

Ruimin Chen

List of Publications by Year in descending order

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112
papers

3,214
citations

136740

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all docs

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docs citations

112
times ranked

3008
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of High-Frequency Ultrasonic Transducers for Photoacoustic Imaging Applications. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 1848-1858.	1.7	8
2	Highly Integrated Multiplexing and Buffering Electronics for Large Aperture Ultrasonic Arrays. BME Frontiers, 2022, 2022, .	2.2	4
3	2-D Ultrasonic Array-Based Optical Coherence Elastography. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1096-1104.	1.7	11
4	A Review of Transparent Sensors for Photoacoustic Imaging Applications. Photonics, 2021, 8, 324.	0.9	25
5	Recent advances in high-speed photoacoustic microscopy. Photoacoustics, 2021, 24, 100294.	4.4	21
6	Layer-specific ultrasound elastography using a multi-layered shear wave dispersion model for assessing the viscoelastic properties. Physics in Medicine and Biology, 2021, 66, 035003.	1.6	2
7	Co-Integrated PIN-PMN-PT 2-D Array and Transceiver Electronics by Direct Assembly Using a 3-D Printed Interposer Grid Frame. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 387-401.	1.7	15
8	Integrin Antibody Decreases Deformability of Patient-Derived Pre- β Acute Lymphocytic Leukemia Cells as Measured by High-Frequency Acoustic Tweezers. Journal of Ultrasound in Medicine, 2020, 39, 589-595.	0.8	5
9	Stretchable Nanolayered Thermoelectric Energy Harvester on Complex and Dynamic Surfaces. Nano Letters, 2020, 20, 4445-4453.	4.5	106
10	Focused Ultrasound Stimulates ER Localized Mechanosensitive PANNEXIN-1 to Mediate Intracellular Calcium Release in Invasive Cancer Cells. Frontiers in Cell and Developmental Biology, 2020, 8, 504.	1.8	20
11	Transparent High-Frequency Ultrasonic Transducer for Photoacoustic Microscopy Application. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 1848-1853.	1.7	37
12	High-speed wide-field multi-parametric photoacoustic microscopy. Optics Letters, 2020, 45, 2756.	1.7	25
13	Large Area 1.75D Array for Liver Cancer by Tiling of Multi-Generation ASIC Array Modules. , 2020, , .		3
14	PMN-PT/Epoxy 1-3 composite based ultrasonic transducer for dual-modality photoacoustic and ultrasound endoscopy. Photoacoustics, 2019, 15, 100138.	4.4	32
15	Biomedical Applications: Ultrasound-Induced Wireless Energy Harvesting for Potential Retinal Electrical Stimulation Application (Adv. Funct. Mater. 33/2019). Advanced Functional Materials, 2019, 29, 1970231.	7.8	1
16	Optical Resolution Photoacoustic Microscopy of Ovary and Fallopian Tube. Scientific Reports, 2019, 9, 14306.	1.6	17
17	Ultrasound-Induced Wireless Energy Harvesting for Potential Retinal Electrical Stimulation Application. Advanced Functional Materials, 2019, 29, 1902522.	7.8	56
18	Fabrication of a (K,Na)NbO ₃ -based lead-free 1-3 piezocomposite for high-sensitivity ultrasonic transducers application. Journal of Applied Physics, 2019, 125, .	1.1	39

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19	Helical-Like 3D Ultrathin Piezoelectric Element for Complicated Ultrasonic Field. <i>Advanced Functional Materials</i> , 2019, 29, 1902912.	7.8	15
20	Acoustic levitation and manipulation by a high-frequency focused ring ultrasonic transducer. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	39
21	Tiled Large Element 1.75D Aperture with Dual Array Modules by Adjacent Integration of PIN-PMN-PT Transducers and Custom High Voltage Switching ASICs. , 2019, , .		7
22	Flexible piezoelectric ultrasonic energy harvester array for bio-implantable wireless generator. <i>Nano Energy</i> , 2019, 56, 216-224.	8.2	105
23	Eco-Friendly Highly Sensitive Transducers Based on a New KNN-NTK-FM Lead-Free Piezoelectric Ceramic for High-Frequency Biomedical Ultrasonic Imaging Applications. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1580-1587.	2.5	51
24	Isotropic-resolution photoacoustic microscopy with multi-angle illumination. <i>Optics Letters</i> , 2019, 44, 1.	1.7	2
25	Ultrasound and acoustic resolution photoacoustic microscopy: a novel modality for surveilling human rectal cancer after therapy. , 2019, , .		0
26	High-Performance Ultrasound Needle Transducer Based on Modified PMN-PT Ceramic With Ultrahigh Clamped Dielectric Permittivity. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2018, 65, 223-230.	1.7	25
27	Acoustic radiation force of a solid elastic sphere immersed in a cylindrical cavity filled with ideal fluid. <i>Wave Motion</i> , 2018, 80, 37-46.	1.0	11
28	Stretchable ultrasonic transducer arrays for three-dimensional imaging on complex surfaces. <i>Science Advances</i> , 2018, 4, eaar3979.	4.7	204
29	Fabrication and Performance of a Miniaturized and Integrated Endoscope Ultrasound Convex Array for Digestive Tract Imaging. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 140-148.	2.5	10
30	Correcting the limited view in optical-resolution photoacoustic microscopy. <i>Journal of Biophotonics</i> , 2018, 11, e201700196.	1.1	15
31	Modular Fabrication and Assembly of Large 2D Arrays with Interface Asics, Pin-Pmn-Pt Composite, and 3D Printed Backing. , 2018, , .		7
32	Assessment of Electromechanical Coupling Coefficient for a Completed PIN-PMN-PT Array. , 2018, , .		0
33	Development of a KNN Ceramic-Based Lead-Free Linear Array Ultrasonic Transducer. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2018, 65, 2113-2120.	1.7	29
34	Characterizing Deformability of Drug Resistant Patient-Derived Acute Lymphoblastic Leukemia (ALL) Cells Using Acoustic Tweezers. <i>Scientific Reports</i> , 2018, 8, 15708.	1.6	16
35	A Dual-Modality Hybrid Imaging System Harnesses Radioluminescence and Sound to Reveal Molecular Pathology of Atherosclerotic Plaques. <i>Scientific Reports</i> , 2018, 8, 8992.	1.6	8
36	Transvaginal fast-scanning optical-resolution photoacoustic endoscopy. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	1.4	32

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37	Dual-axis illumination for virtually augmenting the detection view of optical-resolution photoacoustic microscopy. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	1.4	8
38	Feasibility of co-registered ultrasound and acoustic-resolution photoacoustic imaging of human colorectal cancer. <i>Biomedical Optics Express</i> , 2018, 9, 5159.	1.5	53
39	Whole-organ atlas imaged by label-free high-resolution photoacoustic microscopy assisted by a microtome. , 2018, , .		0
40	Single-Beam Acoustic Trapping of Red Blood Cells and Polystyrene Microspheres in Flowing Red Blood Cell Saline and Plasma Suspensions. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 852-859.	0.7	17
41	High-Frequency Ultrasonic Imaging with Lead-free (Na,K)(Nb,Ta)O ₃ Single Crystal. <i>Ultrasonic Imaging</i> , 2017, 39, 348-356.	1.4	17
42	Development of a Mechanical Scanning Device With High-Frequency Ultrasound Transducer for Ultrasonic Capsule Endoscopy. <i>IEEE Transactions on Medical Imaging</i> , 2017, 36, 1922-1929.	5.4	39
43	Label-free automated three-dimensional imaging of whole organs by microtomy-assisted photoacoustic microscopy. <i>Nature Communications</i> , 2017, 8, 1386.	5.8	104
44	An adjustable multi-scale single beam acoustic tweezers based on ultrahigh frequency ultrasonic transducer. <i>Biotechnology and Bioengineering</i> , 2017, 114, 2637-2647.	1.7	23
45	Discrimination of minimal residual disease in acute lymphoblastic leukemia by using single-beam acoustic tweezer. , 2017, , .		0
46	Discrimination of minimal residual disease in acute lymphoblastic leukemia by using single-beam acoustic tweezer. , 2017, , .		0
47	High frequency single crystal ultrasonic transducers up to 100 MHz for high resolution ophthalmic imaging applications. , 2017, , .		2
48	PIN-PMN-PT single crystal composite and 3D printed interposer backing for ASIC integration of large aperture 2D array. , 2017, , .		1
49	High frequency single crystal ultrasonic transducers up to 100 MHz for high resolution ophthalmic imaging applications. , 2017, , .		3
50	Correlation of IOP with Corneal Acoustic Impedance in Porcine Eye Model. <i>BioMed Research International</i> , 2017, 2017, 1-6.	0.9	2
51	PIN-PMN-PT single crystal composite and 3D printed interposer backing for ASIC integration of large aperture 2D array. , 2017, , .		2
52	Photoacoustic thermal flowmetry with a single light source. <i>Journal of Biomedical Optics</i> , 2017, 22, 1.	1.4	12
53	Simulation and fabrication of 3 composite PZT films for ultrahigh frequency (100-300 MHz) ultrasonic transducers. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	10
54	Multiparametric photoacoustic microscopy of the mouse brain with 300-kHz A-line rate. <i>Neurophotonics</i> , 2016, 3, 045006.	1.7	52

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55	Transparent lead lanthanum zirconate titanate (PLZT) ceramic fibers for high-frequency ultrasonic transducer applications. <i>Ceramics International</i> , 2016, 42, 18554-18559.	2.3	21
56	Ultrasound-aided Multi-parametric Photoacoustic Microscopy of the Mouse Brain. <i>Scientific Reports</i> , 2016, 5, 18775.	1.6	78
57	Catheter-based photoacoustic endoscope for use in the instrument channel of a clinical video endoscope. , 2015, , .		3
58	Three-dimensional photoacoustic and ultrasonic endoscopic imaging of two rabbit esophagi. , 2015, , .		0
59	Recent advances in developing biomedical applications of single beam acoustic tweezers. , 2015, , .		0
60	Optical-resolution photoacoustic endomicroscopy in vivo. <i>Biomedical Optics Express</i> , 2015, 6, 918.	1.5	73
61	Simultaneous photoacoustic microscopy of microvascular anatomy, oxygen saturation, and blood flow. <i>Optics Letters</i> , 2015, 40, 910.	1.7	117
62	Label-free optical-resolution photoacoustic endomicroscopy in vivo. , 2015, , .		0
63	Three-Dimensional Photoacoustic Endoscopic Imaging of the Rabbit Esophagus. <i>PLoS ONE</i> , 2015, 10, e0120269.	1.1	43
64	Combined optical and mechanical scanning in optical-resolution photoacoustic microscopy. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
65	A feasibility study of <i>in vivo</i> applications of single beam acoustic tweezers. <i>Applied Physics Letters</i> , 2014, 105, 173701.	1.5	41
66	Systematic study of high-frequency ultrasonic transducer design for laser-scanning photoacoustic ophthalmoscopy. <i>Journal of Biomedical Optics</i> , 2014, 19, 016015.	1.4	20
67	Catheter-based photoacoustic endoscope. <i>Journal of Biomedical Optics</i> , 2014, 19, 1.	1.4	52
68	PMN-PT single-crystal high-frequency kerfless phased array. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2014, 61, 1033-1041.	1.7	36
69	Urogenital photoacoustic endoscope. <i>Optics Letters</i> , 2014, 39, 1473.	1.7	38
70	Fully motorized optical-resolution photoacoustic microscopy. <i>Optics Letters</i> , 2014, 39, 2117.	1.7	69
71	Harmonic distortion reduction technique of the power amplifier for very high frequency ultrasonic transducer applications. , 2013, , .		2
72	Lead-free BNT composite film for high-frequency broadband ultrasonic transducer applications. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 1533-1537.	1.7	31

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73	20 MHz forward-imaging single-element beam steering with an internal rotating variable-angle reflecting surface: Wire phantom and ex vivo pilot study. <i>Ultrasonics</i> , 2013, 53, 561-569.	2.1	5
74	Pulse Inversion Chirp Coded Tissue Harmonic Imaging (PI-CTHI) of Zebrafish Heart Using High Frame Rate Ultrasound Biomicroscopy. <i>Annals of Biomedical Engineering</i> , 2013, 41, 41-52.	1.3	12
75	Correspondence: Lead-free intravascular ultrasound transducer using BZT-50BCT ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 1272-1276.	1.7	53
76	Photoacoustic endoscopic imaging study of melanoma tumor growth in a rat colorectum in vivo. , 2013, , .		2
77	Photoacoustic endoscopic imaging of the rabbit mediastinum. , 2013, , .		0
78	A parabolic mirror-based proximally actuated photoacoustic endoscope. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
79	Micromachined high-frequency ultrasound 2-dimensional array transducer. , 2013, , .		0
80	Title is missing!. <i>Journal of Medical and Biological Engineering</i> , 2013, 33, 103.	1.0	8
81	Sonothrombolysis of Ear Marginal Vein of Rabbits Monitored with High-frequency Ultrasound Needle Transducer. <i>Journal of Medical and Biological Engineering</i> , 2013, 33, 103-110.	1.0	4
82	Reflection-mode submicron-resolution in vivo photoacoustic microscopy. <i>Journal of Biomedical Optics</i> , 2012, 17, 020501.	1.4	102
83	A 2.5-mm outer diameter photoacoustic endoscopic mini-probe based on a highly sensitive PMN-PT ultrasonic transducer. <i>Proceedings of SPIE</i> , 2012, , .	0.8	3
84	Volumetric Photoacoustic Endoscopy. , 2012, , .		1
85	A 25-mm diameter probe for photoacoustic and ultrasonic endoscopy. <i>Optics Express</i> , 2012, 20, 23944.	1.7	110
86	Evaluation of breast tumor margins in vivo with intraoperative photoacoustic imaging. <i>Optics Express</i> , 2012, 20, 8726.	1.7	92
87	Dual-frequency acoustic cavitation for noninvasively breaking down a cataractous lens. , 2012, , .		0
88	Phase-resolved acoustic radiation force optical coherence elastography. <i>Journal of Biomedical Optics</i> , 2012, 17, 110505.	1.4	87
89	In vivo imaging of cell nuclei by photoacoustic microscopy without staining. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
90	Toward dual-wavelength functional photoacoustic endoscopy: laser and peripheral optical systems development. <i>Proceedings of SPIE</i> , 2012, , .	0.8	5

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91	Thermal-independent properties of PIN-PMN-PT single-crystal linear-array ultrasonic transducers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 2777-84.	1.7	14
92	Simultaneous functional photoacoustic and ultrasonic endoscopy of internal organs in vivo. Nature Medicine, 2012, 18, 1297-1302.	15.2	378
93	Optimal ultraviolet wavelength for <i>in vivo</i> photoacoustic imaging of cell nuclei. Journal of Biomedical Optics, 2012, 17, 056004.	1.4	61
94	Micromachined high frequency PMN-PT/epoxy 1 st 3 composite ultrasonic annular array. Ultrasonics, 2012, 52, 497-502.	2.1	42
95	Intraoperative photoacoustic tumor imaging. , 2012, , .		0
96	Reflection-mode submicron-resolution photoacoustic microscopy in vivo. , 2012, , .		2
97	High frequency, high frame rate pulse inversion chirp coded tissue harmonic imaging. , 2011, , .		1
98	Real-time four-dimensional optical-resolution photoacoustic microscopy with Au nanoparticle-assisted subdiffraction-limit resolution. Optics Letters, 2011, 36, 1137.	1.7	66
99	High speed inverted optical-resolution photoacoustic microscopy. Proceedings of SPIE, 2011, , .	0.8	0
100	Volumetric photoacoustic endoscopy of upper gastrointestinal tract: ultrasonic transducer technology development. Proceedings of SPIE, 2011, , .	0.8	7
101	Microscale 1-3-Type (Na,K)NbO ₃ -Based Pb-Free Piezocomposites for High-Frequency Ultrasonic Transducer Applications. Journal of the American Ceramic Society, 2011, 94, 1346-1349.	1.9	71
102	Ultrasonic Doppler measurements of blood flow velocity of rabbit retinal vessels using a 45-MHz needle transducer. Graefe's Archive for Clinical and Experimental Ophthalmology, 2010, 248, 675-680.	1.0	3
103	Micromachined high frequency PMN-PT/Epoxy 1 st 3 composite ultrasonic annular arrays. , 2010, , .		2
104	Volumetric photoacoustic endoscopy of internal organs: a phantom and in situ study. , 2010, , .		4
105	Saturation effect in functional photoacoustic imaging. Journal of Biomedical Optics, 2010, 15, 021317.	1.4	31
106	Lead-free KNLNT piezoelectric ceramics for high-frequency ultrasonic transducer application. Ultrasonics, 2009, 49, 395-398.	2.1	31
107	Feasibility of rotational scan ultrasound imaging by an angled high frequency transducer for the posterior segment of the eye. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 676-680.	1.7	8
108	Measurements of attenuation coefficient for evaluating the hardness of a cataract lens by a high-frequency ultrasonic needle transducer. Physics in Medicine and Biology, 2009, 54, 5981-5994.	1.6	29

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109	In situ measurements of attenuation coefficient for evaluating the hardness of cataract lens by a high frequency ultrasonic needle transducer. , 2009, , .		0
110	Ultrasonic Doppler measurements of blood flow velocity of rabbit retinal vessels with high-frequency angled needle transducer. , 2008, , .		0
111	A novel scan method using angled high frequency single element needle transducers. , 2008, , .		0
112	P6H-6 Lead-Free Piezoelectric Ceramics for High-Frequency Ultrasound Transducers. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	6