Puxiang Lai

List of Publications by Year
in descending order

88 papers	1,721 citations	257357 24 h-index	302012 39 g-index
95 all docs	95 docs citations	95 times ranked	1403 citing authors

#	Article	IF	Citations
1	Video-Rate Dual-Modal Wide-Beam Harmonic Ultrasound and Photoacoustic Computed Tomography. IEEE Transactions on Medical Imaging, 2022, 41, 727-736.	5.4	15
2	High-resolution photoacoustic microscopy with deep penetration through learning. Photoacoustics, 2022, 25, 100314.	4.4	19
3	Light on osteoarthritic joint: from bench to bed. Theranostics, 2022, 12, 542-557.	4.6	13
4	Exploiting the potential of commercial objectives to extend the field of view of two-photon microscopy by adaptive optics. Optics Letters, 2022, 47, 989.	1.7	5
5	Alternative Interpretation of Speckle Autocorrelation Imaging Through Scattering Media. Photonic Sensors, 2022, 12, 1.	2.5	7
6	Optimal efficiency of focusing diffused light through scattering media with iterative wavefront shaping. APL Photonics, 2022, 7, .	3.0	27
7	Optically Selective Neuron Stimulation with a Wavefront Shapingâ€Empowered Multimode Fiber. Advanced Photonics Research, 2022, 3, .	1.7	12
8	Accelerating deep learning with high energy efficiency: From microchip to physical systems. Innovation(China), 2022, 3, 100252.	5.2	4
9	Enhancing spatiotemporal focusing of light deep inside scattering media with Time-Gated Reflection Matrix. Light: Science and Applications, 2022, 11, .	7.7	4
10	Speckleâ€Based Optical Cryptosystem and its Application for Human Face Recognition via Deep Learning. Advanced Science, 2022, 9, .	5.6	13
11	Cartilage-inspired hydrogel lubrication strategy. Innovation(China), 2022, 3, 100275.	5.2	2
12	Fabrication of multifunctional polydopamine-coated gold nanobones for PA/CT imaging and enhanced synergistic chemo-photothermal therapy. Journal of Materials Science and Technology, 2021, 63, 97-105.	5.6	20
13	A switchable multimode microlaser based on an AIE microsphere. Journal of Materials Chemistry C, 2021, 9, 11180-11188.	2.7	6
14	Adaptive optical focusing through perturbed scattering media with a dynamic mutation algorithm. Photonics Research, 2021, 9, 202.	3.4	32
15	Influence of anisotropy factor on the memory effect: A systematic study. Optik, 2021, 231, 166366.	1.4	1
16	Special issue â€œPhotoacoustic imaging: microscopy, tomography, and their recent applications in biomedicineâ€•in visual computation for industry, biomedicine, and art. Visual Computing for Industry, Biomedicine, and Art, 2021, 4, 16.	2.2	3
17	Dynamic mutation enhanced particle swarm optimization for optical wavefront shaping. Optics Express, 2021, 29, 18420.	1.7	19
18	Parameter-free optimization algorithm for iterative wavefront shaping. Optics Letters, 2021, 46, 2880.	1.7	17

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19	Single-shot ultrasound-modulated optical tomography with enhanced speckle contrast. Optics Letters, 2021, 46, 3095.	1.7	5
20	Towards smart optical focusing: deep learning-empowered dynamic wavefront shaping through nonstationary scattering media. Photonics Research, 2021, 9, B262.	3.4	30
21	Plasmonic-doped melanin-mimic for CXCR4-targeted NIR-II photoacoustic computed tomography-guided photothermal ablation of orthotopic hepatocellular carcinoma. Acta Biomaterialia, 2021, 129, 245-257.	4.1	15
22	A multifunctional targeted nanoprobe with high NIR-II PAI/MRI performance for precise theranostics of orthotopic early-stage hepatocellular carcinoma. Journal of Materials Chemistry B, 2021, 9, 8779-8792.	2.9	15
23	Low-consumption photoacoustic method to measure liquid viscosity. Biomedical Optics Express, 2021, 12, 7139.	1.5	9
24	Two-Dimensional Photoacoustic/Ultrasonic Endoscopic Imaging Based on a Line-Focused Transducer. Frontiers in Bioengineering and Biotechnology, 2021, 9, 807633.	2.0	3
25	Clothing spiny nanoprobes against the mononuclear phagocyte system clearance in vivo: Photoacoustic diagnosis and photothermal treatment of early stage liver cancer with erythrocyte membrane-camouflaged gold nanostars. Applied Materials Today, 2020, 18, 100484.	2.3	26
26	Near-Infrared Plasmon-Boosted Heat/Oxygen Enrichment for Reversing Rheumatoid Arthritis with Metal/Semiconductor Composites. ACS Applied Materials & Interfaces, 2020, 12, 45796-45806.	4.0	51
27	Multifunctional layered black phosphorene-based nanoplatform for disease diagnosis and treatment: a review. Frontiers of Optoelectronics, 2020, 13, 327-351.	1.9	9
28	Tunable absorption characteristics in multilayered structures with graphene for biosensing. Journal of Innovative Optical Health Sciences, 2020, 13, 2050017.	0.5	1
29	Fluorescent Materials With Aggregation-Induced Emission Characteristics for Array-Based Sensing Assay. Frontiers in Chemistry, 2020, 8, 288.	1.8	13
30	Opticalâ€resolution photoacoustic microscopy with ultrafast dualâ€wavelength excitation. Journal of Biophotonics, 2020, 13, e201960229.	1.1	28
31	Focusing light through scattering media by reinforced hybrid algorithms. APL Photonics, 2020, 5, .	3.0	38
32	Photoacoustic imaging of microenvironmental changes in facial cupping therapy. Biomedical Optics Express, 2020, 11, 2394.	1.5	18
33	Edge enhancement through scattering media enabled by optical wavefront shaping. Photonics Research, 2020, 8, 954.	3.4	17
34	Editorial: Introduction to the special issue on high-resolution optical focusing and imaging within or through thick scattering media. Journal of Innovative Optical Health Sciences, 2019, 12, 1902002.	0.5	1
35	Active wavefront shaping for controlling and improving multimode fiber sensor. Journal of Innovative Optical Health Sciences, 2019, 12, .	0.5	9
36	Artificial intelligence-assisted light control and computational imaging through scattering media. Journal of Innovative Optical Health Sciences, 2019, 12, 1930006.	0.5	32

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37	Implementation of digital optical phase conjugation with embedded calibration and phase rectification. Scientific Reports, 2019, 9, 1537.	1.6	23
38	Single-shot linear dichroism optical-resolution photoacoustic microscopy. Photoacoustics, 2019, 16, 100148.	4.4	29
39	Aggregationâ€Induced Absorption Enhancement for Deep Nearâ€Infrared II Photoacoustic Imaging of Brain Gliomas In Vivo. Advanced Science, 2019, 6, 1801615.	5.6	79
40	Photoacoustic imaging of synovial tissue hypoxia in experimental post-traumatic osteoarthritis. Progress in Biophysics and Molecular Biology, 2019, 148, 12-20.	1.4	22
41	Deep learning assisted optical wavefront shaping in disordered medium. , 2019, , .		1
42	Ultrasound-modulated laser feedback tomography in the reflective mode. Optics Letters, 2019, 44, 5414.	1.7	14
43	Interferometry-free noncontact photoacoustic detection method based on speckle correlation change. Optics Letters, 2019, 44, 5481.	1.7	13
44	Expansion of the FOV in speckle autocorrelation imaging by spatial filtering. Optics Letters, 2019, 44, 5997.	1.7	17
45	Nonlinear photoacoustic generation by pump-probe excitation. , 2019, , .		0
46	Time-reversed magnetically controlled perturbation (TRMCP) optical focusing inside scattering media. Scientific Reports, 2018, 8, 2927.	1.6	25
47	Ultrasound-mediated high-resolution optical focusing and imaging in optically scattering media. , 2018, , .		0
48	Temporal and Spatial Variability of Water Status in Plant Leaves by Terahertz Imaging. IEEE Transactions on Terahertz Science and Technology, 2018, 8, 520-527.	2.0	45
49	Perspective: Wavefront shaping techniques for controlling multiple light scattering in biological tissues: Toward <i>in vivo</i> applications. APL Photonics, 2018, 3, .	3.0	58
50	Focused and Controllable Optical Delivery in Complex Media Using Wavefront Shaping. , 2017, , .		0
51	Photoacoustic Imaging in Oxygen Detection. Applied Sciences (Switzerland), 2017, 7, 1262.	1.3	30
52	Wavefront Shaping and Its Application to Enhance Photoacoustic Imaging. Applied Sciences (Switzerland), 2017, 7, 1320.	1.3	32
53	Multimode Fiber Specklegram Twist Sensor. , 2017, , .		1
54	Nonlinear Photoacoustic Imaging by Pump-Probe Excitation. , 2017, , .		0

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55	Focusing Light Deep in Tissue with Ultrasound Guidestars. , 2015, , .		0
56	Optical focusing deep inside dynamic scattering media with near-infrared time-reversed ultrasonically encoded (TRUE) light. Nature Communications, 2015, 6, 5904.	5.8	156
57	Photoacoustically guided wavefront shaping for enhanced optical focusing in scattering media. Nature Photonics, 2015, 9, 126-132.	15.6	249
58	Optical focusing in scattering media with photoacoustic wavefront shaping (PAWS). , 2014, , .		3
59	Focusing light in scattering media by ultrasonically encoded wavefront shaping (SEWS). Proceedings of SPIE, 2014, , .	0.8	0
60	Improving the axial resolution in time-reversed ultrasonically encoded (TRUE) optical focusing with dual ultrasonic waves. , 2014, , .		0
61	Localized fluorescence excitation in opaque media by time-reversed ultrasonically encoded (TRUE) optical focusing. Proceedings of SPIE, 2014, , .	0.8	0
62	High-speed time-reversed ultrasonically encoded (TRUE) optical focusing inside dynamic scattering media at 793 nm. , 2014, , .		2
63	Optical Focusing in Scattering Media with Photoacoustic Wavefront Shaping (PAWS). , 2014, , .		1
64	Dependence of optical scattering from Intralipid in gelatin-gel based tissue-mimicking phantoms on mixing temperature and time. Journal of Biomedical Optics, 2014, 19, 035002.	1.4	71
65	High-Speed Time-Reversed Ultrasonically Encoded (TRUE) Optical Focusing in Dynamic Scattering Media at 793 nm. , 2014, , .		2
66	Ultrasonically encoded wavefront shaping for focusing into random media. Scientific Reports, 2014, 4, 3918.	1.6	51
67	Focusing Light in Scattering Media by Ultrasonically-Encoded Wavefront Shaping (SEWS). , 2014, , .		0
68	Exploring ultrasound-modulated optical tomography at clinically useful depths using the photorefractive effect. , 2013, , .		2
69	High-efficiency time-reversed ultrasonically encoded optical focusing using a large-area photorefractive polymer. Proceedings of SPIE, 2013, , .	0.8	2
70	High-sensitivity ultrasound-modulated optical tomography with a photorefractive polymer. Optics Letters, 2013, 38, 899.	1.7	16
71	Time-reversed ultrasonically encoded optical focusing using two ultrasonic transducers for improved ultrasonic axial resolution. Journal of Biomedical Optics, 2013, 18, 110502.	1.4	9
72	Focused fluorescence excitation with time-reversed ultrasonically encoded light and imaging in thick scattering media. Laser Physics Letters, 2013, 10, 075604.	0.6	32

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73	Energy enhancement in time-reversed ultrasonically encoded optical focusing using a photorefractive polymer. Journal of Biomedical Optics, 2012, 17, 080507.	1.4	20
74	Time-reversed ultrasonically encoded optical focusing in biological tissue. Journal of Biomedical Optics, 2012, 17, 030506.	1.4	27
75	Time-reversed ultrasonically encoded (TRUE) optical focusing in reflection mode: demonstrations in tissue mimicking phantoms and ex vivo tissue. , 2012, , .		1
76	Ultrasonic encoding of diffused light: from optical imaging to light focusing in turbid media. Proceedings of SPIE, 2012, , .	0.8	0
77	Ultrasound-modulated optical tomography at new depth. Journal of Biomedical Optics, 2012, 17, 066006.	1.4	26
78	Measuring Tissue Properties and Monitoring Therapeutic Responses Using Acousto-Optic Imaging. Annals of Biomedical Engineering, 2012, 40, 474-485.	1.3	6
79	Time-reversed ultrasonically encoded optical focusing in biological tissue. Journal of Biomedical Optics, 2012, 17, 036001.	1.4	0
80	Time-Reversed Ultrasonically Encoded (TRUE) Optical Focusing into Soft Biological Tissue. , 2012, , .		0
81	Real-Time Monitoring of High-Intensity Focused Ultrasound Lesion Formation Using Acousto-Optic Sensing. Ultrasound in Medicine and Biology, 2011, 37, 239-252.	0.7	30
82	Time-reversed ultrasonically encoded optical focusing into tissue-mimicking media with thickness up to 70 mean free paths. Journal of Biomedical Optics, 2011, 16, 086009.	1.4	21
83	Reflection-mode time-reversed ultrasonically encoded optical focusing into turbid media. Journal of Biomedical Optics, 2011, 16, 080505.	1.4	39
84	Monitoring and guidance of high intensity focused ultrasound exposures in real time using acousto-optic imaging: feasibility and demonstration ex vivo. , 2010, , .		1
85	Sensing the optical properties of diffusive media by acousto-optic pressure contrast imaging. , 2009, , .		1
86	Quantitative characterization of turbid media using pressure contrast acousto-optic imaging. Optics Letters, 2009, 34, 2850.	1.7	23
87	Detection of HIFU lesions in Excised Tissue Using Acousto-Optic Imaging. , 2009, , .		2
88	Focusing light into tissue. SPIE Newsroom, 0, , .	0.1	0