Jeong-Bong Lee

List of Publications by Year
in descending order

152 papers	3,874 citations	147801 31 h-index	138484 58 g-index
153 all docs	153 docs citations	153 times ranked	4249 citing authors

#	Article	IF	Citations
1	Liquidâ€Metalâ€Enabled Flexible Metasurface with Selfâ€Healing Characteristics. Advanced Materials Interfaces, 2022, 9, .	3.7	16
2	Review of Electrothermal Micromirrors. Micromachines, 2022, 13, 429.	2.9	8
3	Acoustic Wave-Driven Liquid Metal Expansion. Micromachines, 2022, 13, 685.	2.9	0
4	Conversion of Polymer Surfaces into Nonwetting Substrates for Liquid Metal Applications. Langmuir, 2021, 37, 8139-8147.	3.5	9
5	Biocompatibility of SU-8 and Its Biomedical Device Applications. Micromachines, 2021, 12, 794.	2.9	27
6	Electric Field-Driven Liquid Metal Droplet Generation and Direction Manipulation. Micromachines, 2021, 12, 1131.	2.9	6
7	Editorial for the Special Issue on the ICAE 2019. Micromachines, 2020, 11, 874.	2.9	0
8	Magnetic Field-Induced Recoverable Dynamic Morphological Change of Gallium-Based Liquid Metal. Journal of Microelectromechanical Systems, 2020, 29, 1208-1215.	2.5	6
9	Implanted Wireless Intramedullary Fluid Modulator for Bone Density Augmentation. , 2020, , .		3
10	Plasma-Treated PDMS as Intrinsically Non-Wetting Surface for Gallium-Alloy Liquid Metal Microfluidics. , 2020, , .		2
11	An Implanted Magnetic Microfluidic Pump for In Vivo Bone Remodeling Applications. Micromachines, 2020, 11, 300.	2.9	19
12	Electromagnet polarity dependent reversible dynamic behavior of magnetic liquid metal marble. Materials Research Express, 2020, 7, 015708.	1.6	4
13	Electromagnetic three dimensional liquid metal manipulation. Lab on A Chip, 2019, 19, 3261-3267.	6.0	28
14	Gallium Oxide Coated Flat Surface as Non-Wetting Surface for Actuation of Liquid Metal Droplets. , 2019, , .		0
15	Reversible On-Demand Magnetic Liquid Metal Marble Manipulation by Magnetowetting: Split and Merge, Deformation and Recovery. , 2019, , .		2
16	Surface Modification with Gallium Coating as Nonwetting Surfaces for Gallium-Based Liquid Metal Droplet Manipulation. ACS Applied Materials & Interfaces, 2019, 11, 35488-35495.	8.0	28
17	Electro-Hydrodynamic Droplet Generation, Manipulation, and Repulsion of Oxidized Gallium-Based Liquid Metal. , 2019, , .		0
18	Tunable and Flexible Nano Photonic Crystals. , 2019, , .		0

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19	Axially-Anisotropic Hierarchical Grating 2D Guided-Mode Resonance Strain-Sensor. Sensors, 2019, 19, 5223.	3.8	3
20	Nanoelectromechanical Disk Resonators as Highly Sensitive Mass Sensors. IEEE Electron Device Letters, 2018, 39, 1744-1747.	3.9	9
21	Magnetically-induced various recoverable deformation of miagnetic liquid metal marble. , 2018, , .		3
22	Acoustic wave-driven oxidized liquid metal-based energy harvester. EPJ Applied Physics, 2018, 81, 20902.	0.7	14
23	Cost-effective surface modification for GalinstanÂ® lyophobicity. Journal of Colloid and Interface Science, 2017, 492, 33-40.	9.4	36
24	Resonant piezoresistive amplifiers: Towards single element nano-mechanical RF front ends. , 2017, , .		3
25	On-demand magnetic manipulation of liquid metal in microfluidic channels for electrical switching applications. Lab on A Chip, 2017, 17, 128-133.	6.0	92
26	On-demand frequency tunability of fluidic antenna implemented with gallium-based liquid metal alloy. EPJ Applied Physics, 2017, 78, 11101.	0.7	9
27	Liquid metal-based reconfigurable and stretchable photolithography. Journal of Micromechanics and Microengineering, 2016, 26, 045004.	2.6	5
28	Characterization of the mechanical behavior of SU-8 at microscale by viscoelastic analysis. Journal of Micromechanics and Microengineering, 2016, 26, 105001.	2.6	44
29	Magnetic Liquid Metal Marble: Characterization of Lyophobicity and Magnetic Manipulation for Switching Applications. Journal of Microelectromechanical Systems, 2016, 25, 1050-1057.	2.5	32
30	Wovenâ€¥arn Thermoelectric Textiles. Advanced Materials, 2016, 28, 5038-5044.	21.0	195
31	Magnetically-assembled immunoisolative polymeric cell transplantation device. , 2015, , .		0
32	Innovative SU-8 Lithography Techniques and Their Applications. Micromachines, 2015, 6, 1-18.	2.9	63
33	Magnetic liquid metal marble: Wireless manipulation of liquid metal droplet for electrical switching applications. , 2015, , .		3
34	Magnetic-field-induced liquid metal droplet manipulation. Journal of the Korean Physical Society, 2015, 66, 282-286.	0.7	57
35	One-step fabrication of three-dimensional polydimethylsiloxane peel-off microwell array for cell trapping. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2015, 14, 014503.	0.9	7
36	Hydrochloric acid-impregnated paper for gallium-based liquid metal microfluidics. Sensors and Actuators B: Chemical, 2015, 207, 199-205.	7.8	32

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37	High-Aspect-Ratio Nanoscale Patterning in a Negative Tone Photoresist. Journal of Information and Communication Convergence Engineering, 2015, 13, 56-61.	0.2	0
38	One-Step Combined-Nanolithography-and-Photolithography for a 2D Photonic Crystal TM Polarizer. Micromachines, 2014, 5, 228-238.	2.9	6
39	Gallium-based liquid metal inkjet printing. , 2014, , .		16
40	Dimensional limitation of polymeric microfluidic platform for liquid metal manipulation. , 2014, , .		1
41	Liquid metal actuation-based reversible frequency tunable monopole antenna. Applied Physics Letters, 2014, 105, .	3.3	49
42	Stretchable and bendable carbon nanotube on PDMS super-lyophobic sheet for liquid metal manipulation. Journal of Micromechanics and Microengineering, 2014, 24, 055018.	2.6	31
43	Reduction of out-of-plane warpage in surface micromachined beams using corrugation. Journal of Micromechanics and Microengineering, 2014, 24, 065023.	2.6	12
44	Air-Suspended Fast Transient Tunable Silicon Photonic Crystal Waveguide. IEEE Photonics Technology Letters, 2014, 26, 603-605.	2.5	2
45	PDMS based coplanar microfluidic channels for the surface reduction of oxidized Galinstan. Lab on A Chip, 2014, 14, 200-209.	6.0	80
46	Hierarchical micro/nano structures for super-hydrophobic surfaces and super-lyophobic surface against liquid metal. Micro and Nano Systems Letters, 2014, 2, .	3.7	58
47	Fabrication of Optically Transparent PDMS Artificial Lotus Leaf Film Using Underexposed and Underbaked Photoresist Mold. Journal of Microelectromechanical Systems, 2013, 22, 1073-1080.	2.5	26
48	A highly-compliant asymmetric 2D guided-mode resonance sensor for simultaneous measurement of dual-axis strain. , 2013, , .		3
49	A Super-Lyophobic 3-D PDMS Channel as a Novel Microfluidic Platform to Manipulate Oxidized Galinstan. Journal of Microelectromechanical Systems, 2013, 22, 1267-1275.	2.5	56
50	A High Dynamic Restoring Force Electrostatic Actuator. Journal of Microelectromechanical Systems, 2013, 22, 1032-1040.	2.5	1
51	A SU-8-Based Fully Integrated Biocompatible Inductively Powered Wireless Neurostimulator. Journal of Microelectromechanical Systems, 2013, 22, 170-176.	2.5	38
52	Recovery of Nonwetting Characteristics by Surface Modification of Gallium-Based Liquid Metal Droplets Using Hydrochloric Acid Vapor. ACS Applied Materials & Interfaces, 2013, 5, 179-185.	8.0	225
53	Hydrochloric acid-impregnated paper for liquid metal microfluidics. , 2013, , .		7
54	Fabrication of a Microneedle/CNT Hierarchical Micro/Nano Surface Electrochemical Sensor and Its In-Vitro Glucose Sensing Characterization. Sensors, 2013, 13, 16672-16681.	3.8	70

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55	Systematic analysis and experiment of inductive coupling and induced voltage for inductively coupled wireless implantable neurostimulator application. Journal of Micromechanics and Microengineering, 2012, 22, 075008.	2.6	6
56	One-Dimensional Nanograting-Based Guided-Mode Resonance Pressure Sensor. Journal of Microelectromechanical Systems, 2012, 21, 1117-1123.	2.5	34
57	A SU-8-Based Microfabricated Implantable Inductively Coupled Passive RF Wireless Intraocular Pressure Sensor. Journal of Microelectromechanical Systems, 2012, 21, 1338-1346.	2.5	144
58	Surface modified nano-patternedSU-8 pillar array optically transparent super-hydrophobic thin film. Journal of Micromechanics and Microengineering, 2012, 22, 035012.	2.6	17
59	One-step fabrication of optically transparent polydimethylsiloxane artificial lotus leaf film using under-exposed under-baked photoresist mold. , 2012, , .		7
60	A super-lyophobic PDMS micro-tunnel as a novel microfluidic platform for oxidized GalinstanÂ®. , 2012, , .		5
61	High-sensitivity microfluidic pressure sensor using a membrane-embedded resonant optical grating. , 2011, , .		5
62	A novel microneedle-based non- enzymatic glucose sensor for painless diabetes testing application. , 2011, , .		2
63	MEMS-enabled mechanically-tunable 2D photonic crystal lens. , 2011, , .		0
64	A SU-8-based compact implantable wireless pressure sensor for intraocular pressure sensing application. , 2011, 2011, 2854-7.		5
65	Super-hydrophobicity of nano-patterned polymer needle array. , 2011, , .		0
66	A PDMS-based pressure-tunable nanograting. , 2011, , .		1
67	Biocompatible polymeric wireless pressure sensor for intraocular pressure sensing application. , 2011, , .		5
68	Biofriendly bonding processes for nanoporous implantable SU-8 microcapsules for encapsulated cell therapy. Journal of Microencapsulation, 2011, 28, 771-782.	2.8	5
69	Mechanically tunable photonic crystal lens. Proceedings of SPIE, 2010, , .	0.8	0
70	Integrated micro-plasmas in silicon operating in helium. European Physical Journal D, 2010, 60, 601-608.	1.3	22
71	A sub-micron metallic electrothermal gripper. Microsystem Technologies, 2010, 16, 367-373.	2.0	12
72	A wireless powered fully integrated SU-8-based implantable LC transponder. Microsystem Technologies, 2010, 16, 1657-1663.	2.0	2

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73	Machine vision for digital microfluidics. Review of Scientific Instruments, 2010, 81, 014302.	1.3	49
74	Silicon-Based Thermo-Optically Tunable Photonic Crystal Lens. IEEE Photonics Technology Letters, 2010, 22, 21-23.	2.5	17
75	Thermo-optically tunable silicon photonic crystal light modulator. Optics Letters, 2010, 35, 3613.	3.3	20
76	Pressure-tunable guided-mode resonance sensor for single-wavelength characterization. Optics Letters, 2010, 35, 3871.	3.3	17
77	Mechanically Tunable Negative-Index Photonic Crystal Lens. IEEE Photonics Journal, 2010, 2, 1003-1012.	2.0	15
78	Electro-thermally tunable silicon photonic crystal lens. , 2010, , .		1
79	A MEMS-based fully-integrated wireless neurostimulator. , 2010, , .		15
80	Thermo-Optically Tunable Photonic Crystal Light Modulator Utilizing Cut-Off Effect. , 2010, , .		0
81	SU-8-based immunoisolative microcontainer with nanoslots defined by nanoimprint lithography. Journal of Vacuum Science & Technology B, 2009, 27, 2795.	1.3	24
82	Cell encapsulation and oxygenation in nanoporous microcontainers. Biomedical Microdevices, 2009, 11, 1205-1212.	2.8	18
83	A fully-integrated RF LC transponder platform for implantable wireless sensor applications. , 2009, , .		0
84	A Nanoporous, Transparent Microcontainer for Encapsulated Islet Therapy. Journal of Diabetes Science and Technology, 2009, 3, 297-303.	2.2	17
85	Mems-based mechanically tunable flexible photonic crystal. , 2009, , .		7
86	Feasibility Assessment and Analysis of a Forward Injected Photonic Crystal Device. IEEE Nanotechnology Magazine, 2009, 8, 391-401.	2.0	0
87	A titer plate-based polymer microfluidic platform for high throughput nucleic acid purification. Biomedical Microdevices, 2008, 10, 21-33.	2.8	43
88	Chip-level integration of RF MEMS on-chip inductors using UV-LIGA technique. Microsystem Technologies, 2008, 14, 1429-1438.	2.0	11
89	De-tethering of high aspect ratio metallic and polymeric MEMS/NEMS parts for the direct pick-and-place assembly of 3D microsystem. Microsystem Technologies, 2008, 14, 1621-1626.	2.0	3
90	Viable cell handling with high aspect ratio polymer chopstick gripper mounted on a nano precision manipulator. Microsystem Technologies, 2008, 14, 1627-1633.	2.0	36

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91	Silicon-Based 2-D Slab Photonic Crystal TM Polarizer at Telecommunication Wavelength. IEEE Photonics Technology Letters, 2008, 20, 641-643.	2.5	33
92	Biocompatible SU-8-Based Microprobes for Recording Neural Spike Signals From Regenerated Peripheral Nerve Fibers. IEEE Sensors Journal, 2008, 8, 1830-1836.	4.7	97
93	Digital microfluidics-based high-throughput imaging for systems biology. , 2008, , .		3
94	Numerical Modeling and Characterization of Micromachined Flexible Magnetostrictive Thin Film Actuator. IEEE Transactions on Magnetics, 2008, 44, 3209-3212.	2.1	5
95	Silicon-Based 2D Slab Nano Photonic Crystal Thermo-Optic Light Modulator. , 2008, , .		0
96	Schottky Barrier Contact-Based RF MEMS Switch. Journal of Microelectromechanical Systems, 2008, 17, 1439-1446.	2.5	2
97	Effect of limiting the cathode surface on direct current microhollow cathode discharge in helium. Applied Physics Letters, 2008, 93, 071508.	3.3	16
98	Silicon-based 2D slab nano photonic crystal TM polarizer in telecommunication wavelength. , 2007, , .		0
99	Inductively coupled MEMS-based micro RFID transponder. , 2007, , .		0
100	Ferromagnetic 3-D impellor-shaped micro-stirrer bar for micromixing. , 2007, , .		1
101	Schottky Contact RF MEMS Switch Characterization. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	2
102	Schottky barrier contact-based RF MEMS switch. , 2007, , .		5
103	MEMS-Based Inductively Coupled RFID Transponder for Implantable Wireless Sensor Applications. IEEE Transactions on Magnetics, 2007, 43, 2412-2414.	2.1	40
104	A micro-LC-resonator fabricated by MEMS technique for high-frequency sensor applications. Sensors and Actuators A: Physical, 2007, 135, 547-551.	4.1	8
105	SU8-Based Micro Neural Probe for Enhanced Chronic in-Vivo Recording of Spike Signals from Regenerated Axons. , 2006, , .		3
106	An Ultra-Wideband Low Noise Amplifier with Air-suspended RF MEMS Inductors. , 2006, , .		4
107	High aspect ratio air core solenoid inductors using an improved UV-LIGA process with contrast enhancement material. Microsystem Technologies, 2006, 13, 237-243.	2.0	6
108	High aspect ratio tapered hollow metallic microneedle arrays with microfluidic interconnector. Microsystem Technologies, 2006, 13, 231-235.	2.0	72

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109	A new class of LC-resonator for micro-magnetic sensor application. Journal of Magnetism and Magnetic Materials, 2006, 304, 117-121.	2.3	13
110	Process integration and development of inverted photonic crystal arrays. Journal of Vacuum Science & Technology B, 2006, 24, 705.	1.3	3
111	Nanocomposites for Neural Interfaces. Materials Research Society Symposia Proceedings, 2006, 926, 1.	0.1	3
112	A class of micromachined magnetic resonator for high-frequency magnetic sensor applications. Journal of Applied Physics, 2006, 99, 08B309.	2.5	6
113	High-Aspect Ratio Metallic Nano Grippers. , 2006, , .		4
114	De-Tethering of Metallic and Polymeric MEMS/NEMS Parts for the Direct Pick-and-Place Assembly of 3D Microsystem. , 2006, , .		2
115	MEMS for Drug Delivery. , 2006, , 325-348.		2
116	Negative refraction in Si-based 2-dimensional slab photonic crystal structures. , 2006, , .		0
117	Negative refraction based on the superprism effect in a micromachined flexible photonic crystal. , 2005, , .		0
118	Focusing in the second band of a flexible membrane photonic crystal. , 2005, , .		0
119	Sub-micron metallic electrothermal actuators. Journal of Micromechanics and Microengineering, 2005, 15, 322-327.	2.6	29
120	<title>Wafer level optoelectronic device packaging using MEMS (Invited Paper)</title>. , 2005, , .		7
121	Mechanically Tunable Nanophotonic Devices. Materials Research Society Symposia Proceedings, 2005, 872, 1.	0.1	1
122	Thermo-optic photonic crystal light modulator. Applied Physics Letters, 2005, 86, 221111.	3.3	36
123	Thermal and optical simulation of a photonic crystal light modulator based on the thermo-optic shift of the cut-off frequency. Optics Express, 2005, 13, 7174.	3.4	64
124	Negative refraction in a Si-polymer photonic Crystal membrane. IEEE Photonics Technology Letters, 2005, 17, 1196-1198.	2.5	60
125	Polydimethylsiloxane-based pattern transfer process for the post-IC integration of MEMS onto CMOS chips. Journal of Micromechanics and Microengineering, 2004, 14, 335-340.	2.6	19
126	Mechanically tunable photonic crystal structure. Applied Physics Letters, 2004, 85, 4845-4847.	3.3	149

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127	A tapered hollow metallic microneedle array using backside exposure of SU-8. Journal of Micromechanics and Microengineering, 2004, 14, 597-603.	2.6	178
128	Metallic microgripper with SU-8 adaptor as end-effectors for heterogeneous micro/nano assembly applications. Microsystem Technologies, 2004, 10, 689-693.	2.0	26
129	Disposable Smart Lab on a Chip for Point-of-Care Clinical Diagnostics. Proceedings of the IEEE, 2004, 92, 154-173.	21.3	429
130	Tunable nanophotonic device based on flexible photonic crystal. , 2004, , .		2
131	Characterization of SU-8 as a photoresist for electron-beam lithography. , 2003, , .		15
132	Advances in RF MEMS technology. , 2003, , .		5
133	Microjet cooling devices for thermal management of electronics. IEEE Transactions on Components and Packaging Technologies, 2003, 26, 359-366.	1.3	158
134	Surface micromachined arch-shape on-chip 3-D solenoid inductors for high-frequency applications. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2003, 2, 275.	0.9	16
135	3-D, Self-aligned, Micro-assembled, Electrical Interconnects for Heterogeneous Integration. , 2003, 4981, 189.		3
136	<title>On-chip dome-shape spiral micro-inductor for high-frequency applications</title>. , 2002, , .		2
137	Rapid replication of polymeric and metallic high aspect ratio microstructures using PDMS and LIGA technology. Microsystem Technologies, 2002, 9, 5-10.	2.0	91
138	Robust capacitive pressure sensor array. Sensors and Actuators A: Physical, 2002, 101, 231-238.	4.1	23
139	Disposable Biochip Cartridge for Clinical Diagnostics Toward Point-of-Care Systems. , 2002, , 187-189.		2
140	On-chip 3D air-core microinductor for high-frequency applications using deformation of sacrificial polymer. , 2001, , .		11
141	Massive replication of polymeric high-aspect-ratio microstructures using PDMS casting. , 2001, , .		3
142	Planarization techniques for vertically integrated metallic MEMS on silicon foundry circuits. Journal of Micromechanics and Microengineering, 1997, 7, 44-54.	2.6	29
143	Modeling of substrate-induced anisotropy in through-plane thermal behavior of polymeric thin films. Journal of Polymer Science, Part B: Polymer Physics, 1996, 34, 1591-1596.	2.1	7
144	A miniaturized high-voltage solar cell array as an electrostatic MEMS power supply. Journal of Microelectromechanical Systems, 1995, 4, 102-108.	2.5	112

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145	Anisotropy in Thermal, Electrical and Mechanical Properties of Spin-Coated Polymer Dielectrics. Materials Research Society Symposia Proceedings, 1994, 338, 577.	0.1	7
146	A high voltage solar cell array as an electrostatic MEMS power supply. , 0, , .		16
147	A disposable plastic biochip cartridge with on-chip power sources for blood analysis. , 0, , .		3
148	Cmos VCO & LNA implemented by air-suspended on-chip RF MEMS LC. , 0, , .		4
149	Micromachined on-chip high-aspect ratio air core solenoid inductor for multi-GHz applications. , 0, , .		7
150	Microlens array and micro clampers for high performance optoelectronic devices packaging. , 0, , .		0
151	Microassembled tunable mems inductor. , 0, , .		18
152	Micro/Nano Hierarchical Super-Lyophobic Surfaces Against Gallium-Based Liquid Metal Alloy. , 0, , .		0