Maria Fernandino

List of Publications by Year
in descending order

79 papers	905 citations	516710 16 h-index	552781 26 g-index
81 all docs	81 docs citations	81 times ranked	672 citing authors

#	Article	IF	Citations
1	Improving superamphiphobicity by mimicking tree-branch topography. Journal of Colloid and Interface Science, 2022, 611, 118-128.	9.4	7
2	The heat transfer coefficient similarity between binary and single component flow condensation inside plain pipes. International Journal of Heat and Mass Transfer, 2022, 186, 122450.	4.8	5
3	Toward Surfaces with Droplet Impact Robustness and Low Contact Angle Hysteresis. Advanced Materials Interfaces, 2022, 9, .	3.7	2
4	On the scaling of convective boiling heat transfer coefficient. International Journal of Heat and Mass Transfer, 2021, 164, 120589.	4.8	7
5	Droplet evaporation during dropwise condensation due to deposited volatile organic compounds. AIP Advances, 2021, 11, .	1.3	3
6	Does the Criteria of Instability Thresholds During Density Wave Oscillations Need to Be Redefined?. Springer Proceedings in Energy, 2021, , 45-54.	0.3	0
7	Anisotropic wetting and final shape of droplets impacting on micropillars with non-vertical lateral walls. AIP Advances, 2021, 11, 115319.	1.3	2
8	Reconsidering the influence of the mass flux during nucleate flow boiling in a horizontal heated pipe. AIP Advances, 2021, 11, .	1.3	0
9	A redefined energy functional to prevent mass loss in phase-field methods. AIP Advances, 2020, 10, .	1.3	5
10	The overlooked role of pressure oscillations on heat transfer deterioration during self-sustained flow oscillations. Applied Physics Letters, 2020, 117, 253701.	3.3	3
11	Conical micro-structures as a route for achieving super-repellency in surfaces with intrinsic hydrophobic properties. Applied Physics Letters, 2019, 115, 053703.	3.3	14
12	On the heat transfer deterioration during condensation of binary mixtures. Applied Physics Letters, 2019, 114, .	3.3	16
13	Law of resistance in two-phase flows inside pipes. Applied Physics Letters, 2019, 114, 173704.	3.3	9
14	Can Wicking Control Droplet Cooling?. Langmuir, 2019, 35, 6562-6570.	3.5	17
15	Water-Repellent Surfaces Consisting of Nanowires on Micropyramidal Structures. ACS Applied Nano Materials, 2019, 2, 7696-7704.	5.0	15
16	Wetting State Transitions over Hierarchical Conical Microstructures. Advanced Materials Interfaces, 2018, 5, 1701039.	3.7	9
17	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml29" display="inline" overflow="scroll" altimg="si29.gif"><mml:msup><mml:mrow><mml:mi>C</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></m continuous <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml30" display="inline" overflow="scroll" altimg="si1.gif"><mml:mi>h</mml:mi></mml:math>-adaptive least-squares spectral element method for phase-field models. Computers and Mathematics With Appli	2.7	1
18	Can the heat transfer coefficients for single-phase flow and for convective flow boiling be equivalent?. Applied Physics Letters, 2018, 112, .	3.3	16

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19	Thermal two-phase flow with a phase-field method. International Journal of Multiphase Flow, 2018, 100, 77-85.	3.4	1
20	Effect of the Pressure Drop Oscillation on the Local Heat Transfer Coefficient in a Heated Horizontal Pipe. , 2018, , .		0
21	Water droplet dynamics on a heated nanowire surface. Applied Physics Letters, 2018, 113, .	3.3	12
22	Can flow oscillations during flow boiling deteriorate the heat transfer coefficient?. Applied Physics Letters, 2018, 113, .	3.3	27
23	Experimental Study of Nucleate Flow Boiling to Convective Flow Boiling Transition in a Horizontal Heated Pipe. , 2018, , .		0
24	Water droplet impacting on overheated random Si nanowires. International Journal of Heat and Mass Transfer, 2018, 124, 307-318.	4.8	22
25	On the occurrence of superimposed density wave oscillations on pressure drop oscillations and the influence of a compressible volume. AIP Advances, 2018, 8, 075022.	1.3	15
26	Experimental study on the characteristics of pressure drop oscillations and their interaction with short-period oscillation in a horizontal tube. International Journal of Refrigeration, 2018, 91, 246-253.	3.4	16
27	Numerical Solution of Cahn-Hilliard System by Adaptive Least-Squares Spectral Element Method. Lecture Notes in Computer Science, 2018, , 128-136.	1.3	1
28	The least-squares spectral element method for phase-field models for isothermal fluid mixture. Computers and Mathematics With Applications, 2017, 74, 1981-1998.	2.7	6
29	Experimental Study of Horizontal Flow Boiling Heat Transfer of R134a at a Saturation Temperature of 18.6â€‰Â°C. Journal of Heat Transfer, 2017, 139, .	2.1	12
30	Effect of heating profile on the characteristics of pressure drop oscillations. Chemical Engineering Science, 2017, 158, 453-461.	3.8	11
31	Experimental Investigation and Discussion of Heat Transfer Mechanisms During Flow Boiling in Mini-Channels Using Refrigerant R134a. , 2016, , .		1
32	Effect of Micropillar Characteristics on Leidenfrost Temperature of Impacting Droplets. , 2016, , .		5
33	Flow Boiling in a Horizontal Tube at High Vapor Qualities. , 2016, , .		2
34	Numerical Solution of Coupled Cahn-Hilliard and Navier-Stokes System Using the Least-Squares Spectral Element Method. , 2016, , .		6
35	The Leidenfrost Phenomenon on Silicon Nanowires. , 2016, , .		3
36	The Least Squares Spectral Element Method for the Navier-Stokes and Cahn-Hilliard Equations. , 2015, , .		2

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37	Numerical Study of the Condensation Length of Binary Zeotropic Mixtures. Energy Procedia, 2015, 64, 43-52.	1.8	7
38	Modeling of annular-mist flow during mixtures boiling. Applied Thermal Engineering, 2015, 91, 463-470.	6.0	4
39	A numerical investigation of flow boiling of non-azeotropic and near-azeotropic binary mixtures. International Journal of Refrigeration, 2015, 49, 99-109.	3.4	6
40	Experimental parametric study of the pressure drop characteristic curve in a horizontal boiling channel. Experimental Thermal and Fluid Science, 2014, 52, 318-327.	2.7	25
41	Experimental results on boiling heat transfer coefficient, frictional pressure drop and flow patterns for R134a at a saturation temperature of 34ÂÂ°C. International Journal of Refrigeration, 2014, 40, 317-327.	3.4	22
42	Experimental study of pressure drop oscillations in parallel horizontal channels. International Journal of Heat and Fluid Flow, 2014, 50, 126-133.	2.4	15
43	Numerical study of heat and mass transfer of binary mixtures condensation in mini-channels. International Communications in Heat and Mass Transfer, 2014, 58, 45-53.	5.6	15
44	Numerical Simulation of Evaporation Process of Two-Phase Flow in Small-Diameter Channels. Heat Transfer Engineering, 2014, 35, 440-451.	1.9	5
45	Controlling micro-sized droplet generation using electrical pulses for studying liquid-liquid systems. , 2014, , .		0
46	Experimental study of density wave oscillations in horizontal straight tube evaporator. , 2014, , .		2
47	Numerical analysis of pressure drop oscillations in parallel channels. International Journal of Multiphase Flow, 2013, 56, 15-24.	3.4	23
48	On the influence of heat flux updating during pressure drop oscillations â€“ A numerical analysis. International Journal of Heat and Mass Transfer, 2013, 63, 31-40.	4.8	9
49	Two-Phase Flow Instabilities in Boiling and Condensing Systems. Journal of Power and Energy Systems, 2012, 6, 302-313.	0.5	6
50	Study of the influence of axial conduction in a boiling heated pipe. Chemical Engineering Research and Design, 2012, 90, 1141-1150.	5.6	6
51	Multi-fluid modeling of density segregation in a dense binary fluidized bed. Particuology, 2012, 10, 62-71.	3.6	31
52	Numerical Investigation of the Sorption Enhanced Steam Methane Reforming in a Fluidized Bed Reactor. Energy Procedia, 2012, 26, 15-21.	1.8	32
53	Review on pressure drop oscillations in boiling systems. Nuclear Engineering and Design, 2012, 250, 436-447.	1.7	49
54	Investigation of the particleâ€“particle drag in a dense binary fluidized bed. Powder Technology, 2012, 224, 311-322.	4.2	53

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55	PARAMETRIC STUDY OF THE PRESSURE CHARACTERISTIC CURVE IN A BOILING CHANNEL. Computational Thermal Sciences, 2011, 3, 157-168.	0.9	7
56	A turbulent Eulerian multi-fluid reactive flow model and its application in modelling sorption enhanced steam methane reforming. Journal of Physics: Conference Series, 2011, 318, 092022.	0.4	0
57	Numerical Simulation of Adiabatic Two-Phase Flow in Micro-Channels. , 2011, , .		0
58	Multiphysic Two-Phase Flow Lattice Boltzmann: Droplets with Realistic Representation of the Interface. Communications in Computational Physics, 2011, 9, 1414-1430.	1.7	5
59	Simulation of a natural circulation loop using a least squares hp-adaptive solver. Mathematics and Computers in Simulation, 2011, 81, 2517-2528.	4.4	6
60	The least squares spectral element method for the Cahnâ€“Hilliard equation. Applied Mathematical Modelling, 2011, 35, 797-806.	4.2	23
61	Modelling of high pressure binary droplet collisions. Computers and Mathematics With Applications, 2011, 61, 3564-3576.	2.7	15
62	Derivation and validation of a binary multi-fluid Eulerian model for fluidized beds. Chemical Engineering Science, 2011, 66, 3605-3616.	3.8	69
63	Simulation of transients in natural gas pipelines. Journal of Natural Gas Science and Engineering, 2011, 3, 349-355.	4.4	43
64	Probability description of single droplet events at high pressures: Dropletâ€“wall collision case. Journal of Natural Gas Science and Engineering, 2011, 3, 476-483.	4.4	3
65	ICONE19-43568 MODELING OF DYNAMIC INSTABILITIES IN BOILING SYSTEMS. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2011, 2011.19, _ICONE1943-_ICONE1943.	0.0	2
66	Sensitivity Analysis of Heat Exchangers Using Perturbative Methods. Lecture Notes in Computational Science and Engineering, 2011, , 275-282.	0.3	0
67	SS: High Pressure Gas-Liquid Separation: High-pressure droplet-deposition: from experiments to closure laws. , 2010, , .		0
68	Using Cahnâ€“Hilliard mobility to simulate coalescence dynamics. Computers and Mathematics With Applications, 2010, 59, 2246-2259.	2.7	15
69	Dynamic simulation of Ledinegg instability. Journal of Natural Gas Science and Engineering, 2010, 2, 211-216.	4.4	23
70	Dropletâ€“surface impact at high pressures. Chemical Engineering Science, 2010, 65, 5320-5343.	3.8	8
71	Fractional step two-phase flow lattice Boltzmann model implementation. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P06014.	2.3	4
72	Large eddy simulation of turbulent open duct flow using a lattice Boltzmann approach. Mathematics and Computers in Simulation, 2009, 79, 1520-1526.	4.4	31

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73	hp-Adaptive spectral element solver for reactor modeling. Chemical Engineering Science, 2009, 64, 904-911.	3.8	6
74	Macroscopic description of dropletâ€"film interaction for gasâ€"liquid systems. Applied Mathematical Modelling, 2009, 33, 3309-3318.	4.2	10
75	An improved flowsheet simulation approach for advanced CO2 absorption process design and optimization. Energy Procedia, 2009, 1, 4257-4264.	1.8	2
76	Effect of Interfacial Waves on Turbulence Structure in Stratified Duct Flows. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	1.5	9
77	Jacobi galerkin spectral method for cylindrical and spherical geometries. Chemical Engineering Science, 2007, 62, 6777-6783.	3.8	12
78	Determination of flow sub-regimes in stratified airâ€"water channel flow using LDV spectra. International Journal of Multiphase Flow, 2006, 32, 436-446.	3.4	26
79	Numerical Solution of Incompressible Cahn-Hilliard and Navier-Stokes System with Large Density and Viscosity Ratio Using the Least-Squares Spectral Element Method. Journal of Fluid Flow, Heat and Mass Transfer, 0, , .	0.0	3