Joonwon Kim

List of Publications by Year
in descending order

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76	1,828	304743	289244
papers	citations	22 h-index	40 g-index

78	78	78	2195
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pool boiling CHF enhancement by micro/nanoscale modification of zircaloy-4 surface. Nuclear Engineering and Design, 2010, 240, 3350-3360.	1.7	164
2	Effects of nano-fluid and surfaces with nano structure on the increase of CHF. Experimental Thermal and Fluid Science, 2010, 34, 487-495.	2.7	150
3	On-demand, parallel droplet merging method with non-contact droplet pairing in droplet-based microfluidics. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	115
4	The effect of capillary wicking action of micro/nano structures on pool boiling critical heat flux. International Journal of Heat and Mass Transfer, 2012, 55, 89-92.	4.8	104
5	Simple Approach to Superhydrophobic Nanostructured Al for Practical Antifrosting Application Based on Enhanced Self-propelled Jumping Droplets. ACS Applied Materials & Interfaces, 2015, 7, 7206-7213.	8.0	104
6	Drop Impact Characteristics and Structure Effects of Hydrophobic Surfaces with Micro- and/or Nanoscaled Structures. Langmuir, 2012, 28, 11250-11257.	3.5	87
7	Drop splashing on a rough surface: How surface morphology affects splashing threshold. Applied Physics Letters, 2014, 104, .	3.3	55
8	Drop-on-demand inkjet-based cell printing with 30-Î¼m nozzle diameter for cell-level accuracy. Biomicrofluidics, 2016, 10, 064110.	2.4	53
9	Three-dimensional digital microfluidic manipulation of droplets in oil medium. Scientific Reports, 2015, 5, 10685.	3.3	50
10	Dynamics of water droplet on a heated nanotubes surface. Applied Physics Letters, 2013, 102, .	3.3	49
11	Wicking and Spreading of Water Droplets on Nanotubes. Langmuir, 2012, 28, 2614-2619.	3.5	46
12	Development and characterization of a novel configurable MEMS inertial switch using a microscale liquid-metal droplet in a microstructured channel. Sensors and Actuators A: Physical, 2011, 166, 234-240.	4.1	45
13	A superhydrophobic dual-scale engineered lotus leaf. Journal of Micromechanics and Microengineering, 2008, 18, 015019.	2.6	36
14	A microfluidic-based dynamic microarray system with single-layer pneumatic valves for immobilization and selective retrieval of single microbeads. Microfluidics and Nanofluidics, 2014, 16, 623-633.	2.2	35
15	Integration of a microfluidic chip with a size-based cell bandpass filter for reliable isolation of single cells. Lab on A Chip, 2015, 15, 4128-4132.	6.0	34
16	Electrochemically etched porous stainless steel for enhanced oil retention. Surface and Coatings Technology, 2015, 264, 127-131.	4.8	31
17	Hydrodynamic trap-and-release of single particles using dual-function elastomeric valves: design, fabrication, and characterization. Microfluidics and Nanofluidics, 2012, 13, 835-844.	2.2	29
18	Micro/nanostructure evolution of zircaloy surface using anodization technique: Application to nuclear fuel cladding modification. Applied Surface Science, 2012, 258, 8724-8731.	6.1	28

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19	Development of a MEMS digital accelerometer (MDA) using a microscale liquid metal droplet in a microstructured photosensitive glass channel. Sensors and Actuators A: Physical, 2010, 159, 51-57.	4.1	27
20	Effects of drop viscosity on oscillation dynamics induced by AC electrowetting. Sensors and Actuators B: Chemical, 2014, 190, 48-54.	7.8	26
21	Arrayed-type touch sensor using micro liquid metal droplets with large dynamic range and high sensitivity. Sensors and Actuators A: Physical, 2015, 235, 151-157.	4.1	26
22	Embolization of Vascular Malformations via In Situ Photocrosslinking of Mechanically Reinforced Alginate Microfibers using an Opticalâ€Fiberâ€Integrated Microfluidic Device. Advanced Materials, 2021, 33, e2006759.	21.0	25
23	A droplet-based fluorescence polarization immunoassay (dFPIA) platform for rapid and quantitative analysis of biomarkers. Biosensors and Bioelectronics, 2015, 67, 497-502.	10.1	22
24	Robust capacitive touch sensor using liquid metal droplets with large dynamic range. Sensors and Actuators A: Physical, 2017, 259, 105-111.	4.1	22
25	Prediction of contact angle on a microline patterned surface. Surface Science, 2006, 600, L301-L304.	1.9	21
26	Finger-triggered portable PDMS suction cup for equipment-free microfluidic pumping. Micro and Nano Systems Letters, 2018, 6, .	3.7	21
27	A micromachined differential resonant accelerometer based on robust structural design. Microelectronic Engineering, 2014, 129, 5-11.	2.4	20
28	Double Side Electromagnetic Interferenceâ€Shielded Bendingâ€Insensitive Capacitiveâ€Type Flexible Touch Sensor with Linear Response over a Wide Detection Range. Advanced Materials Technologies, 2021, 6, 2100358.	5.8	20
29	Evaporation characteristics of a hydrophilic surface with micro-scale and/or nano-scale structures fabricated by sandblasting and aluminum anodization. Journal of Micromechanics and Microengineering, 2010, 20, 045008.	2.6	19
30	3D Vascular Replicas Composed of Elastomerâ€“Hydrogel Skin Multilayers for Simulation of Endovascular Intervention. Advanced Functional Materials, 2020, 30, 2003395.	14.9	19
31	Wettability of dual-scaled surfaces fabricated by the combination of a conventional silicon wet-etching and a ZnO solution method. Journal of Micromechanics and Microengineering, 2009, 19, 095002.	2.6	18
32	A Pneumatic Drop-on-Demand Printing System With an Extended Printable Liquid Range. Journal of Microelectromechanical Systems, 2015, 24, 768-770.	2.5	18
33	Development of a dual-axis micromachined convective accelerometer with an effective heater geometry. Microelectronic Engineering, 2011, 88, 276-281.	2.4	17
34	Integrated pneumatic micro-pumps for high-throughput droplet-based microfluidics. RSC Advances, 2014, 4, 20341-20345.	3.6	17
35	Investigation of Pool Boiling Critical Heat Flux Enhancement on a Modified Surface Through the Dynamic Wetting of Water Droplets. Journal of Heat Transfer, 2012, 134, .	2.1	16
36	A single snapshot multiplex immunoassay platform utilizing dense test lines based on engineered beads. Biosensors and Bioelectronics, 2021, 190, 113388.	10.1	16

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37	A New Dip Coating Method Using Supporting Liquid for Forming Uniformly Thick Layers on Serpentine 3D Substrates. Advanced Materials Interfaces, 2019, 6, 1901485.	3.7	15
38	A Novel Configurable MEMS Inertial Switch using Microscale Liquid-Metal Droplet. , 2009, , .		13
39	Effective three-dimensional superhydrophobic aerogel-coated channel for high efficiency water-droplet transport. Applied Physics Letters, 2014, 104, .	3.3	13
40	Highâ€Density Microfluidic Particleâ€Clusterâ€Array Device for Parallel and Dynamic Study of Interaction between Engineered Particles. Advanced Materials, 2017, 29, 1701351.	21.0	13
41	Microfluidic-based cell handling devices for biochemical applications. Journal of Micromechanics and Microengineering, 2018, 28, 123001.	2.6	13
42	3D Printing of Freestanding Overhanging Structures Utilizing an In Situ Light Guide. Advanced Materials Technologies, 2019, 4, 1900118.	5.8	12
43	Plug-in nanoliter pneumatic liquid dispenser with nozzle design flexibility. Biomicrofluidics, 2015, 9, 064102.	2.4	11
44	Design optimization of duct-type AUVs using CFD analysis. Intelligent Service Robotics, 2015, 8, 233-245.	2.6	11
45	Development of a complete dual-axis micromachined convective accelerometer with high sensitivity. , 2008, , .		10
46	Development and analysis of a capacitive touch sensor using a liquid metal droplet. Journal of Micromechanics and Microengineering, 2015, 25, 095015.	2.6	10
47	Deterministic bead-in-droplet ejection utilizing an integrated plug-in bead dispenser for single beadâ€“based applications. Scientific Reports, 2017, 7, 46260.	3.3	10
48	Oscillatory flow-assisted efficient target enrichment with small volumes of sample by using a particle-based microarray device. Biosensors and Bioelectronics, 2019, 131, 280-286.	10.1	10
49	Effect of a Microstructured Dielectric Layer on a Bending-Insensitive Capacitive-Type Touch Sensor with Shielding. ACS Applied Electronic Materials, 2020, 2, 846-854.	4.3	10
50	Pneumatic RF MEMS switch using a liquid metal droplet. Journal of Micromechanics and Microengineering, 2013, 23, 055006.	2.6	9
51	Durable, scalable, and tunable omniphobicity on stainless steel mesh for separation of low surface tension liquid mixtures. Surface and Coatings Technology, 2018, 344, 394-401.	4.8	9
52	Simple and robust resistive dual-axis accelerometer using a liquid metal droplet. Micro and Nano Systems Letters, 2017, 5, .	3.7	8
53	Capacitiveâ€Type Twoâ€Axis Accelerometer with Liquidâ€Type Proof Mass. Advanced Electronic Materials, 2020, 6, 1901265.	5.1	7
54	Chamber/Capsuleâ€Integrated Selfâ€Healing Coating on Glass for Preventing Crack Propagation. Macromolecular Materials and Engineering, 2018, 303, 1800041.	3.6	6

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55	Continuous Single-Phase Flow-Assisted Isolation for Parallel Observation of Reactions Between Deterministically Paired Particles. Journal of Microelectromechanical Systems, 2019, 28, 882-889.	2.5	6
56	Highâ€Resolution and Facile Patterning of Silver Nanowire Electrodes by Solventâ€Free Photolithographic Technique Using UVâ€Curable Pressure Sensitive Adhesive Film. Small Methods, 2021, 5, e2101049.	8.6	6
57	EWOD (Electrowetting-on-Dielectric) Actuated Optical Micromirror. , 0, , .		5
58	Enhancement of Steel Sandwich Sheet Adhesion Using Mechanical Interlocking Structures Formed by Electrochemical Etching. Langmuir, 2021, 37, 6702-6710.	3.5	5
59	Cytocompatible asymmetrical coating for Janus carrier synthesis through capillary wetting and ascending. Journal of Colloid and Interface Science, 2022, 623, 54-62.	9.4	5
60	Textile-type triboelectric nanogenerator using Teflon wrapping wires as wearable power source. Micro and Nano Systems Letters, 2022, 10, .	3.7	5
61	Hydroprinting Technology to Transfer Ultrathin, Transparent, and Doubleâ€Sided Conductive Nanomembranes for Multiscale 3D Conformal Electronics. Small Methods, 2022, 6, 2100869.	8.6	3
62	Simple manufacturing approach for 3D overhanging structure of hydrogel with in-situ light-guiding mechanism. , 2018, , .		2
63	Analysis of liquid-type proof mass under oscillating conditions. Micro and Nano Systems Letters, 2020, 8, .	3.7	2
64	Hydrogel Microfibers: Embolization of Vascular Malformations via In Situ Photocrosslinking of Mechanically Reinforced Alginate Microfibers using an Opticalâ€Fiberâ€Integrated Microfluidic Device (Adv. Mater. 14/2021). Advanced Materials, 2021, 33, 2170111.	21.0	2
65	Rapid and Accurate Manufacture of 3D Vascular Replicas with Smooth Inner Surfaces Using Waxâ€Coated Molds. Advanced Materials Technologies, 2021, 6, 2100220.	5.8	2
66	Structural dimensions depending on light intensity in a 3D printing method that utilizes in situ light as a guide. Micro and Nano Systems Letters, 2020, 8, .	3.7	2
67	Omniâ€Liquid Droplet and Bubble Manipulation Platform Using Functional Organogel Blocks. Advanced Materials Interfaces, 2022, 9, .	3.7	2
68	Capillary waves in a sharp-edged slit driven by vertical vibration. Experimental Thermal and Fluid Science, 2016, 71, 52-56.	2.7	1
69	Single-phase isolation of paired hetero particles within a microfluidic device for multiplex analysis without cross-contamination. , 2018, , .		1
70	Patternable particle microarray utilizing controllable particle delivery. Micro and Nano Systems Letters, 2019, 7, .	3.7	1
71	Using ewod (electrowetting-on-dielectric) actuation in a micro conveyor system. , 0, , .		0
72	A novel thermal sensor to monitor the gas-liquid phase interface in microfluidic channels. , 2008, , .		0

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73	A digital accelerometer using a microscale liquid-metal droplet in photosensitive glass channel. , 2009, , .		0
74	Effective three-dimensional superhydrophobic channel coating using organically modified silica aerogel. , 2013, , .		0
75	Development of an active reflector using a liquid metal droplet and application of endoscope to increase viewing angle. , 2019, , .		0
76	3D Vascular Replicas: 3D Vascular Replicas Composed of Elastomerâ€“Hydrogel Skin Multilayers for Simulation of Endovascular Intervention (Adv. Funct. Mater. 51/2020). Advanced Functional Materials, 2020, 30, 2070341.	14.9	0