Dimitris Valougeorgis

List of Publications by Year
in descending order

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54	1,077	331670 21	434195 31
papers	citations	h-index	g-index

54	54	54	461
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A novel experimental setup for gas microflows. Microfluidics and Nanofluidics, 2010, 8, 57-72.	2.2	99
2	Computational and experimental study of gas flows through long channels of various cross sections in the whole range of the Knudsen number. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 89-100.	2.1	80
3	The driven cavity flow over the whole range of the Knudsen number. Physics of Fluids, 2005, 17, 097106.	4.0	76
4	Rarefied gas flow in a triangular duct based on a boundary fitted lattice. European Journal of Mechanics, B/Fluids, 2008, 27, 810-822.	2.5	44
5	Comparative study between computational and experimental results for binary rarefied gas flows through long microchannels. Microfluidics and Nanofluidics, 2010, 9, 1103-1114.	2.2	42
6	Rarefied gas flow in concentric annular tube: Estimation of the Poiseuille number and the exact hydraulic diameter. European Journal of Mechanics, B/Fluids, 2008, 27, 609-622.	2.5	41
7	Exact numerical results for Poiseuille and thermal creep flow in a cylindrical tube. Physics of Fluids, 1986, 29, 423.	1.4	32
8	Couette flow of a binary gas mixture. Physics of Fluids, 1988, 31, 521.	1.4	32
9	Heat transfer through rarefied gases between coaxial cylindrical surfaces with arbitrary temperature difference. European Journal of Mechanics, B/Fluids, 2010, 29, 494-509.	2.5	32
10	Rarefied gas flow in a rectangular enclosure induced by non-isothermal walls. Physics of Fluids, 2014, 26, .	4.0	31
11	Time-dependent rarefied gas flow of single gases and binary gas mixtures into vacuum. Vacuum, 2014, 109, 385-396.	3.5	30
12	Conductive heat transfer in rarefied polyatomic gases confined between parallel plates via various kinetic models and the DSMC method. International Journal of Heat and Mass Transfer, 2015, 88, 636-651.	4.8	30
13	Rarefied gas flow of binary mixtures through long channels with triangular and trapezoidal cross sections. Microfluidics and Nanofluidics, 2010, 9, 471-487.	2.2	29
14	Rarefied gas flow through a cylindrical tube due to a small pressure difference. European Journal of Mechanics, B/Fluids, 2013, 38, 114-127.	2.5	27
15	Unsteady vacuum gas flow in cylindrical tubes. Fusion Engineering and Design, 2011, 86, 2139-2142.	1.9	25
16	End corrections for rarefied gas flows through capillaries of finite length. Vacuum, 2013, 97, 26-29.	3.5	25
17	The friction factor of a rarefied gas flow in a circular tube. Physics of Fluids, 2007, 19, 091702.	4.0	24
18	Analysis of gas separation, conductance and equivalent single gas approach for binary gas mixture flow expansion through tubes of various lengths into vacuum. Vacuum, 2016, 128, 1-8.	3.5	24

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19	Effect of vibrational degrees of freedom on the heat transfer in polyatomic gases confined between parallel plates. International Journal of Heat and Mass Transfer, 2016, 102, 162-173.	4.8	23
20	Conductive heat transfer in a rarefied polyatomic gas confined between coaxial cylinders. International Journal of Heat and Mass Transfer, 2014, 79, 378-389.	4.8	22
21	Pulsatile pressure driven rarefied gas flow in long rectangular ducts. Physics of Fluids, 2018, 30, .	4.0	22
22	A fast iterative model for discrete velocity calculations on triangular grids. Journal of Computational Physics, 2010, 229, 4315-4326.	3.8	21
23	Application of the integro-moment method to steady-state two-dimensional rarefied gas flows subject to boundary induced discontinuities. Journal of Computational Physics, 2008, 227, 6272-6287.	3.8	20
24	End corrections for rarefied gas flows through circular tubes of finite length. Vacuum, 2014, 101, 306-312.	3.5	19
25	Conductive heat transfer in rarefied binary gas mixtures confined between parallel plates based on kinetic modeling. International Journal of Heat and Mass Transfer, 2018, 117, 846-860.	4.8	18
26	Pressure- and Temperature-Driven Flow Through Triangular and Trapezoidal Microchannels. Heat Transfer Engineering, 2011, 32, 1101-1107.	1.9	17
27	Nonlinear vacuum gas flow through a short tube due to pressure and temperature gradients. Fusion Engineering and Design, 2013, 88, 2384-2387.	1.9	17
28	Predicting the Knudsen paradox in long capillaries by decomposing the flow into ballistic and collision parts. Physical Review E, 2015, 91, 061001.	2.1	16
29	Boundary-driven nonequilibrium gas flow in a grooved channel via kinetic theory. Physics of Fluids, 2007, 19, 067103.	4.0	14
30	Design Guidelines for Thermally Driven Micropumps of Different Architectures Based on Target Applications via Kinetic Modeling and Simulations. Micromachines, 2019, 10, 249.	2.9	13
31	Stability Analysis of Synthetic Acceleration Methods with Anisotropic Scattering. Nuclear Science and Engineering, 1988, 99, 91-98.	1.1	12
32	Validity range of linear kinetic modeling in rarefied pressure driven single gas flows through circular capillaries. European Journal of Mechanics, B/Fluids, 2017, 64, 2-7.	2.5	12
33	Gas Mixing and Final Mixture Composition Control in Simple Geometry Micro-mixers via DSMC Analysis. Micromachines, 2019, 10, 178.	2.9	11
34	Computation of the effective area and associated uncertainties of non-rotating piston gauges FPG and FRS. Metrologia, 2019, 56, 015004.	1.2	10
35	Oscillatory pressure-driven rarefied binary gas mixture flow between parallel plates. Physical Review E, 2021, 103, 033103.	2.1	10
36	Hybrid modeling of time-dependent rarefied gas expansion. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, 021602.	2.1	9

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37	Reconsideration of the implicit boundary conditions in pressure driven rarefied gas flows through capillaries. Vacuum, 2019, 160, 114-122.	3.5	9
38	Large-amplitude interfacial waves on a linear shear flow in the presence of a current. Journal of Fluid Mechanics, 1993, 249, 499.	3.4	8
39	Design of steady-state isothermal gas distribution systems consisting of long tubes in the whole range of the Knudsen number. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	2.1	8
40	Nonequilibrium Gas Flow and Heat Transfer in a Heated Square Microcavity. Heat Transfer Engineering, 2016, 37, 1085-1095.	1.9	7
41	Linear harmonic oscillatory rarefied gas flow with arbitrary frequency in comb finger blocks. Sensors and Actuators A: Physical, 2021, 331, 112997.	4.1	6
42	Shear Driven Micro-Flows of Gaseous Mixtures. Sensor Letters, 2006, 4, 46-52.	0.4	6
43	Thermally driven pumps and diodes in multistage assemblies consisting of microchannels with converging, diverging and uniform rectangular cross sections. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	5
44	Modeling of ITER related vacuum gas pumping distribution systems. Fusion Engineering and Design, 2013, 88, 2352-2356.	1.9	4
45	Modeling of time-dependent gas pumping networks in the whole range of the Knudsen number: Simulation of the ITER dwell phase. Fusion Engineering and Design, 2020, 151, 111383.	1.9	3
46	Human thermophysiological models: Quantification of uncertainty in the output quantities of the passive system due to uncertainties in the control equations of the active system via the Monte Carlo method. Journal of Thermal Biology, 2021, 100, 103045.	2.5	3
47	Analytical Lattice Boltzmann Solutions for Thermal Flow Problems. Transport Theory and Statistical Physics, 2003, 32, 645-656.	0.4	2
48	Pressure and temperature driven fully-developed rarefied gas flow in a channel with uniform injection/suction through its permeable walls. Vacuum, 2021, 188, 110155.	3.5	2
49	The Half-Range Moment Method in Harmonically Oscillating Rarefied Gas Flows. Fluids, 2021, 6, 17.	1.7	2
50	Gas-surface interaction in rarefied gas flows through long capillaries via the linearized Boltzmann equation with various boundary conditions. Vacuum, 2022, , 111152.	3.5	2
51	Uncertainty analysis of computed flow rates and pressure differences in rarefied pressure and temperature driven gas flows through long capillaries. European Journal of Mechanics, B/Fluids, 2020, 79, 190-201.	2.5	1
52	A concise solution for shear flow problems in cylindrical geometry. Zeitschrift Fur Angewandte Mathematik Und Physik, 1986, 37, 797-800.	1.4	0
53	DSMC calculations of binary gas mixing in simple micro-sized configurations. AIP Conference Proceedings, 2019, , .	0.4	0
54	Uncertainty propagation analysis of the computed ITER torus effective pumping speed during the dwell phase. Vacuum, 2022, 203, 111317.	3.5	0