

Vasilis Ntziachristos

List of Publications by Citations

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331
papers

18,148
citations

64
h-index

127
g-index

361
ext. papers

22,032
ext. citations

9.2
avg, IF

7.33
L-index

#	Paper	IF	Citations
331	Shedding light onto live molecular targets. <i>Nature Medicine</i> , 2003 , 9, 123-8	50.5	1605
330	Looking and listening to light: the evolution of whole-body photonic imaging. <i>Nature Biotechnology</i> , 2005 , 23, 313-20	44.5	1245
329	Intraoperative tumor-specific fluorescence imaging in ovarian cancer by folate receptor- β targeting: first in-human results. <i>Nature Medicine</i> , 2011 , 17, 1315-9	50.5	1194
328	Going deeper than microscopy: the optical imaging frontier in biology. <i>Nature Methods</i> , 2010 , 7, 603-14	21.6	1177
327	Fluorescence molecular imaging. <i>Annual Review of Biomedical Engineering</i> , 2006 , 8, 1-33	12	556
326	Molecular imaging by means of multispectral optoacoustic tomography (MSOT). <i>Chemical Reviews</i> , 2010 , 110, 2783-94	68.1	537
325	Multispectral opto-acoustic tomography of deep-seated fluorescent proteins in vivo. <i>Nature Photonics</i> , 2009 , 3, 412-417	33.9	492
324	Advances in real-time multispectral optoacoustic imaging and its applications. <i>Nature Photonics</i> , 2015 , 9, 219-227	33.9	359
323	In vivo imaging of proteolytic activity in atherosclerosis. <i>Circulation</i> , 2002 , 105, 2766-71	16.7	309
322	Optical-based molecular imaging: contrast agents and potential medical applications. <i>European Radiology</i> , 2003 , 13, 231-43	8	233
321	Volumetric real-time multispectral optoacoustic tomography of biomarkers. <i>Nature Protocols</i> , 2011 , 6, 1121-9	18.8	227
320	Fast semi-analytical model-based acoustic inversion for quantitative optoacoustic tomography. <i>IEEE Transactions on Medical Imaging</i> , 2010 , 29, 1275-85	11.7	203
319	A review of clinical photoacoustic imaging: Current and future trends. <i>Photoacoustics</i> , 2019 , 16, 100144	9	194
318	FMT-XCT: in vivo animal studies with hybrid fluorescence molecular tomography-X-ray computed tomography. <i>Nature Methods</i> , 2012 , 9, 615-20	21.6	192
317	Real-time in vivo imaging of invasive- and biomaterial-associated bacterial infections using fluorescently labelled vancomycin. <i>Nature Communications</i> , 2013 , 4, 2584	17.4	181
316	High-sensitivity compact ultrasonic detector based on a pi-phase-shifted fiber Bragg grating. <i>Optics Letters</i> , 2011 , 36, 1833-5	3	178
315	Multispectral photoacoustic imaging of fluorochromes in small animals. <i>Optics Letters</i> , 2007 , 32, 2891-3	3	166

314	Intraoperative near-infrared fluorescence tumor imaging with vascular endothelial growth factor and human epidermal growth factor receptor 2 targeting antibodies. <i>Journal of Nuclear Medicine</i> , 2011 , 52, 1778-85	8.9	165
313	Tumor-Specific Uptake of Fluorescent Bevacizumab-IRDye800CW Microdosing in Patients with Primary Breast Cancer: A Phase I Feasibility Study. <i>Clinical Cancer Research</i> , 2017 , 23, 2730-2741	12.9	152
312	Eigenspectra optoacoustic tomography achieves quantitative blood oxygenation imaging deep in tissues. <i>Nature Communications</i> , 2016 , 7, 12121	17.4	151
311	DNA-Nanostructure-Gold-Nanorod Hybrids for Enhanced In Vivo Optoacoustic Imaging and Photothermal Therapy. <i>Advanced Materials</i> , 2016 , 28, 10000-10007	24	151
310	Multispectral Optoacoustic Tomography (MSOT) of Human Breast Cancer. <i>Clinical Cancer Research</i> , 2017 , 23, 6912-6922	12.9	147
309	Video rate optoacoustic tomography of mouse kidney perfusion. <i>Optics Letters</i> , 2010 , 35, 2475-7	3	146
308	Dynamic imaging of PEGylated indocyanine green (ICG) liposomes within the tumor microenvironment using multi-spectral optoacoustic tomography (MSOT). <i>Biomaterials</i> , 2015 , 37, 415-24	15.6	137
307	Real-time imaging of cardiovascular dynamics and circulating gold nanorods with multispectral optoacoustic tomography. <i>Optics Express</i> , 2010 , 18, 19592-602	3.3	134
306	Acoustic Inversion in Optoacoustic Tomography: A Review. <i>Current Medical Imaging</i> , 2013 , 9, 318-336	1.2	132
305	Precision assessment of label-free psoriasis biomarkers with ultra-broadband optoacoustic mesoscopy. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	127
304	Accurate model-based reconstruction algorithm for three-dimensional optoacoustic tomography. <i>IEEE Transactions on Medical Imaging</i> , 2012 , 31, 1922-8	11.7	126
303	Looking at sound: optoacoustics with all-optical ultrasound detection. <i>Light: Science and Applications</i> , 2018 , 7, 53	16.7	124
302	Optical imaging of cancer heterogeneity with multispectral optoacoustic tomography. <i>Radiology</i> , 2012 , 263, 461-8	20.5	123
301	Gold nanoprisms as optoacoustic signal nanoamplifiers for in vivo bioimaging of gastrointestinal cancers. <i>Small</i> , 2013 , 9, 68-74	11	108
300	Multispectral opto-acoustic tomography (MSOT) of the brain and glioblastoma characterization. <i>NeuroImage</i> , 2013 , 65, 522-8	7.9	106
299	Secretin-Activated Brown Fat Mediates Prandial Thermogenesis to Induce Satiation. <i>Cell</i> , 2018 , 175, 1563-1574	16.12	102
298	Unmixing Molecular Agents From Absorbing Tissue in Multispectral Optoacoustic Tomography. <i>IEEE Transactions on Medical Imaging</i> , 2014 , 33, 48-60	11.7	104
297	Molecular fluorescence-guided surgery of peritoneal carcinomatosis of colorectal origin: a single-centre feasibility study. <i>The Lancet Gastroenterology and Hepatology</i> , 2016 , 1, 283-290	18.8	102

296	Model-based optoacoustic inversion with arbitrary-shape detectors. <i>Medical Physics</i> , 2011 , 38, 4285-95	4.4	98
295	Vaccinia virus-mediated melanin production allows MR and optoacoustic deep tissue imaging and laser-induced thermotherapy of cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 3316-20	11.5	96
294	Real-time handheld multispectral optoacoustic imaging. <i>Optics Letters</i> , 2013 , 38, 1404-6	3	95
293	Multifunctional photosensitizer-based contrast agents for photoacoustic imaging. <i>Scientific Reports</i> , 2014 , 4, 5342	4.9	91
292	The effects of acoustic attenuation in optoacoustic signals. <i>Physics in Medicine and Biology</i> , 2011 , 56, 6129-48	3.8	91
291	Optoacoustic Imaging of Human Vasculature: Feasibility by Using a Handheld Probe. <i>Radiology</i> , 2016 , 281, 256-63	20.5	91
290	Functional optoacoustic neuro-tomography for scalable whole-brain monitoring of calcium indicators. <i>Light: Science and Applications</i> , 2016 , 5, e16201	16.7	90
289	Calcium Sensor for Photoacoustic Imaging. <i>Journal of the American Chemical Society</i> , 2018 , 140, 2718-2721	16.4	86
288	Multispectral optoacoustic tomography at 64, 128, and 256 channels. <i>Journal of Biomedical Optics</i> , 2014 , 19, 36021	3.5	86
287	In vivo imaging of <i>Drosophila melanogaster</i> pupae with mesoscopic fluorescence tomography. <i>Nature Methods</i> , 2008 , 5, 45-7	21.6	85
286	Multispectral optoacoustic tomography of matrix metalloproteinase activity in vulnerable human carotid plaques. <i>Molecular Imaging and Biology</i> , 2012 , 14, 277-85	3.8	84
285	Model-based optoacoustic inversions with incomplete projection data. <i>Medical Physics</i> , 2011 , 38, 1694-704	4.4	83
284	Molecular imaging probes for multi-spectral optoacoustic tomography. <i>Chemical Communications</i> , 2017 , 53, 4653-4672	5.8	80
283	Pushing the optical imaging limits of cancer with multi-frequency-band raster-scan optoacoustic mesoscopy (RSOM). <i>Neoplasia</i> , 2015 , 17, 208-14	6.4	80
282	Three-dimensional multispectral optoacoustic mesoscopy reveals melanin and blood oxygenation in human skin in vivo. <i>Journal of Biophotonics</i> , 2016 , 9, 55-60	3.1	78
281	Monoclonal antibody-targeted PEGylated liposome-ICG encapsulating doxorubicin as a potential theranostic agent. <i>International Journal of Pharmaceutics</i> , 2015 , 482, 2-10	6.5	75
280	Mesosopic and macroscopic optoacoustic imaging of cancer. <i>Cancer Research</i> , 2015 , 75, 1548-59	10.1	75
279	Non-invasive Measurement of Brown Fat Metabolism Based on Optoacoustic Imaging of Hemoglobin Gradients. <i>Cell Metabolism</i> , 2018 , 27, 689-701.e4	24.6	75

278	Bioengineered bacterial vesicles as biological nano-heaters for optoacoustic imaging. <i>Nature Communications</i> , 2019 , 10, 1114	17.4	73
277	Multispectral fluorescence ultramicroscopy: three-dimensional visualization and automatic quantification of tumor morphology, drug penetration, and antiangiogenic treatment response. <i>Neoplasia</i> , 2014 , 16, 1-13	6.4	73
276	Liposome-gold nanorod hybrids for high-resolution visualization deep in tissues. <i>Journal of the American Chemical Society</i> , 2012 , 134, 13256-8	16.4	71
275	Shortwave infrared polymethine fluorophores matched to excitation lasers enable non-invasive, multicolour in vivo imaging in real time. <i>Nature Chemistry</i> , 2020 , 12, 1123-1130	17.6	71
274	Performance of a Multispectral Optoacoustic Tomography (MSOT) System equipped with 2D vs. 3D Handheld Probes for Potential Clinical Translation. <i>Photoacoustics</i> , 2016 , 4, 1-10	9	71
273	Acceleration of optoacoustic model-based reconstruction using angular image discretization. <i>IEEE Transactions on Medical Imaging</i> , 2012 , 31, 1154-62	11.7	69
272	Optoacoustic mesoscopy for biomedicine. <i>Nature Biomedical Engineering</i> , 2019 , 3, 354-370	19	68
271	Advancing Surgical Vision with Fluorescence Imaging. <i>Annual Review of Medicine</i> , 2016 , 67, 153-64	17.4	68
270	Three-dimensional optoacoustic tomography using a conventional ultrasound linear detector array: whole-body tomographic system for small animals. <i>Medical Physics</i> , 2013 , 40, 013302	4.4	66
269	Ultrawideband reflection-mode optoacoustic mesoscopy. <i>Optics Letters</i> , 2014 , 39, 3911-4	3	65
268	Raster-scan optoacoustic mesoscopy in the 25-125 MHz range. <i>Optics Letters</i> , 2013 , 38, 2472-4	3	65
267	Quantitative optoacoustic signal extraction using sparse signal representation. <i>IEEE Transactions on Medical Imaging</i> , 2009 , 28, 1997-2006	11.7	61
266	Polyglycerolsulfate functionalized gold nanorods as optoacoustic signal nanoamplifiers for in vivo bioimaging of rheumatoid arthritis. <i>Theranostics</i> , 2014 , 4, 629-41	12.1	58
265	Multispectral optoacoustic tomography of myocardial infarction. <i>Photoacoustics</i> , 2013 , 1, 3-8	9	55
264	Tackling standardization in fluorescence molecular imaging. <i>Nature Photonics</i> , 2018 , 12, 505-515	33.9	54
263	Imaging the bio-distribution of fluorescent probes using multispectral epi-illumination cryoslicing imaging. <i>Molecular Imaging and Biology</i> , 2011 , 13, 874-85	3.8	53
262	In-vivo handheld optoacoustic tomography of the human thyroid. <i>Photoacoustics</i> , 2016 , 4, 65-69	9	52
261	Sensitive interferometric detection of ultrasound for minimally invasive clinical imaging applications. <i>Laser and Photonics Reviews</i> , 2014 , 8, 450-457	8.3	52

260	Near-field radiofrequency thermoacoustic tomography with impulse excitation. <i>Medical Physics</i> , 2010 , 37, 4602-7	4.4	52
259	Bacterial encapsulins as orthogonal compartments for mammalian cell engineering. <i>Nature Communications</i> , 2018 , 9, 1990	17.4	51
258	Implications of ultrasound frequency in optoacoustic mesoscopy of the skin. <i>IEEE Transactions on Medical Imaging</i> , 2015 , 34, 672-7	11.7	50
257	Imaging systemic inflammatory networks in ischemic heart disease. <i>Journal of the American College of Cardiology</i> , 2015 , 65, 1583-91	15.1	49
256	Near-Infrared Photoacoustic Imaging Probe Responsive to Calcium. <i>Analytical Chemistry</i> , 2016 , 88, 10785-10789	5.8	49
255	Modeling the shape of cylindrically focused transducers in three-dimensional optoacoustic tomography. <i>Journal of Biomedical Optics</i> , 2013 , 18, 076014	3.5	49
254	Broadband mesoscopic optoacoustic tomography reveals skin layers. <i>Optics Letters</i> , 2014 , 39, 6297-300	3	49
253	Synthesis and Preclinical Characterization of the PSMA-Targeted Hybrid Tracer PSMA-I&F for Nuclear and Fluorescence Imaging of Prostate Cancer. <i>Journal of Nuclear Medicine</i> , 2019 , 60, 71-78	8.9	49
252	Simultaneous visualization of tumour oxygenation, neovascularization and contrast agent perfusion by real-time three-dimensional optoacoustic tomography. <i>European Radiology</i> , 2016 , 26, 1843-51	8.5	47
251	High-resolution optoacoustic imaging of tissue responses to vascular-targeted therapies. <i>Nature Biomedical Engineering</i> , 2020 , 4, 286-297	19	46
250	Molecular Fluorescence Endoscopy Targeting Vascular Endothelial Growth Factor A for Improved Colorectal Polyp Detection. <i>Journal of Nuclear Medicine</i> , 2016 , 57, 480-5	8.9	46
249	Cell type-specific delivery of short interfering RNAs by dye-functionalised theranostic nanoparticles. <i>Nature Communications</i> , 2014 , 5, 5565	17.4	46
248	Drug-based optical agents: infiltrating clinics at lower risk. <i>Science Translational Medicine</i> , 2012 , 4, 134ps1-5	11.5	46
247	Performance of iterative optoacoustic tomography with experimental data. <i>Applied Physics Letters</i> , 2009 , 95, 013703	3.4	46
246	High-contrast imaging of reversibly switchable fluorescent proteins via temporally unmixed multispectral optoacoustic tomography. <i>Optics Letters</i> , 2015 , 40, 367-70	3	44
245	Lymph Node Micrometastases and In-Transit Metastases from Melanoma: In Vivo Detection with Multispectral Optoacoustic Imaging in a Mouse Model. <i>Radiology</i> , 2016 , 280, 137-50	20.5	42
244	Cardiovascular optoacoustics: From mice to men - A review. <i>Photoacoustics</i> , 2019 , 14, 19-30	9	41
243	Efficient non-negative constrained model-based inversion in optoacoustic tomography. <i>Physics in Medicine and Biology</i> , 2015 , 60, 6733-50	3.8	40

242	Label-free metabolic imaging by mid-infrared optoacoustic microscopy in living cells. <i>Nature Biotechnology</i> , 2020 , 38, 293-296	44.5	40
241	Emerging Intraoperative Imaging Modalities to Improve Surgical Precision. <i>Molecular Imaging and Biology</i> , 2018 , 20, 705-715	3.8	39
240	Concurrent video-rate color and near-infrared fluorescence laparoscopy. <i>Journal of Biomedical Optics</i> , 2013 , 18, 101302	3.5	39
239	Combining microscopy with mesoscopy using optical and optoacoustic label-free modes. <i>Scientific Reports</i> , 2015 , 5, 12902	4.9	39
238	Optoacoustic methods for frequency calibration of ultrasonic sensors. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011 , 58, 316-26	3.2	38
237	A submicrometre silicon-on-insulator resonator for ultrasound detection. <i>Nature</i> , 2020 , 585, 372-378	50.4	38
236	Phthalocyanine photosensitizers as contrast agents for in vivo photoacoustic tumor imaging. <i>Biomedical Optics Express</i> , 2015 , 6, 591-8	3.5	37
235	Pushing the Boundaries of Neuroimaging with Optoacoustics. <i>Neuron</i> , 2017 , 96, 966-988	13.9	37
234	Hybrid multiphoton and optoacoustic microscope. <i>Optics Letters</i> , 2014 , 39, 1819-22	3	37
233	Effects of small variations of speed of sound in optoacoustic tomographic imaging. <i>Medical Physics</i> , 2014 , 41, 073301	4.4	36
232	Imaging of mesoscopic-scale organisms using selective-plane optoacoustic tomography. <i>Physics in Medicine and Biology</i> , 2009 , 54, 2769-77	3.8	36
231	Wideband optical sensing using pulse interferometry. <i>Optics Express</i> , 2012 , 20, 19016-29	3.3	36
230	Multimodal optoacoustic and multiphoton microscopy of human carotid atheroma. <i>Photoacoustics</i> , 2016 , 4, 102-111	9	36
229	Molecular photoacoustic imaging of breast cancer using an actively targeted conjugated polymer. <i>International Journal of Nanomedicine</i> , 2015 , 10, 387-97	7.3	35
228	Atheroma Susceptible to Thrombosis Exhibit Impaired Endothelial Permeability In Vivo as Assessed by Nanoparticle-Based Fluorescence Molecular Imaging. <i>Circulation: Cardiovascular Imaging</i> , 2017 , 10,	3.9	34
227	Spectral unmixing techniques for optoacoustic imaging of tissue pathophysiology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017 , 375,	3	34
226	Potential Red-Flag Identification of Colorectal Adenomas with Wide-Field Fluorescence Molecular Endoscopy. <i>Theranostics</i> , 2018 , 8, 1458-1467	12.1	34
225	WST11 Vascular Targeted Photodynamic Therapy Effect Monitoring by Multispectral Optoacoustic Tomography (MSOT) in Mice. <i>Theranostics</i> , 2018 , 8, 723-734	12.1	33

224	Use of Multispectral Optoacoustic Tomography to Diagnose Vascular Malformations. <i>JAMA Dermatology</i> , 2018 , 154, 1457-1462	5.1	33
223	Sensitive, small, broadband and scalable optomechanical ultrasound sensor in silicon photonics. <i>Nature Photonics</i> , 2021 , 15, 341-345	33.9	32
222	Statistical optoacoustic image reconstruction using a-priori knowledge on the location of acoustic distortions. <i>Applied Physics Letters</i> , 2011 , 98, 171110	3.4	31
221	Near-field thermoacoustic imaging with transmission line pulsers. <i>Medical Physics</i> , 2012 , 39, 4460-6	4.4	31
220	Optoacoustic Dermoscopy of the Human Skin: Tuning Excitation Energy for Optimal Detection Bandwidth With Fast and Deep Imaging in vivo. <i>IEEE Transactions on Medical Imaging</i> , 2017 , 36, 1287-1296	11.7	30
219	Synaptic vesicle cycle and amyloid β Biting the hand that feeds. <i>Alzheimer's and Dementia</i> , 2018 , 14, 502-513	1.2	30
218	Continuous wave laser diodes enable fast optoacoustic imaging. <i>Photoacoustics</i> , 2018 , 9, 31-38	9	30
217	Photoacoustic tomography of the proton Bragg peak in combination with ultrasound and optoacoustic imaging. <i>Scientific Reports</i> , 2016 , 6, 29305	4.9	30
216	Frequency domain optoacoustic tomography using amplitude and phase. <i>Photoacoustics</i> , 2014 , 2, 111-8	9	30
215	Threshold Analysis and Biodistribution of Fluorescently Labeled Bevacizumab in Human Breast Cancer. <i>Cancer Research</i> , 2017 , 77, 623-631	10.1	30
214	Optoacoustic determination of spatio-temporal responses of ultrasound sensors. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013 , 60, 1234-44	3.2	29
213	Model-based optoacoustic imaging using focused detector scanning. <i>Optics Letters</i> , 2012 , 37, 4080-2	3	29
212	Emerging Technologies to Image Tissue Metabolism. <i>Cell Metabolism</i> , 2019 , 29, 518-538	24.6	29
211	siRNA liposome-gold nanorod vectors for multispectral optoacoustic tomography theranostics. <i>Nanoscale</i> , 2014 , 6, 13451-6	7.7	28
210	A macrophage uptaking near-infrared chemical probe CDnir7 for in vivo imaging of inflammation. <i>Chemical Communications</i> , 2014 , 50, 6589-91	5.8	28
209	Motion correction in optoacoustic mesoscopy. <i>Scientific Reports</i> , 2017 , 7, 10386	4.9	28
208	Three-dimensional optoacoustic reconstruction using fast sparse representation. <i>Optics Letters</i> , 2017 , 42, 979-982	3	28
207	In vivo frequency domain optoacoustic tomography. <i>Optics Letters</i> , 2012 , 37, 3423-5	3	28

206	Multispectral optoacoustic tomography of systemic sclerosis. <i>Journal of Biophotonics</i> , 2018 , 11, e2018003155	3.5	28
205	Fiber interferometer for hybrid optical and optoacoustic intravital microscopy. <i>Optica</i> , 2017 , 4, 1180	8.6	27
204	Towards clinically translatable NIR fluorescence molecular guidance for colonoscopy. <i>Biomedical Optics Express</i> , 2013 , 5, 78-92	3.5	27
203	Near Infrared Fluorescence (NIRF) Molecular Imaging of Oxidized LDL with an Autoantibody in Experimental Atherosclerosis. <i>Scientific Reports</i> , 2016 , 6, 21785	4.9	27
202	Effects of multispectral excitation on the sensitivity of molecular optoacoustic imaging. <i>Journal of Biophotonics</i> , 2015 , 8, 629-37	3.1	26
201	Flow-mediated dilatation test using optoacoustic imaging: a proof-of-concept. <i>Biomedical Optics Express</i> , 2017 , 8, 3395-3403	3.5	26
200	Ultra-wideband three-dimensional optoacoustic tomography. <i>Optics Letters</i> , 2013 , 38, 4671-4	3	26
199	A dual Ucp1 reporter mouse model for imaging and quantitation of brown and white fat recruitment. <i>Molecular Metabolism</i> , 2019 , 20, 14-27	8.8	26
198	Coordinated targeting of cold and nicotinic receptors synergistically improves obesity and type 2 diabetes. <i>Nature Communications</i> , 2018 , 9, 4304	17.4	26
197	Multispectral Optoacoustic Tomography of Benign and Malignant Thyroid Disorders: A Pilot Study. <i>Journal of Nuclear Medicine</i> , 2019 , 60, 1461-1466	8.9	25
196	24-MHz scanner for optoacoustic imaging of skin and burn. <i>IEEE Transactions on Medical Imaging</i> , 2014 , 33, 535-45	11.7	25
195	All-optical optoacoustic microscope based on wideband pulse interferometry. <i>Optics Letters</i> , 2016 , 41, 1953-6	3	25
194	Violacein as a genetically-controlled, enzymatically amplified and photobleaching-resistant chromophore for optoacoustic bacterial imaging. <i>Scientific Reports</i> , 2015 , 5, 11048	4.9	24
193	Hybrid optical and acoustic resolution optoacoustic endoscopy. <i>Optics Letters</i> , 2016 , 41, 2708-10	3	24
192	Elucidating Structure and Function In Vivo With Hybrid Fluorescence and Magnetic Resonance Imaging. <i>Proceedings of the IEEE</i> , 2008 , 96, 382-396	14.3	24
191	Optoacoustic microscopy at multiple discrete frequencies. <i>Light: Science and Applications</i> , 2018 , 7, 109	16.7	24
190	Spatial heterogeneity of oxygenation and haemodynamics in breast cancer resolved in vivo by conical multispectral optoacoustic mesoscopy. <i>Light: Science and Applications</i> , 2020 , 9, 57	16.7	23
189	Optoacoustic imaging of naphthalocyanine: potential for contrast enhancement and therapy monitoring. <i>Journal of Nuclear Medicine</i> , 2015 , 56, 323-8	8.9	23

188	Selective in vivo imaging of syngeneic, spontaneous, and xenograft tumors using a novel tumor cell-specific hsp70 peptide-based probe. <i>Cancer Research</i> , 2014 , 74, 6903-12	10.1	23
187	Necrosis avid near infrared fluorescent cyanines for imaging cell death and their use to monitor therapeutic efficacy in mouse tumor models. <i>Oncotarget</i> , 2015 , 6, 39036-49	3.3	23
186	Hybrid multispectral optoacoustic and ultrasound tomography for morphological and physiological brain imaging. <i>Journal of Biomedical Optics</i> , 2016 , 21, 86005	3.5	23
185	Optical and Optoacoustic Model-Based Tomography: Theory and current challenges for deep tissue imaging of optical contrast. <i>IEEE Signal Processing Magazine</i> , 2015 , 32, 88-100	9.4	22
184	Multispectral optoacoustic and MRI coregistration for molecular imaging of orthotopic model of human glioblastoma. <i>Journal of Biophotonics</i> , 2016 , 9, 701-8	3.1	22
183	Embedded ultrasound sensor in a silicon-on-insulator photonic platform. <i>Applied Physics Letters</i> , 2014 , 104, 021116	3.4	22
182	NeuBTracker-imaging neurobehavioral dynamics in freely behaving fish. <i>Nature Methods</i> , 2017 , 14, 1079-1082	10.82	21
181	Multispectral opto-acoustic tomography of exercised muscle oxygenation. <i>Optics Letters</i> , 2015 , 40, 1496-9	3.9	21
180	Deep Learning-Based Spectral Unmixing for Optoacoustic Imaging of Tissue Oxygen Saturation. <i>IEEE Transactions on Medical Imaging</i> , 2020 , 39, 3643-3654	11.7	21
179	Sparsity-based acoustic inversion in cross-sectional multiscale optoacoustic imaging. <i>Medical Physics</i> , 2015 , 42, 5444-52	4.4	21
178	Optical imaging of molecular signatures in pulmonary inflammation. <i>Proceedings of the American Thoracic Society</i> , 2009 , 6, 416-8		21
177	Sonophore labeled RGD: a targeted contrast agent for optoacoustic imaging. <i>Photoacoustics</i> , 2017 , 6, 1-8	9	20
176	Quantitative intravascular biological fluorescence-ultrasound imaging of coronary and peripheral arteries in vivo. <i>European Heart Journal Cardiovascular Imaging</i> , 2017 , 18, 1253-1261	4.1	20
175	Comprehensive phantom for interventional fluorescence molecular imaging. <i>Journal of Biomedical Optics</i> , 2016 , 21, 091309	3.5	20
174	Extended Near-Infrared Optoacoustic Spectrometry for Sensing Physiological Concentrations of Glucose. <i>Frontiers in Endocrinology</i> , 2018 , 9, 112	5.7	20
173	Microfluidic sorting of intrinsically magnetic cells under visual control. <i>Scientific Reports</i> , 2017 , 7, 6942	4.9	20
172	Isotropic high resolution optoacoustic imaging with linear detector arrays in bi-directional scanning. <i>Journal of Biophotonics</i> , 2015 , 8, 60-70	3.1	20
171	High-Resolution Multispectral Optoacoustic Tomography of the Vascularization and Constitutive Hypoxemia of Cancerous Tumors. <i>Neoplasia</i> , 2016 , 18, 459-67	6.4	20

170	Optical imaging of post-embryonic zebrafish using multi orientation raster scan optoacoustic mesoscopy. <i>Light: Science and Applications</i> , 2017 , 6, e16186	16.7	19
169	Targeting Elastase for Molecular Imaging of Early Atherosclerotic Lesions. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2017 , 37, 525-533	9.4	19
168	Multiplexed whole-animal imaging with reversibly switchable optoacoustic proteins. <i>Science Advances</i> , 2020 , 6, eaaz6293	14.3	18
167	Assessing hyperthermia-induced vasodilation in human skin in vivo using optoacoustic mesoscopy. <i>Journal of Biophotonics</i> , 2018 , 11, e201700359	3.1	18
166	Amyloid Plaques of Alzheimer's Disease as Hotspots of Glutamatergic Activity. <i>Neuroscientist</i> , 2019 , 25, 288-297	7.6	18
165	Normalized Transillumination of Fluorescent Proteins in Small Animals. <i>Molecular Imaging</i> , 2006 , 5, 7290-7296	2006.0018	18
164	Maximum Entropy Based Non-Negative Optoacoustic Tomographic Image Reconstruction. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 2604-2616	5	18
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