Xueding Wang

List of Publications by Citations

110 papers	4,440 citations	29 h-index	65 g-index
124 ext. papers	5,485 ext. citations	5.5 avg, IF	5.49 L-index

#	Paper	IF	Citations
110	Noninvasive laser-induced photoacoustic tomography for structural and functional in vivo imaging of the brain. *Nature Biotechnology*, **2003**, 21, 803-6	44.5	1238
109	Photoacoustic Tomography of a Nanoshell Contrast Agent in the in Vivo Rat Brain. *Nano Letters*, **2004**, 4, 1689-1692	11.5	385
108	Noninvasive imaging of hemoglobin concentration and oxygenation in the rat brain using high-resolution photoacoustic tomography. *Journal of Biomedical Optics*, **2006**, 11, 024015	3.5	307
107	Noninvasive photoacoustic angiography of animal brains in vivo with near-infrared light and an optical contrast agent. *Optics Letters*, **2004**, 29, 730-2	3	201
106	Propagation of polarized light in birefringent turbid media: a Monte Carlo study. *Journal of Biomedical Optics*, **2002**, 7, 279-90	3.5	174
105	Three-dimensional laser-induced photoacoustic tomography of mouse brain with the skin and skull intact. *Optics Letters*, **2003**, 28, 1739-41	3	169
104	Medical breast ultrasound image segmentation by machine learning. *Ultrasonics*, **2019**, 91, 1-9	3.5	87
103	Photoacoustic tomography of biological tissues with high cross-section resolution: reconstruction and experiment. *Medical Physics*, **2002**, 29, 2799-805	4.4	84
102	Cellular imaging by targeted assembly of hot-spot SERS and photoacoustic nanoprobes using split-fluorescent protein scaffolds. *Nature Communications*, **2018**, 9, 607	17.4	78
101	Noninvasive photoacoustic tomography of human peripheral joints toward diagnosis of inflammatory arthritis. *Optics Letters*, **2007**, 32, 3002-4	3	77
100	In vivo quantitative imaging of tumor pH by nanosonophore assisted multispectral photoacoustic imaging. *Nature Communications*, **2017**, 8, 471	17.4	73
99	Light Emitting Diodes based Photoacoustic Imaging and Potential Clinical Applications. *Scientific Reports*, **2018**, 8, 9885	4.9	73
98	Polarized light propagation through scattering media: time-resolved Monte Carlo simulations and experiments. *Journal of Biomedical Optics*, **2003**, 8, 608-17	3.5	69
97	The functional pitch of an organ: quantification of tissue texture with photoacoustic spectrum analysis. *Radiology*, **2014**, 271, 248-54	20.5	65
96	A Functional Study of Human Inflammatory Arthritis Using Photoacoustic Imaging. *Scientific Reports* , **2017**, 7, 15026	4.9	53
95	High-resolution, in vivo multimodal photoacoustic microscopy, optical coherence tomography, and fluorescence microscopy imaging of rabbit retinal neovascularization. *Light: Science and Applications*, **2018**, 7, 103	16.7	50
94	Targeted Blue Nanoparticles as Photoacoustic Contrast Agent for Brain Tumor Delineation. *Nano Research*, **2011**, 4, 1163-1173	10	47

93	Photoacoustic tomography of tissue subwavelength microstructure with a narrowband and low frequency system. *Applied Physics Letters*, **2012**, 101, 034105	3.4	43
92	All-optical photoacoustic microscopy. *Photoacoustics*, **2015**, 3, 143-150	9	41
91	Automated 3D ultrasound image segmentation to aid breast cancer image interpretation. *Ultrasonics*, **2016**, 65, 51-8	3.5	40
90	Photoacoustic tomography for human musculoskeletal imaging and inflammatory arthritis detection. *Photoacoustics*, **2018**, 12, 82-89	9	39
89	Ion-Selective Nanosensor for Photoacoustic and Fluorescence Imaging of Potassium. *Analytical Chemistry*, **2017**, 89, 7943-7949	7.8	37
88	Imaging of joints with laser-based photoacoustic tomography: an animal study. *Medical Physics*, **2006**, 33, 2691-7	4.4	37
87	Photoacoustic spectrum analysis for microstructure characterization in biological tissue: analytical model. *Ultrasound in Medicine and Biology*, **2015**, 41, 1473-80	3.5	36
86	Photoacoustic imaging with a commercial ultrasound system and a custom probe. *Ultrasound in Medicine and Biology*, **2011**, 37, 484-92	3.5	36
85	Characterization of bone microstructure using photoacoustic spectrum analysis. *Optics Express*, **2015**, 23, 25217-24	3.3	33
84	Noninvasive reflection mode photoacoustic imaging through infant skull toward imaging of neonatal brains. *Journal of Neuroscience Methods*, **2008**, 168, 412-21	3	33
83	A fiber-optic system for dual-modality photoacoustic microscopy and confocal fluorescence microscopy using miniature components. *Photoacoustics*, **2013**, 1, 30-35	9	32
82	Air-coupled ultrasound detection using capillary-based optical ring resonators. *Scientific Reports*, **2017**, 7, 109	4.9	29
81	High resolution Physio-chemical Tissue Analysis: Towards Non-invasive In Vivo Biopsy. *Scientific Reports*, **2016**, 6, 16937	4.9	29
80	Quantitative detection of stochastic microstructure in turbid media by photoacoustic spectral matching. *Applied Physics Letters*, **2013**, 102, 114102	3.4	28
79	Characterizing intestinal inflammation and fibrosis in Crohn\'s disease by photoacoustic imaging: feasibility study. *Biomedical Optics Express*, **2016**, 7, 2837-48	3.5	28
78	Experimental evaluation of x-ray acoustic computed tomography for radiotherapy dosimetry applications. *Medical Physics*, **2017**, 44, 608-617	4.4	27
77	Bone assessment via thermal photo-acoustic measurements. *Optics Letters*, **2015**, 40, 1721-4	3	25
76	Repositioning Clofazimine as a Macrophage-Targeting Photoacoustic Contrast Agent. *Scientific Reports*, **2016**, 6, 23528	4.9	24

75	Chain-like gold nanoparticle clusters for multimodal photoacoustic microscopy and optical coherence tomography enhanced molecular imaging. *Nature Communications*, **2021**, 12, 34	17.4	24
74	High-precision, non-invasive anti-microvascular approach via concurrent ultrasound and laser irradiation. *Scientific Reports*, **2017**, 7, 40243	4.9	22
73	Contrast Agent Enhanced Multimodal Photoacoustic Microscopy and Optical Coherence Tomography for Imaging of Rabbit Choroidal and Retinal Vessels in vivo. *Scientific Reports*, **2019**, 9, 5945	4.9	22
72	Towards Clinical Translation of LED-Based Photoacoustic Imaging: A Review. *Sensors*, **2020**, 20,	3.8	21
71	Novel Photoacoustic Microscopy and Optical Coherence Tomography Dual-modality Chorioretinal Imaging in Living Rabbit Eyes. *Journal of Visualized Experiments*, **2018**,	1.6	21
70	Identifying intestinal fibrosis and inflammation by spectroscopic photoacoustic imaging: an animal study. *Biomedical Optics Express*, **2018**, 9, 1590-1600	3.5	19
69	Detecting joint inflammation by an LED-based photoacoustic imaging system: a feasibility study. *Journal of Biomedical Optics*, **2018**, 23, 1-4	3.5	19
68	High-resolution multimodal photoacoustic microscopy and optical coherence tomography image-guided laser induced branch retinal vein occlusion in living rabbits. *Scientific Reports*, **2019**, 9, 10560	4.9	18
67	Quantifying Gleason scores with photoacoustic spectral analysis: feasibility study with human tissues. *Biomedical Optics Express*, **2015**, 6, 4781-9	3.5	18
66	Dual-pulse nonlinear photoacoustic technique: a practical investigation. *Biomedical Optics Express*, **2015**, 6, 2923-33	3.5	17
65	Photothermal tomography for the functional and structural evaluation, and early mineral loss monitoring in bones. *Biomedical Optics Express*, **2014**, 5, 2488-502	3.5	17
64	Simultaneous photoacoustic microscopy, spectral-domain optical coherence tomography, and fluorescein microscopy multi-modality retinal imaging. *Photoacoustics*, **2020**, 20, 100194	9	16
63	Characterizing intestinal strictures of Crohn\'s disease by endoscopic photoacoustic imaging. *Biomedical Optics Express*, **2019**, 10, 2542-2555	3.5	16
62	Parametric Study of Acoustic Droplet Vaporization Thresholds and Payload Release From Acoustically-Responsive Scaffolds. *Ultrasound in Medicine and Biology*, **2019**, 45, 2471-2484	3.5	15
61	Toward in□vivo dosimetry in external beam radiotherapy using x-ray acoustic computed tomography: A soft-tissue phantom study validation. *Medical Physics*, **2018**, 45, 4191	4.4	15
60	Multi-wavelength, en-face photoacoustic microscopy and optical coherence tomography imaging for early and selective detection of laser induced retinal vein occlusion. *Biomedical Optics Express*, **2018**, 9, 5915-5938	3.5	15
59	Multiple Delay and Sum With Enveloping Beamforming Algorithm for Photoacoustic Imaging. *IEEE Transactions on Medical Imaging*, **2020**, 39, 1812-1821	11.7	15
58	Non-Contact Photoacoustic Imaging Using a Commercial Heterodyne Interferometer. *IEEE Sensors Journal*, **2016**, 16, 8381-8388	4	15

57	Photoacoustic imaging features of intraocular tumors: Retinoblastoma and uveal melanoma. *PLoS ONE*, **2017**, 12, e0170752	3.7	14
56	In Vivo 3D Imaging of Retinal Neovascularization Using Multimodal Photoacoustic Microscopy and Optical Coherence Tomography Imaging. *Journal of Imaging*, **2018**, 4,	3.1	14
55	Interstitial assessment of aggressive prostate cancer by physio-chemical photoacoustics: An ex vivo study with intact human prostates. *Medical Physics*, **2018**, 45, 4125	4.4	13
54	Photoacoustic eigen-spectrum from light-absorbing microspheres and its application in noncontact elasticity evaluation. *Applied Physics Letters*, **2017**, 110, 054101	3.4	13
53	Dual-Modality X-Ray-Induced Radiation Acoustic and Ultrasound Imaging for Real-Time Monitoring of Radiotherapy. *BME Frontiers*, **2020**, 2020, 1-10	4.4	13
52	Characterizing cellular morphology by photoacoustic spectrum analysis with an ultra-broadband optical ultrasonic detector. *Optics Express*, **2016**, 24, 19853-62	3.3	13
51	Removal of choroidal vasculature using concurrently applied ultrasound bursts and nanosecond laser pulses. *Scientific Reports*, **2018**, 8, 12848	4.9	13
50	LED-Based Photoacoustic Imaging for Monitoring Angiogenesis in Fibrin Scaffolds. *Tissue Engineering - Part C: Methods*, **2019**, 25, 523-531	2.9	12
49	Functional Photoacoustic and Ultrasonic Assessment of Osteoporosis: A Clinical Feasibility Study. *BME Frontiers*, **2020**, 2020, 1-15	4.4	12
48	Photoacoustic Lifetime Based Oxygen Imaging with Tumor Targeted G2 Polyacrylamide Nanosonophores. *ACS Nano*, **2019**, 13, 14024-14032	16.7	12
47	Real-time OCT guidance and multimodal imaging monitoring of subretinal injection induced choroidal neovascularization in rabbit eyes. *Experimental Eye Research*, **2019**, 186, 107714	3.7	10
46	Bubble growth in cylindrically-shaped optical absorbers during photo-mediated ultrasound therapy. *Physics in Medicine and Biology*, **2018**, 63, 125017	3.8	10
45	Interstitial photoacoustic spectral analysis: instrumentation and validation. *Biomedical Optics Express*, **2017**, 8, 1689-1697	3.5	9
44	Monitoring Neuron Activities and Interactions with Laser Emissions. *ACS Photonics*, **2020**, 7, 2182-2189	6.3	9
43	Plasmonic Gold Nanostar-Enhanced Multimodal Photoacoustic Microscopy and Optical Coherence Tomography Molecular Imaging To Evaluate Choroidal Neovascularization. *ACS Sensors*, **2020**, 5, 3070-3081	8.2	9
42	A nanocomposite of Au-AgI core/shell dimer as a dual-modality contrast agent for x-ray computed tomography and photoacoustic imaging. *Medical Physics*, **2016**, 43, 589	4.4	8
41	Synthesis and Characterization of a Biomimetic Formulation of Clofazimine Hydrochloride Microcrystals for Parenteral Administration. *Pharmaceutics*, **2018**, 10,	6.4	8
40	Chemical Imaging in Vivo: Photoacoustic-Based 4-Dimensional Chemical Analysis. *Analytical Chemistry*, **2019**, 91, 2561-2569	7.8	7

39	The Effect of Laser and Ultrasound Synchronization in Photo-Mediated Ultrasound Therapy. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 3363-3370	5	6
38	Prostate cancer characterization by optical contrast enhanced photoacoustics. *Proceedings of SPIE*, **2016**, 9708,	1.7	6
37	Real-time photoacoustic sensing for photo-mediated ultrasound therapy. *Optics Letters*, **2019**, 44, 4063-4066	3	6
36	An ionizing radiation acoustic imaging (iRAI) technique for real-time dosimetric measurements for FLASH radiotherapy. *Medical Physics*, **2020**, 47, 5090-5101	4.4	5
35	Transient Triplet Differential (TTD) Method for Background Free Photoacoustic Imaging. *Scientific Reports*, **2018**, 8, 9290	4.9	5
34	Optical coherence tomography and fluorescence microscopy dual-modality imaging for in vivo single-cell tracking with nanowire lasers. *Biomedical Optics Express*, **2020**, 11, 3659-3672	3.5	5
33	Strain-Photoacoustic Imaging as a Potential Tool for Characterizing Intestinal Fibrosis. *Gastroenterology*, **2019**, 157, 1196-1198	13.3	4
32	photoacoustic potassium imaging of the tumor microenvironment. *Biomedical Optics Express*, **2020**, 11, 3507-3522	3.5	4
31	Ultralow energy photoacoustic microscopy for ocular imaging in vivo. *Journal of Biomedical Optics*, **2020**, 25, 1-8	3.5	4
30	Bone Chemical Composition Assessment with Multi-Wavelength Photoacoustic Analysis. *Applied Sciences (Switzerland)*, **2020**, 10, 8214	2.6	4
29	Design, Development, and Multi-Characterization of an Integrated Clinical Transrectal Ultrasound and Photoacoustic Device for Human Prostate Imaging. *Diagnostics*, **2020**, 10,	3.8	4
28	Lifetime-resolved Photoacoustic (LPA) Spectroscopy for monitoring Oxygen change and Photodynamic Therapy (PDT). *Proceedings of SPIE*, **2016**, 9708,	1.7	3
27	Cavitation induced shear and circumferential stresses on blood vessel walls during photo-mediated ultrasound therapy. *AIP Advances*, **2020**, 10, 125227	1.5	3
26	Photo-Mediated Ultrasound Therapy for the Treatment of Corneal Neovascularization in Rabbit Eyes. *Translational Vision Science and Technology*, **2020**, 9, 16	3.3	3
25	Gold Nanorod Enhanced Photoacoustic Microscopy and Optical Coherence Tomography of Choroidal Neovascularization. *ACS Applied Materials & Interfaces*, **2021**, 13, 40214-40228	9.5	3
24	Improved digital breast tomosynthesis images using automated ultrasound. *Medical Physics*, **2014**, 41, 061911	4.4	2
23	Imaging of enthesitis by an LED-based photoacoustic system. *Journal of Biomedical Optics*, **2020**, 25,	3.5	2
22	High Resolution Multimodal Photoacoustic Microscopy and Optical Coherence Tomography Visualization of Choroidal Vascular Occlusion. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	2

21	Long-term multimodal imaging characterization of persistent retinal neovascularization using DL-alpha-aminoadipic acid in pigmented and white rabbits. *Experimental Eye Research*, **2021**, 207, 108577	3.7	2
20	Retinal safety evaluation of photoacoustic microscopy. *Experimental Eye Research*, **2021**, 202, 108368	3.7	2
19	Functionalized contrast agents for multimodality photoacoustic microscopy, optical coherence tomography, and fluorescence microscopy molecular retinal imaging. *Methods in Enzymology*, **2021**, 657, 443-480	1.7	2
18	Long-Term, Noninvasive Tracking of Progenitor Cells Using Multimodality Photoacoustic, Optical Coherence Tomography, and Fluorescence Imaging. *ACS Nano*, **2021**,	16.7	2
17	The feasibility study of the transmission mode photoacoustic measurement of human calcaneus bone. *Photoacoustics*, **2021**, 23, 100273	9	2
16	Photoacoustic imaging of clofazimine hydrochloride nanoparticle accumulation in cancerous vs normal prostates. *PLoS ONE*, **2019**, 14, e0219655	3.7	1
15	Photoacoustic imaging of squirrel monkey cortical and subcortical brain regions during peripheral electrical stimulation.. *Photoacoustics*, **2022**, 25, 100326	9	1
14	Integrated photoacoustic microscopy, optical coherence tomography, and fluorescence microscopy for multimodal chorioretinal imaging. *Proceedings of SPIE*, **2018**, 10494,	1.7	1
13	Removing Subcutaneous Microvessels Using Photo-Mediated Ultrasound Therapy. *Lasers in Surgery and Medicine*, **2020**, 52, 984-992	3.6	1
12	Photoacoustic Imaging: Plasmonic Nanoparticles with Quantitatively Controlled Bioconjugation for Photoacoustic Imaging of Live Cancer Cells (Adv. Sci. 12/2016). *Advanced Science*, **2016**, 3,	13.6	1
11	Quantitatively assessing port-wine stains using a photoacoustic imaging method: A pilot study. *Journal of the American Academy of Dermatology*, **2021**, 85, 1613-1616	4.5	1
10	Indocyanine green-enhanced multimodal photoacoustic microscopy and optical coherence tomography molecular imaging of choroidal neovascularization. *Journal of Biophotonics*, **2021**, 14, e202000458	3.1	1
9	Characterizing the aggressiveness of prostate cancer using an all-optical needle photoacoustic sensing probe: feasibility study. *Biomedical Optics Express*, **2021**, 12, 4873-4888	3.5	0
8	A simulation study of ionizing radiation acoustic imaging (iRAI) as a real-time dosimetric technique for ultra-high dose rate radiotherapy (UHDR-RT). *Medical Physics*, **2021**, 48, 6137-6151	4.4	0
7	In Vivo Subretinal ARPE-19 Cell Tracking Using Indocyanine Green Contrast-Enhanced Multimodality Photoacoustic Microscopy, Optical Coherence Tomography, and Fluorescence Imaging for Regenerative Medicine. *Translational Vision Science and Technology*, **2021**, 10, 10	3.3	0
6	Effect of Photo-Mediated Ultrasound Therapy on Nitric Oxide and Prostacyclin from Endothelial Cells. *Applied Sciences (Switzerland)*, **2022**, 12, 2617	2.6	0
5	Photo-mediated ultrasound therapy for the treatment of retinal neovascularization in rabbit eyes.. *Lasers in Surgery and Medicine*, **2022**,	3.6	0
4	Multimodal In Vivo Imaging of Retinal and Choroidal Vascular Occlusion. *Photonics*, **2022**, 9, 201	2.2	0

3	Label-free photoacoustic computed tomography of mouse cortical responses to retinal photostimulation using a pair-wise correlation map.. *Biomedical Optics Express*, **2022**, 13, 1017-1025	3.5
2	Biomedical Photoacoustic Imaging With Unknown Spatially Distributed Ultrasound Sensor Array. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 2948-2956	5
1	Safety Evaluation of Photoacoustic Tomography System for Intraocular Tumors.. *Translational Vision Science and Technology*, **2022**, 11, 30	3.3