

Seung S Lee

List of Publications by Year in descending order

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68
papers

3,334
citations

126907

33
h-index

144013

57
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68
all docs

68
docs citations

68
times ranked

3304
citing authors

#	ARTICLE	IF	CITATIONS
1	Theoretical and experimental study of MHD (magnetohydrodynamic) micropump. <i>Sensors and Actuators A: Physical</i> , 2000, 80, 84-89.	4.1	405
2	A barrier embedded chaotic micromixer. <i>Journal of Micromechanics and Microengineering</i> , 2004, 14, 798-805.	2.6	215
3	3D microfabrication with inclined/rotated UV lithography. <i>Sensors and Actuators A: Physical</i> , 2004, 111, 14-20.	4.1	150
4	An electrochemical impedance biosensor with aptamer-modified pyrolyzed carbon electrode for label-free protein detection. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 372-379.	7.8	133
5	Shrinkage ratio of PDMS and its alignment method for the wafer level process. <i>Microsystem Technologies</i> , 2007, 14, 205-208.	2.0	122
6	Focal tunable liquid lens integrated with an electromagnetic actuator. <i>Applied Physics Letters</i> , 2007, 90, 121129.	3.3	120
7	A split and recombination micromixer fabricated in a PDMS three-dimensional structure. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 1067-1072.	2.6	116
8	Influence of the delivery systems using a microneedle array on the permeation of a hydrophilic molecule, calcein. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2008, 69, 1040-1045.	4.3	109
9	Piezoelectric cantilever microphone and microspeaker. <i>Journal of Microelectromechanical Systems</i> , 1996, 5, 238-242.	2.5	104
10	Micro-channel filling flow considering surface tension effect. <i>Journal of Micromechanics and Microengineering</i> , 2002, 12, 236-246.	2.6	100
11	Fabrication of microneedle array using LIGA and hot embossing process. <i>Microsystem Technologies</i> , 2005, 11, 311-318.	2.0	95
12	A novel fabrication process for out-of-plane microneedle sheets of biocompatible polymer. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 1184-1191.	2.6	86
13	Near-field thermal radiation between graphene-covered doped silicon plates. <i>Optics Express</i> , 2013, 21, 22173.	3.4	81
14	Near-field thermal radiation between doped silicon plates at nanoscale gaps. <i>Physical Review B</i> , 2015, 91, .	3.2	81
15	A novel fabrication method of a microneedle array using inclined deep x-ray exposure. <i>Journal of Micromechanics and Microengineering</i> , 2005, 15, 903-911.	2.6	80
16	A simple method for microlens fabrication by the modified LIGA process. <i>Journal of Micromechanics and Microengineering</i> , 2002, 12, 334-340.	2.6	79
17	Graphene-assisted Si-InSb thermophotovoltaic system for low temperature applications. <i>Optics Express</i> , 2015, 23, A240.	3.4	70
18	Piezoelectric microphone built on circular diaphragm. <i>Sensors and Actuators A: Physical</i> , 2008, 144, 367-373.	4.1	68

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19	Hyperbolic metamaterial-based near-field thermophotovoltaic system for hundreds of nanometer vacuum gap. <i>Optics Express</i> , 2016, 24, A635.	3.4	65
20	Mass producible and biocompatible microneedle patch and functional verification of its usefulness for transdermal drug delivery. <i>Biomedical Microdevices</i> , 2009, 11, 1195-1203.	2.8	64
21	Improvement in antigen-delivery using fabrication of a grooves-embedded microneedle array. <i>Sensors and Actuators B: Chemical</i> , 2009, 137, 274-280.	7.8	60
22	Flower-Like CuO Nanostructures for Enhanced Boiling. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2012, 16, 145-153.	2.6	60
23	Braille dot display module with a PDMS membrane driven by a thermopneumatic actuator. <i>Sensors and Actuators A: Physical</i> , 2009, 154, 238-246.	4.1	58
24	A Study on Field Emission Characteristics of Planar Graphene Layers Obtained from a Highly Oriented Pyrolyzed Graphite Block. <i>Nanoscale Research Letters</i> , 2009, 4, 1218-1221.	5.7	55
25	Development of a miniature tunable stiffness display using MR fluids for haptic application. <i>Sensors and Actuators A: Physical</i> , 2010, 163, 180-190.	4.1	53
26	Self-excited piezoelectric cantilever oscillators. <i>Sensors and Actuators A: Physical</i> , 1996, 52, 41-45.	4.1	52
27	A micropump operating with chemically produced oxygen gas. <i>Sensors and Actuators A: Physical</i> , 2004, 111, 8-13.	4.1	48
28	Rotation effect in split and recombination micromixing. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 364-371.	7.8	44
29	Application of Huygens-Fresnel diffraction principle for high aspect ratio SU-8 micro-/nanotip array. <i>Optics Letters</i> , 2008, 33, 40.	3.3	42
30	Fabrication and characterization of freestanding 3D carbon microstructures using multi-exposures and resist pyrolysis. <i>Journal of Micromechanics and Microengineering</i> , 2008, 18, 035012.	2.6	41
31	Optimization of a near-field thermophotovoltaic system operating at low temperature and large vacuum gap. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 210, 35-43.	2.3	38
32	In vitro characterization of the invasiveness of polymer microneedle against skin. <i>International Journal of Pharmaceutics</i> , 2010, 397, 201-205.	5.2	36
33	Piezoelectric cantilever acoustic transducer. <i>Journal of Micromechanics and Microengineering</i> , 1998, 8, 230-238.	2.6	35
34	Effect of microneedle on the pharmacokinetics of ketoprofen from its transdermal formulations. <i>Drug Delivery</i> , 2009, 16, 52-56.	5.7	34
35	Replications and analysis of microlens array fabricated by a modified LIGA process. <i>Polymer Engineering and Science</i> , 2006, 46, 416-425.	3.1	30
36	Effect of applying modes of the polymer microneedle-roller on the permeation of ascorbic acid in rats. <i>Journal of Drug Targeting</i> , 2010, 18, 15-20.	4.4	30

#	ARTICLE	IF	CITATIONS
37	Effects of multilayered graphene on the performance of near-field thermophotovoltaic system at longer vacuum gap distances. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 197, 84-94.	2.3	25
38	Piezoelectric cantilever voltage-to-frequency converter. <i>Sensors and Actuators A: Physical</i> , 1998, 71, 153-157.	4.1	22
39	Fabrication of a disposable biochip for measuring percent hemoglobin A1c (%HbA1c). <i>Sensors and Actuators A: Physical</i> , 2006, 130-131, 267-272.	4.1	20
40	Surface-Plasmon-Enhanced Near-Field Radiative Heat Transfer between Planar Surfaces with a Thin-Film Plasmonic Coupler. <i>Physical Review Applied</i> , 2020, 14, .	3.8	18
41	Mass-producible superhydrophobic surfaces. <i>Chemical Communications</i> , 2011, 47, 12005.	4.1	17
42	Biosensor utilizing resist-derived carbon nanostructures. <i>Applied Physics Letters</i> , 2007, 90, 264103.	3.3	16
43	A tetrahedral three-facet micro mirror with the inclined deep X-ray process. <i>Sensors and Actuators A: Physical</i> , 2001, 93, 157-161.	4.1	15
44	Ball driven type MEMS SAD for artillery fuse. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 015032.	2.6	14
45	Physical modeling and analysis of microlens formation fabricated by a modified LIGA process. <i>Journal of Micromechanics and Microengineering</i> , 2003, 13, 523-531.	2.6	13
46	Fabrication of high-aspect-ratio nano structures using a nano x-ray shadow mask. <i>Journal of Micromechanics and Microengineering</i> , 2008, 18, 015006.	2.6	13
47	Deep X-ray mask with integrated actuator for 3D microfabrication. <i>Sensors and Actuators A: Physical</i> , 2003, 108, 121-127.	4.1	12
48	Flexible Superhydrophobic Polymeric Surfaces with Micro-Nanohybrid Structures Using Black Silicon. <i>Macromolecular Materials and Engineering</i> , 2013, 298, 311-317.	3.6	12
49	A novel method of microneedle array fabrication using inclined deep x-ray exposure. <i>Journal of Physics: Conference Series</i> , 2006, 34, 180-186.	0.4	11
50	Advanced design and experiment of a small-sized flywheel energy storage system using a high-temperature superconductor bearing. <i>Superconductor Science and Technology</i> , 2007, 20, 634-639.	3.5	11
51	Deep X-ray mask with integrated electro-thermal micro xy-stage for 3D fabrication. <i>Sensors and Actuators A: Physical</i> , 2004, 111, 37-43.	4.1	9
52	The fabrication of carbon nanostructures using electron beam resist pyrolysis and nanomachining processes for biosensing applications. <i>Nanotechnology</i> , 2008, 19, 215302.	2.6	9
53	Braille code display device with a PDMS membrane and thermopneumatic actuator. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , 2008, , .	0.0	7
54	Vertically aligned carbon nanopillars with size and spacing control for a transparent field emission display. <i>Nanotechnology</i> , 2013, 24, 025301.	2.6	7

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55	Experiment and analysis for a small-sized flywheel energy storage system with a high-temperature superconductor bearing. Superconductor Science and Technology, 2006, 19, 217-222.	3.5	5
56	Field Emission of ITO-Coated Vertically Aligned Nanowire Array. Nanoscale Research Letters, 2010, 5, 1128-1131.	5.7	4
57	High frequency carbon nanomechanical resonators embedded with carbon nanotube stiffening layers. Applied Physics Letters, 2010, 97, .	3.3	4
58	A nanoradio utilizing the mechanical resonance of a vertically aligned nanopillar array. Nanoscale, 2014, 6, 2087.	5.6	3
59	Near-Field Electroluminescent Refrigeration System Consisting of Two Graphene Schottky Diodes. Journal of Heat Transfer, 2020, 142, .	2.1	3
60	Deep X-Ray Mask With Integrated Actuator for 3D LIGA Process. , 2002, , .		2
61	Self-excited Piezoelectric Cantilever Oscillators. , 0, , .		1
62	Micro-channel flow analysis by a fringe element reconstruction method. Journal of Micromechanics and Microengineering, 2006, 16, 571-579.	2.6	1
63	Usefulness verification of biocompatible microneedle patch for transdermal drug delivery. , 2009, , .		1
64	Nanoantenna using mechanical resonance. , 2010, , .		0
65	Patternable pyrolyzed carbon microspeaker. , 2010, , .		0
66	Novel Micro Gas Generator of Carbon Dioxide for Actuation and Gas Source. Transactions of the Korean Society of Mechanical Engineers, A, 2005, 29, 970-975.	0.2	0
67	PDMS Membrane Microactuator for Focal Tunable Microlens. , 2006, , .		0
68	Advanced Design and Experiment of a Micro Flywheel Energy Storage System With a High Temperature Superconductor Bearing. , 2006, , .		0