

Lidai Wang

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

5,197
citations

81743

39
h-index

88477

70
g-index

106
all docs

106
docs citations

106
times ranked

3964
citing authors

#	ARTICLE	IF	CITATIONS
1	High-speed label-free functional photoacoustic microscopy of mouse brain in action. <i>Nature Methods</i> , 2015, 12, 407-410.	9.0	555
2	Single-impulse panoramic photoacoustic computed tomography of small-animal whole-body dynamics at high spatiotemporal resolution. <i>Nature Biomedical Engineering</i> , 2017, 1, .	11.6	334
3	Photoacoustically guided wavefront shaping for enhanced optical focusing in scattering media. <i>Nature Photonics</i> , 2015, 9, 126-132.	15.6	249
4	Multiscale photoacoustic tomography using reversibly switchable bacterial phytochrome as a near-infrared photochromic probe. <i>Nature Methods</i> , 2016, 13, 67-73.	9.0	206
5	Rational Design of Conjugated Small Molecules for Superior Photothermal Theranostics in the NIR-II Biowindow. <i>Advanced Materials</i> , 2020, 32, e2001146.	11.1	204
6	Single-cell label-free photoacoustic flowoxigraphy in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 5759-5764.	3.3	191
7	Fast voice-coil scanning optical-resolution photoacoustic microscopy. <i>Optics Letters</i> , 2011, 36, 139.	1.7	180
8	Organic Semiconducting Polymer Nanoparticles for Photoacoustic Labeling and Tracking of Stem Cells in the Second Near-Infrared Window. <i>ACS Nano</i> , 2018, 12, 12201-12211.	7.3	127
9	Grüneisen Relaxation Photoacoustic Microscopy. <i>Physical Review Letters</i> , 2014, 113, 174301.	2.9	126
10	Label-free photoacoustic nanoscopy. <i>Journal of Biomedical Optics</i> , 2014, 19, 1.	1.4	124
11	Wide-field fast-scanning photoacoustic microscopy based on a water-immersible MEMS scanning mirror. <i>Journal of Biomedical Optics</i> , 2012, 17, 1.	1.4	122
12	Photoimprint Photoacoustic Microscopy for Three-Dimensional Label-Free Subdiffraction Imaging. <i>Physical Review Letters</i> , 2014, 112, 014302.	2.9	111
13	Label-free automated three-dimensional imaging of whole organs by microtomy-assisted photoacoustic microscopy. <i>Nature Communications</i> , 2017, 8, 1386.	5.8	104
14	Micro-rocket robot with all-optic actuating and tracking in blood. <i>Light: Science and Applications</i> , 2020, 9, 84.	7.7	100
15	Effective Phototheranostics of Brain Tumor Assisted by Near-Infrared-II Light-Responsive Semiconducting Polymer Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33492-33499.	4.0	100
16	Organic semiconducting polymer amphiphile for near-infrared-II light-triggered phototheranostics. <i>Biomaterials</i> , 2020, 232, 119684.	5.7	96
17	Labeling Human Mesenchymal Stem Cells with Gold Nanocages for <i>in vitro</i> and <i>in vivo</i> Tracking by Two-Photon Microscopy and Photoacoustic Microscopy. <i>Theranostics</i> , 2013, 3, 532-543.	4.6	92
18	Development of Magnetically Driven and Image-Guided Degradable Microrobots for the Precise Delivery of Engineered Stem Cells for Cancer Therapy. <i>Small</i> , 2020, 16, e1906908.	5.2	84

#	ARTICLE	IF	CITATIONS
19	An Ester-Substituted Semiconducting Polymer with Efficient Nonradiative Decay Enhances NIR Photoacoustic Performance for Monitoring of Tumor Growth. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 23268-23276.	7.2	76
20	Snapshot photoacoustic topography through an ergodic relay for high-throughput imaging of optical absorption. <i>Nature Photonics</i> , 2020, 14, 164-170.	15.6	70
21	Fully motorized optical-resolution photoacoustic microscopy. <i>Optics Letters</i> , 2014, 39, 2117.	1.7	69
22	In vivo label-free photoacoustic flow cytography and on-the-spot laser killing of single circulating melanoma cells. <i>Scientific Reports</i> , 2016, 6, 39616.	1.6	69
23	Ultrasonically Encoded Photoacoustic Flowgraphy in Biological Tissue. <i>Physical Review Letters</i> , 2013, 111, 204301.	2.9	63
24	Wide-field polygon-scanning photoacoustic microscopy of oxygen saturation at 1-MHz A-line rate. <i>Photoacoustics</i> , 2020, 20, 100195.	4.4	62
25	Video-rate functional photoacoustic microscopy at depths. <i>Journal of Biomedical Optics</i> , 2012, 17, 1.	1.4	60
26	Integrated optical- and acoustic-resolution photoacoustic microscopy based on an optical fiber bundle. <i>Optics Letters</i> , 2013, 38, 52.	1.7	59
27	Single-shot photoacoustic microscopy of hemoglobin concentration, oxygen saturation, and blood flow in sub-microseconds. <i>Photoacoustics</i> , 2020, 17, 100156.	4.4	56
28	Deep tissue photoacoustic computed tomography with a fast and compact laser system. <i>Biomedical Optics Express</i> , 2017, 8, 112.	1.5	55
29	Handheld optical-resolution photoacoustic microscopy. <i>Journal of Biomedical Optics</i> , 2016, 22, 041002.	1.4	54
30	Compressed Ultrafast Spectral-Temporal Photography. <i>Physical Review Letters</i> , 2019, 122, 193904.	2.9	54
31	2-MHz multi-wavelength pulsed laser for functional photoacoustic microscopy. <i>Optics Letters</i> , 2017, 42, 1452.	1.7	53
32	Calibration-free quantification of absolute oxygen saturation based on the dynamics of photoacoustic signals. <i>Optics Letters</i> , 2013, 38, 2800.	1.7	50
33	Wide-field two-dimensional multifocal optical-resolution photoacoustic-computed microscopy. <i>Optics Letters</i> , 2013, 38, 5236.	1.7	50
34	Hybrid MoSe ₂ -indocyanine green nanosheets as a highly efficient phototheranostic agent for photoacoustic imaging guided photothermal cancer therapy. <i>Biomaterials Science</i> , 2018, 6, 1503-1516.	2.6	46
35	Automatic Microassembly Using Visual Servo Control. <i>IEEE Transactions on Electronics Packaging Manufacturing</i> , 2008, 31, 316-325.	1.6	45
36	Video-Rate Ring-Array Ultrasound and Photoacoustic Tomography. <i>IEEE Transactions on Medical Imaging</i> , 2020, 39, 4369-4375.	5.4	45

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37	Vision-Based 2-D Automatic Micrograsping Using Coarse-to-Fine Grasping Strategy. IEEE Transactions on Industrial Electronics, 2008, 55, 3324-3331.	5.2	44
38	Fiber-Laser-Based Ultrasound Sensor for Photoacoustic Imaging. Scientific Reports, 2017, 7, 40849.	1.6	42
39	Five-wavelength optical-resolution photoacoustic microscopy of blood and lymphatic vessels. Advanced Photonics, 2021, 3, .	6.2	42
40	Optical-resolution photoacoustic microscopy of oxygen saturation with nonlinear compensation. Biomedical Optics Express, 2019, 10, 3061.	1.5	39
41	Bessel-beam Grueneisen relaxation photoacoustic microscopy with extended depth of field. Journal of Biomedical Optics, 2015, 20, 116002.	1.4	38
42	Characterizing Nanoparticle Swarms With Tuneable Concentrations for Enhanced Imaging Contrast. IEEE Robotics and Automation Letters, 2019, 4, 2942-2949.	3.3	36
43	Implantable Electronic Medicine Enabled by Bioresorbable Microneedles for Wireless Electrotherapy and Drug Delivery. Nano Letters, 2022, 22, 5944-5953.	4.5	36
44	A new deep learning method for image deblurring in optical microscopic systems. Journal of Biophotonics, 2020, 13, e201960147.	1.1	35
45	Switchable Photoacoustic Imaging of Glutathione Using MnO ₂ Nanotubes for Cancer Diagnosis. ACS Applied Materials & Interfaces, 2018, 10, 44231-44239.	4.0	34
46	Immediate alterations in intestinal oxygen saturation and blood flow after massive small bowel resection as measured by photoacoustic microscopy. Journal of Pediatric Surgery, 2012, 47, 1143-1149.	0.8	32
47	Single-shot linear dichroism optical-resolution photoacoustic microscopy. Photoacoustics, 2019, 16, 100148.	4.4	29
48	Ultrasonic-heating-encoded photoacoustic tomography with virtually augmented detection view. Optica, 2015, 2, 307.	4.8	28
49	Optical-resolution photoacoustic microscopy with ultrafast dual-wavelength excitation. Journal of Biophotonics, 2020, 13, e201960229.	1.1	28
50	Bioinspired Ultrathin Piecewise Controllable Soft Robots. Advanced Materials Technologies, 2021, 6, 2001095.	3.0	27
51	3D printed microstructures for flexible electronic devices. Nanotechnology, 2019, 30, 414001.	1.3	26
52	High-speed photoacoustic microscopy of mouse cortical microhemodynamics. Journal of Biophotonics, 2017, 10, 792-798.	1.1	25
53	Multiscale high-speed photoacoustic microscopy based on free-space light transmission and a MEMS scanning mirror. Optics Letters, 2020, 45, 4312.	1.7	25
54	Confocal visible/NIR photoacoustic microscopy of tumors with structural, functional, and nanoprobe contrasts. Photonics Research, 2020, 8, 1875.	3.4	25

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55	Mechanics designs-performance relationships in epidermal triboelectric nanogenerators. <i>Nano Energy</i> , 2020, 76, 105017.	8.2	24
56	Photoacoustic/Fluorescence Dual-Modality Probe for Biothiol Discrimination and Tumor Diagnosis in Cells and Mice. <i>ACS Sensors</i> , 2022, 7, 1105-1112.	4.0	23
57	Controllable Cleavage of C-N Bond-Based Fluorescent and Photoacoustic Dual-Modal Probes for the Detection of H ₂ S in Living Mice. <i>ACS Applied Bio Materials</i> , 2021, 4, 2020-2025.	2.3	22
58	Fast-scanning photoacoustic microscopy with a side-looking fiber optic ultrasound sensor. <i>Biomedical Optics Express</i> , 2018, 9, 5809.	1.5	22
59	Ultrasound-heated photoacoustic flowmetry. <i>Journal of Biomedical Optics</i> , 2013, 18, 117003.	1.4	21
60	Functional photoacoustic microscopy of hemodynamics: a review. <i>Biomedical Engineering Letters</i> , 2022, 12, 97-124.	2.1	21
61	Sensitivity characteristics of broadband fiber-laser-based ultrasound sensors for photoacoustic microscopy. <i>Optics Express</i> , 2017, 25, 17616.	1.7	20
62	Development of a molecular K ⁺ probe for colorimetric/fluorescent/photoacoustic detection of K ⁺ . <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 6947-6957.	1.9	19
63	High-resolution photoacoustic microscopy with deep penetration through learning. <i>Photoacoustics</i> , 2022, 25, 100314.	4.4	19
64	Photoacoustic imaging of microenvironmental changes in facial cupping therapy. <i>Biomedical Optics Express</i> , 2020, 11, 2394.	1.5	18
65	In vivo optically encoded photoacoustic flowgraphy. <i>Optics Letters</i> , 2014, 39, 3814.	1.7	16
66	NIR-II Absorbing Semiconducting Polymer-Triggered Gene-Directed Enzyme Prodrug Therapy for Cancer Treatment. <i>Small</i> , 2021, 17, e2100501.	5.2	15
67	Plasmonic-doped melanin-mimic for CXCR4-targeted NIR-II photoacoustic computed tomography-guided photothermal ablation of orthotopic hepatocellular carcinoma. <i>Acta Biomaterialia</i> , 2021, 129, 245-257.	4.1	15
68	A multifunctional targeted nanoprobe with high NIR-II PAI/MRI performance for precise theranostics of orthotopic early-stage hepatocellular carcinoma. <i>Journal of Materials Chemistry B</i> , 2021, 9, 8779-8792.	2.9	15
69	Self-Fluence-Compensated Functional Photoacoustic Microscopy. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 3856-3866.	5.4	14
70	Photoacoustic computed tomography by using a multi-angle scanning fiber-laser ultrasound sensor. <i>Optics Express</i> , 2020, 28, 8744.	1.7	14
71	Review of photoacoustic imaging for microrobots tracking in vivo [Invited]. <i>Chinese Optics Letters</i> , 2021, 19, 111701.	1.3	13
72	3-D Automatic Microassembly by Vision-Based Control. , 2007, , .		12

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73	High acoustic numerical aperture photoacoustic microscopy with improved sensitivity. Optics Letters, 2020, 45, 628.	1.7	11
74	Adaptive dual-speed ultrasound and photoacoustic computed tomography. Photoacoustics, 2022, 27, 100380.	4.4	10
75	Calibration-free structured-illumination photoacoustic flowgraphy of transverse flow in scattering media. Journal of Biomedical Optics, 2014, 19, 046007.	1.4	9
76	Fiber laser based ultrasound sensor for photoacoustic imaging. , 2017, , .		9
77	Dual-foci fast-scanning photoacoustic microscopy with 3.2-MHz A-line rate. Photoacoustics, 2021, 23, 100292.	4.4	9
78	Low-consumption photoacoustic method to measure liquid viscosity. Biomedical Optics Express, 2021, 12, 7139.	1.5	9
79	Multi-Scale Photoacoustic Assessment of Wound Healing Using Chitosanâ€“Graphene Oxide Hemostatic Sponge. Nanomaterials, 2021, 11, 2879.	1.9	9
80	Up-regulation of hypoxia-inducible factor 1 alpha and hemodynamic responses following massive small bowel resection. Journal of Pediatric Surgery, 2013, 48, 1330-1339.	0.8	7
81	Dual-Polarized Fiber Laser Sensor for Photoacoustic Microscopy. Sensors, 2019, 19, 4632.	2.1	7
82	An Esterâ€“Substituted Semiconducting Polymer with Efficient Nonradiative Decay Enhances NIRâ€“Photoacoustic Performance for Monitoring of Tumor Growth. Angewandte Chemie, 2020, 132, 23468-23476.	1.6	7
83	Acoustic-spectrum-compensated photoacoustic microscopy. Optics Letters, 2020, 45, 1850.	1.7	7
84	Automatic 3D Joining in Microassembly. , 2007, , .		6
85	Trans-illumination intestine projection imaging of intestinal motility in mice. Nature Communications, 2021, 12, 1682.	5.8	6
86	Noise-reduced optical ultrasound sensor via signal duplication for photoacoustic microscopy. Optics Letters, 2019, 44, 2665.	1.7	6
87	Two-step proximal gradient descent algorithm for photoacoustic signal unmixing. Photoacoustics, 2022, 27, 100379.	4.4	5
88	Novel approach for microassembly of three-dimensional rotary MOEMS mirrors. Journal of Micro/Nanolithography, MEMS, and MOEMS, 2009, 8, 043035.	1.0	4
89	Super-Resolution Photoacoustic Microscopy via Modified Phase Compounding. IEEE Transactions on Medical Imaging, 2022, 41, 3411-3420.	5.4	4
90	A Test-Bed for Visual Servo Control of Artificial Muscle Micro-Robot with Parallel Architecture. , 2006, , .		3

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91	Adhesive mechanical fastener design for use in microassembly. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	3
92	Robotic manipulation of adhesive droplets for applications in microassembly. , 2009, , .		3
93	Special issue "Photoacoustic imaging: microscopy, tomography, and their recent applications in biomedicine" in visual computation for industry, biomedicine, and art. Visual Computing for Industry, Biomedicine, and Art, 2021, 4, 16.	2.2	3
94	Near-infrared double-illumination optical-resolution photoacoustic microscopy. Journal of Biophotonics, 2021, 14, e202000392.	1.1	2
95	Assembly of three-dimensional microsystems using a hybrid manipulation strategy. , 2008, , .		1
96	Development of an electron tunneling force sensor for the use in microassembly. , 2008, , .		1
97	SNR-enhanced fiber-laser ultrasound sensors for photoacoustic tomography*. , 2020, , .		1
98	An invertible wavefront switching system with a high extinction ratio. Optics and Laser Technology, 2020, 131, 106466.	2.2	0
99	Confocal Visible/NIR Photoacoustic Microscopy of Early-stage Tumor with Structural, Functional and Nanoprobe Contrasts. , 2021, , .		0
100	Rotational-invariant speckle-scanning ultrasonography through thick bones. Scientific Reports, 2021, 11, 14178.	1.6	0
101	A Spatial Compounding Method for Non-Delayed Sequential Beamforming. Applied Sciences (Switzerland), 2021, 11, 9200.	1.3	0
102	In vivo functional brain imaging by using a broadband fiber optic photoacoustic probe. , 2021, , .		0