Paul J Campagnola

List of Publications by Year
in descending order

58	5,995	201674 27	155660 55
papers	citations	h-index	g-index

58	58	58	5771
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Second-harmonic imaging microscopy for visualizing biomolecular arrays in cells, tissues and organisms. Nature Biotechnology, 2003, 21, 1356-1360.	17.5	1,221
2	Three-Dimensional High-Resolution Second-Harmonic Generation Imaging of Endogenous Structural Proteins in Biological Tissues. Biophysical Journal, 2002, 82, 493-508.	0.5	889
3	Second harmonic generation microscopy for quantitative analysis of collagen fibrillar structure. Nature Protocols, 2012, 7, 654-669.	12.0	767
4	High-Resolution Nonlinear Optical Imaging of Live Cells by Second Harmonic Generation. Biophysical Journal, 1999, 77, 3341-3349.	0.5	524
5	Characterization of the Myosin-Based Source for Second-Harmonic Generation from Muscle Sarcomeres. Biophysical Journal, 2006, 90, 693-703.	0.5	407
6	Myocardial Tissue Engineering With Cells Derived From Human-Induced Pluripotent Stem Cells and a Native-Like, High-Resolution, 3-Dimensionally Printed Scaffold. Circulation Research, 2017, 120, 1318-1325.	4.5	254
7	Alterations of the extracellular matrix in ovarian cancer studied by Second Harmonic Generation imaging microscopy. BMC Cancer, 2010, 10, 94.	2.6	227
8	Submicron Multiphoton Free-Form Fabrication of Proteins and Polymers:Â Studies of Reaction Efficiencies and Applications in Sustained Release. Macromolecules, 2000, 33, 1514-1523.	4.8	184
9	Phase matching considerations in second harmonic generation from tissues: Effects on emission directionality, conversion efficiency and observed morphology. Optics Communications, 2008, 281, 1823-1832.	2.1	150
10	Quantitative Second Harmonic Generation Imaging of the Diseased State Osteogenesis Imperfecta: Experiment and Simulation. Biophysical Journal, 2008, 94, 4504-4514.	0.5	129
11	Retention of polarization signatures in SHG microscopy of scattering tissues through optical clearing. Optics Express, 2009, 17, 5794.	3.4	79
12	Second harmonic generation imaging microscopy studies of osteogenesis imperfecta. Journal of Biomedical Optics, 2007, 12, 051805.	2.6	76
13	Freeform multiphoton excited microfabrication for biological applications using a rapid prototyping CAD-based approach. Optics Express, 2006, 14, 8613.	3.4	67
14	Applications of Second-Harmonic Generation Imaging Microscopy in Ovarian and Breast Cancer. Perspectives in Medicinal Chemistry, 2015, 7, PMC.S13214.	4.6	64
15	Quantitative second harmonic generation imaging and modeling of the optical clearing mechanism in striated muscle and tendon. Journal of Biomedical Optics, 2008, 13, 021109.	2.6	60
16	Differentiation of Col I and Col III Isoforms in Stromal Models of Ovarian Cancer by Analysis of Second Harmonic Generation Polarization and Emission Directionality. Biophysical Journal, 2014, 106, 354-365.	0.5	57
17	3D texture analysis for classification of second harmonic generation images of human ovarian cancer. Scientific Reports, 2016, 6, 35734.	3.3	51
18	Second harmonic generation microscopy analysis of extracellular matrix changes in human idiopathic pulmonary fibrosis. Journal of Biomedical Optics, 2014, 19, 086014.	2.6	50

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19	Calcific Aortic Valve Disease Is Associated with Layer-Specific Alterations in Collagen Architecture. PLoS ONE, 2016, 11, e0163858.	2.5	50
20	Second-harmonic generation circular dichroism studies of osteogenesis imperfecta. Optics Letters, 2012, 37, 3837.	3.3	44
21	Texture analysis applied to second harmonic generation image data for ovarian cancer classification. Journal of Biomedical Optics, 2014, 19, 096007.	2.6	41
22	Mesenchymal Stem Cell Interactions with 3D ECM Modules Fabricated via Multiphoton Excited Photochemistry. Biomacromolecules, 2012, 13, 2917-2925.	5.4	35
23	Precise, motion-free polarization control in Second Harmonic Generation microscopy using a liquid crystal modulator in the infinity space. Biomedical Optics Express, 2013, 4, 1991.	2.9	33
24	Recent Advancements in Optical Harmonic Generation Microscopy: Applications and Perspectives. BME Frontiers, 2021, 2021, .	4.5	33
25	Wavelength-Dependent Second Harmonic Generation Circular Dichroism for Differentiation of Col I and Col III Isoforms in Stromal Models of Ovarian Cancer Based on Intrinsic Chirality Differences. Journal of Physical Chemistry B, 2017, 121, 1749-1757.	2.6	32
26	Polarization-resolved second harmonic generation imaging of human ovarian cancer. Journal of Biomedical Optics, 2018, 23, 1.	2.6	31
27	Fabrication of three-dimensional multi-protein microstructures for cell migration and adhesion enhancement. Biomedical Optics Express, 2015, 6, 480.	2.9	30
28	Experimental and simulation study of the wavelength dependent second harmonic generation of collagen in scattering tissues. Optics Letters, 2014, 39, 1897.	3.3	29
29	Role of Collagen Fiber Morphology on Ovarian Cancer Cell Migration Using Image-Based Models of the Extracellular Matrix. Cancers, 2020, 12, 1390.	3.7	29
30	Image-inspired 3D multiphoton excited fabrication of extracellular matrix structures by modulated raster scanning. Optics Express, 2013, 21, 25346.	3.4	28
31	Stromal alterations in ovarian cancers via wavelength dependent Second Harmonic Generation microscopy and optical scattering. BMC Cancer, 2017, 17, 102.	2.6	27
32	The extracellular matrix of ovarian cortical inclusion cysts modulates invasion of fallopian tube epithelial cells. APL Bioengineering, 2018, 2, .	6.2	26
33	Construction of a laser scanning microscope for multiphoton excited optical fabrication. Review of Scientific Instruments, 2003, 74, 3474-3477.	1.3	25
34	Imaging Collagen Alterations in STICs and High Grade Ovarian Cancers in the Fallopian Tubes by Second Harmonic Generation Microscopy. Cancers, 2019, 11, 1805.	3.7	21
35	Probing ECM remodeling in idiopathic pulmonary fibrosis via second harmonic generation microscopy analysis of macro/supramolecular collagen structure. Journal of Biomedical Optics, 2019, 25, 1.	2.6	21
36	Analysis of fibroblast migration dynamics in idiopathic pulmonary fibrosis using image-based scaffolds of the lung extracellular matrix. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 318, L276-L286.	2.9	20

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37	Assessing local stromal alterations in human ovarian cancer subtypes via second harmonic generation microscopy and analysis. Journal of Biomedical Optics, 2017, 22, 1.	2.6	20
38	Articular cartilage zonal differentiation via 3D Second-Harmonic Generation imaging microscopy. Connective Tissue Research, 2015, 56, 76-86.	2.3	19
39	Simultaneous determination of the second-harmonic generation emission directionality and reduced scattering coefficient from three-dimensional imaging of thick tissues. Journal of Biomedical Optics, 2013, 18, 116008.	2.6	18
40	Second-harmonic generation microscopy analysis reveals proteoglycan decorin is necessary for proper collagen organization in prostate. Journal of Biomedical Optics, 2019, 24, 1.	2.6	18
41	Extended Range of Dipole-Dipole Interactions in Periodically Structured Photonic Media. Physical Review Letters, 2019, 123, 173901.	7.8	17
42	3D second harmonic generation imaging tomography by multi-view excitation. Optica, 2017, 4, 1171.	9.3	16
43	Ovarian and Breast Cancer Migration Dynamics on Laminin and Fibronectin Bi-directional Gradient Fibers Fabricated via Multiphoton Excited Photochemistry. Cellular and Molecular Bioengineering, 2017, 10, 295-311.	2.1	15
44	Evaluation of Collagen Alterations in Early Precursor Lesions of High Grade Serous Ovarian Cancer by Second Harmonic Generation Microscopy and Mass Spectrometry. Cancers, 2021, 13, 2794.	3.7	15
45	Wearable Second Harmonic Generation Imaging: The Sarcomeric Bridge to the Clinic. Neuron, 2015, 88, 1067-1069.	8.1	9
46	Migration dynamics of ovarian epithelial cells on micro-fabricated image-based models of normal and malignant stroma. Acta Biomaterialia, 2019, 100, 92-104.	8.3	9
47	Ovarian Cancer Cell Adhesion/Migration Dynamics on Micro-Structured Laminin Gradients Fabricated by Multiphoton Excited Photochemistry. Bioengineering, 2015, 2, 139-159.	3.5	5
48	Advanced quantitative imaging and biomechanical analyses of periosteal fibers in accelerated bone growth. Bone, 2016, 92, 201-213.	2.9	5
49	Fast and improved bioimaging via temporal focusing multiphoton excitation microscopy with binary digital-micromirror-device holography. Journal of Biomedical Optics, 2018, 23, 1.	2.6	5
50	New Photoactivators for Multiphoton Excited Three-dimensional Submicron Cross-linking of Proteins: Bovine Serum Albumin and Type 1 CollagenÂ¶â€. Photochemistry and Photobiology, 2002, 76, 135-144.	2.5	3
51	Examining lysyl oxidase-like modulation of collagen architecture in 3D spheroid models of idiopathic pulmonary fibrosis via second-harmonic generation microscopy. Journal of Biomedical Optics, 2021, 26, .	2.6	3
52	Developmental Pathways Pervade Stem Cell Responses to Evolving Extracellular Matrices of 3D Bioprinted Microenvironments. Stem Cells International, 2018, 2018, 1-15.	2.5	2
53	Biophotonics feature: introduction. Biomedical Optics Express, 2018, 9, 1229.	2.9	2
54	High-speed 3D mapping of nonlinear structures. Nature Photonics, 2020, 14, 531-532.	31.4	2

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55	Introduction: feature issue on optical molecular probes, imaging, and drug delivery. Biomedical Optics Express, 2014, 5, 643.	2.9	1
56	Second Harmonic Imaging Microscopy: A New Non-Linear Optical Modality for Cell Membrane Physiology. Microscopy and Microanalysis, 2000, 6, 810-811.	0.4	0
57	Introduction to the novel techniques in microscopy feature issue. Biomedical Optics Express, 2015, 6, 4275.	2.9	0
58	Understanding ECM Remodeling in Idiopathic Pulmonary Fibrosis Via Polarization Resolved SHG Microscopy. , 2019, , .		0