer Research</i> , 2017, 77, 6011-6020.	0.9	68
28	Deposition and drying dynamics of liquid crystal droplets. <i>Nature Communications</i> , 2017, 8, 15642.	12.8	66
29	Structural markers observed with endoscopic 3-dimensional optical coherence tomography correlating with Barrett's esophagus radiofrequency ablation treatment response (with videos). <i>Gastrointestinal Endoscopy</i> , 2012, 76, 1104-1112.	1.0	63
30	The effects of healthy aging on cerebral hemodynamic responses to posture change. <i>Physiological Measurement</i> , 2010, 31, 477-495.	2.1	60
31	High speed optical coherence microscopy with autofocus adjustment and a miniaturized endoscopic imaging probe. <i>Optics Express</i> , 2010, 18, 4222.	3.4	60
32	Blood flow dynamics of one cardiac cycle and relationship to mechanotransduction and trabeculation during heart looping. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2011, 300, H879-H891.	3.2	56
33	Hemodynamic responses to antivasular therapy and ionizing radiation assessed by diffuse optical spectroscopies. <i>Optics Express</i> , 2007, 15, 15507.	3.4	51
34	Optogenetic pacing in <i>Drosophila melanogaster</i> . <i>Science Advances</i> , 2015, 1, e1500639.	10.3	50
35	Optical Coherence Tomography for Brain Imaging and Developmental Biology. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 1-13.	2.9	48
36	Frequency comb swept lasers. <i>Optics Express</i> , 2009, 17, 21257.	3.4	47

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37	One-step continuous synthesis of biocompatible gold nanorods for optical coherence tomography. <i>Chemical Communications</i> , 2012, 48, 6654.	4.1	47
38	Optical coherence tomography image denoising using a generative adversarial network with speckle modulation. <i>Journal of Biophotonics</i> , 2020, 13, e201960135.	2.3	46
39	Facile Tumor Spheroids Formation in Large Quantity with Controllable Size and High Uniformity. <i>Scientific Reports</i> , 2018, 8, 6837.	3.3	44
40	Integrated local binary pattern texture features for classification of breast tissue imaged by optical coherence microscopy. <i>Medical Image Analysis</i> , 2017, 38, 104-116.	11.6	41
41	Space-division multiplexing optical coherence tomography. <i>Optics Express</i> , 2013, 21, 19219.	3.4	36
42	Ex vivo imaging of human thyroid pathology using integrated optical coherence tomography and optical coherence microscopy. <i>Journal of Biomedical Optics</i> , 2010, 15, 1.	2.6	35
43	Integrated Optical Coherence Tomography and Optical Coherence Microscopy Imaging of Ex Vivo Human Renal Tissues. <i>Journal of Urology</i> , 2012, 187, 691-699.	0.4	34
44	Characterization of periinfarct flow transients with laser speckle and Doppler after middle cerebral artery occlusion in the rat. <i>Journal of Neuroscience Research</i> , 2009, 87, 1219-1229.	2.9	33
45	Piezoelectric-transducer-based miniature catheter for ultrahigh-speed endoscopic optical coherence tomography. <i>Biomedical Optics Express</i> , 2011, 2, 2438.	2.9	31
46	Changes in the Expression of the Alzheimers Disease-Associated Presenilin Gene in Drosophila Heart Leads to Cardiac Dysfunction. <i>Current Alzheimer Research</i> , 2011, 8, 313-322.	1.4	30
47	Silencing of the Drosophila ortholog of SOX5 in heart leads to cardiac dysfunction as detected by optical coherence tomography. <i>Human Molecular Genetics</i> , 2013, 22, 3798-3806.	2.9	28
48	Computer-Aided Diagnosis of Label-Free 3-D Optical Coherence Microscopy Images of Human Cervical Tissue. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 2447-2456.	4.2	28
49	Acute Functional Recovery of Cerebral Blood Flow after Forebrain Ischemia in Rat. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2008, 28, 1275-1284.	4.3	27
50	Diffuse optical characterization of an exercising patient group with peripheral artery disease. <i>Journal of Biomedical Optics</i> , 2013, 18, 057007.	2.6	27
51	Wide-field high-speed space-division multiplexing optical coherence tomography using an integrated photonic device. <i>Biomedical Optics Express</i> , 2017, 8, 3856.	2.9	26
52	Ultrahigh-resolution optical coherence microscopy accurately classifies precancerous and cancerous human cervix free of labeling. <i>Theranostics</i> , 2018, 8, 3099-3110.	10.0	25
53	Nondestructive evaluation of progressive neuronal changes in organotypic rat hippocampal slice cultures using ultrahigh-resolution optical coherence microscopy. <i>Neurophotonics</i> , 2014, 1, 1.	3.3	24
54	A Circadian Clock Gene, Cry, Affects Heart Morphogenesis and Function in Drosophila as Revealed by Optical Coherence Microscopy. <i>PLoS ONE</i> , 2015, 10, e0137236.	2.5	24

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55	Longitudinal morphological and functional characterization of human heart organoids using optical coherence tomography. <i>Biosensors and Bioelectronics</i> , 2022, 207, 114136.	10.1	22
56	Comparison of Tissue Architectural Changes between Radiofrequency Ablation and Cryospray Ablation in Barrett's Esophagus Using Endoscopic Three-Dimensional Optical Coherence Tomography. <i>Gastroenterology Research and Practice</i> , 2012, 2012, 1-8.	1.5	19
57	Label-free evaluation of angiogenic sprouting in microengineered devices using ultrahigh-resolution optical coherence microscopy. <i>Journal of Biomedical Optics</i> , 2014, 19, 1.	2.6	15
58	Cervical inlet patch-optical coherence tomography imaging and clinical significance. <i>World Journal of Gastroenterology</i> , 2012, 18, 2502.	3.3	15
59	&lt;em>Drosophila&lt;/em> Preparation and Longitudinal Imaging of Heart Function &lt;em>In Vivo&lt;/em> Using Optical Coherence Microscopy (OCM). <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	14
60	FlyNet 2.0: drosophila heart 3D (2D+time) segmentation in optical coherence microscopy images using a convolutional long short-term memory neural network. <i>Biomedical Optics Express</i> , 2020, 11, 1568.	2.9	13
61	Improved Detection Sensitivity of Line-Scanning Optical Coherence Microscopy. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012, 18, 1094-1099.	2.9	12
62	Spoke-LBP and ring-LBP: New texture features for tissue classification. , 2015, , .		12
63	Three-dimensional endoscopic optical coherence tomography imaging of cervical inlet patch. <i>Gastrointestinal Endoscopy</i> , 2012, 75, 675-677.	1.0	11
64	Segmentation of <i>Drosophila</i> heart in optical coherence microscopy images using convolutional neural networks. <i>Journal of Biophotonics</i> , 2018, 11, e201800146.	2.3	11
65	Bi-layer blood vessel mimicking microfluidic platform for antitumor drug screening based on co-culturing 3D tumor spheroids and endothelial layers. <i>Biomicrofluidics</i> , 2019, 13, 044108.	2.4	11
66	Characterization of eosinophilic esophagitis murine models using optical coherence tomography. <i>Biomedical Optics Express</i> , 2014, 5, 609.	2.9	10
67	Non-invasive red-light optogenetic control of <i>Drosophila</i> cardiac function. <i>Communications Biology</i> , 2020, 3, 336.	4.4	10
68	A Digitized Representation of the Modified Prandtl-Ishlinskii Hysteresis Model for Modeling and Compensating Piezoelectric Actuator Hysteresis. <i>Micromachines</i> , 2021, 12, 942.	2.9	10
69	Human colorectal cancer tissue assessment using optical coherence tomography catheter and deep learning. <i>Journal of Biophotonics</i> , 2022, 15, e202100349.	2.3	9
70	Wide-field ophthalmic space-division multiplexing optical coherence tomography. <i>Photonics Research</i> , 2020, 8, 539.	7.0	8
71	ELAC2/RNaseZ-linked cardiac hypertrophy in <i>Drosophila melanogaster</i> . <i>DMM Disease Models and Mechanisms</i> , 2021, 14, .	2.4	7
72	Optical Coherence Microscopy. , 2015, , 865-911.		7

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73	Reply to Pouw et al.. Endoscopy, 2010, 42, 180-181.	1.8	5
74	Blood flow response to orthostatic challenge identifies signatures of the failure of static cerebral autoregulation in patients with cerebrovascular disease. BMC Neurology, 2021, 21, 154.	1.8	4
75	Full-range space-division multiplexing optical coherence tomography angiography. Biomedical Optics Express, 2020, 11, 4817.	2.9	4
76	Hemodynamic measurements in rat brain and human muscle using diffuse near-infrared absorption and correlation spectroscopies. , 2003, , .		3
77	Noninvasive monitoring hemodynamic responses in RIF tumors during and after PDT. , 2003, , .		3
78	Integrating optical coherence tomography with gravimetric and video analysis (OCT-Gravimetry-Video) Tj ETQq0 0 0 0 BT /Overlock 10 T	3.5	3
79	Longitudinal Morphological and Physiological Monitoring of Three-dimensional Tumor Spheroids Using Optical Coherence Tomography. Journal of Visualized Experiments, 2019, , .	0.3	3
80	Delineating 3D Angiogenic Sprouting in OCT Images via Multiple Active Contours. Lecture Notes in Computer Science, 2013, , 231-240.	1.3	3
81	Diffuse Optical Monitoring of Cerebral Oxygen Metabolism at the Bed-Side in Cerebrovascular Disorders. , 2008, , .		3
82	Quantification of muscle oxygenation and flow of healthy volunteers during cuff occlusion of arm and leg flexor muscles and plantar flexion exercise. , 2003, , .		2
83	Piezoelectric transducer based miniature catheter for ultrahigh speed endoscopic optical coherence tomography. Proceedings of SPIE, 2011, , .	0.8	2
84	OCM image texture analysis for tissue classification. , 2014, , .		2
85	Label-Free Imaging of Eosinophilic Esophagitis Mouse Models Using Optical Coherence Tomography. Methods in Molecular Biology, 2016, 1422, 127-136.	0.9	2
86	Real-time Monitoring of Hemodynamic Changes in Neonatal Pig Brain with Head Trauma Injury. , 2006, , .		2
87	Multiscale imaging of human thyroid pathologies using integrated optical coherence tomography (OCT) and optical coherence microscopy (OCM). , 2010, , .		1
88	Frequency comb swept lasers for optical coherence tomography. , 2010, , .		1
89	Nondestructive Characterization of Drying Processes of Colloidal Droplets and Latex Coats Using Optical Coherence Tomography. , 2020, , .		1
90	Endoscopic Optical Coherence Tomography. , 2015, , 2077-2108.		1

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91	Optimizing image reconstruction of tissue blood flow by diffuse correlation tomography. , 2003, , .		0
92	Ex vivo imaging of human pathologies with integrated optical coherence tomography (OCT) and optical coherence microscopy (OCM). Proceedings of SPIE, 2009, , .	0.8	0
93	Endoscopic 3D-OCT reveals buried glands following radiofrequency ablation of Barrett's esophagus. , 2010, , .		0
94	Integrated optical coherence tomography and optical coherence microscopy imaging of human pathology. , 2010, , .		0
95	High-throughput Optical Coherence Tomography Imaging for Drug Screening with 3D Tumor Spheroids. , 2018, , .		0
96	Diagnostics of skin features through 3D skin mapping based on electro-controlled deposition of conducting polymers onto metal-sebum modified surfaces and their possible applications in skin treatment. Analytica Chimica Acta, 2021, 1142, 84-98.	5.4	0
97	Diffuse optical measurement of cerebral metabolic rate of oxygen in adult brain. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S412-S412.	4.3	0
98	Development of diffuse correlation techniques for non-invasive measurement of cerebral blood flow and oxygen metabolism in rats. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S413-S413.	4.3	0
99	Noise Model for Laser Speckle Contrast Imaging. , 2006, , .		0
100	Neoadjuvant Chemotherapy Monitoring with Diffuse Optical Measurement of Blood Flow in Breast Tumors. , 2006, , .		0
101	Non-invasive Measurement of Cerebral Autoregulation of Acute Ischemic Stroke Patients with Diffuse Correlation/Wave Spectroscopy. , 2008, , .		0
102	In Vivo Breast Cancer Characterization and Therapy Monitoring using Diffuse Optical Methods based on Endogenous Optical/Exogenous Fluorescence Contrast. , 2008, , .		0
103	An Integrated Optical Coherence Microscopy Imaging and Optical Stimulation System for Optogenetic Pacing in Drosophila melanogaster. , 2016, , .		0
104	Ultrahigh-Speed Optical Coherence Tomography and its Applications. , 2018, , .		0
105	Ultrahigh Resolution Optical Coherence Microscopy for Cervical Cancer Diagnosis. , 2018, , .		0
106	Space Division Optical Coherence Tomography Angiography. , 2020, , .		0
107	Optical Coherence Tomography in Biomedicine. , 2021, , 1-34.		0