StÃ©phane Colin

List of Publications by Year
in descending order

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80	1,788	394421	276875
papers	citations	19 h-index	41 g-index

89	89	89	1312
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Validation of a Second-Order Slip Flow Model in Rectangular Microchannels. Heat Transfer Engineering, 2004, 25, 23-30.	1.9	216
2	Heat Transfer in Microchannelsâ€”2012 Status and Research Needs. Journal of Heat Transfer, 2013, 135, .	2.1	207
3	Rarefaction and compressibility effects on steady and transient gas flows in microchannels. Microfluidics and Nanofluidics, 2005, 1, 268-279.	2.2	165
4	A novel fabrication method of flexible and monolithic 3D microfluidic structures using lamination of SU-8 films. Journal of Micromechanics and Microengineering, 2006, 16, 113-121.	2.6	165
5	Gas Microflows in the Slip Flow Regime: A Critical Review on Convective Heat Transfer. Journal of Heat Transfer, 2012, 134, .	2.1	121
6	HIGH-ORDER BOUNDARY CONDITIONS FOR GASEOUS FLOWS IN RECTANGULAR MICRODUCTS. Microscale Thermophysical Engineering, 2001, 5, 41-54.	1.2	116
7	A novel experimental setup for gas microflows. Microfluidics and Nanofluidics, 2010, 8, 57-72.	2.2	99
8	Experimental Analysis of Pressure Drop and Laminar to Turbulent Transition for Gas Flows in Smooth Microtubes. Heat Transfer Engineering, 2007, 28, 670-679.	1.9	45
9	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
10	Self-ordered particle trains in inertial microchannel flows. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	35
11	Analysis of flow induced by temperature fields in ratchet-like microchannels by Direct Simulation Monte Carlo. International Journal of Heat and Mass Transfer, 2016, 99, 672-680.	4.8	34
12	Miniaturization of fluorescence sensing in optofluidic devices. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	31
13	On the modelling of the switching mechanisms of a Coanda fluidic oscillator. Sensors and Actuators A: Physical, 2019, 299, 111618.	4.1	30
14	Unsteady gaseous flows in rectangular microchannels: frequency response of one or two pneumatic lines connected in series. European Journal of Mechanics, B/Fluids, 1998, 17, 79-104.	2.5	27
15	Inertial lateral migration and self-assembly of particles in bidisperse suspensions in microchannel flows. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	25
16	Finite Element Based Surface Roughness Study for Ohmic Contact of Microswitches. , 2012, , .		24
17	Numerical and Experimental Analysis of Monostable Mini- and Micro-Oscillators. Heat Transfer Engineering, 2009, 30, 121-129.	1.9	23
18	Analysis and testing of a fluidic vortex microdiode. Journal of Micromechanics and Microengineering, 2001, 11, 108-112.	2.6	22

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19	Optimal design of multi-channel microreactor for uniform residence time distribution. Microsystem Technologies, 2012, 18, 209-223.	2.0	22
20	Sub-ppb Level Detection of BTEX Gaseous Mixtures with a Compact Prototype GC Equipped with a Preconcentration Unit. Micromachines, 2019, 10, 187.	2.9	20
21	Liquid bridge instability applied to microfluidics. Microfluidics and Nanofluidics, 2005, 1, 336-345.	2.2	18
22	Numerical design of a Knudsen pump with curved channels operating in the slip flow regime. Heat and Mass Transfer, 2014, 50, 1065-1080.	2.1	18
23	Numerical study of thermal creep flow between two ratchet surfaces. Vacuum, 2014, 109, 294-301.	3.5	17
24	Slip length measurement of gas flow. Nanotechnology, 2016, 27, 374004.	2.6	17
25	An Improved Dynamic Model of Pneumatic Actuators. International Journal of Fluid Power, 2000, 1, 39-49.	0.7	15
26	Computational investigation and parametrization of the pumping effect in temperature-driven flows through long tapered channels. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	15
27	Micro molecular tagging velocimetry for analysis of gas flows in mini and micro systems. Microsystem Technologies, 2015, 21, 527-537.	2.0	14
28	Single-Phase Gas Flow in Microchannels. , 2014, , 11-102.		13
29	Role of diffusion on molecular tagging velocimetry technique for rarefied gas flow analysis. Microfluidics and Nanofluidics, 2015, 19, 1335-1348.	2.2	13
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	Design and optimization of electrochemical microreactors for continuous electrosynthesis. Journal of Applied Electrochemistry, 2012, 42, 667-677.	2.9	12
32	Molecular tagging velocimetry by direct phosphorescence in gas microflows: Correction of Taylor dispersion. Experimental Thermal and Fluid Science, 2017, 83, 177-190.	2.7	11
33	A time-dependent method for the measurement of mass flow rate of gases in microchannels. International Journal of Heat and Mass Transfer, 2018, 120, 422-434.	4.8	11
34	Experimental and computational study of gas flow delivered by a rectangular microchannels leak. Measurement: Journal of the International Measurement Confederation, 2015, 73, 551-562.	5.0	10
35	Shear work contribution to convective heat transfer of dilute gases in slip flow regime. European Journal of Mechanics, B/Fluids, 2017, 64, 60-68.	2.5	10
36	Molecular tagging velocimetry for confined rarefied gas flows: Phosphorescence emission measurements at low pressure. Experimental Thermal and Fluid Science, 2018, 99, 510-524.	2.7	8

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37	Single-phase gas flow in microchannels. , 2006, , 9-86.		6
38	Optofluidic Formaldehyde Sensing: Towards On-Chip Integration. Micromachines, 2020, 11, 673.	2.9	6
39	Velocity Measurements in Channel Gas Flows in the Slip Regime by means of Molecular Tagging Velocimetry. Micromachines, 2020, 11, 374.	2.9	6
40	Velocity field measurements in gas phase internal flows by molecular tagging velocimetry. Journal of Physics: Conference Series, 2012, 362, 012026.	0.4	5
41	An Asperity-Based Finite Element Model for Electrical Contact of Microswitches. , 2013, , .		5
42	Finite element multi-physics modeling for ohmic contact of microswitches. , 2014, , .		5
43	Experimental and Numerical Study of the Frequency Response of a Fluidic Oscillator for Active Flow Control. , 2016, , .		5
44	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
45	Prototyping a Microfluidic Sensor for Real-Time Detection of Airborne Formaldehyde. International Journal of Chemical Engineering and Applications (IJCEA), 2020, 11, 23-28.	0.3	5
46	A New High Supply Pressure Pneumatic Flapper-Nozzle With Linear Behavior. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1996, 118, 259-266.	1.6	3
47	Experimentation of electrostatically actuated monochip micropump for drug delivery. , 1999, , .		3
48	Mesure de dÃƒÂ©bit de gaz dans les microsystÃƒÂ¨mesGas flow measurement in microsystems. Mecanique Et Industries, 2001, 2, 355-362.	0.2	3
49	Numerical and Experimental Analysis of Monostable Mini- and Micro-Oscillators. , 2007, , 717.		3
50	Numerical analysis of thermal creep flow in curved channels for designing a prototype of Knudsen micropump. Journal of Physics: Conference Series, 2012, 362, 012004.	0.4	3
51	Analysis of Gaseous Flows in Minichannels by Molecular Tagging Velocimetry. , 2012, , .		3
52	Flow rate measurements of binary gas mixtures through long trapezoidal microchannels. Journal of Physics: Conference Series, 2012, 362, 012003.	0.4	3
53	Finite element modeling of nickel oxide film for Au-Ni contact of MEMS switches. , 2015, , .		3
54	Adsorbent screening for airborne BTEX analysis and removal. Journal of Environmental Chemical Engineering, 2020, 8, 103563.	6.7	3

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55	Validation of Finite Element Structural Simulation for Ohmic Microcontact. Procedia Engineering, 2011, 25, 419-422.	1.2	2
56	Behavior of a Mini Synthetic Jet in a Transverse Wall Flow: Experimental and Numerical Study. , 2007, , .		1
57	Gas Microflows in the Slip Flow Regime: A Review on Heat Transfer. , 2010, , .		1
58	Design of Tree-Shaped Microchannel Networks Submitted to Simultaneous Pressure Driven and Electro-Osmotic Flows. , 2012, , .		1
59	Quantitative measurement of gas pressure drop along T-shaped micro channels by interferometry. Journal of Physics: Conference Series, 2012, 362, 012032.	0.4	1
60	Scaling laws based metamodels for the selection of the cooling strategy of electromechanical actuators in the early design stages. Mechatronics, 2015, 29, 67-77.	3.3	1
61	Analyse d'Ã©coulements liquides ou gazeux en micro-conduites : dÃ©couplage des incertitudes expÃ©rimentales. Houille Blanche, 2003, 89, 104-110.	0.3	1
62	Jet impingement cooling using fluidic oscillators: an experimental study. Journal of Physics: Conference Series, 2021, 2116, 012028.	0.4	1
63	Les microdiodes fluidiques : Une solution alternative aux microvalvesFluidic microdiodes: An alternative for microvalves. Mecanique Et Industries, 2001, 2, 349-354.	0.2	0
64	Gaseous Flows in Rectangular Microchannels: Experimental Validation of a Second-Order Slip Flow Model. , 2003, , 433.		0
65	ContrÃ1e actif en aÃ©rodynamique au moyen de micro actionneurs fluidiques. Houille Blanche, 2007, 93, 110-116.	0.3	0
66	Coalescence instable lors du mÃ©lange de microgouttes aqueuses suspendues dans de lâ€™huile silicone. Houille Blanche, 2007, 93, 104-109.	0.3	0
67	DSMC Simulation of Pressure Driven Binary Rarefied Gas Flows Through Short Microtubes. , 2011, , .		0
68	Numerical Simulation of Thermal Transpiration in the Slip Flow Regime With Curved Walls. , 2012, , .		0
69	1st European Conference on Gas Micro Flows (GasMems 2012). Journal of Physics: Conference Series, 2012, 362, 011001.	0.4	0
70	Selected papers from the 2nd European conference on microfluidics: Î¼Fluâ€™10. Microsystem Technologies, 2012, 18, 149-150.	2.0	0
71	Selected papers from the 3rdEuropean Conference on Microfluidics - Î¼Flu'12. Experimental Heat Transfer, 2014, 27, 313-315.	3.2	0
72	Selected papers from the third European Conference on Microfluidics: ÂµFluâ€™12. Microfluidics and Nanofluidics, 2014, 16, 997-998.	2.2	0

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73	Selected papers from the 3rd European Conference on Microfluidics: ÂµFluâ€™12. Microsystem Technologies, 2015, 21, 497-498.	2.0	0
74	Editorial for the special issue on non-equilibrium gas flows. European Journal of Mechanics, B/Fluids, 2017, 64, 1.	2.5	0
75	Corrigendum to â€œShear work contribution to convective heat transfer of dilute gases in slip flow regimeâ€ [Eur. J. Mech. B Fluids 64 (2017) 60â€“68]. European Journal of Mechanics, B/Fluids, 2018, 72, 467-470.	2.5	0
76	Editorial for the Special Issue on Gas Flows in Microsystems. Micromachines, 2019, 10, 494.	2.9	0
77	Etude numÃ©rique de microdiodes de type convergent/divergent. Houille Blanche, 2003, 89, 43-48.	0.3	0
78	Effets de la double couche Ã©lectrique sur un Ã©coulement de Poiseuille. Houille Blanche, 2006, 92, 47-52.	0.3	0
79	Evaluation dâ€™une mÃ©thode dâ€™imagerie X en microfluidiqueÂ: cas du remplissage de microcanaux en forme de Â«ÂTÂÂ». Houille Blanche, 2006, 92, 33-39.	0.3	0
80	Pressure-Driven Single-Phase Gas Flows. , 2013, , 1-16.		0