Gherhardt Ribatski

List of Publications by Year
in descending order

108	3,753	136885	133188
papers	citations	32 h-index	59 g-index

113	113	113	1812
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Falling-film evaporation on horizontal tubesâ€"a critical review. International Journal of Refrigeration, 2005, 28, 635-653.	1.8	286
2	Two-Phase Flow Patterns and Flow-Pattern Maps: Fundamentals and Applications. Applied Mechanics Reviews, 2008, 61, .	4.5	232
3	New prediction methods for CO2 evaporation inside tubes: Part I â€" A two-phase flow pattern map and a flow pattern based phenomenological model for two-phase flow frictional pressure drops. International Journal of Heat and Mass Transfer, 2008, 51, 111-124.	2.5	171
4	An analysis of experimental data and prediction methods for two-phase frictional pressure drop and flow boiling heat transfer in micro-scale channels. Experimental Thermal and Fluid Science, 2006, 31, 1-19.	1.5	166
5	New prediction methods for CO2 evaporation inside tubes: Part IIâ€"An updated general flow boiling heat transfer model based on flow patterns. International Journal of Heat and Mass Transfer, 2008, 51, 125-135.	2.5	142
6	New flow boiling heat transfer model and flow pattern map for carbon dioxide evaporating inside horizontal tubes. International Journal of Heat and Mass Transfer, 2006, 49, 4082-4094.	2.5	134
7	Experimental evaluation of thermal conductivity, viscosity and breakdown voltage AC of nanofluids of carbon nanotubes and diamond in transformer oil. Diamond and Related Materials, 2015, 58, 115-121.	1.8	126
8	Analysis of supercritical CO2 cooling in macro- and micro-channels. International Journal of Refrigeration, 2008, 31, 1301-1316.	1.8	121
9	Flow boiling in micro-scale channels â€" Synthesized literature review. International Journal of Refrigeration, 2013, 36, 301-324.	1.8	119
10	Experimental study of nucleate boiling of halocarbon refrigerants on cylindrical surfaces. International Journal of Heat and Mass Transfer, 2003, 46, 4439-4451.	2.5	113
11	Flow boiling heat transfer of R134a and R245fa in a 2.3 mm tube. International Journal of Heat and Mass Transfer, 2010, 53, 2459-2468.	2.5	105
12	State-of-the-art of two-phase flow and flow boiling heat transfer and pressure drop of CO2 in macro- and micro-channels. International Journal of Refrigeration, 2005, 28, 1149-1168.	1.8	96
13	Film thickness measurement techniques applied to micro-scale two-phase flow systems. Experimental Thermal and Fluid Science, 2010, 34, 463-473.	1.5	89
14	Two-Phase Flow and Heat Transfer across Horizontal Tube Bundlesâ€A Review. Heat Transfer Engineering, 2007, 28, 508-524.	1.2	76
15	Flow patterns and bubble departure fundamental characteristics during flow boiling in microscale channels. Experimental Thermal and Fluid Science, 2014, 59, 152-165.	1.5	74
16	Heat transfer during convective boiling inside microchannels. International Journal of Heat and Mass Transfer, 2016, 93, 566-583.	2.5	70
17	Flow boiling heat transfer of R134a and low GWP refrigerants in a horizontal micro-scale channel. International Journal of Heat and Mass Transfer, 2017, 108, 2417-2432.	2.5	69
18	Roughness and surface material effects on nucleate boiling heat transfer from cylindrical surfaces to refrigerants R-134a and R-123. Experimental Thermal and Fluid Science, 2009, 33, 579-590.	1.5	68

#	Article	IF	Citations
19	Experimental study on the onset of local dryout in an evaporating falling film on horizontal plain tubes. Experimental Thermal and Fluid Science, 2007, 31, 483-493.	1.5	67
20	Flow boiling of ammonia and hydrocarbons: A state-of-the-art review. International Journal of Refrigeration, 2008, 31, 603-620.	1.8	63
21	An analysis of the effects of nanoparticles deposition on characteristics of the heating surface and ON pool boiling of water. International Journal of Heat and Mass Transfer, 2017, 106, 666-674.	2.5	59
22	Nucleate boiling heat transfer of R134a on enhanced tubes. Applied Thermal Engineering, 2006, 26, 1018-1031.	3.0	57
23	Two-phase flow patterns and pressure drop inside horizontal tubes containing twisted-tape inserts. International Journal of Multiphase Flow, 2012, 47, 50-65.	1.6	54
24	Pool boiling heat transfer of HFE-7100 on metal foams. Experimental Thermal and Fluid Science, 2020, 113, 110025.	1.5	52
25	An experimental study on flow boiling heat transfer of R134a in a microchannel-based heat sink. Experimental Thermal and Fluid Science, 2013, 45, 117-127.	1.5	51
26	Saturated flow boiling heat transfer and critical heat flux in small horizontal flattened tubes. International Journal of Heat and Mass Transfer, 2012, 55, 7873-7883.	2.5	49
27	A Critical Overview on the Recent Literature Concerning Flow Boiling and Two-Phase Flows Inside Micro-Scale Channels. Experimental Heat Transfer, 2013, 26, 198-246.	2.3	48
28	Two-phase frictional pressure drop in horizontal micro-scale channels: Experimental data analysis and prediction method development. International Journal of Refrigeration, 2017, 79, 143-163.	1.8	48
29	Critical heat flux in a 0.38mm microchannel and actions for suppression of flow boiling instabilities. Experimental Thermal and Fluid Science, 2015, 67, 48-56.	1.5	40
30	Void fraction predictive method based on the minimum kinetic energy. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 209-225.	0.8	39
31	Evaluation of flow patterns and elongated bubble characteristics during the flow boiling of halocarbon refrigerants in a micro-scale channel. Experimental Thermal and Fluid Science, 2010, 34, 766-775.	1.5	37
32	Modeling and experimental study of nucleate boiling on a vertical array of horizontal plain tubes. Experimental Thermal and Fluid Science, 2008, 32, 1530-1537.	1.5	36
33	Experimental study of the effect of twisted-tape inserts onÂflow boiling heat transfer enhancement and pressure dropÂpenalty. International Journal of Refrigeration, 2013, 36, 504-515.	1.8	33
34	Evaluation of the heat transfer enhancement and pressure drop penalty during flow boiling inside tubes containing twisted tape insert. Applied Thermal Engineering, 2014, 70, 328-340.	3.0	32
35	Nanofluids for heat transfer applications: a review. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	0.8	31
36	Two-Phase Frictional Pressure Drop and Flow Boiling Heat Transfer for R245fa in a 2.32-mm Tube. Heat Transfer Engineering, 2011, 32, 1139-1149.	1.2	30

#	Article	IF	Citations
37	Extrapolation of Al2O3â€“water nanofluid viscosity for temperatures and volume concentrations beyond the range of validity of existing correlations. Applied Thermal Engineering, 2013, 51, 1092-1097.	3.0	30
38	Two-phase flow patterns across triangular tube bundles for airâ€“water upward flow. International Journal of Multiphase Flow, 2016, 80, 43-56.	1.6	30
39	Liquid-film thickness and disturbance-wave characterization in a vertical, upward, two-phase annular flow of saturated R245fa inside a rectangular channel. International Journal of Multiphase Flow, 2020, 132, 103412.	1.6	29
40	An analysis of the effect of the footprint orientation on the thermal-hydraulic performance of a microchannels heat sink during flow boiling of R245fa. Applied Thermal Engineering, 2015, 90, 907-926.	3.0	28
41	Two-phase pressure drop and flow boiling heat transfer in an enhanced dimpled tube with a solid round rod insert. International Journal of Refrigeration, 2017, 75, 1-13.	1.8	26
42	On the Prediction of Heat Transfer in Micro-Scale Flow Boiling. Heat Transfer Engineering, 2007, 28, 842-851.	1.2	24
43	Flow boiling and convective condensation of hydrocarbons: A state-of-the-art literature review. Applied Thermal Engineering, 2021, 182, 116129.	3.0	24
44	Convective condensation of R600a, R290, R1270 and their zeotropic binary mixtures in horizontal tubes. International Journal of Refrigeration, 2021, 130, 27-43.	1.8	24
45	An investigation of the effect of nanoparticle composition and dimension on the heat transfer coefficient during flow boiling of aqueous nanofluids in small diameter channels (1.1 mm). Experimental Thermal and Fluid Science, 2017, 89, 72-89.	1.5	22
46	Evaluation of thermal-hydraulic performance of hydrocarbon refrigerants during flow boiling in a microchannels array heat sink. Applied Thermal Engineering, 2017, 111, 703-717.	3.0	22
47	Flow Boiling Characteristics for R1234ze(E) in 1.0 and 2.2 mm Circular Channels. Journal of Heat Transfer, 2012, 134, .	1.2	21
48	Flow Boiling Phenomenological Differences Between Micro- and Macroscale Channels. Heat Transfer Engineering, 2015, 36, 937-942.	1.2	21
49	Convective boiling heat transfer under microgravity and hypergravity conditions. International Journal of Heat and Mass Transfer, 2020, 153, 119614.	2.5	21
50	Flow boiling heat transfer of R407C in a microchannels based heat spreader. Experimental Thermal and Fluid Science, 2014, 59, 140-151.	1.5	19
51	The effect of the cross-sectional geometry on saturated flow boiling heat transfer in horizontal micro-scale channels. Experimental Thermal and Fluid Science, 2017, 89, 98-109.	1.5	18
52	Flow boiling critical heat flux of DI-water and nanofluids inside smooth and nanoporous round microchannels. International Journal of Heat and Mass Transfer, 2019, 139, 240-253.	2.5	18
53	Heat Transfer in Confined Forced-Flow Boiling. Heat Transfer Engineering, 2007, 28, 826-833.	1.2	16
54	Void fraction and pressure drop during external upward two-phase crossflow in tube bundles â€“ part I: Experimental investigation. International Journal of Heat and Fluid Flow, 2017, 65, 200-209.	1.1	13

#	Article	IF	Citations
55	Experimental Investigation of Flow Boiling Pressure Drop of R134A in a Microscale Horizontal Smooth Tube. Journal of Thermal Science and Engineering Applications, 2011, 3, .	0.8	12
56	Two-Phase Flow Characteristics During Convective Boiling of Halocarbon Refrigerants Inside Horizontal Small-Diameter Tubes. Heat Transfer Engineering, 2013, 34, 1073-1087.	1.2	12
57	Heat transfer and pressure drop during condensation of low-GWP refrigerants inside bar-and-plate heat exchangers. International Journal of Heat and Mass Transfer, 2017, 114, 363-379.	2.5	12
58	Validation of turbulence induced vibration design guidelines in a normal triangular tube bundle during two-phase crossflow. Journal of Fluids and Structures, 2018, 76, 301-318.	1.5	12
59	Critical Heat Flux of R134a and R245fa Inside Small-Diameter Tubes. Heat Transfer Engineering, 2013, 34, 492-499.	1.2	11
60	Flow boiling of R134a and HFE-7000 in a single silicon microchannel with microstructured sidewalls. International Journal of Heat and Mass Transfer, 2021, 179, 121653.	2.5	11
61	New Approach of Triumphing Temperature Nonuniformity and Heat Transfer Performance Augmentation in Micro Pin Fin Heat Sinks. Journal of Heat Transfer, 2020, 142, .	1.2	10
62	Effectiveness - NTU data and analysis for air conditioning and refrigeration air coils. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2010, 32, 218-226.	0.8	9
63	Void fraction and pressure drop during external upward two-phase cross flow in tube bundles â€“ part II: Predictive methods. International Journal of Heat and Fluid Flow, 2017, 65, 210-219.	1.1	9
64	Dynamic wettability evaluation of nanoparticles-coated surfaces. Experimental Thermal and Fluid Science, 2018, 92, 231-242.	1.5	9
65	Analyses of the effects of channel inclination and rotation on two-phase flow characteristics and pressure drop in a rectangular channel. Experimental Thermal and Fluid Science, 2019, 109, 109850.	1.5	9
66	Thermal oscillations during flow boiling of hydrocarbon refrigerants in a microchannels array heat sink. Applied Thermal Engineering, 2019, 157, 113725.	3.0	9
67	Detailed transient assessment of a small-scale concentrated solar power plant based on the organic Rankine cycle. Applied Thermal Engineering, 2022, 204, 117959.	3.0	9
68	Experimental investigation of the heat transfer coefficient during convective boiling of R134a in tubes with twisted tape insert. International Journal of Refrigeration, 2018, 92, 196-207.	1.8	8
69	Flow boiling of hydrocarbons and their zeotropic binary mixtures under pre- and post-dryout conditions. Applied Thermal Engineering, 2021, 198, 117483.	3.0	8
70	A new model for flow boiling heat transfer coefficient inside horizontal tubes with twisted-tape inserts. International Journal of Refrigeration, 2016, 61, 55-68.	1.8	7
71	Experimental flow boiling heat transfer in a small polyimide channel. Applied Thermal Engineering, 2016, 103, 1324-1338.	3.0	6
72	Updated results on hydrodynamic mass and damping estimations in tube bundles under two-phase crossflow. International Journal of Multiphase Flow, 2017, 89, 150-162.	1.6	6

#	Article	IF	Citations
73	Simulation of Boiling Heat Transfer at Different Reduced Temperatures with an Improved Pseudopotential Lattice Boltzmann Method. Symmetry, 2020, 12, 1358.	1.1	6
74	Nucleate Boiling of Halocarbon Refrigerants: Heat Transfer Correlations. HVAC and R Research, 2000, 6, 349-367.	0.9	5
75	A State-of-the-Art Review on Pool Boiling on Nanostructure Surfaces. , 2015, , .		5
76	Condensation in Microchannels. , 2016, , 287-324.		5
77	An experimental study on flow boiling in microchannels under heating pulses and a methodology for predicting the wall temperature fluctuations. Applied Thermal Engineering, 2019, 159, 113851.	3.0	5
78	The Effect of Transient Power Hotspots on the Heat Transfer Coefficient during Flow Boiling Inside Single Microscale Channels. Heat Transfer Engineering, 2019, 40, 1337-1348.	1.2	5
79	An experimental study on flow boiling heat transfer of HFO1336mzz(Z) in microchannels-based polymeric heat sinks. Applied Thermal Engineering, 2020, 180, 115815.	3.0	5
80	Experimental and numerical study of slightly loaded water alumina nanofluids in the developing region of a 1.1 mm in diameter pipe and convective enhancement evaluation. International Journal of Heat and Mass Transfer, 2017, 115, 317-335.	2.5	4
81	Flow boiling heat transfer of R134a in a 500ÂÂµm ID tube. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	0.8	4
82	Heat Transfer and Pressure Drop in Single-Phase Flows in Tapered Microchannels. Journal of Heat Transfer, 2022, 144, .	1.2	4
83	Flow Boiling Heat Transfer of R134a in a Microchannel Heat Sink. , 2012, , .		3
84	State-of-the-Art Review on Flow Patterns, Superficial Void Fraction and Flow-Induced Vibration During Two-Phase Flows Across Tube Bundles. , 2012, , .		3
85	Pressure and shear stress analysis in a normal triangular tube bundle based on experimental flow velocity field. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	0.8	3
86	An overview on the role of wettability and wickability as a tool for enhancing pool boiling heat transfer. Advances in Heat Transfer, 2021, 53, 187-248.	0.4	3
87	Experimental study of ammonia flow boiling in a vertical tube bundle: Part 2 â€“ Enhanced dimple tube with full length solid round PVC nonconductive rod. International Journal of Refrigeration, 2021, 131, 368-368.	1.8	2
88	EXPERIMENTAL EVALUATION OF THE FLOW BOILING HEAT TRANSFER COEFFICIENT OF DI-WATER INSIDE MINICHANNELS UNDER CONDITIONS CLOSE TO THE CRITICAL HEAT FLUX. , 2018, , .		2
89	Professor John Richard Thome on his 60th birthday. International Journal of Heat and Mass Transfer, 2013, 58, 1-2.	2.5	1
90	Flow Boiling Heat Transfer Coefficient of DI-Water/SiO2 Nanofluid Inside a 1.1 mm Round Microchannel. , 2015, , .		1

#	Article	IF	Citations
91	Heat Transfer Enhancement Techniques Applied to Evaporation Processes. , 2015, , 1-51.		1
92	Characterization of the Velocity Field External to a Tube Bundle Using Spatial Filter Velocimetry Based on Variable Meshing Scheme. Flow, Turbulence and Combustion, 2020, 105, 1277-1301.	1.4	1
93	EXPERIMENTAL INVESTIGATION OF FLOW BOILING IN A 4.0 mm TUBE AT DIFFERENT GRAVITY CONDITIONS: 0g, 1g, AND 2g. , 2018, , .		1
94	A State-of-the-Art Review on Two-Phase Flow-Induced Noise in Expansion Devices. Heat Transfer Engineering, 2023, 44, 1-23.	1.2	1
95	Flow Boiling Characteristics for R1234ze in 1.0 and 2.2 mm Circular Channels. , 2011, , .		0
96	Two-phase pressure drop during upward cross flow in triangular tube bundle. MATEC Web of Conferences, 2014, 18, 01006.	0.1	0
97	Two-Phase Flow-Induced Vibrations in Tube Bundles Under Crossflow. , 2018, , 251-334.		0
98	Flow Boiling. Mechanical Engineering Series, 2021, , 161-216.	0.1	0
99	Flow Patterns. Mechanical Engineering Series, 2021, , 65-123.	0.1	0
100	Critical Heat Flux and Dryout. Mechanical Engineering Series, 2021, , 217-240.	0.1	0
101	Flow boiling heat transfer coefficient of DI water and nanofluids inside microscale channels under conditions near the critical heat flux (CHF). Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	0.8	0
102	Pressure Drop. Mechanical Engineering Series, 2021, , 125-160.	0.1	0
103	Experimental Investigation of Flow Boiling Pressure Drop of R134a in a Micro-Scale Horizontal Smooth Tube. , 2010, , .		0
104	Special issue dedicated to the Second Brazilian Conference on Boiling, Condensation and Multiphase Flow, SÃ£o Carlos, Brazil, 03-07 May 2011. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2011, 33, 219-219.	0.8	0
105	Flow Boiling and Two-Phase Flows in Single Microchannels and Microchannel Heat Sinks: Fundamentals, Differences, and New Areas for Research. , 2018, , 185-231.		0
106	AN INVESTIGATION ON DIABATIC FLOW PATTERN CHARACTERISTICS DURING CONVECTIVE CONDENSATION INSIDE HORIZONTAL TUBES. , 2019, , .		0
107	Experimental study of ammonia flow boiling in a vertical tube bundle: Part 3 â€“ Enhanced dimple tube with 2/3rd height solid round PVC nonconductive rod. International Journal of Refrigeration, 2022, 134, 64-73.	1.8	0
108	Experimental study of ammonia flow boiling in a vertical tube bundle: Part 4 â€“ Comparative analysis. International Journal of Refrigeration, 2022, , .	1.8	0