Juergen J Brandner

List of Publications by Year
in descending order

89	1,196	516710 16	414414 32
papers	citations	h-index	g-index

93	93	93	994
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heat Transfer in Microchannelsâ€"2012 Status and Research Needs. Journal of Heat Transfer, 2013, 135, .	2.1	207
2	MICROSTRUCTURE DEVICES FOR APPLICATIONS IN THERMAL AND CHEMICAL PROCESS ENGINEERING. Microscale Thermophysical Engineering, 2001, 5, 17-39.	1.2	200
3	Concepts and realization of microstructure heat exchangers for enhanced heat transfer. Experimental Thermal and Fluid Science, 2006, 30, 801-809.	2.7	107
4	Microstructure Heat Exchanger Applications in Laboratory and Industry. Heat Transfer Engineering, 2007, 28, 761-771.	1.9	42
5	Characterisation of electrically powered micro-heat exchangers. Chemical Engineering Journal, 2004, 101, 339-345.	12.7	41
6	Micro photoionization detectors. Sensors and Actuators B: Chemical, 2019, 287, 86-94.	7.8	36
7	Miniaturization of fluorescence sensing in optofluidic devices. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	31
8	Experimental analysis of the influence of wall axial conduction on gas-to-gas micro heat exchanger effectiveness. International Journal of Heat and Mass Transfer, 2014, 69, 17-25.	4.8	27
9	A review on emulsification via microfluidic processes. Frontiers of Chemical Science and Engineering, 2020, 14, 350-364.	4.4	25
10	High-speed imaging of flow in microchannel array water evaporators. Microfluidics and Nanofluidics, 2005, 1, 128-136.	2.2	24
11	Investigation of self-similar heat sinks for liquid cooled electronics. Applied Thermal Engineering, 2013, 59, 725-732.	6.0	19
12	Low-Frequency Instabilities in the Operation of Metallic Multi-Microchannel Evaporators. Heat Transfer Engineering, 2007, 28, 834-841.	1.9	18
13	Measuring and modeling the residence time distribution of gas flows in multichannel microreactors. Chemical Engineering Journal, 2013, 215-216, 449-460.	12.7	18
14	Forced periodic temperature cycling of chemical reactions in microstructure devices. Chemical Engineering Science, 2008, 63, 4955-4961.	3.8	17
15	Design and Experimental Investigation of a Gas-to-Gas Counter-Flow Micro Heat Exchanger. Experimental Heat Transfer, 2014, 27, 340-359.	3.2	17
16	A novel device for the optical investigation of phase transition in micro channel array evaporators. Applied Thermal Engineering, 2010, 30, 1872-1876.	6.0	16
17	Micro Milled Microfluidic Photoionization Detector for Volatile Organic Compounds. Micromachines, 2019, 10, 228.	2.9	15
18	Micro device for liquid cooling by evaporation of R134a. Chemical Engineering Journal, 2011, 167, 705-712.	12.7	14

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19	Micro molecular tagging velocimetry for analysis of gas flows in mini and micro systems. Microsystem Technologies, 2015, 21, 527-537.	2.0	14
20	Heat transfer enhancement with gas-to-gas micro heat exchangers. Applied Thermal Engineering, 2016, 93, 1410-1416.	6.0	14
21	Microstructure devices generation by selective laser melting. , 2007, 6459, 289.		11
22	Microstructure devices for water evaporation. Applied Thermal Engineering, 2011, 31, 602-609.	6.0	11
23	Reprint of: Measuring and modeling the residence time distribution of gas flows in multichannel microreactors. Chemical Engineering Journal, 2013, 227, 203-214.	12.7	11
24	Novel windows for â€œsolar commoditiesâ€: a device for CO₂ reduction using plasmonic catalyst activation. Faraday Discussions, 2015, 183, 249-259.	3.2	11
25	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
26	Characterization of a modular microfluidic photoionization detector. Sensors and Actuators B: Chemical, 2020, 324, 128667.	7.8	11
27	Hydraulic and thermal design of a gas microchannel heat exchanger. Journal of Physics: Conference Series, 2012, 362, 012023.	0.4	10
28	Vaporâ€“liquid phase separation in micro-/ministructured devices. Chemical Engineering Science, 2013, 93, 32-46.	3.8	10
29	Numerical and Experimental Study of Microchannel Performance on Flow Maldistribution. Micromachines, 2020, 11, 323.	2.9	10
30	Prediction of micro surface cooler performance for different rectangular type microchannels dimensions. International Journal of Heat and Fluid Flow, 2013, 44, 644-651.	2.4	9
31	Metal crack propagation monitoring by photoluminescence enhancement of quantum dots. Applied Optics, 2015, 54, 6498.	2.1	9
32	Comparison of Crossflow Micro Heat Exchangers With Different Microstructure Designs. , 2005, , 493.		8
33	Microstructure devices for efficient heat transfer. Microgravity Science and Technology, 2007, 19, 41-43.	1.4	8
34	Microfabrication in metals, ceramics and polymers. Russian Journal of General Chemistry, 2012, 82, 2025-2033.	0.8	8
35	Design and Simulation of a Wireless SAWâ€“Pirani Sensor with Extended Range and Sensitivity. Sensors, 2019, 19, 2421.	3.8	7
36	Advanced Numerical Methodology to Analyze High-Temperature Wire-Net Compact Heat Exchangers For a Micro-Combined Heat and Power System Application. Heat Transfer Engineering, 2020, 41, 934-946.	1.9	7

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37	A Hybrid Numerical Methodology Based on CFD and Porous Medium for Thermal Performance Evaluation of Gas to Gas Micro Heat Exchanger. Micromachines, 2020, 11, 218.	2.9	7
38	A sensor-equipped microchannel system for the thermal characterization of rarefied gas flows. Experimental Thermal and Fluid Science, 2012, 41, 112-120.	2.7	6
39	Optofluidic Formaldehyde Sensing: Towards On-Chip Integration. Micromachines, 2020, 11, 673.	2.9	6
40	Fabrication and Testing of Microstructure Heat Exchangers for Thermal Applications. , 2005, , 657.		5
41	Microstructure Devices for Water Evaporation. , 2010, , .		5
42	Thermal improvements for high power UV LED clusters. , 2011, , .		5
43	Microstructure devices for process intensification: Influence of manufacturing tolerances and design. Applied Thermal Engineering, 2013, 59, 745-752.	6.0	5
44	Development of an efficient emulsification process using miniaturized process engineering equipment. Chemical Engineering Research and Design, 2016, 108, 23-29.	5.6	5
45	Energy and resource efficient continuous production of a binder emulsion using microstructured devices. Chemical Engineering and Processing: Process Intensification, 2017, 122, 319-329.	3.6	5
46	Numerical and experimental investigation of a wire-net compact heat exchanger performance for high-temperature applications. Applied Thermal Engineering, 2019, 154, 208-216.	6.0	5
47	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
48	Index matched fluidic packaging of high power UV LED clusters on aluminum substrates for improved optical output power. , 2012, , .		4
49	Toward a Compact Wireless Surface Acoustic Wave Pirani Microsensor with Extended Range and Sensitivity. Heat Transfer Engineering, 2021, 42, 565-578.	1.9	4
50	Microstructure Heat Exchanger Applications in Laboratory and Industry. , 2006, , 1233.		3
51	Mikrostrukturapparate im verfahrens- und anlagentechnischen Praktikum. Chemie-Ingenieur-Technik, 2010, 82, 607-614.	0.8	3
52	High power UV-LED-clusters on ceramic substrates. , 2010, , .		3
53	A Microstructure Device for Single Phase Surface Cooling. , 2011, , .		3
54	Fabrication of Microreactors Made from Metals and Ceramic. , 2013, , 35-51.		3

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55	Design and Characterization of Integrated Microsensors for Heat Transfer Studies in Microchannels. Experimental Heat Transfer, 2014, 27, 389-402.	3.2	3
56	In-Situ Measurements in Microscale Gas Flowsâ€"Conventional Sensors or Something Else?. Micromachines, 2019, 10, 292.	2.9	3
57	Numerical Study of Perturbators Influence on Heat Transfer and Investigation of Collector Performance for a Micro-Combined Heat and Power System Application. Heat Transfer Engineering, 2021, 42, 456-478.	1.9	3
58	Efficiency Improvement of Miniaturized Heat Exchangers. Fluids, 2021, 6, 25.	1.7	3
59	Comparison of Microchannel Array Water Evaporator Designs by High-Speed Videography. , 2005, , .		3
60	Selective adsorption of solvents in a multiscale device. Microfluidics and Nanofluidics, 2007, 3, 299-305.	2.2	2
61	A New Microstructure Device for Efficient Evaporation of Liquids. Journal of Thermal Science and Technology, 2012, 7, 414-424.	1.1	2
62	Investigation of process conditions for catalytic conversion of carbohydrates by epimerization using a microstructured reactor. Chemical Engineering and Processing: Process Intensification, 2016, 105, 103-109.	3.6	2
63	Numerical Thermal Analysis and 2-D CFD Evaluation Model for An Ideal Cryogenic Regenerator. Micromachines, 2020, 11, 361.	2.9	2
64	High-Speed Imaging of Flow in Microchannel Array Water Evaporators. , 2004, , .		2
65	Characterization of a Wireless Vacuum Sensor Prototype Based on the SAW-Pirani Principle. Processes, 2020, 8, 1685.	2.8	2
66	Enhanced Microstructured Reactor Performance under Forced Temperature Oscillations. International Journal of Chemical Reactor Engineering, 2007, 5, .	1.1	1
67	Integrated temperature microsensors for the characterization of gas heat transfer. Journal of Physics: Conference Series, 2012, 362, 012021.	0.4	1
68	Influence of Fluid Flow Distribution in Micro-Channel Arrays to Phase Transition Processes. Experimental Heat Transfer, 2012, 25, 172-180.	3.2	1
69	Experimental Investigation on Thermal Performance of Gas-to-Gas Micro Heat Exchanger With Three Flow Arrangements. , 2013, , .		1
70	Temperature Modulation. , 2013, , 435-462.		1
71	Novel microstructured evaporation device. Microsystem Technologies, 2015, 21, 549-560.	2.0	1
72	Gas Wall Interactions of Rarefied Gases in MEMS: A New Experimental Device With Integrated Sensors. , 2010, , .		1

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73	Optimization of Metallic Multi-Microchannel Array Evaporators. , 2006, , 1165.		0
74	Assessing Uncertainties in Friction Factor Measurement as a Tool in Devising Experimental Set-Ups. , 2007, , .		0
75	Microfabrication for Energy Generating Devices and Fuel Processors. , 0, , 5-38.		0
76	Fabrication of Microchannels by Stereolithography for Optical Use. , 2011, , .		0
77	Parameter Optimization for a Better Heat Distribution in a Microchannel Surface Cooler. , 2012, , .		0
78	Transitional and Turbulent Convective Heat Transfer of Compressible Gas Flows Through Microtubes. , 2012, , .		0
79	Optical measurement of evaporation processes using microstructured evaporators. Flow Measurement and Instrumentation, 2012, 27, 2-7.	2.0	0
80	Development of a continuous emulsification process for a highly viscous dispersed phase using microstructured devices. Green Processing and Synthesis, 2013, 2, .	3.4	0
81	Selected papers from the 3rdEuropean Conference on Microfluidics - Î¼Flu'12. Experimental Heat Transfer, 2014, 27, 313-315.	3.2	0
82	Selected papers from the third European Conference on Microfluidics: ÂµFluâ€™12. Microfluidics and Nanofluidics, 2014, 16, 997-998.	2.2	0
83	Selected papers from the 3rd European Conference on Microfluidics: ÂµFluâ€™12. Microsystem Technologies, 2015, 21, 497-498.	2.0	0
84	Spectrophotometric Determination of Molybdenum-Containing Compounds in Aqueous Glucose Solutions. Chemical Engineering and Technology, 2018, 41, 1776-1782.	1.5	0
85	Editorial for the Special Issue â€œSelected Papers from the ISTEGIMâ€™19â€”Thermal Effects in Gas Flow in Microscaleâ€• Micromachines, 2020, 11, 879.	2.9	0
86	Optical Studies of Evaporation in Microchannel Arrays. , 2010, , .		0
87	Efficient Heat Transfer by Phase Transition in Microstructured Devices. , 2011, , .		0
88	Pre-Calculation of Evaporation of Water in Parallel Microchannels Using Measurable Fluid Inlet Conditions. , 2012, , .		0
89	Development on Manufacturing Process for Integrating Glass Plates With Microchannel Walls Made by Micro Stereolithography. , 2013, , .		0