Claudio Vinegoni

List of Publications by Year in descending order

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124	8,874	53794 45	43889 91
papers	citations	h-index	g-index

128	128	128	12471
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Myocardial infarction accelerates atherosclerosis. Nature, 2012, 487, 325-329.	27.8	874
2	Macrophages Facilitate Electrical Conduction in the Heart. Cell, 2017, 169, 510-522.e20.	28.9	703
3	Multispectral opto-acoustic tomography of deep-seated fluorescent proteins in vivo. Nature Photonics, 2009, 3, 412-417.	31.4	632
4	Chronic variable stress activates hematopoietic stem cells. Nature Medicine, 2014, 20, 754-758.	30.7	565
5	Cardiac macrophages promote diastolic dysfunction. Journal of Experimental Medicine, 2018, 215, 423-440.	8.5	314
6	Direct vascular channels connect skull bone marrow and the brain surface enabling myeloid cell migration. Nature Neuroscience, 2018, 21, 1209-1217.	14.8	302
7	PET/MRI of Inflammation in Myocardial Infarction. Journal of the American College of Cardiology, 2012, 59, 153-163.	2.8	301
8	Multispectral photoacoustic imaging of fluorochromes in small animals. Optics Letters, 2007, 32, 2891.	3.3	208
9	Hybrid PET-optical imaging using targeted probes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7910-7915.	7.1	208
10	Real-Time Catheter Molecular Sensing of Inflammation in Proteolytically Active Atherosclerosis. Circulation, 2008, 118, 1802-1809.	1.6	188
11	Indocyanine Green Enables Near-Infrared Fluorescence Imaging of Lipid-Rich, Inflamed Atherosclerotic Plaques. Science Translational Medicine, 2011, 3, 84ra45.	12.4	174
12	RNAi targeting multiple cell adhesion molecules reduces immune cell recruitment and vascular inflammation after myocardial infarction. Science Translational Medicine, 2016, 8, 342ra80.	12.4	169
13	Myocardial Infarction Activates CCR2+ Hematopoietic Stem and Progenitor Cells. Cell Stem Cell, 2015, 16, 477-487.	11.1	168
14	Astrocytic interleukin-3 programs microglia and limits Alzheimerâ€™s disease. Nature, 2021, 595, 701-706.	27.8	157
15	WNT5A/JNK and FGF/MAPK Pathways Regulate the Cellular Events Shaping the Vertebrate Limb Bud. Current Biology, 2010, 20, 1993-2002.	3.9	155
16	Real-time in vivo imaging of the beating mouse heart at microscopic resolution. Nature Communications, 2012, 3, 1054.	12.8	126
17	In vivo imaging of Drosophila melanogaster pupae with mesoscopic fluorescence tomography. Nature Methods, 2008, 5, 45-47.	19.0	125
18	Accurate measurement of pancreatic islet Î²-cell mass using a second-generation fluorescent exendin-4 analog. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12815-12820.	7.1	121

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19	Block matching 3D random noise filtering for absorption optical projection tomography. Physics in Medicine and Biology, 2010, 55, 5401-5415.	3.0	115
20	Raman study of the phase transitions sequence in pure WO3 at high temperature and in HxWO3 with variable hydrogen content. Solid State Ionics, 1999, 123, 67-74.	2.7	104
21	Low-Temperature Polymorphism in Tungsten Trioxide Powders and Its Dependence on Mechanical Treatments. Journal of Solid State Chemistry, 1999, 143, 24-32.	2.9	104
22	Spectroscopic spectral-domain optical coherence microscopy. Optics Letters, 2006, 31, 1079.	3.3	104
23	Imaging Therapeutic PARP Inhibition In Vivo through Bioorthogonally Developed Companion Imaging Agents. Neoplasia, 2012, 14, 169-IN3.	5.3	97
24	Nonlinear optical contrast enhancement for optical coherence tomography. Optics Express, 2004, 12, 331.	3.4	95
25	X-ray diffraction, extended x-ray absorption fine structure and Raman spectroscopy studies of WO3 powders and (1â^'x)WO3â^'yâ‹…xReO2 mixtures. Journal of Applied Physics, 1998, 84, 5515-5524.	2.5	94
26	Implantable microenvironments to attract hematopoietic stem/cancer cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19638-19643.	7.1	93
27	Bioorthogonal Imaging of Aurora Kinaseâ€…A in Live Cells. Angewandte Chemie - International Edition, 2012, 51, 6598-6603.	13.8	85
28	Quantitating drug-target engagement in single cells in vitro and in vivo. Nature Chemical Biology, 2017, 13, 168-173.	8.0	81
29	Intravital imaging of cardiac function at the single-cell level. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11257-11262.	7.1	74
30	Imaging the beating heart in the mouse using intravital microscopy techniques. Nature Protocols, 2015, 10, 1802-1819.	12.0	72
31	Characterization of single microvesicles in plasma from glioblastoma patients. Neuro-Oncology, 2019, 21, 606-615.	1.2	72
32	Cerebrospinal fluid can exit into the skull bone marrow and instruct cranial hematopoiesis in mice with bacterial meningitis. Nature Neuroscience, 2022, 25, 567-576.	14.8	72
33	Integrated structural and functional optical imaging combining spectral-domain optical coherence and multiphoton microscopy. Applied Physics Letters, 2006, 88, 053901.	3.3	69
34	Real-time assessment of inflammation and treatment response in a mouse model of allergic airway inflammation. Journal of Clinical Investigation, 2008, 118, 4058-4066.	8.2	66
35	Deep Tissue Optical and Optoacoustic Molecular Imaging Technologies for Pre-Clinical Research and Drug Discovery. Current Pharmaceutical Biotechnology, 2012, 13, 504-522.	1.6	65
36	In vivo imaging of specific drugâ€“target binding at subcellular resolution. Nature Communications, 2014, 5, 3946.	12.8	65

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37	Transillumination fluorescence imaging in mice using biocompatible upconverting nanoparticles. Optics Letters, 2009, 34, 2566.	3.3	63
38	Optical absorption and photoluminescence properties ofaâ˜Si1â˜xNx:Hfilms deposited by plasma-enhanced CVD. Physical Review B, 2000, 61, 4693-4698.	3.2	61
39	Computational imaging reveals mitochondrial morphology as a biomarker of cancer phenotype and drug response. Scientific Reports, 2016, 6, 32985.	3.3	58
40	Transparent Electrophysiology Microelectrodes and Interconnects from Metal Nanomesh. ACS Nano, 2017, 11, 4365-4372.	14.6	58
41	Automated motion artifact removal for intravital microscopy, without a priori information. Scientific Reports, 2014, 4, 4507.	3.3	56
42	Interferometric differentiation between resonant coherent anti-Stokes Raman scattering and nonresonant four-wave-mixing processes. Applied Physics Letters, 2004, 85, 5787-5789.	3.3	53
43	Fluorescence anisotropy imaging in drug discovery. Advanced Drug Delivery Reviews, 2019, 151-152, 262-288.	13.7	51
44	Intravascular near-infrared fluorescence molecular imaging of atherosclerosis: toward coronary arterial visualization of biologically high-risk plaques. Journal of Biomedical Optics, 2010, 15, 011107.	2.6	50
45	Imaging of mesoscopic-scale organisms using selective-plane optoacoustic tomography. Physics in Medicine and Biology, 2009, 54, 2769-2777.	3.0	48
46	Molecularly sensitive optical coherence tomography. Optics Letters, 2005, 30, 495.	3.3	46
47	Imaging the Vascular Bone Marrow Niche During Inflammatory Stress. Circulation Research, 2018, 123, 415-427.	4.5	45
48	Spatiotemporal multiplexed immunofluorescence imaging of living cells and tissues with bioorthogonal cycling of fluorescent probes. Nature Biotechnology, 2022, 40, 1654-1662.	17.5	42
49	Advances in measuring single-cell pharmacology in vivo. Drug Discovery Today, 2015, 20, 1087-1092.	6.4	41
50	Luminescence processes in amorphous hydrogenated silicon-nitride nanometric multilayers. Physical Review B, 1999, 60, 11572-11576.	3.2	40
51	The anti-tumor diterpene oridonin is a direct inhibitor of Nucleolin in cancer cells. Scientific Reports, 2018, 8, 16735.	3.3	40
52	Normalized Born ratio for fluorescence optical projection tomography. Optics Letters, 2009, 34, 319.	3.3	38
53	Distributed gain measurements in Er-doped fibers with high resolution and accuracy using an optical frequency domain reflectometer. Journal of Lightwave Technology, 2000, 18, 2127-2132.	4.6	37
54	Motion compensation using a suctioning stabilizer for intravital microscopy. Intravital, 2012, 1, 115-121.	2.0	36

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55	High throughput transmission optical projection tomography using low cost graphics processing unit. Optics Express, 2009, 17, 22320.	3.4	35
56	New techniques for motion-artifact-free in vivo cardiac microscopy. Frontiers in Physiology, 2015, 6, 147.	2.8	34
57	Real-time high dynamic range laser scanning microscopy. Nature Communications, 2016, 7, 11077.	12.8	33
58	Neutrophils incite and macrophages avert electrical storm after myocardial infarction. , 2022, 1, 649-664.		33
59	Bone marrow endothelial dysfunction promotes myeloid cell expansion in cardiovascular disease. , 2022, 1, 28-44.		32
60	High-spectral-resolution coherent anti-Stokes Raman scattering with interferometrically detected broadband chirped pulses. Optics Letters, 2006, 31, 1543.	3.3	31
61	Optochemogenetics (OCG) Allows More Precise Control of Genetic Engineering in Mice with CreER regulators. Bioconjugate Chemistry, 2012, 23, 1945-1951.	3.6	31
62	Searching for anatomical correlates of olfactory lateralization in the honeybee antennal lobes: A morphological and behavioural study. Behavioural Brain Research, 2011, 221, 290-294.	2.2	30
63	Photoluminescence of localized excitons in pulsed-laser-deposited GaN. Applied Physics Letters, 1998, 73, 3390-3392.	3.3	28
64	Raman spectroscopy and scanning electron microscopy investigation of annealed amorphous carbonâ€“germanium films deposited by d.c. magnetron sputtering. Diamond and Related Materials, 1999, 8, 668-672.	3.9	28
65	Advanced Motion Compensation Methods for Intravital Optical Microscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 83-91.	2.9	28
66	Diminished Reactive Hematopoiesis and Cardiac Inflammation in a Mouse Model of Recurrent Myocardial Infarction. Journal of the American College of Cardiology, 2020, 75, 901-915.	2.8	28
67	Resonant second harmonic generation in ZnSe bulk microcavity. Applied Physics Letters, 1999, 74, 1945-1947.	3.3	26
68	Temperature dependence of the photoluminescence of all-porous-silicon optical microcavities. Journal of Applied Physics, 1999, 85, 1760-1764.	2.5	26
69	Imaging cellular responses to mechanical stimuli within three-dimensional tissue constructs. Microscopy Research and Technique, 2007, 70, 361-371.	2.2	26
70	Emulator of first- and second-order polarization-mode dispersion. IEEE Photonics Technology Letters, 2002, 14, 630-632.	2.5	25
71	A multimodal approach for tracing lateralisation along the olfactory pathway in the honeybee through electrophysiological recordings, morpho-functional imaging, and behavioural studies. European Biophysics Journal, 2011, 40, 1247-1258.	2.2	25
72	Improved intravital microscopy via synchronization of respiration and holder stabilization. Journal of Biomedical Optics, 2012, 17, 0960181.	2.6	24

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73	Tyrosine kinase-mediated axial motility of basal cells revealed by intravital imaging. Nature Communications, 2016, 7, 10666.	12.8	23
74	Measurements of the nonlinear coefficient of standard, SMF, DSF, and DCF fibers using a self-aligned interferometer and a Faraday mirror. IEEE Photonics Technology Letters, 2001, 13, 1337-1339.	2.5	22
75	Measurement of nonlinear polarization rotation in a highly birefringent optical fibre using a Faraday mirror. Journal of Optics, 2000, 2, 314-318.	1.5	21
76	The Statistics of Polarization-Dependent Loss in a Recirculating Loop. Journal of Lightwave Technology, 2004, 22, 968-976.	4.6	21
77	CytoPANâ€"Portable cellular analyses for rapid point-of-care cancer diagnosis. Science Translational Medicine, 2020, 12, .	12.4	21
78	In-vivo two-photon imaging of the honey bee antennal lobe. Biomedical Optics Express, 2010, 2, 131-8.	2.9	20
79	Determination of nonlinear coefficient n2/Aeff using self-aligned interferometer and Faraday mirror. Electronics Letters, 2000, 36, 886.	1.0	19
80	In Vivo Imaging of Drug-Induced Mitochondrial Outer Membrane Permeabilization at Single-Cell Resolution. Cancer Research, 2012, 72, 2949-2956.	0.9	19
81	Measurement of drug-target engagement in live cells by two-photon fluorescence anisotropy imaging. Nature Protocols, 2017, 12, 1472-1497.	12.0	19
82	In-vivo two-photon imaging of the honey bee antennal lobe. Biomedical Optics Express, 2011, 2, 131.	2.9	18
83	Sequential average segmented microscopy for high signal-to-noise ratio motion-artifact-free in vivo heart imaging. Biomedical Optics Express, 2013, 4, 2095.	2.9	18
84	Rapid, high efficiency isolation of pancreatic ÃŸ-cells. Scientific Reports, 2015, 5, 13681.	3.3	17
85	Motion characterization scheme to minimize motion artifacts in intravital microscopy. Journal of Biomedical Optics, 2017, 22, 036005.	2.6	16
86	Design and Development of Fluorescent Vemurafenib Analogs for In Vivo Imaging. Theranostics, 2017, 7, 1257-1265.	10.0	16
87	Born Normalization for Fluorescence Optical Projection Tomography for Whole Heart Imaging. Journal of Visualized Experiments, 2009, , .	0.3	14
88	High Dynamic Range Fluorescence Imaging. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-7.	2.9	14
89	All optical switching in a highly birefringent and a standard telecom fiber using a Faraday mirror stabilization scheme. Optics Communications, 2000, 182, 335-341.	2.1	13
90	Analysis of the polarization evolution in a ribbon cable using high-resolution coherent OFDR. IEEE Photonics Technology Letters, 2001, 13, 145-147.	2.5	12

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91	Two-Photon Fluorescence Anisotropy Microscopy for Imaging and Direct Measurement of Intracellular Drug Target Engagement. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 179-185.	2.9	11
92	Radiative emission properties of a-SiN:H based nanometric multilayers for light emitting devices. Journal of Luminescence, 1998, 80, 423-427.	3.1	10
93	Morphological and optical characterization of GaN prepared by pulsed laser deposition. Surface and Coatings Technology, 2000, 124, 272-277.	4.8	9
94	Imaging of molecular probe activity with Born-normalized fluorescence optical projection tomography. Optics Letters, 2010, 35, 1088.	3.3	9
95	Color centres and polymorphism in pure WO3 and mixed (1â^'x)WO3â^'yÂ·xReO2 powders. Ionics, 1999, 5, 335-344.	2.4	8
96	Distributed measurements of chromatic dispersion and nonlinear coefficient in low-PMD dispersion-shifted fibers. IEEE Photonics Technology Letters, 2003, 15, 739-741.	2.5	8
97	Statistics of PMD in recirculating loops. IEEE Photonics Technology Letters, 2003, 15, 1543-1545.	2.5	7
98	Mesoscopic Fluorescence Tomography for In-vivo Imaging of Developing Drosophila. Journal of Visualized Experiments, 2009, , .	0.3	7
99	Intraoperative Nearâ€infrared Fluorescent Cholangiography (NIRFC) in Mouse Models of Bile Duct Injury: Reply. World Journal of Surgery, 2011, 35, 694-695.	1.6	7
100	Fluorescence microscopy tensor imaging representations for large-scale dataset analysis. Scientific Reports, 2020, 10, 5632.	3.3	7
101	Luminescent properties of GaN thin films prepared by pulsed laser deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 137-140.	3.5	6
102	Mapping Molecular Agents Distributions in Whole Mice Hearts Using Born-Normalized Optical Projection Tomography. PLoS ONE, 2012, 7, e34427.	2.5	5
103	Polarization-sensitive optoacoustic tomography of optically diffuse tissues. Optics Letters, 2008, 33, 2308.	3.3	4
104	Noise suppressed, multifocus image fusion for enhanced intraoperative navigation. Journal of Biophotonics, 2013, 6, 363-370.	2.3	4
105	An algorithm to correct 2D near-infrared fluorescence signals using 3D intravascular ultrasound architectural information. Proceedings of SPIE, 2011, , .	0.8	3
106	Steady state anisotropy two-photon microscopy resolves multiple, spectrally similar fluorophores, enabling in vivo multilabel imaging. Optics Letters, 2014, 39, 4482.	3.3	3
107	Diffractionless beam in free space with adiabatic changing refractive index in a single mode tapered slab waveguide. Optics Express, 2009, 17, 21723.	3.4	2
108	Extended dynamic range imaging for noise mitigation in fluorescence anisotropy imaging. Journal of Biomedical Optics, 2020, 25, .	2.6	2

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109	Pulse shaping strategies for nonlinear interferometric vibrational imaging optimized for biomolecular imaging. , 2004, 2004, 5300-3.		1
110	Nonlinear interferometric vibrational imaging of molecular species. , 2004, 5321, 149.		1
111	Multi-modality imaging of structure and function combining spectral-domain optical coherence and multiphoton microscopy. , 2006, 6079, 226.		1
112	Multi-spectral photo-acoustic molecular tomography resolves fluorochrome distribution with high resolution and sensitivity in small animals. Proceedings of SPIE, 2008, , .	0.8	1
113	Mesoscopic imaging of fluorescent proteins using multi-spectral optoacoustic tomography (MSOT). Proceedings of SPIE, 2009, , .	0.8	1
114	Two-photon imaging of pancreatic beta cells in real time in vivo. Technology, 2016, 04, 130-134.	1.4	1
115	Implementation of a Faraday mirror stabilization scheme for all optical switching in a standard telecom fiber. , 0, , .		0
116	PMD effect on distributed chromatic dispersion measurements in DSF fibers. , 2003, 4833, 1107.		0
117	Nonlinear Interferometric Vibrational Imaging with Differentiation of Resonant CARS from Nonresonant Four-Wave Mixing Processes. , 2004, , TuB3.		0
118	Structural and functional imaging of engineered tissue development using an integrated OCT and multiphoton microscope. , 2004, 5319, 1.		0
119	Molecularly sensitive optical ranging using nonlinear interferometric vibrational imaging. , 2005, , .		0
120	Nonlinear interferometric vibrational imaging: optical ranging and spatial localization of CARS. , 2005, , .		0
121	Deep tissue optoacoustic imaging of polarized structures. Proceedings of SPIE, 2009, , .	0.8	0
122	Fluorescent protein imaging with multispectral optoacoustic tomography. Proceedings of SPIE, 2010, , .	0.8	0
123	Novel Fluorescent Probes for Intraoperative Cholangiography. Frontiers of Gastrointestinal Research, 2013, , 106-112.	0.1	0
124	Abstract 234: Mitochondrial morphology as a biomarker of cancer phenotype and drug response. , 2016, , .		0