Peter T C So

List of Publications by Year
in descending order

67 papers	3,328 citations	218677 26 h-index	155660 55 g-index
70 all docs	70 docs citations	70 times ranked	4837 citing authors

#	Article	IF	Citations
1	Two-Photon Excitation Fluorescence Microscopy. Annual Review of Biomedical Engineering, 2000, 2, 399-429.	12.3	962
2	Microfluidic device for the formation of optically excitable, three-dimensional, compartmentalized motor units. Science Advances, 2016, 2, e1501429.	10.3	192
3	Inhibitory Synapses Are Repeatedly Assembled and Removed at Persistent Sites InÂVivo. Neuron, 2016, 89, 756-769.	8.1	162
4	Tomographic phase microscopy: principles and applications in bioimaging [Invited]. Journal of the Optical Society of America B: Optical Physics, 2017, 34, B64.	2.1	161
5	Functional imaging of visual cortical layers and subplate in awake mice with optimized three-photon microscopy. Nature Communications, 2019, 10, 177.	12.8	121
6	Multiphoton Excitation Microscopy ofIn VivoHuman Skin: Functional and Morphological Optical Biopsy Based on Threeâ€Ðimensional Imaging, Lifetime Measurements and Fluorescence Spectroscopy^a. Annals of the New York Academy of Sciences, 1998, 838, 58-67.	3.8	120
7	Multifocal multiphoton microscopy based on multianode photomultiplier tubes. Optics Express, 2007, 15, 11658.	3.4	114
8	Direct observation of glucose fingerprint using in vivo Raman spectroscopy. Science Advances, 2020, 6, eaay5206.	10.3	106
9	Absorption by water increases fluorescence image contrast of biological tissue in the shortwave infrared. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9080-9085.	7.1	89
10	Improvement of axial resolution and contrast in temporally focused widefield two-photon microscopy with structured light illumination. Biomedical Optics Express, 2013, 4, 995.	2.9	86
11	Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform. Small, 2016, 12, 612-622.	10.0	83
12	Regeneration of injured skin and peripheral nerves requires control of wound contraction, not scar formation. Wound Repair and Regeneration, 2017, 25, 177-191.	3.0	70
13	Measurement of the Time-Resolved Reflection Matrix for Enhancing Light Energy Delivery into a Scattering Medium. Physical Review Letters, 2013, 111, 243901.	7.8	66
14	Application of multiphoton microscopy in dermatological studies: A mini-review. Journal of Innovative Optical Health Sciences, 2014, 07, 1330010.	1.0	61
15	Quantification of labile heme in live malaria parasites using a genetically encoded biosensor. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2068-E2076.	7.1	56
16	Experimenting Liver Fibrosis Diagnostic by Two Photon Excitation Microscopy and Bag-of-Features Image Classification. Scientific Reports, 2014, 4, 4636.	3.3	55
17	Second harmonic generation Ï‡ tensor microscopy for tissue imaging. Applied Physics Letters, 2009, 94, 183902.	3.3	50
18	Effects of substance P on human colonic mucosa in vitro. American Journal of Physiology - Renal Physiology, 1999, 276, G1473-G1483.	3.4	49

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19	High-Throughput Nonlinear Optical Microscopy. Biophysical Journal, 2013, 105, 2641-2654.	0.5	45
20	Rosa26-GFP Direct Repeat (RaDR-GFP) Mice Reveal Tissue- and Age-Dependence of Homologous Recombination in Mammals In Vivo. PLoS Genetics, 2014, 10, e1004299.	3.5	44
21	Tumor cell nuclei soften during transendothelial migration. Journal of Biomechanics, 2021, 121, 110400.	2.1	42
22	Dynamic speckle illumination wide-field reflection phase microscopy. Optics Letters, 2014, 39, 6062.	3.3	41
23	Cellular normoxic biophysical markers of hydroxyurea treatment in sickle cell disease. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9527-9532.	7.1	36
24	High spatial and temporal resolution synthetic aperture phase microscopy. Advanced Photonics, 2020, 2, .	11.8	35
25	Luminescent surfaces with tailored angular emission for compact dark-field imaging devices. Nature Photonics, 2020, 14, 310-315.	31.4	33
26	Virtual<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>k</mml:mi></mml:math>-Space Modulation Optical Microscopy. Physical Review Letters, 2016, 117, 028102.	7.8	32
27	Evaluation of accuracy dependence of Raman spectroscopic models on the ratio of calibration and validation points for non-invasive glucose sensing. Analytical and Bioanalytical Chemistry, 2018, 410, 6469-6475.	3.7	25
28	In Situ Quantification of Surface Chemistry in Porous Collagen Biomaterials. Annals of Biomedical Engineering, 2016, 44, 803-815.	2.5	23
29	Reflection phase microscopy using spatio-temporal coherence of light. Optica, 2018, 5, 1468.	9.3	22
30	Moxifloxacin: Clinically compatible contrast agent for multiphoton imaging. Scientific Reports, 2016, 6, 27142.	3.3	21
31	Studying nucleicÂenvelope and plasma membrane mechanics of eukaryotic cells using confocal reflectance interferometric microscopy. Nature Communications, 2019, 10, 3652.	12.8	20
32	Investigating Effects of Proteasome Inhibitor on Multiple Myeloma Cells Using Confocal Raman Microscopy. Sensors, 2016, 16, 2133.	3.8	19
33	Large population cell characterization using quantitative phase cytometer. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 450-459.	1.5	18
34	Scattering reduction by structured light illumination in line-scanning temporal focusing microscopy. Biomedical Optics Express, 2018, 9, 5654.	2.9	16
35	Improving femtosecond laser pulse delivery through a hollow core photonic crystal fiber for temporally focused two-photon endomicroscopy. Scientific Reports, 2014, 4, 6626.	3.3	15
36	Label-free characterization of ultra violet-radiation-induced changes in skin fibroblasts with Raman spectroscopy and quantitative phase microscopy. Scientific Reports, 2017, 7, 10829.	3.3	15

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37	Enhanced Axial Resolution of Wide-Field Two-Photon Excitation Microscopy by Line Scanning Using a Digital Micromirror Device. Micromachines, 2017, 8, 85.	2.9	15
38	Scanless volumetric imaging by selective access multifocal multiphoton microscopy. Optica, 2019, 6, 76.	9.3	15
39	Modeling the depth-sectioning effect in reflection-mode dynamic speckle-field interferometric microscopy. Optics Express, 2017, 25, 130.	3.4	14
40	Reassignment of Scattered Emission Photons in Multifocal Multiphoton Microscopy. Scientific Reports, 2014, 4, 5153.	3.3	12
41	Singleâ€Shot Optical Anisotropy Imaging with Quantitative Polarization Interference Microscopy. Laser and Photonics Reviews, 2018, 12, 1800070.	8.7	12
42	Chip-Based Resonance Raman Spectroscopy Using Tantalum Pentoxide Waveguides. IEEE Photonics Technology Letters, 2019, 31, 1127-1130.	2.5	12
43	Lowâ€coherent optical diffraction tomography by angleâ€scanning illumination. Journal of Biophotonics, 2019, 12, e201800289.	2.3	12
44	Single-Shot Quantitative Polarization Imaging of Complex Birefringent Structure Dynamics. ACS Photonics, 2021, 8, 3440-3447.	6.6	12
45	De-scattering with Excitation Patterning enables rapid wide-field imaging through scattering media. Science Advances, 2021, 7, .	10.3	11
46	Increasing the penetration depth of temporal focusing multiphoton microscopy for neurobiological applications. Journal Physics D: Applied Physics, 2019, 52, 264001.	2.8	10
47	Label-free diagnosis of human hepatocellular carcinoma by multiphoton autofluorescence microscopy. Applied Physics Letters, 2009, 95, .	3.3	9
48	Objective, comparative assessment of the penetration depth of temporal-focusing microscopy for imaging various organs. Journal of Biomedical Optics, 2015, 20, 061107.	2.6	9
49	Quantitative third-harmonic generation imaging of mouse visual cortex areas reveals correlations between functional maps and structural substrates. Biomedical Optics Express, 2020, 11, 5650.	2.9	9
50	In vivo visualization of butterfly scale cell morphogenesis in Vanessa cardui. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
51	3D-resolved targeting of photodynamic therapy using temporal focusing. Laser Physics Letters, 2014, 11, 115605.	1.4	8
52	Depth resolved hyperspectral imaging spectrometer based on structured light illumination and Fourier transform interferometry. Biomedical Optics Express, 2014, 5, 3494.	2.9	8
53	Single-shot dual-wavelength interferometric microscopy. Methods, 2018, 136, 35-39.	3.8	8
54	Structures and topological defects in pressure-driven lyotropic chromonic liquid crystals. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	8

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55	Automated fluorescence intensity and gradient analysis enables detection of rare fluorescent mutant cells deep within the tissue of RaDR mice. Scientific Reports, 2018, 8, 12108.	3.3	7
56	Label-free discrimination of tumorigenesis stages using in vitro prostate cancer bone metastasis model by Raman imaging. Scientific Reports, 2022, 12, 8050.	3.3	6
57	In vivolabel-free quantification of liver microcirculation using dual-modality microscopy. Journal of Biomedical Optics, 2014, 19, 116006.	2.6	5
58	Quantifying intracellular protein binding thermodynamics during mechanotransduction based on FRET spectroscopy. Methods, 2014, 66, 208-221.	3.8	3
59	Microfluidics: Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform (Small 5/2016). Small, 2016, 12, 688-688.	10.0	3
60	Probing Deep-Tissue Structures by Two-Photon Fluorescence Microscopy. , 0, , 221-237.		2
61	Two-photon 3-d mapping of tissue endogenous fluorescence Species based on fluorescence excitation and emission Spectra. Microscopy and Microanalysis, 2002, 8, 1064-1065.	0.4	1
62	Dual modal spectroscopic tissue scanner for colorectal cancer diagnosis. Surgical Endoscopy and Other Interventional Techniques, 2021, 35, 4363-4370.	2.4	1
63	Spectrochemical Probing of MicroRNA Duplex Using Spontaneous Raman Spectroscopy for Biosensing Applications. Analytical Chemistry, 2020, 92, 14423-14431.	6.5	1
64	Non-Invasive Diagnosis of Skin Structure and Biochemistry Based on Non-Linear Optical Microscopy & Spectroscopy. Microscopy and Microanalysis, 2002, 8, 280-281.	0.4	0
65	High Resolution Wide Field Stimulated Raman Scattering Microscopy. , 2010, , .		0
66	Multiphoton imaging of the effect of monosaccharide diffusion and formation of fluorescent advanced end products in porcine aorta. Journal of Biophotonics, 2021, 14, e202000439.	2.3	0
67	Direct Observation of Glucose Raman Fingerprint from in vivo Skin. , 2021, , .		0