Joon Sang Lee

List of Publications by Year in descending order

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44 papers	404 citations	840776 11 h-index	839539 18 g-index
44 all docs	44 docs citations	44 times ranked	639 citing authors

#	Article	IF	Citations
1	Numerical simulation of gas-liquid transport in porous media using 3D color-gradient lattice Boltzmann method: trapped air and oxygen diffusion coefficient analysis. Engineering Applications of Computational Fluid Mechanics, 2022, 16, 177-195.	3.1	2
2	Dynamic observation of dendrite growth on lithium metal anode during battery charging/discharging cycles. Npj Computational Materials, 2022, 8, .	8.7	21
3	Optimization of FFR prediction algorithm for gray zone by hemodynamic features with synthetic model and biometric data. Computer Methods and Programs in Biomedicine, 2022, 220, 106827.	4.7	6
4	Binding characteristics of staphylococcal protein A and streptococcal protein G for fragment crystallizable portion of human immunoglobulin G. Computational and Structural Biotechnology Journal, 2021, 19, 3372-3383.	4.1	16
5	Neuromorphic van der Waals crystals for substantial energy generation. Nature Communications, 2021, 12, 47.	12.8	21
6	Diagnosis of obstructive sleep apnea with prediction of flow characteristics according to airway morphology automatically extracted from medical images: Computational fluid dynamics and artificial intelligence approach. Computer Methods and Programs in Biomedicine, 2021, 208, 106243.	4.7	9
7	Interfacial behavior of surfactant-covered double emulsion in extensional flow. Physical Review E, 2020, 102, 053104.	2.1	6
8	Effect of membrane insertion for tricuspid regurgitation using immersed-boundary lattice Boltzmann method. Computer Methods and Programs in Biomedicine, 2020, 191, 105421.	4.7	4
9	Coronary artery decision algorithm trained by two-step machine learning algorithm. RSC Advances, 2020, 10, 4014-4022.	3.6	4
10	Computational analysis of airflow dynamics for predicting collapsible sites in the upper airways: machine learning approach. Journal of Applied Physiology, 2019, 127, 959-973.	2.5	11
11	Numerical simulation of optical control for a soft particle in a microchannel. Physical Review E, 2019, 99, 022607.	2.1	4
12	Rheological behavior of bimodal distribution emulsions on flow adoptability. Biomicrofluidics, 2019, 13, 014109.	2.4	5
13	Sparked Reduced Graphene Oxide for Low-Temperature Sodium-Beta Alumina Batteries. Nano Letters, 2019, 19, 8811-8820.	9.1	12
14	Computational analysis of airflow dynamics for predicting collapsible sites in the upper airways: a preliminary study. Journal of Applied Physiology, 2019, 126, 330-340.	2.5	10
15	Largeâ€eddy simulations of windâ€farm wake characteristics associated with a lowâ€level jet. Wind Energy, 2018, 21, 163-173.	4.2	12
16	Effect of interactions between multiple interfaces on the rheological characteristics of double emulsions. Physical Review E, 2018, 97, 062603.	2.1	14
17	Impact of Coronary Lesion Geometry on Fractional Flow Reserve. Circulation: Cardiovascular Imaging, 2018, 11, e007087.	2.6	24
18	Effect of the contact geometry on nanoscale and sub-nanoscale friction behaviors. , 2016, , .		0

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19	Analysis of wave reflection of a stenotic vessel blood pressure wave using the lattice Boltzmann method and impedance boundary condition. Journal of Mechanical Science and Technology, 2016, 30, 3719-3728.	1.5	2
20	A numerical study on the elastic modulus of volume and area dilation for a deformable cell in a microchannel. Biomicrofluidics, 2016, 10, 044110.	2.4	13
21	Effect of the contact geometry on nanoscale and sub-nanoscale friction behaviors. IEEE Transactions on Magnetics, 2016, , 1-1.	2.1	0
22	Numerical investigation of the effects of geometric parameters on transverse motion with slanted-groove micro-mixers. Journal of Mechanical Science and Technology, 2016, 30, 3729-3739.	1.5	10
23	Multiphase static droplet simulations in hierarchically structured super-hydrophobic surfaces. Journal of Mechanical Science and Technology, 2016, 30, 3741-3747.	1.5	4
24	Assessing Computational Fractional Flow Reserve From Optical Coherence Tomography in Patients With Intermediate Coronary Stenosis in the Left Anterior Descending Artery. Circulation: Cardiovascular Interventions, 2016, 9, .	3.9	43
25	Jamming and unjamming transition of oil-in-water emulsions under continuous temperature change. Biomicrofluidics, 2015, 9, 034107.	2.4	2
26	Signal amplification in a microfluidic paper-based analytical device (Âµ-PAD) by confinement of the fluidic flow. Biochip Journal, 2015, 9, 116-123.	4.9	10
27	Numerical simulations for the rheological characteristics of emulsions under several conditions including temperature, shear rate, surfactant concentration and droplet size. Micro and Nano Letters, 2014, 9, 896-900.	1.3	2
28	Multi-scale approach for the rheological characteristics of emulsions using molecular dynamics and lattice Boltzmann method. Biomicrofluidics, 2014, 8, 052104.	2.4	10
29	Fluid interfacial nanoroughness measurement through the morphological characteristics of graphene. Biomicrofluidics, 2014, 8, 052113.	2.4	7
30	Study for optical manipulation of a surfactant-covered droplet using lattice Boltzmann method. Biomicrofluidics, 2014, 8, 024104.	2.4	6
31	Considerations of Blood Properties, Outlet Boundary Conditions and Energy Loss Approaches in Computational Fluid Dynamics Modeling. Neurointervention, 2014, 9, 1.	0.8	27
32	Lattice Boltzmann-immersed boundary approach for vesicle navigation in microfluidic channel networks. Microfluidics and Nanofluidics, 2014, 17, 1061-1070.	2.2	6
33	Film drainage mechanism between two immiscible droplets. Microfluidics and Nanofluidics, 2014, 17, 675-681.	2.2	14
34	Investigation of Kelvin-Helmholtz instability in the stable boundary layer using large eddy simulation. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7876-7888.	3.3	9
35	Impedance boundary condition analysis of aging-induced wave reflections in blood flow. Korea Australia Rheology Journal, 2013, 25, 217-225.	1.7	4
36	Calculation of thrust of micro robot using the lattice boltzmann immersed boundary method. , 2013, , .		0

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37	Study of aggregational characteristics of emulsions on their rheological properties using the lattice Boltzmann approach. Soft Matter, 2012, 8, 1374-1384.	2.7	26
38	Direct numerical simulation of modulation of isotropic turbulence by polyâ€dispersed particles. International Journal for Numerical Methods in Fluids, 2012, 69, 1237-1248.	1.6	1
39	Water droplet properties on periodically structured superhydrophobic surfaces: a lattice Boltzmann approach to multiphase flows with high water/air density ratio. Microfluidics and Nanofluidics, 2011, 10, 173-185.	2.2	21
40	A multiâ€component lattice Boltzmann model with nonâ€uniform interfacial tension module for the study of blood flow in the microvasculature. International Journal for Numerical Methods in Fluids, 2011, 67, 93-108.	1.6	3
41	Direct numerical simulation of preferential particle concentration in decaying turbulence under the influence of magnetic field. International Journal for Numerical Methods in Fluids, 2010, 63, 1233-1240.	1.6	2
42	Development and evaluation of a model for soilâ€“air fluidized bed rheological behavior. International Journal for Numerical Methods in Fluids, 2009, 61, 810-826.	1.6	0
43	A Novel, Non-Invasive Approach to Diagnosing Urinary Tract Obstruction Using CFD. Journal of Young Investigators, 2008, 2008, .	0.0	0
44	Computational Fractional Flow Reserve From Coronary Computed Tomography Angiographyâ€”Optical Coherence Tomography Fusion Images in Assessing Functionally Significant Coronary Stenosis. Frontiers in Cardiovascular Medicine, 0, 9, .	2.4	1