Jaesung Jang

List of Publications by Year
in descending order

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51 papers	2,179 citations	257450 24 h-index	223800 46 g-index
51 all docs	51 docs citations	51 times ranked	2613 citing authors

#	Article	IF	Citations
1	Theoretical and experimental study of MHD (magnetohydrodynamic) micropump. Sensors and Actuators A: Physical, 2000, 80, 84-89.	4.1	405
2	Development of a paper-based electrochemical immunosensor using an antibody-single walled carbon nanotubes bio-conjugate modified electrode for label-free detection of foodborne pathogens. Sensors and Actuators B: Chemical, 2017, 253, 115-123.	7.8	173
3	Label-free Detection of Influenza Viruses using a Reduced Graphene Oxide-based Electrochemical Immunosensor Integrated with a Microfluidic Platform. Scientific Reports, 2017, 7, 42771.	3.3	138
4	â€˜Living cantilever arraysâ€™ for characterization of mass of single live cells in fluids. Lab on A Chip, 2008, 8, 1034.	6.0	123
5	Vertical flow-based paper immunosensor for rapid electrochemical and colorimetric detection of influenza virus using a different pore size sample pad. Biosensors and Bioelectronics, 2019, 126, 36-43.	10.1	93
6	BIOMEMS AND NANOTECHNOLOGY-BASED APPROACHES FOR RAPID DETECTION OF BIOLOGICAL ENTITIES. Journal of Rapid Methods and Automation in Microbiology, 2007, 15, 1-32.	0.4	85
7	Microresonator mass sensors for detection of Bacillus anthracis Sterne spores in air and water. Biosensors and Bioelectronics, 2007, 22, 3028-3035.	10.1	80
8	Subtyping of influenza A H1N1 virus using a label-free electrochemical biosensor based on the DNA aptamer targeting the stem region of HA protein. Analytica Chimica Acta, 2019, 1064, 94-103.	5.4	76
9	Low cost synthesis of reduced graphene oxide using biopolymer for influenza virus sensor. Materials Science and Engineering C, 2020, 108, 110465.	7.3	66
10	Pressure distributions of gaseous slip flow in straight and uniform rectangular microchannels. Microfluidics and Nanofluidics, 2004, 1, 41-51.	2.2	60
11	Cost-Effective and Handmade Paper-Based Immunosensing Device for Electrochemical Detection of Influenza Virus. Sensors, 2017, 17, 2597.	3.8	60
12	Single-walled carbon nanotube based transparent immunosensor for detection of a prostate cancer biomarker osteopontin. Analytica Chimica Acta, 2015, 869, 68-73.	5.4	57
13	Electrical immunosensor based on dielectrophoretically-deposited carbon nanotubes for detection of influenza virus H1N1. Analyst, The, 2014, 139, 5415-5421.	3.5	56
14	Inactivation of airborne viruses using vacuum ultraviolet photocatalysis for a flow-through indoor air purifier with short irradiation time. Aerosol Science and Technology, 2018, 52, 557-566.	3.1	52
15	Real-time detection of airborne viruses on a mass-sensitive device. Applied Physics Letters, 2008, 93, 13901.	3.3	49
16	Label-Free, Highly Sensitive Electrochemical Aptasensors Using Polymer-Modified Reduced Graphene Oxide for Cardiac Biomarker Detection. ACS Omega, 2020, 5, 3924-3931.	3.5	47
17	Rapid electrical immunoassay of the cardiac biomarker troponin I through dielectrophoretic concentration using imbedded electrodes. Biosensors and Bioelectronics, 2016, 82, 78-84.	10.1	45
18	Recent advancements in the measurement of pathogenic airborne viruses. Journal of Hazardous Materials, 2021, 420, 126574.	12.4	42

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19	Lipid-Hydrogel-Nanostructure Hybrids as Robust Biofilm-Resistant Polymeric Materials. ACS Macro Letters, 2019, 8, 64-69.	4.8	39
20	Gentle Sampling of Submicrometer Airborne Virus Particles using a Personal Electrostatic Particle Concentrator. Environmental Science & Technology, 2016, 50, 12365-12372.	10.0	38
21	Rapid Airborne Influenza Virus Quantification Using an Antibody-Based Electrochemical Paper Sensor and Electrostatic Particle Concentrator. Environmental Science & Technology, 2020, 54, 10700-10712.	10.0	36
22	Effective heights and tangential momentum accommodation coefficients of gaseous slip flows in deep reactive ion etching rectangular microchannels. Journal of Micromechanics and Microengineering, 2006, 16, 493-504.	2.6	28
23	Combined application of bacterial predation and carbon dioxide aerosols to effectively remove biofilms. Biofouling, 2012, 28, 671-680.	2.2	26
24	Flexible electrical aptasensor using dielectrophoretic assembly of graphene oxide and its subsequent reduction for cardiac biomarker detection. Scientific Reports, 2019, 9, 5970.	3.3	26
25	Rapid and selective concentration of bacteria, viruses, and proteins using alternating current signal superimposition on two coplanar electrodes. Scientific Reports, 2018, 8, 14942.	3.3	21
26	Paper-based electrochemical peptide sensor for label-free and rapid detection of airborne Bacillus anthracis simulant spores. Sensors and Actuators B: Chemical, 2022, 355, 131321.	7.8	21
27	Paper-based electrochemical immunosensor for label-free detection of multiple avian influenza virus antigens using flexible screen-printed carbon nanotube-polydimethylsiloxane electrodes. Scientific Reports, 2022, 12, 2311.	3.3	20
28	Effects of planar inlet plenums on the hydrodynamically developing flows in rectangular microchannels of complementary aspect ratios. Microfluidics and Nanofluidics, 2008, 5, 1-12.	2.2	18
29	Removal of biofilms using carbon dioxide aerosols. Journal of Aerosol Science, 2010, 41, 1044-1051.	3.8	18
30	Simultaneous determination of position and mass in the cantilever sensor using transfer function method. Applied Physics Letters, 2013, 103, .	3.3	17
31	Integrated microfluidic platform with electrohydrodynamic focusing and a carbon-nanotube-based field-effect transistor immunosensor for continuous, selective, and label-free quantification of bacteria. Lab on A Chip, 2021, 21, 184-195.	6.0	15
32	Effects of Rotor-Rotor Interaction on the Wake Structure and Thrust Generation of a Quadrotor Unmanned Aerial Vehicle. IEEE Access, 2021, 9, 85995-86016.	4.2	15
33	Gas-phase removal of biofilms from various surfaces using carbon dioxide aerosols. Biofouling, 2012, 28, 681-686.	2.2	13
34	Determination of Fluid Density and Viscosity by Analyzing Flexural Wave Propagations on the Vibrating Micro-Cantilever. Sensors, 2017, 17, 2466.	3.8	12
35	Measurement of PM_{2.5} Mass Concentration Using an Electrostatic Particle Concentrator-Based Quartz Crystal Microbalance. IEEE Access, 2019, 7, 170640-170647.	4.2	12
36	Two-dimensional computational method for generating planar electrode patterns with enhanced volumetric electric fields and its application to continuous dielectrophoretic bacterial capture. Lab on A Chip, 2019, 19, 1772-1782.	6.0	11

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37	Diffusion-based multi-stream bioluminescent reaction in a microfluidic device. Chemical Engineering Journal, 2012, 185-186, 321-327.	12.7	10
38	Capture of airborne nanoparticles in swirling flows using non-uniform electrostatic fields for bio-sensor applications. Sensors and Actuators B: Chemical, 2007, 121, 560-566.	7.8	9
39	Gaseous slip flow of a rectangular microchannel with non-uniform slip boundary conditions. Microfluidics and Nanofluidics, 2010, 9, 513-522.	2.2	9
40	Gaseous slip flow analysis of a micromachined flow sensor for ultra small flow applications. Journal of Micromechanics and Microengineering, 2007, 17, 229-237.	2.6	8
41	Effects of Carbon Dioxide Aerosols on the Viability of Escherichia coli during Biofilm Dispersal. Scientific Reports, 2015, 5, 13766.	3.3	8
42	Removal of different-age biofilms using carbon dioxide aerosols. Biotechnology and Bioprocess Engineering, 2014, 19, 503-509.	2.6	7
43	Mechanical desorption of immobilized proteins using carbon dioxide aerosols for reusable biosensors. Analytica Chimica Acta, 2015, 853, 588-595.	5.4	6
44	Efficient measurement of airborne viable viruses using the growth-based virus aerosol concentrator with high flow velocities. Journal of Hazardous Materials, 2022, 434, 128873.	12.4	6
45	Effects of inlet/outlet configurations on the electrostatic capture of airborne nanoparticles and viruses. Measurement Science and Technology, 2008, 19, 065204.	2.6	5
46	Numerical analysis on the electrostatic capture of airborne nanoparticles and viruses in a homemade particle concentrator without a unipolar charger. Journal of Electrostatics, 2012, 70, 192-200.	1.9	5
47	Simultaneous position and mass determination of a nanoscale-thickness cantilever sensor in viscous fluids. Applied Physics Letters, 2015, 106, 063106.	3.3	4
48	Physical collection and viability of airborne bacteria collected under electrostatic field with different sampling media and protocols towards rapid detection. Scientific Reports, 2021, 11, 14598.	3.3	4
49	Long-Term Measurement of PM2.5 Mass Concentration Using an Electrostatic Particle Concentrator-Based Quartz Crystal Microbalance Integrated With Carbon Dioxide Aerosol Jets for PM Sensing in Remote Areas. IEEE Access, 2021, 9, 90715-90726.	4.2	4
50	Biofilm Removal Using Carbon Dioxide Aerosols without Nitrogen Purge. Journal of Visualized Experiments, 2016, , .	0.3	1
51	Recent Developments in Microparticle Image Velocimetry. , 2011, , 29-88.		0