Mohammad Faghri

List of Publications by Year
in descending order

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47 papers	1,082 citations	471509 17 h-index	395702 33 g-index
47 all docs	47 docs citations	47 times ranked	973 citing authors

#	Article	IF	Citations
1	A fluidic diode, valves, and a sequential-loading circuit fabricated on layered paper. Lab on A Chip, 2012, 12, 2909.	6.0	125
2	EFFECTS OF COMPRESSIBILITY AND RAREFACTION ON GASEOUS FLOWS IN MICROCHANNELS. Numerical Heat Transfer; Part A: Applications, 1997, 32, 677-696.	2.1	120
3	Experimental Investigation of Gas Flow in Microchannels. Journal of Heat Transfer, 2004, 126, 753-763.	2.1	115
4	Effect of compressibility on gaseous flows in micro-channels. International Journal of Heat and Mass Transfer, 2003, 46, 3041-3050.	4.8	89
5	Effect of Surface Roughness on Nitrogen Flow in a Microchannel Using the Direct Simulation Monte Carlo method. Numerical Heat Transfer; Part A: Applications, 2003, 43, 1-8.	2.1	74
6	A new paper-based platform technology for point-of-care diagnostics. Lab on A Chip, 2014, 14, 4042-4049.	6.0	67
7	From dissipative particle dynamics scales to physical scales: a coarse-graining study for water flow in microchannel. Microfluidics and Nanofluidics, 2009, 7, 467-477.	2.2	56
8	Finite element analysis of transient ballisticâ€“diffusive phonon heat transport in two-dimensional domains. International Journal of Heat and Mass Transfer, 2015, 80, 781-788.	4.8	39
9	A New Low-Reynolds-Number k-îµ Model for Turbulent Flow Over Smooth and Rough Surfaces. Journal of Fluids Engineering, Transactions of the ASME, 1996, 118, 255-259.	1.5	33
10	Experimental investigations of liquid flow in rib-patterned microchannels with different surface wettability. Microfluidics and Nanofluidics, 2011, 11, 45-55.	2.2	30
11	Forced Convection Heat Transfer Simulation Using Dissipative Particle Dynamics. Numerical Heat Transfer; Part A: Applications, 2011, 60, 651-665.	2.1	29
12	Microfluidic inverse phase ELISA via manipulation of magnetic beads. Microfluidics and Nanofluidics, 2011, 10, 593-605.	2.2	27
13	A New Paper-Based Microfluidic Device for Improved Detection of Nitrate in Water. Sensors, 2021, 21, 102.	3.8	27
14	Friction Factor Correlations for Gas Flow in Slip Flow Regime. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1268-1276.	1.5	25
15	Parametric study of turbulent three-dimensional heat transfer of arrays of heated blocks encountered in electronic equipment. International Journal of Heat and Mass Transfer, 1994, 37, 469-478.	4.8	23
16	Diffusive-ballistic heat transport in thin films using energy conserving dissipative particle dynamics. International Journal of Heat and Mass Transfer, 2013, 61, 287-292.	4.8	21
17	Simulation of Thermal Conductivity of Nanofluids Using Dissipative Particle Dynamics. Numerical Heat Transfer; Part A: Applications, 2012, 61, 323-337.	2.1	20
18	Experimental investigations of laminar, transitional and turbulent Gas flow in microchannels. International Journal of Heat and Mass Transfer, 2012, 55, 4397-4403.	4.8	17

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19	Development of an ultrafast quantitative heterogeneous immunoassay on pre-functionalized poly(dimethylsiloxane) microfluidic chips for the next-generation immunosensors. Microfluidics and Nanofluidics, 2009, 7, 593-598.	2.2	11
20	NUMERICAL SOLUTION OF MELTING IN SIDE-HEATED RECTANGULAR ENCLOSURE UNDER ELECTROMAGNETICALLY SIMULATED LOW GRAVITY. Numerical Heat Transfer; Part A: Applications, 2005, 47, 315-332.	2.1	10
21	Convection Heat Transfer in Microchannels With High Speed Gas Flow. Journal of Heat Transfer, 2007, 129, 319-328.	2.1	10
22	Poiseuille Number Correlations for Gas Slip Flow in Micro-Tubes. Numerical Heat Transfer; Part A: Applications, 2009, 56, 785-806.	2.1	10
23	Three-dimensional natural convection in a vertical porous layer with hexagonal honeycomb core of negligible thickness. International Journal of Heat and Mass Transfer, 1993, 36, 3403-3406.	4.8	9
24	PREDICTION OF TURBULENT THREE-DIMENSIONAL HEAT TRANSFER OF HEATED BLOCKS USING LOW-REYNOLDS NUMBER TWO-EQUATION MODEL. Numerical Heat Transfer; Part A: Applications, 1994, 26, 87-101.	2.1	9
25	A blocking-free microfluidic fluorescence heterogeneous immunoassay for point-of-care diagnostics. Biomedical Microdevices, 2011, 13, 475-483.	2.8	9
26	A Colorimetric Dip Strip Assay for Detection of Low Concentrations of Phosphate in Seawater. Sensors, 2021, 21, 3125.	3.8	9
27	Modeling of micro/nano particle separation in microchannels with field-flow fractionation. Microsystem Technologies, 2010, 16, 947-954.	2.0	8
28	Modification of SIMPLE algorithm to handle natural convection flows with zero-isothermal compressibility. International Journal of Heat and Mass Transfer, 2017, 106, 177-182.	4.8	7
29	PREDICTION OF TURBULENT HEAT TRANSFER IN THE ENTRANCE OF AN ARRAY OF HEATED BLOCKS USING LOW-REYNOLDS-NUMBER Î²-Îµ MODEL. Numerical Heat Transfer; Part A: Applications, 1995, 28, 263-277.	2.1	6
30	Phase Change in a Three-Dimensional Rectangular Cavity Under Electromagnetically Simulated Low Gravity: Top Wall Heating With an Unfixed Material. Numerical Heat Transfer; Part A: Applications, 2005, 48, 849-878.	2.1	6
31	Numerical and Experimental Modeling of Paper-Based Actuators. , 2021, 5, .		6
32	THREE-DIMENSIONAL LAMINAR NATURAL CONVECTION IN A HONEYCOMB ENCLOSURE WITH HEXAGONAL END WALLS. Numerical Heat Transfer; Part A: Applications, 1989, 15, 67-86.	2.1	5
33	Dissipative particle dynamics for complex geometries using nonâ€orthogonal transformation. International Journal for Numerical Methods in Fluids, 2012, 68, 324-340.	1.6	5
34	Convection Enhancement in Melting by Electromagnetic Fields in a Low-Gravity Environment: Side Wall Heating. Numerical Heat Transfer; Part A: Applications, 2007, 51, 129-158.	2.1	4
35	Paper-based non-mechanical valves for autonomous multi-reagent lateral flow microfluidic devices. , 2014, , .		4
36	Numerical analysis for irreversible processes in a piston-cylinder system. International Journal of Heat and Mass Transfer, 2018, 124, 1097-1106.	4.8	4

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37	Friction Factor Correlations for Compressible Gaseous Flow in a Concentric Micro Annular Tube. Numerical Heat Transfer; Part A: Applications, 2012, 61, 163-179.	2.1	3
38	Numerical analysis of irreversible processes in a piston-cylinder system using LB1S turbulence model. International Journal of Heat and Mass Transfer, 2019, 136, 730-739.	4.8	3
39	Friction Factor Correlations of Slip Flow in Micro-Tubes. , 2007, , .		2
40	Outflow velocity for SIMPLE algorithm for unsteady forced convection flows with variable density. International Communications in Heat and Mass Transfer, 2018, 92, 73-77.	5.6	2
41	Heat Transfer of Turbulent Gaseous Flow in Microtubes With Constant Wall Temperature. Journal of Heat Transfer, 2022, 144, .	2.1	2
42	Effect of Compressibility on Heat Transfer in Microchannels. , 2004, , 341.		1
43	Natural convection and radiation heat transfer in a vertical porous layer with a hexagonal honeycomb core (Part 1: numerical analysis). Heat Transfer - Asian Research, 1999, 28, 278-294.	2.8	0
44	Experimental Investigations of Laminar, Transitional to Turbulent Gas Flow in Rib-Patterned Micro-Channels. , 2011, , .		0
45	Simulation of Thermal Conductivity of Nanofluids Using Dissipative Particle Dynamics. , 2012, , .		0
46	Liquid Characteristics Under Melting/Solidification Conditions Using Energy Conserving Dissipative Particle Dynamics. , 2014, , .		0
47	Energy equation of swirling flow in a cylindrical container. International Communications in Heat and Mass Transfer, 2019, 108, 104288.	5.6	0