Joon Sang Lee

List of Publications by Year
in descending order

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	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
2	Considerations of Blood Properties, Outlet Boundary Conditions and Energy Loss Approaches in Computational Fluid Dynamics Modeling. Neurointervention, 2014, 9, 1.	0.8	27
3	Study of aggregational characteristics of emulsions on their rheological properties using the lattice Boltzmann approach. Soft Matter, 2012, 8, 1374-1384.	2.7	26
4	Impact of Coronary Lesion Geometry on Fractional Flow Reserve. Circulation: Cardiovascular Imaging, 2018, 11, e007087.	2.6	24
5	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
6	Neuromorphic van der Waals crystals for substantial energy generation. Nature Communications, 2021, 12, 47.	12.8	21
7	Dynamic observation of dendrite growth on lithium metal anode during battery charging/discharging cycles. Npj Computational Materials, 2022, 8, .	8.7	21
8	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
9	Film drainage mechanism between two immiscible droplets. Microfluidics and Nanofluidics, 2014, 17, 675-681.	2.2	14
10	Effect of interactions between multiple interfaces on the rheological characteristics of double emulsions. Physical Review E, 2018, 97, 062603.	2.1	14
11	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
12	Large-eddy simulations of wind-farm wake characteristics associated with a low-level jet. Wind Energy, 2018, 21, 163-173.	4.2	12
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: machine learning approach. Journal of Applied Physiology, 2019, 127, 959-973.	2.5	11
15	Multi-scale approach for the rheological characteristics of emulsions using molecular dynamics and lattice Boltzmann method. Biomicrofluidics, 2014, 8, 052104.	2.4	10
16	Signal amplification in a microfluidic paper-based analytical device (µ-PAD) by confinement of the fluidic flow. Biochip Journal, 2015, 9, 116-123.	4.9	10
17	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
18	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

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19	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
20	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
21	Fluid interfacial nanoroughness measurement through the morphological characteristics of graphene. Biomicrofluidics, 2014, 8, 052113.	2.4	7
22	Study for optical manipulation of a surfactant-covered droplet using lattice Boltzmann method. Biomicrofluidics, 2014, 8, 024104.	2.4	6
23	Lattice Boltzmann-immersed boundary approach for vesicle navigation in microfluidic channel networks. Microfluidics and Nanofluidics, 2014, 17, 1061-1070.	2.2	6
24	Interfacial behavior of surfactant-covered double emulsion in extensional flow. Physical Review E, 2020, 102, 053104.	2.1	6
25	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
26	Rheological behavior of bimodal distribution emulsions on flow adoptability. Biomicrofluidics, 2019, 13, 014109.	2.4	5
27	Impedance boundary condition analysis of aging-induced wave reflections in blood flow. Korea Australia Rheology Journal, 2013, 25, 217-225.	1.7	4
28	Multiphase static droplet simulations in hierarchically structured super-hydrophobic surfaces. Journal of Mechanical Science and Technology, 2016, 30, 3741-3747.	1.5	4
29	Numerical simulation of optical control for a soft particle in a microchannel. Physical Review E, 2019, 99, 022607.	2.1	4
30	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
31	Coronary artery decision algorithm trained by two-step machine learning algorithm. RSC Advances, 2020, 10, 4014-4022.	3.6	4
32	A multi-component lattice Boltzmann model with non-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
33	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
34	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
35	Jamming and unjamming transition of oil-in-water emulsions under continuous temperature change. Biomicrofluidics, 2015, 9, 034107.	2.4	2
36	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

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37	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
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	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
40	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
41	Calculation of thrust of micro robot using the lattice boltzmann immersed boundary method. , 2013, , .		0
42	Effect of the contact geometry on nanoscale and sub-nanoscale friction behaviors. , 2016, , .		0
43	Effect of the contact geometry on nanoscale and sub-nanoscale friction behaviors. IEEE Transactions on Magnetics, 2016, , 1-1.	2.1	0
44	A Novel, Non-Invasive Approach to Diagnosing Urinary Tract Obstruction Using CFD. Journal of Young Investigators, 2008, 2008, .	0.0	0