

Dan Zhu

List of Publications by Year in descending order

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133
papers

3,879
citations

109321

35
h-index

155660

55
g-index

151
all docs

151
docs citations

151
times ranked

3168
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress in tissue optical clearing. <i>Laser and Photonics Reviews</i> , 2013, 7, 732-757.	8.7	425
2	FDISCO: Advanced solvent-based clearing method for imaging whole organs. <i>Science Advances</i> , 2019, 5, eaau8355.	10.3	171
3	A pH/Ultrasound dual-response biomimetic nanoplatfrom for nitric oxide gas-sonodynamic combined therapy and repeated ultrasound for relieving hypoxia. <i>Biomaterials</i> , 2020, 230, 119636.	11.4	164
4	<i>In vivo</i> skin optical clearing by glycerol solutions: mechanism. <i>Journal of Biophotonics</i> , 2010, 3, 44-52.	2.3	123
5	Skull optical clearing window for <i>in vivo</i> imaging of the mouse cortex at synaptic resolution. <i>Light: Science and Applications</i> , 2018, 7, 17153-17153.	16.6	101
6	Quantitative analysis of dehydration in porcine skin for assessing mechanism of optical clearing. <i>Journal of Biomedical Optics</i> , 2011, 16, 095002.	2.6	86
7	Enhanced optical clearing of skin <i>in vivo</i> and optical coherence tomography in-depth imaging. <i>Journal of Biomedical Optics</i> , 2012, 17, 066022.	2.6	83
8	Imaging dermal blood flow through the intact rat skin with an optical clearing method. <i>Journal of Biomedical Optics</i> , 2010, 15, 026008.	2.6	81
9	A large, switchable optical clearing skull window for cerebrovascular imaging. <i>Theranostics</i> , 2018, 8, 2696-2708.	10.0	76
10	Optical clearing for multiscale biological tissues. <i>Journal of Biophotonics</i> , 2018, 11, e201700187.	2.3	75
11	Evaluation of seven optical clearing methods in mouse brain. <i>Neurophotonics</i> , 2018, 5, 1.	3.3	70
12	Influence of alcohols on the optical clearing effect of skin <i>in vitro</i> . <i>Journal of Biomedical Optics</i> , 2008, 13, 021104.	2.6	68
13	Physical and chemical mechanisms of tissue optical clearing. <i>IScience</i> , 2021, 24, 102178.	4.1	63
14	Kinetic thermal response and damage in laser coagulation of tissue. <i>Lasers in Surgery and Medicine</i> , 2002, 31, 313-321.	2.1	60
15	Controlling the scattering of Intralipid by using optical clearing agents. <i>Physics in Medicine and Biology</i> , 2009, 54, 6917-6930.	3.0	59
16	Broadband Cognitive Radio Enabled by Photonics. <i>Journal of Lightwave Technology</i> , 2020, 38, 3076-3088.	4.6	54
17	Accessing to arteriovenous blood flow dynamics response using combined laser speckle contrast imaging and skin optical clearing. <i>Biomedical Optics Express</i> , 2015, 6, 1977.	2.9	53
18	RTF: a rapid and versatile tissue optical clearing method. <i>Scientific Reports</i> , 2018, 8, 1964.	3.3	53

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19	Quantitative assessment of optical clearing methods in various intact mouse organs. <i>Journal of Biophotonics</i> , 2019, 12, e201800134.	2.3	53
20	MACS: Rapid Aqueous Clearing System for 3D Mapping of Intact Organs. <i>Advanced Science</i> , 2020, 7, 1903185.	11.2	52
21	Flufenamic acid inhibits secondary hemorrhage and BSCB disruption after spinal cord injury. <i>Theranostics</i> , 2018, 8, 4181-4198.	10.0	51
22	Coherent Optical RF Channelizer With Large Instantaneous Bandwidth and Large In-Band Interference Suppression. <i>Journal of Lightwave Technology</i> , 2018, 36, 4219-4226.	4.6	50
23	Optical clearing agents improve photoacoustic imaging in the optical diffusive regime. <i>Optics Letters</i> , 2013, 38, 4236.	3.3	48
24	A novel electrochemical biosensor for ultrasensitive and specific detection of DNA based on molecular beacon mediated circular strand displacement and rolling circle amplification. <i>Biosensors and Bioelectronics</i> , 2014, 62, 274-279.	10.1	47
25	Switchable skin window induced by optical clearing method for dermal blood flow imaging. <i>Journal of Biomedical Optics</i> , 2012, 18, 061209.	2.6	46
26	Signal and depth enhancement for in vivo flow cytometer measurement of ear skin by optical clearing agents. <i>Biomedical Optics Express</i> , 2013, 4, 2518.	2.9	44
27	<i>Ex vivo</i> optical measurements of glucose diffusion kinetics in native and diabetic mouse skin. <i>Journal of Biophotonics</i> , 2015, 8, 332-346.	2.3	44
28	Skin optical clearing potential of disaccharides. <i>Journal of Biomedical Optics</i> , 2016, 21, 081207.	2.6	42
29	Lookup-table-based inverse model for human skin reflectance spectroscopy: two-layered Monte Carlo simulations and experiments. <i>Optics Express</i> , 2014, 22, 1852.	3.4	41
30	Visible and near-infrared spectroscopy for distinguishing malignant tumor tissue from benign tumor and normal breast tissues <i>in vitro</i> . <i>Journal of Biomedical Optics</i> , 2013, 18, 077003.	2.6	40
31	Skull Optical Clearing Solution for Enhancing Ultrasonic and Photoacoustic Imaging. <i>IEEE Transactions on Medical Imaging</i> , 2016, 35, 1903-1906.	8.9	39
32	Spatial Distribution of Motor Endplates and its Adaptive Change in Skeletal Muscle. <i>Theranostics</i> , 2019, 9, 734-746.	10.0	39
33	Short-term and long-term effects of optical clearing agents on blood vessels in chick chorioallantoic membrane. <i>Journal of Biomedical Optics</i> , 2008, 13, 021106.	2.6	38
34	Enhancement of skin optical clearing efficacy using photoacoustic irradiation. <i>Lasers in Surgery and Medicine</i> , 2010, 42, 132-140.	2.1	38
35	Photonics-Based Microwave Image-Reject Mixer. <i>Photonics</i> , 2018, 5, 6.	2.0	38
36	Chip-Based Microwave Photonic Radar for High-Resolution Imaging. <i>Laser and Photonics Reviews</i> , 2020, 14, 1900239.	8.7	37

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37	Subvoxel light-sheet microscopy for high-resolution high-throughput volumetric imaging of large biomedical specimens. <i>Advanced Photonics</i> , 2019, 1, 1.	11.8	37
38	IMPROVE OPTICAL CLEARING OF SKIN IN VITRO WITH PROPYLENE GLYCOL AS A PENETRATION ENHANCER. <i>Journal of Innovative Optical Health Sciences</i> , 2009, 02, 269-278.	1.0	36
39	A useful way to develop effective <i>in vivo</i> skin optical clearing agents. <i>Journal of Biophotonics</i> , 2017, 10, 887-895.	2.3	34
40	Photodynamic opening of the blood-brain barrier to high weight molecules and liposomes through an optical clearing skull window. <i>Biomedical Optics Express</i> , 2018, 9, 4850.	2.9	34
41	Synthesis of catalytically active peroxidase-like Fe-doped carbon dots and application in ratiometric fluorescence detection of hydrogen peroxide and glucose. <i>Analytical Methods</i> , 2019, 11, 2663-2668.	2.7	34
42	Power Allocation With Energy Efficiency Optimization in Cellular D2D-Based V2X Communication Network. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020, 21, 4947-4957.	8.0	34
43	Optical coherence tomography angiography offers comprehensive evaluation of skin optical clearing <i>in vivo</i> by quantifying optical properties and blood flow imaging simultaneously. <i>Journal of Biomedical Optics</i> , 2016, 21, 081202.	2.6	33
44	Optimization of GFP Fluorescence Preservation by a Modified uDISCO Clearing Protocol. <i>Frontiers in Neuroanatomy</i> , 2018, 12, 67.	1.7	33
45	Synaptotagmin I and IX function redundantly in controlling fusion pore of large dense core vesicles. <i>Biochemical and Biophysical Research Communications</i> , 2007, 361, 922-927.	2.1	31
46	Three-dimensional, isotropic imaging of mouse brain using multi-view deconvolution light sheet microscopy. <i>Journal of Innovative Optical Health Sciences</i> , 2017, 10, 1743006.	1.0	31
47	Rapid and prodium iodide-compatible optical clearing method for brain tissue based on sugar/sugar-alcohol. <i>Journal of Biomedical Optics</i> , 2016, 21, 081203.	2.6	29
48	Coherent Raman Scattering Unravelling Mechanisms Underlying Skull Optical Clearing for Through-Skull Brain Imaging. <i>Analytical Chemistry</i> , 2019, 91, 9371-9375.	6.5	29
49	Effects of dehydration on the optical properties of <i>in vitro</i> porcine liver. <i>Lasers in Surgery and Medicine</i> , 2003, 33, 226-231.	2.1	28
50	Elevated-temperature-induced acceleration of PACT clearing process of mouse brain tissue. <i>Scientific Reports</i> , 2017, 7, 38848.	3.3	28
51	Minutes-timescale 3D isotropic imaging of entire organs at subcellular resolution by content-aware compressed-sensing light-sheet microscopy. <i>Nature Communications</i> , 2021, 12, 107.	12.8	27
52	Transmissive-detected laser speckle contrast imaging for blood flow monitoring in thick tissue: from Monte Carlo simulation to experimental demonstration. <i>Light: Science and Applications</i> , 2021, 10, 241.	16.6	27
53	Effect of light losses of sample between two integrating spheres on optical properties estimation. <i>Journal of Biomedical Optics</i> , 2007, 12, 064004.	2.6	26
54	Review: Tissue Optical Clearing Window for Blood Flow Monitoring. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 92-103.	2.9	26

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55	Brain Mechanisms of COVID-19-Sleep Disorders. International Journal of Molecular Sciences, 2021, 22, 6917.	4.1	26
56	Comparison of cerebral and cutaneous microvascular dysfunction with the development of type 1 diabetes. Theranostics, 2019, 9, 5854-5868.	10.0	25
57	ASSESSMENT OF OPTICAL CLEARING INDUCED IMPROVEMENT OF LASER SPECKLE CONTRAST IMAGING. Journal of Innovative Optical Health Sciences, 2010, 03, 159-167.	1.0	24
58	Wideband Phase Noise Measurement Using a Multifunctional Microwave Photonic Processor. IEEE Photonics Technology Letters, 2014, 26, 2434-2437.	2.5	24
59	A Coupled Optoelectronic Oscillator With Performance Improved by Enhanced Spatial Hole Burning in an Erbium-Doped Fiber. Journal of Lightwave Technology, 2018, 36, 3726-3732.	4.6	23
60	FMCW Lidar Using Phase-Diversity Coherent Detection to Avoid Signal Aliasing. IEEE Photonics Technology Letters, 2019, 31, 1822-1825.	2.5	23
61	Fast, 3D Isotropic Imaging of Whole Mouse Brain Using Multiangle-Resolved Subvoxel SPIM. Advanced Science, 2020, 7, 1901891.	11.2	22
62	Aggregation-induced emission nanoprobe assisted ultra-deep through-skull three-photon mouse brain imaging. Nano Today, 2022, 45, 101536.	11.9	22
63	Multichannel Up-Conversion Based on Polarization-Modulated Optoelectronic Oscillator. IEEE Photonics Technology Letters, 2014, 26, 544-547.	2.5	21
64	Dynamic monitoring of optical clearing of skin using photoacoustic microscopy and ultrasonography. Optics Express, 2014, 22, 1094.	3.4	20
65	In vivo monitoring blood-brain barrier permeability using spectral imaging through optical clearing skull window. Journal of Biophotonics, 2019, 12, e201800330.	2.3	20
66	Influence of glycerol with different concentrations on skin optical clearing and morphological changes in vivo. Proceedings of SPIE, 2008, , .	0.8	19
67	Deep-learning super-resolution light-sheet add-on microscopy (Deep-SLAM) for easy isotropic volumetric imaging of large biological specimens. Biomedical Optics Express, 2020, 11, 7273.	2.9	19
68	Lookup-table-based inverse model for mapping oxygen concentration of cutaneous microvessels using hyperspectral imaging. Optics Express, 2017, 25, 3481.	3.4	18
69	Sugar-Induced Skin Optical Clearing: From Molecular Dynamics Simulation to Experimental Demonstration. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 256-262.	2.9	17
70	Optoelectronic Oscillator Based on Polarization Modulation. Fiber and Integrated Optics, 2015, 34, 185-203.	2.5	17
71	<sc>Visible</sc>near infrared<sc> skull optical clearing window for in vivo cortical vasculature imaging and targeted manipulation. Journal of Biophotonics, 2020, 13, e202000142.	2.3	17
72	Visualization of skin microvascular dysfunction of type 1 diabetic mice using in vivo skin optical clearing method. Journal of Biomedical Optics, 2018, 24, 1.	2.6	16

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73	Photostimulation of Extravasation of Beta-Amyloid through the Model of Blood-Brain Barrier. Electronics (Switzerland), 2020, 9, 1056.	3.1	15
74	Penetration-enhanced optical coherence tomography angiography with optical clearing agent for clinical evaluation of human skin. Photodiagnosis and Photodynamic Therapy, 2020, 30, 101734.	2.6	15
75	IFP35 as a promising biomarker and therapeutic target for the syndromes induced by SARS-CoV-2 or influenza virus. Cell Reports, 2021, 37, 110126.	6.4	14
76	Age differences in photodynamic therapy-mediated opening of the blood-brain barrier through the optical clearing skull window in mice. Lasers in Surgery and Medicine, 2019, 51, 625-633.	2.1	13
77	Improvement of skin optical clearing efficacy by topical treatment of glycerol at different temperatures. Journal of Physics: Conference Series, 2011, 277, 012007.	0.4	11
78	Quantitative evaluation of SOCS-induced optical clearing efficiency of skull. Quantitative Imaging in Medicine and Surgery, 2015, 5, 136-42.	2.0	11
79	FSOCA-induced switchable footpad skin optical clearing window for blood flow and cell imaging <i>in vivo</i> . Journal of Biophotonics, 2017, 10, 1647-1656.	2.3	10
80	Tissue optical clearing for 3D visualization of vascular networks: A review. Vascular Pharmacology, 2021, 141, 106905.	2.1	10
81	Efficient and cost-effective 3D cellular imaging by sub-voxel-resolving light-sheet add-on microscopy. Journal of Biophotonics, 2020, 13, e201960243.	2.3	9
82	High-resolution two-photon transcranial imaging of brain using direct wavefront sensing. Photonics Research, 2021, 9, 1144.	7.0	9
83	Ear skin optical clearing for improving blood flow imaging/Optisches Clearing der Ohrhaut zur verbesserten Bildgebung des Blutflusses. Photonics & Lasers in Medicine, 2013, 2, .	0.2	9
84	Microwave Photonic Channelizer Based on Polarization Multiplexing and Photonic Dual Output Image Reject Mixer. IEEE Access, 2019, 7, 158308-158316.	4.2	8
85	An in situ synthesis of silver nanoparticle-loaded genetically engineered polypeptide nanogels for antibacterial and wound healing applications. Dalton Transactions, 2020, 49, 12049-12055.	3.3	8
86	Three-dimensional visualization of intramuscular innervation in intact adult skeletal muscle by a modified iDISCO method. Neurophotonics, 2020, 7, 1.	3.3	8
87	Impact of Dispersion Effects on Temporal-Convolution-Based Real-Time Fourier Transformation Systems. Journal of Lightwave Technology, 2020, 38, 4664-4676.	4.6	8
88	Combined laser and glycerol enhancing skin optical clearing. , 2009, , .		7
89	Potential applications of catenastatin in cardiovascular diseases. Biomarkers in Medicine, 2016, 10, 877-888.	1.4	7
90	In vivo imaging the motility of monocyte/macrophage during inflammation in diabetic mice. Journal of Biophotonics, 2018, 11, e201700205.	2.3	7

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91	Quantitative evaluation of skin disorders in type 1 diabetic mice by in vivo optical imaging. Biomedical Optics Express, 2019, 10, 2996.	2.9	7
92	The Stress and Vascular Catastrophes in Newborn Rats: Mechanisms Preceding and Accompanying the Brain Hemorrhages. Frontiers in Physiology, 2016, 7, 210.	2.8	6
93	An Approach to Maximize Retrograde Transport Based on the Spatial Distribution of Motor Endplates in Mouse Hindlimb Muscles. Frontiers in Cellular Neuroscience, 2021, 15, 707982.	3.7	6
94	Optical angiography for diabetes-induced pathological changes in microvascular structure and function: An overview. Journal of Innovative Optical Health Sciences, 2022, 15, .	1.0	6
95	Improvement of in vivo rat skin optical clearing with chemical penetration enhancers. Proceedings of SPIE, 2011, , .	0.8	5
96	Effect of light beam on measurements of reflectance and transmittance of turbid media with integrating sphere: Monte Carlo simulation. Frontiers of Optoelectronics, 2015, 8, 203-211.	3.7	5
97	Quantitative evaluation of enhanced laser tattoo removal by skin optical clearing. Journal of Innovative Optical Health Sciences, 2015, 08, 1541007.	1.0	5
98	Comparison of Cortical and Cutaneous Vascular Hemodynamic Changes in Hypoxia by Using<i>in Vivo</i>Skull and Skin Optical Clearing Techniques. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-7.	2.9	5
99	Oneâ€third optical frequency divider for dualâ€wavelength optical signals based on an optoelectronic oscillator. Electronics Letters, 2020, 56, 727-729.	1.0	5
100	In vivo tissue optical clearing assisted through-skull targeted photothrombotic ischemic stroke model in mice. Journal of Biomedical Optics, 2022, 27, .	2.6	5
101	Optical Vector Analysis With Improved Accuracy and Enhanced Dynamic Range. IEEE Photonics Technology Letters, 2019, 31, 1565-1568.	2.5	3
102	Dec-DISCO: decolorization DISCO clearing for seeing through the biological architectures of heme-rich organs. Biomedical Optics Express, 2021, 12, 5499.	2.9	3
103	FDISCO+: a clearing method for robust fluorescence preservation of cleared samples. Neurophotonics, 2021, 8, 035007.	3.3	3
104	Recent progress in optical probing and manipulation of tissue: introduction. Biomedical Optics Express, 2019, 10, 5159.	2.9	3
105	Optical clearing imaging assisted evaluation of urokinase thrombolytic therapy on cerebral vessels with different sizes. Biomedical Optics Express, 2022, 13, 3243.	2.9	3
106	Reflectance spectroscopy for evaluating optical clearing efficacy of skin in vivo. , 2013, , .		2
107	Current research on photonics and lasers in medicine in China/Aktuelle Forschung zum Thema â€Photonics und Laser in der Medizin in Chinaâ€œ. Photonics & Lasers in Medicine, 2013, 2, 1-3.	0.2	2
108	A Colorless Remote Antenna Unit for Bidirectional Photonic Antenna Remoting. IEEE Microwave and Wireless Components Letters, 2014, 24, 275-277.	3.2	2

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109	A special issue on Biomedical Photonics. <i>Frontiers of Optoelectronics</i> , 2015, 8, 119-121.	3.7	2
110	Clarity and Immunofluorescence on Mouse Brain Tissue. <i>Current Protocols in Neuroscience</i> , 2018, 83, e46.	2.6	2
111	Statistical calibrations to improve the 2-5-year prediction skill for SST over the North Atlantic. <i>Meteorology and Atmospheric Physics</i> , 2022, 134, .	2.0	2
112	Reflectance spectroscopy for noninvasive evaluation of hair follicle stage. <i>Journal of Biomedical Optics</i> , 2014, 20, 051011.	2.6	1
113	Molecular effective coverage surface area of optical clearing agents for predicting optical clearing potential. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
114	Linearized phase-modulated analog photonic link based on optical carrier band processing. , 2016, , .		1
115	Photonics-based receiver for decoupled velocity and range measurement. , 2019, , .		1
116	Three-Dimensional Mapping of Retrograde Multi-Labeled Motor Neuron Columns in the Spinal Cord. <i>Photonics</i> , 2021, 8, 145.	2.0	1
117	An applicable whole-mount immunolabeling method for volume imaging of skeletal muscle. , 2019, , .		1
118	Feedback method and structure to improve the stability of the OFC-generated system based on electro-optic modulation. <i>Optical Engineering</i> , 2019, 58, 1.	1.0	1
119	Accessing to oxygen saturation in cutaneous microcirculation with high resolution using hyperspectral imaging and skin optical clearing. , 2015, , .		0
120	A simple and rapid optical clearing method for improving optical imaging depth. , 2015, , .		0
121	Hypoxia and Neonatal Haemorrhagic Stroke: Experimental Study of Mechanisms. <i>Advances in Experimental Medicine and Biology</i> , 2016, 923, 173-179.	1.6	0
122	Time Lens with Improved Aperture to Resolution Ratio Based on a Phase Modulator. , 2019, , .		0
123	Microwave Channelizer Based on Polarization Multiplexing and Photonic Image-Reject Mixing. , 2019, , .		0
124	High-Throughput Imaging: Fast, 3D Isotropic Imaging of Whole Mouse Brain Using Multiangle-Resolved Subvoxel SPIM (Adv. Sci. 3/2020). <i>Advanced Science</i> , 2020, 7, 2070015.	11.2	0
125	Tissue Optical Clearing for Biomedical Imaging: From In Vitro to In Vivo. <i>Advances in Experimental Medicine and Biology</i> , 2021, 3233, 217-255.	1.6	0
126	Introduction to the Special Issue on Advances in Biophotonics and Biomedical Optics. <i>Journal of Innovative Optical Health Sciences</i> , 2021, 14, .	1.0	0

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127	Enhanced biosensing based on chemical or mechanical optical clearing. , 2013, , .		0
128	Preliminary study investigating depth sensitivity of spatially resolved bimodal spectroscopy combined to optical clearing agents on a human skin based-hybrid model. , 2017, , .		0
129	In vivo monitoring optical clearing process of skin using two-photon microscopy. , 2018, , .		0
130	Optimized 3DISCO for imaging of heme-rich tissues by decolorization. , 2019, , .		0
131	Preface to the special issue on "Biomedical Optics" Frontiers of Optoelectronics, 2020, 13, 305-306.	3.7	0
132	Introduction to the Special Issue on Advances in Biophotonics and Biomedical Optics: Part II. Journal of Innovative Optical Health Sciences, 2022, 15, .	1.0	0
133	Investigation of the bioactivity and fluorescence imaging of multicellular tumor spheroid targeted labelling with CdSe/ZnS quantum dots. Journal of Nanoparticle Research, 2022, 24, 1.	1.9	0