

Changyang Lee

List of Publications by Year in descending order

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69
papers

1,703
citations

218677

26
h-index

289244

40
g-index

80
all docs

80
docs citations

80
times ranked

1562
citing authors

#	ARTICLE	IF	CITATIONS
1	Single beam acoustic trapping. Applied Physics Letters, 2009, 95, 73701.	3.3	199
2	Mechanogenetics for the remote and noninvasive control of cancer immunotherapy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 992-997.	7.1	181
3	Ultrahigh frequency lensless ultrasonic transducers for acoustic tweezers application. Biotechnology and Bioengineering, 2013, 110, 881-886.	3.3	104
4	Arthroscopic sliding knot: How many additional half-hitches are really needed?. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2005, 21, 405-411.	2.7	75
5	Targeted cell immobilization by ultrasound microbeam. Biotechnology and Bioengineering, 2011, 108, 1643-1650.	3.3	71
6	Cell Deformation by Single-beam Acoustic Trapping: A Promising Tool for Measurements of Cell Mechanics. Scientific Reports, 2016, 6, 27238.	3.3	59
7	Transverse Acoustic Trapping Using a Gaussian Focused Ultrasound. Ultrasound in Medicine and Biology, 2010, 36, 350-355.	1.5	58
8	Investigating contactless high frequency ultrasound microbeam stimulation for determination of invasion potential of breast cancer cells. Biotechnology and Bioengineering, 2013, 110, 2697-2705.	3.3	48
9	Microfluidic droplet sorting with a high frequency ultrasound beam. Lab on A Chip, 2012, 12, 2736.	6.0	47
10	Particle manipulation in a microfluidic channel using acoustic trap. Biomedical Microdevices, 2011, 13, 779-788.	2.8	42
11	A feasibility study of <i>in vivo</i> applications of single beam acoustic tweezers. Applied Physics Letters, 2014, 105, 173701.	3.3	41
12	Calibration of sound forces in acoustic traps. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2305-2310.	3.0	38
13	Focused high frequency needle transducer for ultrasonic imaging and trapping. Applied Physics Letters, 2012, 101, 24105.	3.3	37
14	Effect of surface structure on biomechanical properties and osseointegration. Materials Science and Engineering C, 2008, 28, 1448-1461.	7.3	33
15	Acoustic trapping with a high frequency linear phased array. Applied Physics Letters, 2012, 101, 214104.	3.3	33
16	Multi-particle trapping and manipulation by a high-frequency array transducer. Applied Physics Letters, 2014, 105, 214103.	3.3	33
17	Non-contact High-Frequency Ultrasound Microbeam Stimulation for Studying Mechanotransduction in Human Umbilical Vein Endothelial Cells. Ultrasound in Medicine and Biology, 2014, 40, 2172-2182.	1.5	32
18	Angled-focused 45MHz PMN-PT single element transducer for intravascular ultrasound imaging. Sensors and Actuators A: Physical, 2015, 228, 16-22.	4.1	31

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19	Power MOSFET Linearizer of a High-Voltage Power Amplifier for High-Frequency Pulse-Echo Instrumentation. <i>Sensors</i> , 2017, 17, 764.	3.8	31
20	Biomechanical testing of hybrid hamstring graft tibial fixation in anterior cruciate ligament reconstruction. <i>Knee</i> , 2006, 13, 455-459.	1.6	30
21	A biomechanical comparison of repair techniques in posterior type II superior labral anterior and posterior (SLAP) lesions. <i>Journal of Shoulder and Elbow Surgery</i> , 2008, 17, 144-149.	2.6	30
22	Cell membrane deformation induced by a fibronectin-coated polystyrene microbead in a 200-MHz acoustic trap. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2014, 61, 399-406.	3.0	29
23	Calibration of Trapping Force on Cell-Size Objects From Ultrahigh-Frequency Single-Beam Acoustic Tweezer. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016, 63, 1988-1995.	3.0	28
24	Micro-particle manipulation by single beam acoustic tweezers based on hydrothermal PZT thick film. <i>AIP Advances</i> , 2016, 6, 035102.	1.3	28
25	Contrast-enhanced ultrasound imaging <i>in vivo</i> with laser-activated nanodroplets. <i>Medical Physics</i> , 2017, 44, 3444-3449.	3.0	28
26	Optimal configuration of arthroscopic sliding knots backed up with multiple half-hitches. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2008, 16, 787-793.	4.2	27
27	A simple method for evaluating the trapping performance of acoustic tweezers. <i>Applied Physics Letters</i> , 2013, 102, 84102.	3.3	27
28	Label-free analysis of the characteristics of a single cell trapped by acoustic tweezers. <i>Scientific Reports</i> , 2017, 7, 14092.	3.3	26
29	Dual-element needle transducer for intravascular ultrasound imaging. <i>Journal of Medical Imaging</i> , 2015, 2, 027001.	1.5	23
30	Investigation of cell mechanics using single-beam acoustic tweezers as a versatile tool for the diagnosis and treatment of highly invasive breast cancer cell lines: an <i>in vitro</i> study. <i>Microsystems and Nanoengineering</i> , 2020, 6, 39.	7.0	20
31	A Wideband High-Voltage Power Amplifier Post-Linearizer for Medical Ultrasound Transducers. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 354.	2.5	19
32	Development of Dual-Frequency Oblong-Shaped-Focused Transducers for Intravascular Ultrasound Tissue Harmonic Imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2018, 65, 1571-1582.	3.0	19
33	Acoustic Radiation Force Impulse (ARFI) Imaging of Zebrafish Embryo by High-Frequency Coded Excitation Sequence. <i>Annals of Biomedical Engineering</i> , 2012, 40, 907-915.	2.5	18
34	High-frequency dual mode pulsed wave Doppler imaging for monitoring the functional regeneration of adult zebrafish hearts. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20141154.	3.4	16
35	Monitoring of Adult Zebrafish Heart Regeneration Using High-Frequency Ultrasound Spectral Doppler and Nakagami Imaging. <i>Sensors</i> , 2019, 19, 4094.	3.8	12
36	Non-contact multi-particle annular patterning and manipulation with ultrasound microbeam. <i>Applied Physics Letters</i> , 2014, 104, 244107.	3.3	11

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37	Evaluation method for acoustic trapping performance by tracking motion of trapped microparticle. Japanese Journal of Applied Physics, 2018, 57, 057202.	1.5	11
38	Non-contact acoustic radiation force impulse microscopy via photoacoustic detection for probing breast cancer cell mechanics. Biomedical Optics Express, 2015, 6, 11.	2.9	9
39	CMOS High-Voltage Analog 164 Multiplexer/Demultiplexer for Integrated Ultrasound Guided Breast Needle Biopsy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1334-1345.	3.0	9
40	Backscattering measurement from a single microdroplet. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 874-879.	3.0	8
41	Fluorescence response of human HER2+ cancer- and MCF-12F normal cells to 200MHz ultrasound microbeam stimulation: A preliminary study of membrane permeability variation. Ultrasonics, 2012, 52, 803-808.	3.9	8
42	Ultrasonic scattering measurements of a live single cell at 86 MHz. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 1968-1978.	3.0	7
43	Magnetically Actuated Forward-Looking Interventional Ultrasound Imaging: Feasibility Studies. IEEE Transactions on Biomedical Engineering, 2020, 67, 1797-1805.	4.2	7
44	Investigation of Ultrasound-Mediated Intracellular Ca ²⁺ Oscillations in HIT-T15 Pancreatic β -Cell Line. Cells, 2020, 9, 1129.	4.1	7
45	Synthetic Aperture Imaging Using High-Frequency Convex Array for Ophthalmic Ultrasound Applications. Sensors, 2021, 21, 2275.	3.8	7
46	Single microparticle manipulation by an ultrasound microbeam. , 2010, , .		6
47	Spectrum analysis for assessing red blood cell aggregation using high-frequency ultrasound array transducer. Biomedical Engineering Letters, 2017, 7, 273-279.	4.1	6
48	Real-Time Lossless Compression Algorithm for Ultrasound Data Using BL Universal Code. Sensors, 2018, 18, 3314.	3.8	4
49	10.1063/1.3206910.1. , 2009, , .		4
50	Rigid Stepped Plate for Internal Fixation for High Tibial Osteotomy. Orthopedics, 2009, 32, .	1.1	4
51	High-frequency ultrasound microbeam induced calcium elevations in cancer cells: Discrimination between invasive and non-invasive breast cancer cells. , 2012, , .		3
52	Jitter reduction technique for acoustic radiation force impulse microscopy via photoacoustic detection. Optics Express, 2015, 23, 19166.	3.4	3
53	Development of novel adjustable focus head mount display for concurrent image-guided treatment applications. Computer Assisted Surgery, 2017, 22, 163-169.	1.3	3
54	A Computationally Efficient Mean Sound Speed Estimation Method Based on an Evaluation of Focusing Quality for Medical Ultrasound Imaging. Electronics (Switzerland), 2019, 8, 1368.	3.1	3

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55	High-frequency ultrasound imaging for breast cancer biopsy guidance. Journal of Medical Imaging, 2015, 2, 047001.	1.5	2
56	Visibility of Bioresorbable Vascular Scaffold in Intravascular Ultrasound Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 1090-1101.	3.0	2
57	Synergistic Effect of Growth Factor Releasing Polymeric Nanoparticles and Ultrasound Stimulation on Osteogenic Differentiation. Pharmaceutics, 2021, 13, 457.	4.5	2
58	Combined Application of Prototype Ultrasound and BSA-Loaded PLGA Particles for Protein Delivery. Pharmaceutical Research, 2021, 38, 1455-1466.	3.5	2
59	Two-dimensional cell trapping by ultrasound microbeam. , 2011, , .		1
60	Ultrahigh frequency ultrasound microbeam for biomedical applications. , 2012, , .		1
61	Calibration of acoustic trapping forces by fluid drag forces. , 2009, , .		0
62	Acoustic particle trapping in a microfluidic device using frequency modulated signal. , 2011, , .		0
63	Real time acoustic sensing of flowing microdroplets in a microfluidic device. , 2011, , .		0
64	Ultrasonic stimulation of single bovine aortic endothelial cells at 1GHz. , 2012, , .		0
65	Recent advances in developing biomedical applications of single beam acoustic tweezers. , 2015, , .		0
66	Backscattering analysis of high frequency ultrasonic imaging for ultrasound-guided breast biopsy. , 2017, , .		0
67	Recent Advances in Imaging Sensors and Applications. Sensors, 2021, 21, 3970.	3.8	0
68	10.1063/1.4793654.1. , 2013, , .		0
69	Precursor Heterogeneity Driven MoS ₂ Nanoparticle Structural Diversification for Cancer Photo-Theranostics. ACS Applied Materials & Interfaces, 2022, 14, 9987-10000.	8.0	0