

# Hyejin Moon

## List of Publications by Year in descending order

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43  
papers

4,515  
citations

361413  
20  
h-index

501196  
28  
g-index

47  
all docs

47  
docs citations

47  
times ranked

2929  
citing authors

#	ARTICLE	IF	CITATIONS
1	Creating, transporting, cutting, and merging liquid droplets by electrowetting-based actuation for digital microfluidic circuits. <i>Journal of Microelectromechanical Systems</i> , 2003, 12, 70-80.	2.5	1,308
2	Low voltage electrowetting-on-dielectric. <i>Journal of Applied Physics</i> , 2002, 92, 4080-4087.	2.5	659
3	Electrowetting and electrowetting-on-dielectric for microscale liquid handling. <i>Sensors and Actuators A: Physical</i> , 2002, 95, 259-268.	4.1	546
4	Digital Microfluidics with In-Line Sample Purification for Proteomics Analyses with MALDI-MS. <i>Analytical Chemistry</i> , 2005, 77, 534-540.	6.5	301
5	Electrowetting-Based Microfluidics for Analysis of Peptides and Proteins by Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry. <i>Analytical Chemistry</i> , 2004, 76, 4833-4838.	6.5	295
6	An integrated digital microfluidic chip for multiplexed proteomic sample preparation and analysis by MALDI-MS. <i>Lab on A Chip</i> , 2006, 6, 1213.	6.0	266
7	Equilibrium behavior of sessile drops under surface tension, applied external fields, and material variations. <i>Journal of Applied Physics</i> , 2003, 93, 5794-5811.	2.5	204
8	Light actuation of liquid by optoelectrowetting. <i>Sensors and Actuators A: Physical</i> , 2003, 104, 222-228.	4.1	203
9	Nanocoating characterization in pool boiling heat transfer of pure water. <i>International Journal of Heat and Mass Transfer</i> , 2010, 53, 4579-4587.	4.8	108
10	On-Chip Drop-to-Drop Liquid Microextraction Coupled with Real-Time Concentration Monitoring Technique. <i>Analytical Chemistry</i> , 2011, 83, 1658-1664.	6.5	80
11	A Fundamental Study on Electrowetting by Traditional and Multifunctional Ionic Liquids: Possible Use in Electrowetting on Dielectric-Based Microfluidic Applications. <i>Analytical Chemistry</i> , 2008, 80, 7690-7698.	6.5	77
12	The Effect of AC Frequency on the Electrowetting Behavior of Ionic Liquids. <i>Analytical Chemistry</i> , 2010, 82, 3146-3154.	6.5	55
13	On-chip characterization of cryoprotective agent mixtures using an EWOD-based digital microfluidic device. <i>Lab on A Chip</i> , 2011, 11, 2212.	6.0	44
14	Enhancement of mixing by droplet-based microfluidics. , 0, , .		37
15	Towards digital microfluidic circuits: creating, transporting, cutting and merging liquid droplets by electrowetting-based actuation. , 0, , .		37
16	Linear Tricationic Room-Temperature Ionic Liquids: Synthesis, Physicochemical Properties, and Electrowetting Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 2126-2133.	8.0	29
17	Accurate, consistent, and fast droplet splitting and dispensing in electrowetting on dielectric digital microfluidics. <i>Micro and Nano Systems Letters</i> , 2017, 5, .	3.7	29
18	Droplet Velocity in an Electrowetting on Dielectric Digital Microfluidic Device. <i>Micromachines</i> , 2016, 7, 71.	2.9	27

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19	On-chip organic synthesis enabled using an engine-and-cargo system in an electrowetting-on-dielectric digital microfluidic device. <i>Lab on A Chip</i> , 2019, 19, 3054-3064.	6.0	26
20	Integration of reconfigurable potentiometric electrochemical sensors into a digital microfluidic platform. <i>Biosensors and Bioelectronics</i> , 2018, 106, 37-42.	10.1	25
21	A Tunable Ionic Liquid Based RC Filter Using Electrowetting: A New Concept. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 1785-1787.	8.0	22
22	Digital microfluidic three-dimensional cell culture and chemical screening platform using alginate hydrogels. <i>Biomicrofluidics</i> , 2015, 9, 024116.	2.4	22
23	Electromechanical model to predict the movability of liquids in an electrowetting-on-dielectric microfluidic device. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	17
24	Numerical modeling of microscale droplet dispensing in parallel-plate electrowetting-on-dielectric (EWOD) devices with various reservoir designs. <i>Microfluidics and Nanofluidics</i> , 2016, 20, 1.	2.2	16
25	Electrowetting-on-dielectric (EWOD) digital microfluidic device for in-line workup in organic reactions: A critical step in the drug discovery work cycle. <i>Sensors and Actuators B: Chemical</i> , 2021, 330, 129252.	7.8	14
26	Study of hotspot cooling using electrowetting on dielectric digital microfluidic system. , 2014, , .		12
27	Demonstration of hotspot cooling using digital microfluidic device. <i>Journal of Micromechanics and Microengineering</i> , 2018, 28, 125015.	2.6	11
28	Droplet dispensing and splitting by electrowetting on dielectric digital microfluidics. , 2014, , .		9
29	Drop-to-drop liquidâ€“liquid extraction of DNA in an electrowetting-on-dielectric digital microfluidics. <i>Biomicrofluidics</i> , 2021, 15, 034110.	2.4	9
30	On-chip aqueous two-phase system (ATPS) formation, consequential self-mixing, and their influence on drop-to-drop aqueous two-phase extraction kinetics. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 094002.	2.6	7
31	Phase separation of multiphase droplets in a digital microfluidic device. <i>Micro and Nano Systems Letters</i> , 2019, 7, .	3.7	5
32	A fully integrated 3â€“10â€“GHz IRâ€“UWB CMOS impulse generator. <i>Microwave and Optical Technology Letters</i> , 2011, 53, 1887-1890.	1.4	3
33	On-chip sample preparation by electrowetting-on-dielectric digital microfluidics for matrix assisted laser desorption/ionization mass spectrometry. , 0, , .		2
34	Digital Microfluidic Device Using Ionic Liquids for Electronic Hotspot Cooling. , 2009, , .		2
35	A Study of On-Chip Aqueous Two Phase System Formation and its Applications. , 2012, , .		2
36	Alginate hydrogel based 3-dimensional cell culture and chemical screening platform using digital microfluidics. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
37	Liquid cooling of a hot spot using a superhydrophilic nanoporous surface. , 2014, , .		1
38	Self-mixing by on-chip preparation of aqueous two phase systems and its influence on extraction kinetics. , 2015, , .		1
39	Separation of binary solution by liquid-liquid microextraction on EWOD digital microfluidics. , 2017, , .		1
40	Digital Microfluidic Platform for 3-D Tissue Based High Throughput Screening. , 2011, , .		1
41	Liquid-Liquid Extraction Based on Digital Microfluidics. , 2009, , .		0
42	Study of compound droplet dynamics and separation of immiscible liquids on EWOD DMF. , 2017, , .		0
43	Phase shift effect of double dielectric layers in electrowetting on dielectric microfluidic device. , 2018, , .		0