Joon-wan Kim

List of Publications by Year
in descending order

36 papers	736 citations	623734 14 h-index	526287 27 g-index
37 all docs	37 docs citations	37 times ranked	653 citing authors

#	Article	IF	Citations
1	A Microfabricated Pistonless Syringe Pump Driven by Electroâ€Conjugate Fluid with Leakless On/Off Microvalves. Small, 2022, 18, e2106221.	10.0	3
2	Soft actuator with switchable stiffness using a micropump-activated jamming system. Sensors and Actuators A: Physical, 2022, 338, 113449.	4.1	7
3	A multi-DOF soft microactuator integrated with flexible electro-rheological microvalves using an alternating pressure source. Smart Materials and Structures, 2021, 30, 085006.	3.5	3
4	A study on a hybrid structure flexible electro-rheological microvalve for soft microactuators. Microsystem Technologies, 2020, 26, 309-321.	2.0	9
5	A novel bending microactuator with integrated flexible electro-rheological microvalves using an alternating pressure source for multi-actuator systems. Microsystem Technologies, 2020, 26, 1507-1519.	2.0	5
6	Active sorting of droplets by using an ECF (Electro-conjugate Fluid) micropump. Sensors and Actuators A: Physical, 2020, 303, 111702.	4.1	19
7	Micro ECF (electro-conjugate fluid) hydraulic power sources based on the modular design of TPSEs (triangular prism and slit electrode pairs). International Journal of Advanced Manufacturing Technology, 2020, 106, 627-639.	3.0	10
8	Effective and efficient removing method of micromolds in UV-LIGA using CO2 laser ablation followed by O2/CF4 plasma finishing for high-aspect-ratio metallic microstructures. International Journal of Advanced Manufacturing Technology, 2020, 110, 3391-3405.	3.0	3
9	Soft fiber-reinforced bending finger with three chambers actuated by ECF (electro-conjugate fluid) pumps. Sensors and Actuators A: Physical, 2020, 310, 112034.	4.1	21
10	Configurations of triangular prism and slit electrode pairs to enhance the performance of electro-conjugate fluid micropumps. Journal of Micromechanics and Microengineering, 2020, 30, 025007.	2.6	3
11	Multilayer Fabrication of Micromolding and Electroforming with the Planarization of Grinding for High-Aspect-Ratio Microelectrodes in Electro-conjugate Fluid (ECF) Micropumps. International Journal of Precision Engineering and Manufacturing, 2020, 21, 927-936.	2.2	3
12	Active microvalve driven by electro-conjugate fluid jet flow with a hydraulic power source on a chip. Journal of Micromechanics and Microengineering, 2020, 30, 105013.	2.6	3
13	Fabrication, Experiment, and Simulation of a Flexible Microvalve-Integrated Microarm for Microgrippers Using Electrorheological Fluid. Journal of Robotics and Mechatronics, 2020, 32, 333-343.	1.0	3
14	Development of MEMS-fabricated bidirectional ECF (electro-conjugate fluid) micropumps. Sensors and Actuators A: Physical, 2019, 295, 317-323.	4.1	10
15	A droplet-generator-on-a-chip actuated by ECF (electro-conjugate fluid) micropumps. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	10
16	Comprehending electro-conjugate fluid (ECF) jets by using the Onsager effect. Sensors and Actuators A: Physical, 2019, 295, 266-273.	4.1	11
17	Alleviation of the adhesive protrusion problem at the bonding interface of free-standing microstructures. Journal of Mechanical Science and Technology, 2019, 33, 749-757.	1.5	2
18	Developing O/O (oil-in-oil) droplet generators on a chip by using ECF (electro-conjugate fluid) micropumps. Sensors and Actuators B: Chemical, 2019, 296, 126669.	7.8	23

#	Article	IF	Citations
19	Releasing large-area SU-8 structures without using any sacrificial layers. Microelectronic Engineering, 2019, 212, 53-60.	2.4	7
20	Fast packaging by a partially-crosslinked SU-8 adhesive tape for microfluidic sensors and actuators. Sensors and Actuators A: Physical, 2019, 289, 77-86.	4.1	16
21	Droplet Sorter using a Cantilever Actuated by Electro-Conjugate Fluid Micropumps. , 2019, , .		2
22	A micro vertically-allocated SU-8 check valve and its characteristics. Microsystem Technologies, 2019, 25, 245-255.	2.0	18
23	ECF (electro-conjugate fluid) finger with bidirectional motion and its application to a flexible hand. Smart Materials and Structures, 2019, 28, 025032.	3.5	24
24	Study on the fabrication of a SU-8 cantilever vertically-allocated in a closed fluidic microchannel. Microsystem Technologies, 2018, 24, 2473-2483.	2.0	8
25	A Novel Hybrid Removal Technology for High-Aspect-Ratio SU-8 Micromolds in ECF (Electro-Conjugate) Tj ETQq1 1 0.784314 rgBT /Ov 818-826.	2.5	9
26	A bio-inspired 3D-printed hybrid finger with integrated ECF (electro-conjugate fluid) micropumps. Sensors and Actuators A: Physical, 2017, 257, 47-57.	4.1	31
27	Elastic Inflatable Actuators for Soft Robotic Applications. Advanced Materials, 2017, 29, 1604977.	21.0	300
28	A study on an AC electroosmotic micropump using a square pole â€“ Slit electrode array. Sensors and Actuators A: Physical, 2017, 265, 152-160.	4.1	22
29	An MEMS-based multiple electro-rheological bending actuator system with an alternating pressure source. Sensors and Actuators A: Physical, 2016, 245, 68-75.	4.1	24
30	Triangular Prism and Slit Electrode Pair for ECF Jetting Fabricated by Thick Micromold and Electroforming as Micro Hydraulic Pressure Source for Soft Microrobots. International Journal of Automation Technology, 2016, 10, 470-478.	1.0	22
31	A study on a soft microgripper using MEMS-based divided electrode type flexible electro-rheological valves. Mechatronics, 2015, 29, 103-109.	3.3	15
32	Tube-type micropump by using electro-conjugated fluid (ECF). Sensors and Actuators A: Physical, 2012, 174, 155-161.	4.1	39
33	An intelligent microactuator robust against disturbance using electro-rheological fluid. Sensors and Actuators A: Physical, 2012, 175, 101-107.	4.1	13
34	An ER Microactuator with Built-in Pump and Valve. International Journal of Automation Technology, 2012, 6, 468-475.	1.0	4
35	Concept of a Focus-Tunable ECF Microlens and Fabrication of a Large Model Prototype. International Journal of Automation Technology, 2012, 6, 476-481.	1.0	6
36	A flexible electro-rheological microvalve (FERV) based on SU-8 cantilever structures and its application to microactuators. Sensors and Actuators A: Physical, 2009, 156, 366-372.	4.1	28