Warren R Zipfel

List of Publications by Citations

101 papers	14,457 citations	43 h-index	120 g-index
125 ext. papers	16,142 ext. citations	7.3 avg, IF	6.19 L-index

#	Paper	IF	Citations
101	Nonlinear magic: multiphoton microscopy in the biosciences. *Nature Biotechnology*, **2003**, 21, 1369-77	44.5	2884
100	Water-soluble quantum dots for multiphoton fluorescence imaging in vivo. *Science*, **2003**, 300, 1434-6	33.3	2048
99	Live tissue intrinsic emission microscopy using multiphoton-excited native fluorescence and second harmonic generation. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 7075-80	11.5	1318
98	Multiphoton fluorescence excitation: new spectral windows for biological nonlinear microscopy. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 10763-8	11.5	964
97	Interpreting second-harmonic generation images of collagen I fibrils. *Biophysical Journal*, **2005**, 88, 1377-86	3.9	653
96	Neural activity triggers neuronal oxidative metabolism followed by astrocytic glycolysis. *Science*, **2004**, 305, 99-103	33.3	595
95	Exchange of protein molecules through connections between higher plant plastids. *Science*, **1997**, 276, 2039-42	33.3	495
94	Measuring serotonin distribution in live cells with three-photon excitation. *Science*, **1997**, 275, 530-2	33.3	380
93	Multiphoton microscopy in biological research. *Current Opinion in Chemical Biology*, **2001**, 5, 603-8	9.7	314
92	Simultaneous spatial and temporal focusing of femtosecond pulses. *Optics Express*, **2005**, 13, 2153-9	3.3	309
91	Regulation of calcium signals in the nucleus by a nucleoplasmic reticulum. *Nature Cell Biology*, **2003**, 5, 440-6	23.4	303
90	A microRNA miR-34a-regulated bimodal switch targets Notch in colon cancer stem cells. *Cell Stem Cell*, **2013**, 12, 602-15	18	291
89	The green fluorescent protein as a marker to visualize plant mitochondria in vivo. *Plant Journal*, **1997**, 11, 613-21	6.9	212
88	DNA fragment sizing by single molecule detection in submicrometer-sized closed fluidic channels. *Analytical Chemistry*, **2002**, 74, 1415-22	7.8	203
87	Translocation and Utilization of Fungal Storage Lipid in the Arbuscular Mycorrhizal Symbiosis. *Plant Physiology*, **2002**, 128, 108-124	6.6	199
86	Blinking and nonradiant dark fraction of water-soluble quantum dots in aqueous solution. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 14284-9	11.5	191
85	Measurement of molecular diffusion in solution by multiphoton fluorescence photobleaching recovery. *Biophysical Journal*, **1999**, 77, 2837-49	2.9	185

84	BAC transgenic mice express enhanced green fluorescent protein in central and peripheral cholinergic neurons. *Physiological Genomics*, **2006**, 27, 391-7	3.6	132
83	Focal volume confinement by submicrometer-sized fluidic channels. *Analytical Chemistry*, **2004**, 76, 1618-26	7.8	127
82	Self-assembly of aligned tissue-engineered annulus fibrosus and intervertebral disc composite via collagen gel contraction. *Tissue Engineering - Part A*, **2010**, 16, 1339-48	3.9	126
81	Multiphoton excitation cross-sections of molecular fluorophores. *Bioimaging*, **1996**, 4, 198-207		118
80	Achieving uniform mixing in a microfluidic device: hydrodynamic focusing prior to mixing. *Analytical Chemistry*, **2006**, 78, 4465-73	7.8	110
79	Optimization of pairings and detection conditions for measurement of FRET between cyan and yellow fluorescent proteins. *Microscopy and Microanalysis*, **2006**, 12, 238-54	0.5	107
78	Recruitment timing and dynamics of transcription factors at the Hsp70 loci in living cells. *Molecular Cell*, **2010**, 40, 965-75	17.6	99
77	Direct three-dimensional microfabrication of hydrogels via two-photon lithography in aqueous solution. *Chemistry of Materials*, **2009**, 21, 2003-2006	9.6	96
76	Photoactivated in Vitro Anticancer Activity of Rhenium(I) Tricarbonyl Complexes Bearing Water-Soluble Phosphines. *Inorganic Chemistry*, **2018**, 57, 1311-1331	5.1	94
75	Conformational changes of calmodulin upon Ca2+ binding studied with a microfluidic mixer. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 542-7	11.5	93
74	Core-shell silica nanoparticles as fluorescent labels for nanomedicine. *Journal of Biomedical Optics*, **2007**, 12, 064007	3.5	92
73	Multiphoton imaging can be used for microscopic examination of intact human gastrointestinal mucosa ex vivo. *Clinical Gastroenterology and Hepatology*, **2008**, 6, 95-101	6.9	91
72	Liver fatty acid-binding protein gene ablation inhibits branched-chain fatty acid metabolism in cultured primary hepatocytes. *Journal of Biological Chemistry*, **2004**, 279, 30954-65	5.4	79
71	Strategies for high-resolution imaging of epithelial ovarian cancer by laparoscopic nonlinear microscopy. *Translational Oncology*, **2010**, 3, 181-94	4.9	72
70	Mucosal mast cell secretion processes imaged using three-photon microscopy of 5-hydroxytryptamine autofluorescence. *Biophysical Journal*, **1999**, 76, 1835-46	2.9	67
69	Structural basis for conformational switching and GTP loading of the large G protein atlastin. *EMBO Journal*, **2013**, 32, 369-84	13	65
68	Tracking metabolism and imaging transport in arbuscular mycorrhizal fungi. Metabolism and transport in AM fungi. *Plant and Soil*, **2002**, 244, 189-197	4.2	63
67	Diffusion of nerve growth factor in rat striatum as determined by multiphoton microscopy. *Biophysical Journal*, **2003**, 85, 581-8	2.9	63

66	Highly localized Ca(2+) accumulation revealed by multiphoton microscopy in an identified motoneuron and its modulation by dopamine. *Journal of Neuroscience*, **2000**, 20, 2523-33	6.6	59
65	The Basis for Different Sensitivities of Photosynthesis to SO2 in Two Cultivars of Pea. *Journal of Experimental Botany*, **1987**, 38, 99-108	7	54
64	Translocation and utilization of fungal storage lipid in the arbuscular mycorrhizal symbiosis. *Plant Physiology*, **2002**, 128, 108-24	6.6	49
63	Phosphorescent nanoparticles for quantitative measurements of oxygen profiles in vitro and in vivo. *Biomaterials*, **2012**, 33, 2710-22	15.6	48
62	Multiphoton excitation cross-sections of molecular fluorophores. *Bioimaging*, **1996**, 4, 198-207		47
61	Multiphoton microscopy for structure identification in human prostate and periprostatic tissue: implications in prostate cancer surgery. *BJU International*, **2011**, 108, 1421-9	5.6	46
60	Endothelial cells promote 3D invasion of GBM by IL-8-dependent induction of cancer stem cell properties. *Scientific Reports*, **2019**, 9, 9069	4.9	45
59	Multiphoton microscopy in the evaluation of human bladder biopsies. *Archives of Pathology and Laboratory Medicine*, **2012**, 136, 517-26	5	44
58	Spatial profiles of store-dependent calcium release in motoneurones of the nucleus hypoglossus from newborn mouse. *Journal of Physiology*, **2003**, 547, 775-87	3.9	40
57	Kinetics of promoter Pol II on Hsp70 reveal stable pausing and key insights into its regulation. *Genes and Development*, **2014**, 28, 14-9	12.6	38
56	Feasibility of using multiphoton excited tissue autofluorescence for in vivo human histopathology. *Biomedical Optics Express*, **2010**, 1, 1320-1330	3.5	38
55	RNA aptamers that functionally interact with green fluorescent protein and its derivatives. *Nucleic Acids Research*, **2012**, 40, e39	20.1	38
54	Highly multiplexed spatial mapping of microbial communities. *Nature*, **2020**, 588, 676-681	50.4	36
53	Non-ionic photo-acid generators for applications in two-photon lithography. *Journal of Materials Chemistry*, **2009**, 19, 505-513		34
52	Solute transport in growth plate cartilage: in vitro and in vivo. *Biophysical Journal*, **2007**, 93, 1039-50	2.9	34
51	Chondrocyte calcium signaling in response to fluid flow is regulated by matrix adhesion in 3-D alginate scaffolds. *Archives of Biochemistry and Biophysics*, **2011**, 505, 112-7	4.1	33
50	Translocation and Utilization of Fungal Storage Lipid in the Arbuscular Mycorrhizal Symbiosis. *Plant Physiology*, **2002**, 128, 108-124	6.6	32
49	Kinetic and mechanical analysis of live tube morphogenesis. *Developmental Dynamics*, **2008**, 237, 2874-88	2.9	28

48	Ca2+ -induced Ca2+ release through localized Ca2+ uncaging in smooth muscle. *Journal of General Physiology*, **2006**, 127, 225-35	3.4	28
47	Multiphoton microscopy guides neurotrophin modification with poly(ethylene glycol) to enhance interstitial diffusion. *Nature Materials*, **2004**, 3, 489-94	27	27
46	Collagen Fiber Orientation Regulates 3D Vascular Network Formation and Alignment. *ACS Biomaterials Science and Engineering*, **2018**, 4, 2967-2976	5.5	26
45	Layer 6 cortical neurons require Reelin-Dab1 signaling for cellular orientation, Golgi deployment, and directed neurite growth into the marginal zone. *Neural Development*, **2012**, 7, 25	3.9	25
44	Reelin Prevents Apical Neurite Retraction during Terminal Translocation and Dendrite Initiation. *Journal of Neuroscience*, **2015**, 35, 10659-74	6.6	24
43	Green to red photoconversion of GFP for protein tracking in vivo. *Scientific Reports*, **2015**, 5, 11771	4.9	24
42	In vivo delivery of fluoresceinated dextrans to the murine growth plate: imaging of three vascular routes by multiphoton microscopy. *The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology*, **2006**, 288, 91-103		24
41	Comparison of objective lenses for multiphoton microscopy in turbid samples. *Biomedical Optics Express*, **2015**, 6, 3113-27	3.5	21
40	Quenching of chlorophyll excited states in photosystem I by quinones. *Journal of Luminescence*, **1992**, 51, 79-89	3.8	21
39	In vivo imaging reveals an essential role of vasoconstriction in rupture of the ovarian follicle at ovulation. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 2294-9	11.5	20
38	Quantifying translational mobility in neurons: comparison between current optical techniques. *Journal of Neuroscience*, **2010**, 30, 16409-16	6.6	17
37	Toxicity and biomedical imaging of layered nanohybrids in the mouse. *Toxicologic Pathology*, **2007**, 35, 806-12	2.1	17
36	Calcium signaling in response to fluid flow by chondrocytes in 3D alginate culture. *Journal of Orthopaedic Research*, **2012**, 30, 793-9	3.8	16
35	Anisometric Colloidal Fullerene Rod and Platelet Solvates with Enhanced Photoluminescence. *Advanced Optical Materials*, **2014**, 2, 1024-1030	8.1	14
34	Heterogeneous effects of dopamine on highly localized, voltage-induced Ca2+ accumulation in identified motoneurons. *Journal of Neurophysiology*, **2007**, 98, 2910-7	3.2	14
33	Potential solutions for confocal imaging of living animals. *BioTechniques*, **2007**, 43, 14-9	2.5	14
32	Multiphoton excitation of fluorescent probes. *Cold Spring Harbor Protocols*, **2015**, 2015, 250-8	1.2	13
31	Regulation of the type III InsP(3) receptor by InsP(3) and calcium. *Biochemical and Biophysical Research Communications*, **2002**, 294, 719-25	3.4	12

30	Facilitated recruitment of mesenchymal stromal cells by bone marrow concentrate and platelet rich plasma. *PLoS ONE*, **2018**, 13, e0194567	3.7	11
29	A visible-light-excited fluorescence method for imaging protein crystals without added dyes. *Journal of Applied Crystallography*, **2016**, 49, 234-240	3.8	10
28	Use of multiphoton imaging for studying cell migration in the mouse. *Methods in Molecular Biology*, **2005**, 294, 335-45	1.4	10
27	Oxyaapa: A Picolinate-Based Ligand with Five Oxygen Donors that Strongly Chelates Lanthanides. *Inorganic Chemistry*, **2020**, 59, 5116-5132	5.1	9
26	Molecular mechanism of a green-shifted, pH-dependent red fluorescent protein mKate variant. *PLoS ONE*, **2011**, 6, e23513	3.7	8
25	A multiphoton objective design with incorporated beam splitter for enhanced fluorescence collection. *Optics Express*, **2010**, 18, 5390-8	3.3	7
24	Cell-Free Synthesis of a Transmembrane Mechanosensitive Channel Protein into a Hybrid-Supported Lipid Bilayer.. *ACS Applied Bio Materials*, **2021**, 4, 3101-3112	4.1	7
23	Enhanced Oxygen Solubility in Metastable Water under Tension. *Langmuir*, **2018**, 34, 12017-12024	4	7
22	In vivo Diffusion Measurements Using Multiphoton Excitation Fluorescence Photobleaching Recovery and Fluorescence Correlation Spectroscopy **2001**, 216-235		7
21	Calculation of absolute photosystem I absorption cross-sections from P700 photo-oxidation kinetics. *Photosynthesis Research*, **1991**, 29, 23-35	3.7	7
20	High-speed device synchronization in optical microscopy with an open-source hardware control platform. *Scientific Reports*, **2019**, 9, 12188	4.9	5
19	A minimally disruptive method for measuring water potential in planta using hydrogel nanoreporters. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
18	Tracking metabolism and imaging transport in arbuscular mycorrhizal fungi **2002**, 189-197		3
17	Integrated sample-handling and mounting system for fixed-target serial synchrotron crystallography. *Acta Crystallographica Section D: Structural Biology*, **2021**, 77, 628-644	5.5	3
16	Multiphoton microscopy as a tool to study ovarian vasculature in vivo. *Intravital*, **2013**, 2, e24334		2
15	A Scheme for Increasing the Collection Efficiency of Multiphoton Microscopy. *Biophysical Journal*, **2009**, 96, 639a	2.9	2
14	Chronic imaging of amyloid plaques in the live mouse brain using multiphoton microscopy **2001**,		2
13	Highly Multiplexed Spatial Mapping of Microbial Communities		2

12	Stoichiometric analysis of protein complexes by cell fusion and single molecule imaging. *Scientific Reports*, **2020**, 10, 14866	4.9	2
11	Litmus-Body: A Molecularly Targeted Sensor for Cell-Surface pH Measurements. *ACS Sensors*, **2020**, 5, 1555-1566	9.2	1
10	In vivo multiphoton microscopy of deep tissue with gradient index lenses **2004**,		1
9	Dark fraction and blinking of water-soluble quantum dots in solution **2005**,		1
8	Effects of sulfite on phosphoenolpyruvate carboxylase and nicotinamide adenine dinucleotide phosphate-dependent malate dehydrogenase in epidermal peels in two cultivars of pea. *Physiologia Plantarum*, **1990**, 79, 491-496	4.6	1
7	Highly Potent Photoinactivation of Bacteria Using a Water-Soluble, Cell-Permeable, DNA-Binding Photosensitizer. *ACS Infectious Diseases*, **2021**, 7, 3052-3061	5.5	1
6	Effects of sulfite on phosphoenolpyruvate carboxylase and nicotinamide adenine dinucleotide phosphate-dependent malate dehydrogenase in epidermal peels in two cultivars of pea. *Physiologia Plantarum*, **1990**, 79, 491-496	4.6	0
5	Application of Multiphoton Imaging to Study of the Vasculature.. *Microscopy and Microanalysis*, **1997**, 3, 335-336	0.5	
4	A new-age hooke book. *Nature Cell Biology*, **2000**, 2, E222	23.4	
3	Azimuthal Beam Scanning Microscope Design and Implementation for Axial Localization with Scanning Angle Interference Microscopy. *Methods in Molecular Biology*, **2022**, 2393, 127-152	1.4	
2	Multiphoton microscopy of intrinsic tissue emissions for cancer research. *FASEB Journal*, **2007**, 21, A601	0.9	
1	Diurnal Changes in Electron Transport Capacity in Pea Thylakoids **1987**, 609-612		