

# Jin-Taek Kim

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

1,422  
citations

304743

22  
h-index

345221

36  
g-index

78  
all docs

78  
docs citations

78  
times ranked

1274  
citing authors

#	ARTICLE	IF	CITATIONS
1	Single beam acoustic trapping. Applied Physics Letters, 2009, 95, 73701.	3.3	199
2	Quadruple ultrasound, photoacoustic, optical coherence, and fluorescence fusion imaging with a transparent ultrasound transducer. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	94
3	High-Resolution Photoacoustic Imaging of Ocular Tissues. Ultrasound in Medicine and Biology, 2010, 36, 733-742.	1.5	76
4	Targeted cell immobilization by ultrasound microbeam. Biotechnology and Bioengineering, 2011, 108, 1643-1650.	3.3	71
5	Transverse Acoustic Trapping Using a Gaussian Focused Ultrasound. Ultrasound in Medicine and Biology, 2010, 36, 350-355.	1.5	58
6	Real-Time Photoacoustic Thermometry Combined With Clinical Ultrasound Imaging and High-Intensity Focused Ultrasound. IEEE Transactions on Biomedical Engineering, 2019, 66, 3330-3338.	4.2	54
7	Deep learning acceleration of multiscale superresolution localization photoacoustic imaging. Light: Science and Applications, 2022, 11, 131.	16.6	52
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	Direct and sustained intracellular delivery of exogenous molecules using acoustic-transfection with high frequency ultrasound. Scientific Reports, 2016, 6, 20477.	3.3	44
11	Impedance matching network for high frequency ultrasonic transducer for cellular applications. Ultrasonics, 2016, 65, 258-267.	3.9	40
12	A photoacoustic finder fully integrated with a solid-state dye laser and transparent ultrasound transducer. Photoacoustics, 2021, 23, 100290.	7.8	39
13	Frequency compounded imaging with a high-frequency dual element transducer. Ultrasonics, 2010, 50, 453-457.	3.9	34
14	20 MHz/40 MHz dual element transducers for high frequency harmonic imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 2683-2691.	3.0	33
15	Multi-particle trapping and manipulation by a high-frequency array transducer. Applied Physics Letters, 2014, 105, 214103.	3.3	33
16	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
17	Angled-focused 45MHz PMN-PT single element transducer for intravascular ultrasound imaging. Sensors and Actuators A: Physical, 2015, 228, 16-22.	4.1	31
18	Fully integrated photoacoustic microscopy and photoplethysmography of human in vivo. Photoacoustics, 2022, 27, 100374.	7.8	31

#	ARTICLE	IF	CITATIONS
19	A high-frequency annular-array transducer using an interdigital bonded 1-3 composite. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 206-214.	3.0	30
20	High-resolution photoacoustic imaging with focused laser and ultrasonic beams. Applied Physics Letters, 2009, 94, 33902.	3.3	29
21	Cell membrane deformation induced by a fibronectin-coated polystyrene microbead in a 200-MHz acoustic trap. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 399-406.	3.0	29
22	A sidelobe suppressing near-field beamforming approach for ultrasound array imaging. Journal of the Acoustical Society of America, 2015, 137, 2785-2790.	1.1	24
23	Forward-looking 30-MHz phased-array transducer for peripheral intravascular imaging. Sensors and Actuators A: Physical, 2018, 280, 145-163.	4.1	24
24	Dual-element needle transducer for intravascular ultrasound imaging. Journal of Medical Imaging, 2015, 2, 027001.	1.5	23
25	Bio-orthogonal Supramolecular Latching inside Live Animals and Its Application for in Vivo Cancer Imaging. ACS Applied Materials & Interfaces, 2019, 11, 43920-43927.	8.0	23
26	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 in vitro study. Microsystems and Nanoengineering, 2020, 6, 39.	7.0	20
27	High-frequency dual mode pulsed wave Doppler imaging for monitoring the functional regeneration of adult zebrafish hearts. Journal of the Royal Society Interface, 2015, 12, 20141154.	3.4	16
28	Versatile Single-Element Ultrasound Imaging Platform using a Water-Proofed MEMS Scanner for Animals and Humans. Scientific Reports, 2020, 10, 6544.	3.3	16
29	Fabrication and Characterization of a Miniaturized 15-MHz Side-Looking Phased-Array Transducer Catheter. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1079-1092.	3.0	14
30	A One-Sided Acoustic Trap for Cell Immobilization Using 30-MHz Array Transducer. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 167-172.	3.0	14
31	Classification of Breast Cancer Cells Using the Integration of High-Frequency Single-Beam Acoustic Tweezers and Convolutional Neural Networks. Cancers, 2020, 12, 1212.	3.7	12
32	Evaluation method for acoustic trapping performance by tracking motion of trapped microparticle. Japanese Journal of Applied Physics, 2018, 57, 057202.	1.5	11
33	Fabrication of 20 MHz convex array transducers for high frequency ophthalmic imaging. , 2009, , .		10
34	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
35	Development of a Low-Complexity, Cost-Effective Digital Beamformer Architecture for High-Frequency Ultrasound Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 1002-1008.	3.0	9
36	CMOS High-Voltage Analog 1â€“64 Multiplexer/Demultiplexer for Integrated Ultrasound Guided Breast Needle Biopsy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1334-1345.	3.0	9

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37	Acoustic Power Transfer Using Self-Focused Transducers for Miniaturized Implantable Neurostimulators. IEEE Access, 2021, 9, 153850-153862.	4.2	8
38	Thermal Ablation and High-Resolution Imaging Using a Back-to-Back (BTB) Dual-Mode Ultrasonic Transducer: In Vivo Results. Sensors, 2021, 21, 1580.	3.8	7
39	Synthetic Aperture Imaging Using High-Frequency Convex Array for Ophthalmic Ultrasound Applications. Sensors, 2021, 21, 2275.	3.8	7
40	Bi-modal near-infrared fluorescence and ultrasound imaging via a transparent ultrasound transducer for sentinel lymph node localization. Optics Letters, 2022, 47, 393.	3.3	7
41	High-Attenuation Backing Layer for Miniaturized Ultrasound Imaging Transducer. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 1960-1969.	3.0	7
42	Collapse pressure measurement of single hollow glass microsphere using single-beam acoustic tweezer. Ultrasonics Sonochemistry, 2022, 82, 105844.	8.2	5
43	Characterization and evaluation of high frequency convex array transducers. , 2010, , .		4
44	10.1063/1.3206910.1. , 2009, , .		4
45	Seamlessly integrated optical and acoustical imaging systems through transparent ultrasonic transducer. , 2020, , .		4
46	Low cross-talk kerfless annular array ultrasound transducers using 1&#x2013;3 piezocomposites with pseudo-random pillars. , 2012, , .		3
47	High-frequency ultrasound microbeam induced calcium elevations in cancer cells: Discrimination between invasive and non-invasive breast cancer cells. , 2012, , .		3
48	Fabrication and characterization of a 20 MHz microlinear phased array transducer for intervention guidance. , 2014, , .		3
49	Detection of micro inclusions in steel sheets using high-frequency ultrasound speckle analysis. Scientific Reports, 2021, 11, 20416.	3.3	3
50	Single-element Ultrasound Imaging System based on Mirror Scanning. , 2020, , .		3
51	Automated estimation of cancer cell deformability with machine learning and acoustic trapping. Scientific Reports, 2022, 12, 6891.	3.3	3
52	10F-4 Self-Focused 1-3 Composite LiNbO3 Single Element Transducers for High Frequency HIFU Applications. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	2
53	Bipolar pulse generator for very high frequency (&#x003E; 100 MHz) ultrasound applications. , 2013, , .		2
54	High-frequency ultrasound imaging for breast cancer biopsy guidance. Journal of Medical Imaging, 2015, 2, 047001.	1.5	2

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55	High Frequency Ultrasonic Levitation of Red Blood Cells Aggregation. , 2018, , .		2
56	Lead-Free Piezoelectric Composite With Lithium Niobate and Barium Titanate Fabricated by Interdigital Pair Bonding Technique. IEEE Access, 2021, 9, 85894-85902.	4.2	2
57	Development of high frequency annular array ultrasound transducers using interdigital bonded composites. , 2009, , .		1
58	Two-dimensional cell trapping by ultrasound microbeam. , 2011, , .		1
59	Seamlessly integrated multi-modal imaging system through transparent ultrasound transducer in vivo. , 2021, , .		1
60	Real time acoustic sensing of flowing microdroplets in a microfluidic device. , 2011, , .		0
61	Dual gate pulsed wave Doppler imaging for investigating cardiovascular dysfunctions. , 2012, , .		0
62	Notice of Removal: Handheld optical-resolution photoacoustic microscopy probe for preclinical application. , 2017, , .		0
63	Detection of Micro-scaled Flaws in the Steel Sheet using Line-focused High-Frequency Ultrasound Transducer. , 2020, , .		0
64	Rotating dual-mode ultrasonic transducer for high intensity ultrasound treatment and high-resolution imaging. , 2020, , .		0
65	Continuous blood flow monitoring using patch-type array transducer and portable ultrasound imaging system. , 2021, , .		0
66	Interinstitutional Research Team Formation Based on Bibliographic Network Embedding. Mobile Information Systems, 2021, 2021, 1-12.	0.6	0
67	Frequency-dependent calcium dynamics in ultrasound mechanotransduction. , 2021, , .		0
68	Sub-wavelength convertible Bessel-beam and Gaussian-beam photoacoustic microscope in reflection-mode for in-vivo application. , 2019, , .		0
69	Lead-free Piezoelectric Composite with Configurable Material Properties by Interdigital Pair-bonding. , 2020, , .		0
70	Precise control of ultrasound stimulation/treatment by a high-frequency focused ring transducer. , 2020, , .		0
71	High-resolution, high-speed photoacoustic microscopy and photoplethysmography for clinical applications in human fingers. , 2022, , .		0
72	Versatile Optical and Ultrasound Imaging Platforms using Transparent Ultrasound Transducers. , 2022, , .		0