

Doyoung Byun

List of Publications by Year in descending order

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46
papers

1,254
citations

430442

18
h-index

360668

35
g-index

46
all docs

46
docs citations

46
times ranked

1635
citing authors

#	ARTICLE	IF	CITATIONS
1	Wetting Characteristics of Insect Wing Surfaces. <i>Journal of Bionic Engineering</i> , 2009, 6, 63-70.	2.7	196
2	Drop-on-demand printing of conductive ink by electrostatic field induced inkjet head. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	134
3	Direct measurement of slip flows in superhydrophobic microchannels with transverse grooves. <i>Physics of Fluids</i> , 2008, 20, 113601.	1.6	110
4	Non-contact printing of high aspect ratio Ag electrodes for polycrystalline silicone solar cell with electrohydrodynamic jet printing. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	69
5	Flight behavior of charged droplets in electrohydrodynamic inkjet printing. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	66
6	Artificial magnetotactic motion control of <i>Tetrahymena pyriformis</i> using ferromagnetic nanoparticles: A tool for fabrication of microbiorobots. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	64
7	Fabrication of terahertz metamaterial with high refractive index using high-resolution electrohydrodynamic jet printing. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	51
8	Directly Drawn Poly(3-hexylthiophene) Field-Effect Transistors by Electrohydrodynamic Jet Printing: Improving Performance with Surface Modification. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 10736-10743.	4.0	48
9	Ag dot morphologies printed using electrohydrodynamic (EHD) jet printing based on a drop-on-demand (DOD) operation. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 095028.	1.5	45
10	Electrospray on superhydrophobic nozzles treated with argon and oxygen plasma. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	42
11	Electrostatic-Force-Assisted Dispensing Printing to Construct High-Aspect-Ratio of 0.79 Electrodes on a Textured Surface with Improved Adhesion and Contact Resistivity. <i>Scientific Reports</i> , 2015, 5, 16704.	1.6	33
12	Electrohydrodynamic Jet Printed 3D Metallic Grid: Toward High-Performance Transparent Electrodes. <i>Advanced Engineering Materials</i> , 2020, 22, 1901275.	1.6	29
13	Mimicking a Superhydrophobic Insect Wing by Argon and Oxygen Ion Beam Treatment on Polytetrafluoroethylene Film. <i>Journal of Bionic Engineering</i> , 2009, 6, 365-370.	2.7	28
14	One-Step Sub-micrometer-Scale Electrohydrodynamic Inkjet Three-Dimensional Printing Technique with Spontaneous Nanoscale Joule Heating. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 29965-29972.	4.0	28
15	Spontaneous self-welding of silver nanowire networks. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7629-7633.	1.3	27
16	Effect of chord flexure on aerodynamic performance of a flapping wing. <i>Journal of Bionic Engineering</i> , 2010, 7, 87-94.	2.7	24
17	Retreat behavior of a charged droplet for electrohydrodynamic inkjet printing. <i>Applied Physics Letters</i> , 2011, 98, 083501.	1.5	19
18	Use of an AC electric field in galvanotactic on/off switching of the motion of a microstructure blotted by <i>Serratia marcescens</i> . <i>Applied Physics Letters</i> , 2011, 99, .	1.5	18

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19	RF plasma based selective modification of hydrophilic regions on super hydrophobic surface. Applied Surface Science, 2017, 394, 543-553.	3.1	18
20	Rational Design of a Metallic Functional Layer for High-Performance Solid Oxide Fuel Cells. ACS Applied Energy Materials, 2019, 2, 4059-4068.	2.5	16
21	Redox-Active Tyrosine-Mediated Peptide Template for Large-Scale Single-Crystalline Two-Dimensional Silver Nanosheets. ACS Nano, 2020, 14, 1738-1744.	7.3	16
22	Artificial Cambered-Wing for a Beetle-Mimicking Flapper. Journal of Bionic Engineering, 2010, 7, S130-S136.	2.7	15
23	Ultrafast Growth of Large 2D Silver Nanosheets by Highly Ordered Biological Template at Air/Gel Interface. Advanced Materials Interfaces, 2018, 5, 1701491.	1.9	15
24	1D Fibers and 2D Patterns Made of Quantum Dot-Embedded DNA via Electrospinning and Electrohydrodynamic Jet Printing. Advanced Materials Technologies, 2019, 4, 1800280.	3.0	15
25	Biomimetic, Flexible, and Self-Healable Printed Silver Electrode by Spontaneous Self-Layering Phenomenon of a Gelatin Scaffold. ACS Applied Materials & Interfaces, 2018, 10, 25666-25672.	4.0	14
26	Direct Patterning and Spontaneous Self-Assembly of Graphene Oxide via Electrohydrodynamic Jet Printing for Energy Storage and Sensing. Micromachines, 2020, 11, 13.	1.4	14
27	Fabrication of Nanoscale Nozzle for Electrohydrodynamic (EHD) Inkjet Head and High Precision Patterning by Drop-on-Demand Operation. Journal of Nanoscience and Nanotechnology, 2009, 9, 7298-302.	0.9	13
28	A hydrogel-assisted GDC chemical diffusion barrier for durable solid oxide fuel cells. Journal of Materials Chemistry A, 2021, 9, 11683-11690.	5.2	13
29	Semianalytical study of hemispherical meniscus oscillation with an anchored edge on a conductive flat plate under an ac electric field. Physics of Fluids, 2011, 23, .	1.6	9
30	Direct Fabrication of Metallic Microgear via Electrohydrodynamic Inkjet 3D Printing. Advanced Engineering Materials, 2020, 22, 1901362.	1.6	9
31	Finite macro-element-based volume grid deformation for large moving boundary problems. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 1656-1673.	1.0	8
32	Self-Assembly of Silver Nanowire Ring Structures Driven by the Compressive Force of a Liquid Droplet. Langmuir, 2017, 33, 3367-3372.	1.6	6
33	Electrohydrodynamic Jet-Printed MAPbBr ₃ Perovskite/Polyacrylonitrile Nanostructures for Water-Stable, Flexible, and Transparent Displays. ACS Applied Nano Materials, 2022, 5, 6726-6735.	2.4	6
34	An algebraic substructuring using multiple shifts for eigenvalue computations. Journal of Mechanical Science and Technology, 2008, 22, 440-449.	0.7	5
35	Characterization of deciliation-regeneration process of Tetrahymena Pyriformis for cellular robot fabrication. Journal of Bionic Engineering, 2011, 8, 273-279.	2.7	5
36	Quantitative measurement of dynamic flow induced by Tetrahymena pyriformis (T. pyriformis) using micro-particle image velocimetry. Journal of Visualization, 2011, 14, 361-370.	1.1	5

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37	Hydrogel Film Assembly Process at Droplet Interface with Evaporation Temperature. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801885.	1.9	5
38	Free surface transition and momentum augmentation of liquid flow in Micro/Nano-scale channels with hydrophobic and hydrophilic surfaces. <i>Journal of Mechanical Science and Technology</i> , 2008, 22, 2554-2562.	0.7	3
39	Aerodynamic analysis of flapping foils using volume grid deformation code. <i>Journal of Mechanical Science and Technology</i> , 2009, 23, 1727-1735.	0.7	3
40	Experimental, Theoretical, and Numerical Investigation of the Electric Field and Surface Wettability Effects on the Penetration Length in Capillary Flow. <i>ACS Omega</i> , 2021, 6, 32773-32782.	1.6	3
41	Properties of nano-sized glass powders prepared by flame spray pyrolysis as an inorganic binder in ink-jet printing. <i>Journal of the Ceramic Society of Japan</i> , 2010, 118, 613-616.	0.5	2
42	36 th Invited Paper: High-Resolution Induced Electrohydrodynamic (iEHD) Jet Printing for Display. <i>Digest of Technical Papers SID International Symposium</i> , 2020, 51, 505-507.	0.1	2
43	Droplets Generation Method for Water-in-Oil State in the Polydimethylsiloxane Microchannel with Grooves. , 2009, , .		1
44	Silver Nanowire Micro-Ring Formation Using Immiscible Emulsion Droplets for Surface-Enhanced Raman Spectroscopy. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8018.	1.3	1
45	10.1063/1.3497275.1. , 2010, , .		1
46	Experimental and numerical investigation of beetle flight. , 2009, , .		0