

Riccardo Cicchi

List of Publications by Year in descending order

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133
papers

2,626
citations

172386
29
h-index

206029
48
g-index

136
all docs

136
docs citations

136
times ranked

3139
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and Biochemical Changes in Pericardium upon Genipin Cross-Linking Investigated Using Nondestructive and Label-Free Imaging Techniques. <i>Analytical Chemistry</i> , 2022, 94, 1575-1584.	3.2	2
2	Automated Phasor Segmentation of Fluorescence Lifetime Imaging Data for Discriminating Pigments and Binders Used in Artworks. <i>Molecules</i> , 2022, 27, 1475.	1.7	5
3	Combined TPEF and SHG Imaging for the Microstructural Characterization of Different Wood Species Used in Artworks. <i>Photonics</i> , 2022, 9, 170.	0.9	2
4	Fluorescence Lifetime Phasor Analysis and Raman Spectroscopy of Pigmented Organic Binders and Coatings Used in Artworks. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 179.	1.3	6
5	Novel Pixelwise Co-Registered Hematoxylin-Eosin and Multiphoton Microscopy Image Dataset for Human Colon Lesion Diagnosis. <i>Journal of Pathology Informatics</i> , 2022, 13, 100012.	0.8	5
6	Supervised learning methods for the recognition of melanoma cell lines through the analysis of their Raman spectra. <i>Journal of Biophotonics</i> , 2021, 14, e202000365.	1.1	11
7	Analysis on the Characterization of Multiphoton Microscopy Images for Malignant Neoplastic Colon Lesion Detection under Deep Learning Methods. <i>Journal of Pathology Informatics</i> , 2021, 12, 27.	0.8	9
8	Monitoring Changes in Biochemical and Biomechanical Properties of Collagenous Tissues Using Label-Free and Nondestructive Optical Imaging Techniques. <i>Analytical Chemistry</i> , 2021, 93, 3813-3821.	3.2	13
9	The feasibility of multimodal fiber optic spectroscopy analysis in bladder cancer detection, grading, and staging. <i>Urologia</i> , 2021, 88, 039156032110070.	0.3	2
10	Autofluorescence enhancement for label-free imaging of myelinated fibers in mammalian brains. <i>Scientific Reports</i> , 2021, 11, 8038.	1.6	24
11	Autofluorescence Image Reconstruction and Virtual Staining for In-Vivo Optical Biopsy. <i>IEEE Access</i> , 2021, 9, 32081-32093.	2.6	12
12	Localized stem heating from the rest to growth phase induces latewood-like cell formation and slower stem radial growth in Norway spruce saplings. <i>Tree Physiology</i> , 2021, , .	1.4	4
13	Real-time fiber-based fluorescence lifetime imaging with synchronous external illumination: A new path for clinical translation. <i>Journal of Biophotonics</i> , 2020, 13, e201960119.	1.1	13
14	Blue LED light modulates inflammatory infiltrate and improves the healing of superficial wounds. <i>Photodermatology Photoimmunology and Photomedicine</i> , 2020, 36, 166-168.	0.7	13
15	Comparability of Raman Spectroscopic Configurations: A Large Scale Cross-Laboratory Study. <i>Analytical Chemistry</i> , 2020, 92, 15745-15756.	3.2	46
16	In-Depth Analysis of Egg-Tempera Paint Layers by Multiphoton Excitation Fluorescence Microscopy. <i>Sustainability</i> , 2020, 12, 3831.	1.6	9
17	Real-time multispectral fluorescence lifetime imaging using Single Photon Avalanche Diode arrays. <i>Scientific Reports</i> , 2020, 10, 8116.	1.6	24
18	Collagen ultrastructural symmetry and its malignant alterations in human breast cancer revealed by polarization-resolved second-harmonic generation microscopy. <i>Journal of Biophotonics</i> , 2020, 13, e202000159.	1.1	24

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19	Fiber-cap biosensors for SERS analysis of liquid samples. Journal of Materials Chemistry B, 2020, 8, 1629-1639.	2.9	19
20	Nanostarsâ€”decorated microfluidic sensors for surface enhanced Raman scattering targeting of biomolecules. JPhys Photonics, 2020, 2, 024008.	2.2	11
21	Simultaneous fluorescence lifetime and Raman fiber-based mapping of tissues. Optics Letters, 2020, 45, 2247.	1.7	6
22	All-optical correlative micro-spectroscopies in the investigation of stromal collagen morpho-mechanics. , 2020, , .		0
23	In vivo detection of murine glioblastoma through Raman and reflectance fiber-probe spectroscopies. Neurophotonics, 2020, 7, 045010.	1.7	4
24	Few Shot Learning in Histopathological Images:Reducing the Need of Labeled Data on Biological Datasets. , 2019, , .		33
25	Labelâ€free grading and staging of urothelial carcinoma through multimodal fibreâ€probe spectroscopy. Journal of Biophotonics, 2019, 12, e201900087.	1.1	7
26	Optical Fiber-Probe Spectroscopy of Brain Tumors. , 2019, , 1-23.		0
27	Multispectral Depth-Resolved Fluorescence Lifetime Spectroscopy Using SPAD Array Detectors and Fiber Probes. Sensors, 2019, 19, 2678.	2.1	6
28	Custom Multiphoton/Raman Microscopy Setup for Imaging and Characterization of Biological Samples. Methods and Protocols, 2019, 2, 51.	0.9	16
29	Morpho-mechanics of human collagen superstructures revealed by all-optical correlative micro-spectroscopies. Communications Biology, 2019, 2, 117.	2.0	49
30	Piezoelectric barium titanate nanostimulators for the treatment of glioblastoma multiforme. Journal of Colloid and Interface Science, 2019, 538, 449-461.	5.0	75
31	In-vivo and ex-vivo optical clearing methods for biological tissues: review. Biomedical Optics Express, 2019, 10, 5251.	1.5	133
32	Multimodal image analysis in tissue diagnostics for skin melanoma. Journal of Chemometrics, 2018, 32, e2963.	0.7	14
33	Improved labelâ€free diagnostics and pathological assessment of atherosclerotic plaques through nonlinear microscopy. Journal of Biophotonics, 2018, 11, e201800106.	1.1	6
34	Tumour detection and staging through multimodal fibre-probe spectroscopy. , 2018, , .		0
35	Blue LED treatment of superficial abrasions: in vivo experimental evidence of wound healing improvement. , 2018, , .		1
36	Multimodal fiberâ€probe spectroscopy allows detecting epileptogenic focal cortical dysplasia in children. Journal of Biophotonics, 2017, 10, 896-904.	1.1	11

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37	Multimodal fiber-probe spectroscopy for the diagnostics and classification of bladder tumors. Proceedings of SPIE, 2017, , .	0.8	1
38	Fiber-probe optical spectroscopy discriminates normal brain from focal cortical dysplasia in pediatric subjects. , 2017, , .		0
39	Probing Collagen Organization: Practical Guide for Second-Harmonic Generation (SHG) Imaging. Methods in Molecular Biology, 2017, 1627, 409-425.	0.4	10
40	Multimodal fiber-probe spectroscopy as a clinical tool for diagnosing and classifying biological tissues. , 2017, , .		0
41	Three-dimensional mapping of corneal lamellar orientation by means of backward-scattered SHG microscopy. Proceedings of SPIE, 2017, , .	0.8	0
42	Blue LED induced thermal effects in wound healing: experimental evidence in an in vivo model of superficial abrasions. , 2017, , .		0
43	Three-dimensional mapping of the orientation of collagen corneal lamellae in healthy and keratoconic human corneas using SHG microscopy. Journal of Biophotonics, 2017, 10, 75-83.	1.1	39
44	Nonlinear optical imaging techniques (NLO) for painting investigation. , 2017, , .		3
45	In-vivo wound healing modulation after irradiation with a blue LED photocoagulator. , 2017, , .		2
46	Fluorescence spectroscopy incorporating a ratiometric approach for the diagnosis and classification of urothelial carcinoma. , 2016, , .		0
47	Observation of an improved healing process in superficial skin wounds after irradiation with a blue-LED haemostatic device. Journal of Biophotonics, 2016, 9, 645-655.	1.1	21
48	Characterization of human arterial tissue affected by atherosclerosis using multimodal nonlinear optical microscopy. Proceedings of SPIE, 2016, , .	0.8	0
49	Probing focal cortical dysplasia in formalin fixed samples using tissue optical spectroscopy. , 2016, , .		0
50	Morphological characterization of keratoconus-affected human corneas by SHG imaging and correlation analysis. , 2016, , .		0
51	QCL-Based Real-Time Terahertz Digital Holography. , 2016, , .		0
52	Tissue classification using a fiber probe for combined Raman, fluorescence and reflectance spectroscopy. , 2016, , .		0
53	Real-time terahertz digital holography with a quantum cascade laser. Scientific Reports, 2015, 5, 13566.	1.6	85
54	Non-linear imaging and characterization of atherosclerotic arterial tissue using combined SHG and FLIM microscopy. Journal of Biophotonics, 2015, 8, 347-356.	1.1	17

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55	Improvement of the healing process in superficial skin wounds after treatment with EMOLED. , 2015, , .		0
56	Characterization of atherosclerotic arterial tissue using combined SHG and FLIM microscopy. , 2015, , .		0
57	Non-linear imaging and characterization of atherosclerotic arterial tissue using combined SHG and FLIM microscopy. , 2015, , .		0
58	Estimation of tissue optical properties between different grades and stages of urothelial carcinoma using diffuse reflectance spectroscopy. , 2015, , .		3
59	Tissue classification and diagnostics using a fiber probe for combined Raman and fluorescence spectroscopy. Proceedings of SPIE, 2015, , .	0.8	0
60	Healing process study in murine skin superficial wounds treated with the blue LED photocoagulator EMOLED. Proceedings of SPIE, 2015, , .	0.8	2
61	Fluorescence ratiometric classifier for the detection of skin pathologies. , 2015, , .		0
62	Effects of formalin fixation on tissue optical properties of in-vitro brain samples. Proceedings of SPIE, 2015, , .	0.8	6
63	Tissue classification and diagnostics using a fiber probe for combined Raman and fluorescence spectroscopy. Proceedings of SPIE, 2015, , .	0.8	0
64	Characterization of atherosclerotic arterial tissue using combined SHG and FLIM microscopy. , 2015, , .		1
65	Fluorescence ratiometric classifier for the detection of skin pathologies. , 2015, , .		1
66	Tissue classification and diagnostics using a fiber probe for combined Raman and fluorescence spectroscopy. , 2015, , .		0
67	Multimodal nonlinear imaging of atherosclerotic plaques differentiation of triglyceride and cholesterol deposits. Journal of Innovative Optical Health Sciences, 2014, 07, 1450027.	0.5	7
68	Multimodal nonlinear microscopy: A powerful label-free method for supporting standard diagnostics on biological tissues. Journal of Innovative Optical Health Sciences, 2014, 07, 1330008.	0.5	13
69	Non-linear imaging and characterization of atherosclerotic arterial tissue using combined two photon fluorescence, second-harmonic generation and CARS microscopy. Proceedings of SPIE, 2014, , .	0.8	1
70	Clinical Nonlinear Laser Imaging of Human Skin: A Review. BioMed Research International, 2014, 2014, 1-14.	0.9	35
71	Irradiation with EMOLED improves the healing process in superficial skin wounds. , 2014, , .		1
72	Improvement of the healing process in superficial skin wounds after treatment with EMOLED. , 2014, , .		1

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73	Multidimensional tissue fingerprint. , 2014, , .		0
74	In-vivo imaging of psoriatic lesions with polarization multispectral dermoscopy and multiphoton microscopy. Biomedical Optics Express, 2014, 5, 2405.	1.5	31
75	Combined fluorescence&Raman spectroscopic setup for the diagnosis of melanocytic lesions. Journal of Biophotonics, 2014, 7, 86-95.	1.1	38
76	Morpho-chemistry and functionality of diseased biological tissues. , 2014, , .		0
77	Multimodal Raman-fluorescence spectroscopy of formalin fixed samples is able to discriminate brain tumors from dysplastic tissue. , 2014, , .		0
78	Multimodal fiber probe spectroscopy for tissue diagnostics applications: a combined Raman-fluorescence approach. , 2014, , .		1
79	Non-invasive tissue diagnostics using a multimodal spectroscopic device based on fiber probe. Proceedings of SPIE, 2014, , .	0.8	0
80	Bimodal Spectroscopy of Formalin Fixed Samples to Discriminate Dysplastic and Tumor Brain Tissues. Latvian Journal of Physics and Technical Sciences, 2014, 51, 14-20.	0.4	1
81	Characterization of collagen and cholesterol deposition in atherosclerotic arterial tissue using non&linear microscopy. Journal of Biophotonics, 2014, 7, 135-143.	1.1	36
82	<i>In vivo</i> non&invasive monitoring of collagen remodelling by two&photon microscopy after micro&ablative fractional laser resurfacing. Journal of Biophotonics, 2014, 7, 914-925.	1.1	37
83	Analysis of the healing process in superficial skin wounds irradiated with a blue-LED photocoagulator. , 2014, , .		0
84	The New Digital Pathology: Just Say NLO. Digestive Diseases and Sciences, 2014, 59, 1347-1348.	1.1	5
85	From molecular structure to tissue architecture: collagen organization probed by SHG microscopy. Journal of Biophotonics, 2013, 6, 129-142.	1.1	150
86	Blue LED treatment of superficial abrasions. Proceedings of SPIE, 2013, , .	0.8	7
87	Evaluation of the oxidative stress of psoriatic fibroblasts based on spectral two-photon fluorescence lifetime imaging. Proceedings of SPIE, 2013, , .	0.8	3
88	Multiphoton morpho-functional imaging of healthy colon mucosa, adenomatous polyp and adenocarcinoma. Biomedical Optics Express, 2013, 4, 1204.	1.5	37
89	Improved wound healing in blue LED treated superficial abrasions. , 2013, , .		4
90	Characterization of atherosclerotic arterial tissue using multimodal non-linear optical microscopy. Proceedings of SPIE, 2013, , .	0.8	0

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91	Spectral morphological analysis of skin lesions with a polarization multispectral dermoscope. Optics Express, 2013, 21, 4826.	1.7	53
92	A combined Raman-fluorescence spectroscopic probe for tissue diagnostics applications. Proceedings of SPIE, 2013, , .	0.8	0
93	Non-linear optical imaging and fibre-based spectroscopy of fresh colon biopsies. Proceedings of SPIE, 2012, , .	0.8	1
94	3D CARS image reconstruction and pattern recognition on SHG images. , 2012, , .		0
95	Combined fluorescence-Raman spectroscopy measurements with an optical fiber probe for the diagnosis of melanocytic lesions. , 2012, , .		0
96	Protein conformation and molecular order probed by second-harmonic-generation microscopy. Journal of Biomedical Optics, 2012, 17, 060901.	1.4	37
97	Double optical fibre-probe device for the diagnosis of melanocytic lesions. , 2012, , .		0
98	Two-photon imaging and spectroscopy of fresh human colon biopsies. , 2012, , .		3
99	Thermal Transitions of Fibrillar Collagen Unveiled by Second-Harmonic Generation Microscopy of Corneal Stroma. Biophysical Journal, 2012, 103, 1179-1187.	0.2	46
100	In-vivo non-linear imaging of collagen before and after laser micro-ablative fractional resurfacing treatment. , 2011, , .		0
101	In vivo multiphoton imaging of collagen remodeling after microablative fractional rejuvenation. , 2011, , .		1
102	In-vivo morphologic and spectroscopic investigation of Psoriasis. Proceedings of SPIE, 2011, , .	0.8	1
103	In vivo TPEF-SHG microscopy for detecting collagen remodeling after laser micro-ablative fractional resurfacing treatment. Proceedings of SPIE, 2011, , .	0.8	1
104	Non-linear fluorescence lifetime imaging of biological tissues. Analytical and Bioanalytical Chemistry, 2011, 400, 2687-2697.	1.9	47
105	In-vivo optical investigation of psoriasis. Proceedings of SPIE, 2011, , .	0.8	0
106	Scoring of collagen organization in healthy and diseased human dermis by multiphoton microscopy. Journal of Biophotonics, 2010, 3, 34-43.	1.1	188
107	Quantitative analysis of thermally-induced alterations of corneal stroma by second-harmonic generation imaging. Proceedings of SPIE, 2010, , .	0.8	1
108	In-vivo tissue imaging using a compact mobile nonlinear microscope. Proceedings of SPIE, 2010, , .	0.8	10

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109	Multidimensional two-photon imaging and spectroscopy of fresh human bladder biopsies. , 2010, , .		0
110	Optical Methods in the Study of Protein-Protein Interactions. Advances in Experimental Medicine and Biology, 2010, 674, 33-42.	0.8	56
111	Time- and Spectral-resolved two-photon imaging of healthy bladder mucosa and carcinoma in situ. Optics Express, 2010, 18, 3840.	1.7	62
112	Time- and spectral-resolved multiphoton imaging of fresh bladder biopsies. , 2009, , .		2
113	Multispectral multiphoton lifetime analysis of human bladder tissue. , 2009, , .		3
114	Convergence of integrins and EGF receptor signaling via PI3K/Akt/FoxO pathway in early gene Egr α 1 expression. Journal of Cellular Physiology, 2009, 218, 294-303.	2.0	57
115	Combined non α linear laser imaging (two α photon excitation fluorescence microscopy, fluorescence) Tj ETQq1 1 0.784314 rgBT /Overl experiences. Journal of the European Academy of Dermatology and Venereology, 2009, 23, 314-316.	1.3	53
116	Photothermally-induced disordered patterns of corneal collagen revealed by SHG imaging. Optics Express, 2009, 17, 4868.	1.7	158
117	Investigation on fibrous collagen modifications during corneal laser welding by second harmonic generation microscopy. , 2009, , .		1
118	Time- And Spectral-Resolved Multiphoton Imaging Of Fresh Bladder Biopsies. , 2009, , .		0
119	Multidimensional custom-made non-linear microscope: from ex-vivo to in-vivo imaging. Applied Physics B: Lasers and Optics, 2008, 92, 359.	1.1	13
120	Nonlinear laser imaging of skin lesions. Journal of Biophotonics, 2008, 1, 62-73.	1.1	72
121	Multidimensional two-photon imaging of diseased skin. , 2008, , .		2
122	Multidimensional non-linear laser imaging of Basal Cell Carcinoma. Optics Express, 2007, 15, 10135.	1.7	107
123	Time-resolved multiphoton imaging of basal cell carcinoma. , 2007, , .		1
124	Continuous and time-shared multiple optical tweezers for the study of single motor proteins. Optics and Lasers in Engineering, 2007, 45, 450-457.	2.0	49
125	Multiphoton imaging of basal cell carcinoma (BCC). , 2006, 6090, 136.		1
126	New techniques in linear and non-linear laser optics in muscle research. Journal of Muscle Research and Cell Motility, 2006, 27, 469-479.	0.9	31

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127	Contrast enhancement in combined two-photon second harmonic imaging of skin by using hyperosmotic agents. , 2006, 6089, 149.		1
128	Two independent mechanical events in the interaction cycle of skeletal muscle myosin with actin. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 87-92.	3.3	159
129	<title>Diffusion of optical clearing agents in skin studied by two-photon microscopy</title>. , 2006, , .		0
130	Position control and optical manipulation for nanotechnology applications. European Physical Journal B, 2005, 46, 1-8.	0.6	61
131	Contrast and depth enhancement in two-photon microscopy of human skin ex vivo by use of optical clearing agents. Optics Express, 2005, 13, 2337.	1.7	109
132	Use of Optical Clearing Agents in Human Dermis Imaging by Two Photon Microscopy. , 2005, , .		0
133	Exploring molecular motors and switches at the single-molecule level. Microscopy Research and Technique, 2004, 65, 194-204.	1.2	24