

Warren R Zipfel

List of Publications by Year in descending order

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119
papers

17,129
citations

57631

44
h-index

39575

94
g-index

125
all docs

125
docs citations

125
times ranked

18712
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear magic: multiphoton microscopy in the biosciences. <i>Nature Biotechnology</i> , 2003, 21, 1369-1377.	9.4	3,524
2	Water-Soluble Quantum Dots for Multiphoton Fluorescence Imaging in Vivo. <i>Science</i> , 2003, 300, 1434-1436.	6.0	2,218
3	Live tissue intrinsic emission microscopy using multiphoton-excited native fluorescence and second harmonic generation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 7075-7080.	3.3	1,630
4	Multiphoton fluorescence excitation: new spectral windows for biological nonlinear microscopy.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 10763-10768.	3.3	1,116
5	Interpreting Second-Harmonic Generation Images of Collagen I Fibrils. <i>Biophysical Journal</i> , 2005, 88, 1377-1386.	0.2	799
6	Neural Activity Triggers Neuronal Oxidative Metabolism Followed by Astrocytic Glycolysis. <i>Science</i> , 2004, 305, 99-103.	6.0	666
7	Exchange of Protein Molecules Through Connections Between Higher Plant Plastids. <i>Science</i> , 1997, 276, 2039-2042.	6.0	554
8	Simultaneous spatial and temporal focusing of femtosecond pulses. <i>Optics Express</i> , 2005, 13, 2153.	1.7	433
9	Measuring Serotonin Distribution in Live Cells with Three-Photon Excitation. <i>Science</i> , 1997, 275, 530-532.	6.0	431
10	Multiphoton microscopy in biological research. <i>Current Opinion in Chemical Biology</i> , 2001, 5, 603-608.	2.8	364
11	Regulation of calcium signals in the nucleus by a nucleoplasmic reticulum. <i>Nature Cell Biology</i> , 2003, 5, 440-446.	4.6	343
12	A microRNA miR-34a-Regulated Bimodal Switch Targets Notch in Colon Cancer Stem Cells. <i>Cell Stem Cell</i> , 2013, 12, 602-615.	5.2	325
13	The green fluorescent protein as a marker to visualize plant mitochondria in vivo. <i>Plant Journal</i> , 1997, 11, 613-621.	2.8	245
14	Translocation and Utilization of Fungal Storage Lipid in the Arbuscular Mycorrhizal Symbiosis. <i>Plant Physiology</i> , 2002, 128, 108-124.	2.3	228
15	DNA Fragment Sizing by Single Molecule Detection in Submicrometer-Sized Closed Fluidic Channels. <i>Analytical Chemistry</i> , 2002, 74, 1415-1422.	3.2	226
16	Blinking and nonradiant dark fraction of water-soluble quantum dots in aqueous solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 14284-14289.	3.3	211
17	Measurement of Molecular Diffusion in Solution by Multiphoton Fluorescence Photobleaching Recovery. <i>Biophysical Journal</i> , 1999, 77, 2837-2849.	0.2	201
18	BAC transgenic mice express enhanced green fluorescent protein in central and peripheral cholinergic neurons. <i>Physiological Genomics</i> , 2006, 27, 391-397.	1.0	160

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19	Self-Assembly of Aligned Tissue-Engineered Annulus Fibrosus and Intervertebral Disc Composite Via Collagen Gel Contraction. <i>Tissue Engineering - Part A</i> , 2010, 16, 1339-1348.	1.6	147
20	Focal Volume Confinement by Submicrometer-Sized Fluidic Channels. <i>Analytical Chemistry</i> , 2004, 76, 1618-1626.	3.2	141
21	Multiphoton excitation cross-sections of molecular fluorophores. <i>Bioimaging</i> , 1996, 4, 198-207.	1.8	128
22	Recruitment Timing and Dynamics of Transcription Factors at the Hsp70 Loci in Living Cells. <i>Molecular Cell</i> , 2010, 40, 965-975.	4.5	125
23	Optimization of Pairings and Detection Conditions for Measurement of FRET between Cyan and Yellow Fluorescent Proteins. <i>Microscopy and Microanalysis</i> , 2006, 12, 238-254.	0.2	124
24	Achieving Uniform Mixing in a Microfluidic Device: A Hydrodynamic Focusing Prior to Mixing. <i>Analytical Chemistry</i> , 2006, 78, 4465-4473.	3.2	123
25	Photoactivated in Vitro Anticancer Activity of Rhenium(I) Tricarbonyl Complexes Bearing Water-Soluble Phosphines. <i>Inorganic Chemistry</i> , 2018, 57, 1311-1331.	1.9	121
26	Highly multiplexed spatial mapping of microbial communities. <i>Nature</i> , 2020, 588, 676-681.	13.7	120
27	Conformational changes of calmodulin upon Ca ²⁺ binding studied with a microfluidic mixer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 542-547.	3.3	113
28	Multiphoton Imaging Can Be Used for Microscopic Examination of Intact Human Gastrointestinal Mucosa Ex Vivo. <i>Clinical Gastroenterology and Hepatology</i> , 2008, 6, 95-101.	2.4	110
29	Core-shell silica nanoparticles as fluorescent labels for nanomedicine. <i>Journal of Biomedical Optics</i> , 2007, 12, 1.	1.4	109
30	Direct Three-Dimensional Microfabrication of Hydrogels via Two-Photon Lithography in Aqueous Solution. <i>Chemistry of Materials</i> , 2009, 21, 2003-2006.	3.2	104
31	Liver Fatty Acid-binding Protein Gene Ablation Inhibits Branched-chain Fatty Acid Metabolism in Cultured Primary Hepatocytes. <i>Journal of Biological Chemistry</i> , 2004, 279, 30954-30965.	1.6	91
32	Strategies for High Resolution Imaging of Epithelial Ovarian Cancer by Laparoscopic Nonlinear Microscopy. <i>Translational Oncology</i> , 2010, 3, 181-194.	1.7	86
33	Structural basis for conformational switching and GTP loading of the large G protein atlastin. <i>EMBO Journal</i> , 2013, 32, 369-384.	3.5	85
34	Endothelial cells promote 3D invasion of GBM by IL-8-dependent induction of cancer stem cell properties. <i>Scientific Reports</i> , 2019, 9, 9069.	1.6	76
35	Mucosal Mast Cell Secretion Processes Imaged Using Three-Photon Microscopy of 5-Hydroxytryptamine Autofluorescence. <i>Biophysical Journal</i> , 1999, 76, 1835-1846.	0.2	75
36	Title is missing!. <i>Plant and Soil</i> , 2002, 244, 189-197.	1.8	68

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37	Diffusion of Nerve Growth Factor in Rat Striatum as Determined by Multiphoton Microscopy. <i>Biophysical Journal</i> , 2003, 85, 581-588.	0.2	68
38	Highly Localized Ca ²⁺ Accumulation Revealed by Multiphoton Microscopy in an Identified Motoneuron and Its Modulation by Dopamine. <i>Journal of Neuroscience</i> , 2000, 20, 2523-2533.	1.7	65
39	Multiphoton excitation cross-sections of molecular fluorophores. <i>Bioimaging</i> , 1996, 4, 198-207.	1.8	62
40	Multiphoton microscopy for structure identification in human prostate and periprostatic tissue: implications in prostate cancer surgery. <i>BJU International</i> , 2011, 108, 1421-1429.	1.3	59
41	Translocation and utilization of fungal storage lipid in the arbuscular mycorrhizal symbiosis. <i>Plant Physiology</i> , 2002, 128, 108-24.	2.3	58
42	The Basis for Different Sensitivities of Photosynthesis to SO ₂ in Two Cultivars of Pea. <i>Journal of Experimental Botany</i> , 1987, 38, 99-108.	2.4	55
43	Multiphoton Microscopy in the Evaluation of Human Bladder Biopsies. <i>Archives of Pathology and Laboratory Medicine</i> , 2012, 136, 517-526.	1.2	55
44	Phosphorescent nanoparticles for quantitative measurements of oxygen profiles in vitro and in vivo. <i>Biomaterials</i> , 2012, 33, 2710-2722.	5.7	54
45	Collagen Fiber Orientation Regulates 3D Vascular Network Formation and Alignment. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 2967-2976.	2.6	54
46	RNA aptamers that functionally interact with green fluorescent protein and its derivatives. <i>Nucleic Acids Research</i> , 2012, 40, e39-e39.	6.5	47
47	Kinetics of promoter Pol II on <i>Hsp70</i> reveal stable pausing and key insights into its regulation. <i>Genes and Development</i> , 2014, 28, 14-19.	2.7	46
48	Feasibility of using multiphoton excited tissue autofluorescence for in vivo human histopathology. <i>Biomedical Optics Express</i> , 2010, 1, 1320.	1.5	43
49	In vivo imaging reveals an essential role of vasoconstriction in rupture of the ovarian follicle at ovulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2294-2299.	3.3	41
50	Non-ionic photo-acid generators for applications in two-photon lithography. <i>Journal of Materials Chemistry</i> , 2009, 19, 505-513.	6.7	40
51	Spatial profiles of store-dependent calcium release in motoneurons of the nucleus hypoglossus from newborn mouse. <i>Journal of Physiology</i> , 2003, 547, 775-787.	1.3	40
52	Solute Transport in Growth Plate Cartilage: In Vitro and In Vivo. <i>Biophysical Journal</i> , 2007, 93, 1039-1050.	0.2	39
53	Translocation and Utilization of Fungal Storage Lipid in the Arbuscular Mycorrhizal Symbiosis. <i>Plant Physiology</i> , 2002, 128, 108-124.	2.3	38
54	Chondrocyte calcium signaling in response to fluid flow is regulated by matrix adhesion in 3-D alginate scaffolds. <i>Archives of Biochemistry and Biophysics</i> , 2011, 505, 112-117.	1.4	38

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55	Kinetic and mechanical analysis of live tube morphogenesis. <i>Developmental Dynamics</i> , 2008, 237, 2874-2888.	0.8	37
56	Reelin Prevents Apical Neurite Retraction during Terminal Translocation and Dendrite Initiation. <i>Journal of Neuroscience</i> , 2015, 35, 10659-10674.	1.7	32
57	Layer 6 cortical neurons require Reelin-Dab1 signaling for cellular orientation, Golgi deployment, and directed neurite growth into the marginal zone. <i>Neural Development</i> , 2012, 7, 25.	1.1	31
58	Multiphoton microscopy guides neurotrophin modification with poly(ethylene glycol) to enhance interstitial diffusion. <i>Nature Materials</i> , 2004, 3, 489-494.	13.3	30
59	Ca ²⁺ -Induced Ca ²⁺ Release through Localized Ca ²⁺ Uncaging in Smooth Muscle. <i>Journal of General Physiology</i> , 2006, 127, 225-235.	0.9	29
60	Green to red photoconversion of GFP for protein tracking in vivo. <i>Scientific Reports</i> , 2015, 5, 11771.	1.6	28
61	Comparison of objective lenses for multiphoton microscopy in turbid samples. <i>Biomedical Optics Express</i> , 2015, 6, 3113.	1.5	26
62	In vivo delivery of fluoresceinated dextrans to the murine growth plate: Imaging of three vascular routes by multiphoton microscopy. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2006, 288A, 91-103.	2.0	24
63	Quenching of chlorophyll excited states in photosystem I by quinones. <i>Journal of Luminescence</i> , 1992, 51, 79-89.	1.5	21
64	Toxicity and Biomedical Imaging of Layered Nanohybrids in the Mouse. <i>Toxicologic Pathology</i> , 2007, 35, 804-810.	0.9	19
65	Calcium signaling in response to fluid flow by chondrocytes in 3D alginate culture. <i>Journal of Orthopaedic Research</i> , 2012, 30, 793-799.	1.2	19
66	A minimally disruptive method for measuring water potential in planta using hydrogel nanoreporters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	19
67	Quantifying Translational Mobility in Neurons: Comparison between Current Optical Techniques. <i>Journal of Neuroscience</i> , 2010, 30, 16409-16416.	1.7	18
68	Facilitated recruitment of mesenchymal stromal cells by bone marrow concentrate and platelet rich plasma. <i>PLoS ONE</i> , 2018, 13, e0194567.	1.1	18
69	Heterogeneous Effects of Dopamine on Highly Localized, Voltage-Induced Ca ²⁺ Accumulation in Identified Motoneurons. <i>Journal of Neurophysiology</i> , 2007, 98, 2910-2917.	0.9	16
70	Potential solutions for confocal imaging of living animals. <i>BioTechniques</i> , 2007, 43, S14-S19.	0.8	16
71	Cell-Free Synthesis of a Transmembrane Mechanosensitive Channel Protein into a Hybrid-Supported Lipid Bilayer. <i>ACS Applied Bio Materials</i> , 2021, 4, 3101-3112.	2.3	16
72	Multiphoton Excitation of Fluorescent Probes. <i>Cold Spring Harbor Protocols</i> , 2015, 2015, pdb.top086116.	0.2	15

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73	Anisometric Colloidal Fullerene Rod and Platelet Solvates with Enhanced Photoluminescence. <i>Advanced Optical Materials</i> , 2014, 2, 1024-1030.	3.6	14
74	Oxyaapa: A Picolinate-Based Ligand with Five Oxygen Donors that Strongly Chelates Lanthanides. <i>Inorganic Chemistry</i> , 2020, 59, 5116-5132.	1.9	14
75	Regulation of the type III InsP3 receptor by InsP3 and calcium. <i>Biochemical and Biophysical Research Communications</i> , 2002, 294, 719-725.	1.0	13
76	High-speed device synchronization in optical microscopy with an open-source hardware control platform. <i>Scientific Reports</i> , 2019, 9, 12188.	1.6	13
77	Two-Photon Photodynamic Therapy Targeting Cancers with Low Carboxylesterase 2 Activity Guided by Ratiometric Fluorescence. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 8855-8868.	2.9	13
78	Integrated sample-handling and mounting system for fixed-target serial synchrotron crystallography. <i>Acta Crystallographica Section D: Structural Biology</i> , 2021, 77, 628-644.	1.1	12
79	Use of Multiphoton Imaging for Studying Cell Migration in the Mouse. , 2005, 294, 335-346.		11
80	Calculation of absolute photosystem I absorption cross-sections from P700 photo-oxidation kinetics. <i>Photosynthesis Research</i> , 1991, 29, 23-35.	1.6	11
81	A visible-light-excited fluorescence method for imaging protein crystals without added dyes. <i>Journal of Applied Crystallography</i> , 2016, 49, 234-240.	1.9	10
82	Tracking metabolism and imaging transport in arbuscular mycorrhizal fungi. , 2002, , 189-197.		10
83	A multiphoton objective design with incorporated beam splitter for enhanced fluorescence collection. <i>Optics Express</i> , 2010, 18, 5390.	1.7	9
84	Molecular Mechanism of a Green-Shifted, pH-Dependent Red Fluorescent Protein mKate Variant. <i>PLoS ONE</i> , 2011, 6, e23513.	1.1	9
85	Enhanced Oxygen Solubility in Metastable Water under Tension. <i>Langmuir</i> , 2018, 34, 12017-12024.	1.6	9
86	In vivo Diffusion Measurements Using Multiphoton Excitation Fluorescence Photobleaching Recovery and Fluorescence Correlation Spectroscopy. , 2001, , 216-235.		9
87	Stoichiometric analysis of protein complexes by cell fusion and single molecule imaging. <i>Scientific Reports</i> , 2020, 10, 14866.	1.6	7
88	Azimuthal Beam Scanning Microscope Design and Implementation for Axial Localization with Scanning Angle Interference Microscopy. <i>Methods in Molecular Biology</i> , 2022, 2393, 127-152.	0.4	4
89	In vivo multiphoton microscopy of deep tissue with gradient index lenses. , 2004, , .		3
90	Effects of sulfite on phosphoenolpyruvate carboxylase and nicotinamide adenine dinucleotide phosphate-dependent malate dehydrogenase in epidermal peels in two cultivars of pea. <i>Physiologia Plantarum</i> , 1990, 79, 491-496.	2.6	2

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91	Chronic imaging of amyloid plaques in the live mouse brain using multiphoton microscopy. , 2001, , .		2
92	A Scheme for Increasing the Collection Efficiency of Multiphoton Microscopy. Biophysical Journal, 2009, 96, 639a.	0.2	2
93	Multiphoton microscopy as a tool to study ovarian vasculature in vivo. Intravital, 2013, 2, e24334.	2.0	2
94	Litmus-Body: A Molecularly Targeted Sensor for Cell-Surface pH Measurements. ACS Sensors, 2020, 5, 1555-1566.	4.0	2
95	Highly Potent Photoinactivation of Bacteria Using a Water-Soluble, Cell-Permeable, DNA-Binding Photosensitizer. ACS Infectious Diseases, 2021, 7, 3052-3061.	1.8	2
96	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.	2.6	1
97	Dark fraction and blinking of water-soluble quantum dots in solution. , 2005, , .		1
98	Assessing the Mutagenicity Potential of Multiphoton Excitation during Imaging of Intrinsic Fluorescence from Cells and Tissues. Biophysical Journal, 2010, 98, 576a.	0.2	1
99	A Comparison of Objective Lenses for Multiphoton Microscopy: Improved Epifluorescence Collection from Turbid Samples. Biophysical Journal, 2010, 98, 178a.	0.2	1
100	Memorial Viewpoint for Watt W. Webb: An Experimentalist's Experimentalist. Journal of Physical Chemistry B, 2021, 125, 2793-2795.	1.2	1
101	Oxygen-Sensing Microfluidic Scaffolds. , 2009, , .		1
102	Application of Multiphoton Imaging to Study of the Vasculature.. Microscopy and Microanalysis, 1997, 3, 335-336.	0.2	0
103	A new-age Hooke book. Nature Cell Biology, 2000, 2, E222-E222.	4.6	0
104	Probing the effect of Heat Shock Protein 70 on the aggregation of α -Synuclein. Biophysical Journal, 2009, 96, 92a.	0.2	0
105	Monitoring the Granuloma Micro-environment in a Monkey Model of Tuberculosis Using a Novel Fluorescence Bronchoscope. Biophysical Journal, 2009, 96, 297a.	0.2	0
106	Compensation Of Tissue-induced PSF Aberrations Using Adaptive Phase Modulation. Biophysical Journal, 2009, 96, 375a.	0.2	0
107	1345 AUTOFLUORESCENCE MICROSCOPY OF PERIPROSTATIC LYMPHATIC TISSUE AND CORRELATION WITH CONVENTIONAL HISTOPATHOLOGY IMAGING. Journal of Urology, 2010, 183, .	0.2	0
108	2143 REAL TIME DELINEATION PROSTATIC ARCHITECTURE USING ROBO-MICROSCOPY PROJECT TWO PHOTON LASER EXCITATION IMAGING IN VISUALIZATION OF HUMAN PROSTATIC TISSUE. Journal of Urology, 2010, 183, .	0.2	0

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109	1444 PERI PROSTATIC NERVE MAPPING: UTILITY OF REAL TIME 780-NM LASER EXCITATION IMAGING IN VISUALIZATION OF HUMAN CAVERNOUS NERVES. <i>Journal of Urology</i> , 2010, 183, .	0.2	0
110	Adaptive Phase Modulation for Multiphoton Microscopy. <i>Biophysical Journal</i> , 2010, 98, 215a.	0.2	0
111	Analysis of Spot Detection and Localization Algorithms for PALM and STORM. <i>Biophysical Journal</i> , 2011, 100, 141a.	0.2	0
112	Sub-Millisecond RNA Collapse Observed in a Microfluidic Mixer. <i>Biophysical Journal</i> , 2012, 102, 645a.	0.2	0
113	Accurate Quantification Methods for Single Molecule Localization. <i>Biophysical Journal</i> , 2012, 102, 721a.	0.2	0
114	Accurate EMCCD Photoelectron Calibration for Single Molecule Imaging Techniques. <i>Biophysical Journal</i> , 2013, 104, 666a.	0.2	0
115	Feasibility of using Nonlinear Excitation in Human Clinical Imaging Applications. , 2013, , .		0
116	Second harmonic microscopy of collagen. , 2003, , .		0
117	On the Versatility of Nonlinear Microscopy. , 2006, , .		0
118	Multiphoton microscopy of intrinsic tissue emissions for cancer research. <i>FASEB Journal</i> , 2007, 21, A601.	0.2	0
119	Diurnal Changes in Electron Transport Capacity in Pea Thylakoids. , 1987, , 609-612.		0