Dawid Taler

List of Publications by Year
in descending order

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123	2,013	201385	288905
papers	citations	27	40
		h-index	g-index

130	130	130	1043
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical simulation of heat dissipation processes in underground power cable system situated in thermal backfill and buried in a multilayered soil. Energy Conversion and Management, 2015, 95, 352-370.	4.4	93
2	A new heat transfer correlation for transition and turbulent fluid flow in tubes. International Journal of Thermal Sciences, 2016, 108, 108-122.	2.6	80
3	Determining velocity and friction factor for turbulent flow in smooth tubes. International Journal of Thermal Sciences, 2016, 105, 109-122.	2.6	64
4	Identification of local heat flux to membrane water-walls in steam boilers. Fuel, 2009, 88, 305-311.	3.4	63
5	Thermal contact resistance in plate fin-and-tube heat exchangers, determined by experimental data and CFD simulations. International Journal of Thermal Sciences, 2014, 84, 309-322.	2.6	60
6	Optimization of the boiler start-up taking into account thermal stresses. Energy, 2015, 92, 160-170.	4.5	60
7	Determination of heat transfer formulas for gas flow in fin-and-tube heat exchanger with oval tubes using CFD simulations. Chemical Engineering and Processing: Process Intensification, 2014, 83, 1-11.	1.8	59
8	Determination of start-up curves for a boiler with natural circulation based on the analysis of stress distribution in critical pressure components. Energy, 2015, 92, 153-159.	4.5	58
9	Experimental determination of correlations for average heat transfer coefficients in heat exchangers on both fluid sides. Heat and Mass Transfer, 2013, 49, 1125-1139.	1.2	57
10	The performance analysis of a new thermal backfill material for underground power cable system. Applied Thermal Engineering, 2016, 108, 233-250.	3.0	57
11	Thermal performance optimization of the underground power cable system by using a modified Jaya algorithm. International Journal of Thermal Sciences, 2018, 123, 162-180.	2.6	57
12	Mathematical modeling and control of plate fin and tube heat exchangers. Energy Conversion and Management, 2015, 96, 452-462.	4.4	52
13	Thermal simulation of superheaters taking into account the processes occurring on the side of the steam and flue gas. Fuel, 2015, 150, 75-87.	3.4	49
14	Modeling of transient response of a plate fin and tube heat exchanger. International Journal of Thermal Sciences, 2015, 92, 188-198.	2.6	47
15	The use of pressure hot water storage tanks to improve the energy flexibility of the steam power unit. Energy, 2019, 173, 926-936.	4.5	45
16	Numerical simulation of convective superheaters in steam boilers. International Journal of Thermal Sciences, 2018, 129, 320-333.	2.6	43
17	Measurements of local heat flux to membrane water walls of combustion chambers. Fuel, 2014, 115, 70-83.	3.4	42
18	Mathematical model of a supercritical power boiler for simulating rapid changes in boiler thermal loading. Energy, 2019, 175, 580-592.	4.5	41

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19	Analysis of temperature and stress distribution of superheater tubes after attemperation or sootblower activation. Energy Conversion and Management, 2013, 71, 131-137.	4.4	36
20	Identification of thermal boundary conditions in heat exchangers of fluidized bed boilers. Applied Thermal Engineering, 2013, 58, 194-204.	3.0	36
21	Modeling and experimental validation and thermal performance assessment of a sun-tracked and cooled PVT system under low solar irradiation. Energy Conversion and Management, 2020, 222, 113289.	4.4	35
22	Simple heat transfer correlations for turbulent tube flow. E3S Web of Conferences, 2017, 13, 02008.	0.2	34
23	Monitoring of thermal stresses in pressure components based on the wall temperature measurement. Energy, 2018, 160, 500-519.	4.5	32
24	Mathematical modeling and experimental study of heat transfer in a low-duty air-cooled heat exchanger. Energy Conversion and Management, 2018, 159, 232-243.	4.4	31
25	Optimizing of the underground power cable bedding usingÂmomentum-type particle swarm optimization method. Energy, 2015, 92, 230-239.	4.5	30
26	Thermal stress monitoring in thick walled pressure components of steam boilers. Energy, 2019, 175, 645-666.	4.5	29
27	Simple power-type heat transfer correlations for turbulent pipe flow in tubes. Journal of Thermal Science, 2017, 26, 339-348.	0.9	28
28	Numerical model of a steam superheater with a complex shape of the tube cross section using Control Volume based Finite Element Method. Energy Conversion and Management, 2016, 118, 179-192.	4.4	27
29	Determination of heat transfer correlations for plate-fin-and-tube heat exchangers. Heat and Mass Transfer, 2004, 40, 809-822.	1.2	26
30	Mathematical Modeling of Cross-Flow Tube Heat Exchangers With a Complex Flow Arrangement. Heat Transfer Engineering, 2014, 35, 1334-1343.	1.2	26
31	Numerical Modelling and Experimental Testing of Heat Exchangers. Studies in Systems, Decision and Control, 2019, , .	0.8	25
32	Thermal calculations of plateâ€“finâ€“and-tube heat exchangers with different heat transfer coefficients on each tube row. Energy, 2020, 203, 117806.	4.5	25
33	Measurement of transient fluid temperature. International Journal of Thermal Sciences, 2015, 87, 241-250.	2.6	23
34	Mathematical modelling of the transient response of pipeline. Journal of Thermal Science, 2016, 25, 549-557.	0.9	23
35	Measuring transient temperature of the medium in power engineering machines and installations. Applied Thermal Engineering, 2009, 29, 3374-3379.	3.0	22
36	Heat Transfer in Turbulent Tube Flow of Liquid Metals. Procedia Engineering, 2016, 157, 148-157.	1.2	22

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37	Prediction of heat transfer correlations in a low-loaded plate- fin-and-tube heat exchanger based on flow-thermal tests. Applied Thermal Engineering, 2019, 148, 641-649.	3.0	22
38	Simplified Analysis of Radiation Heat Exchange in Boiler Superheaters. Heat Transfer Engineering, 2009, 30, 661-669.	1.2	21
39	Single- and Multi-Objective Design Optimization of Plate-Fin Heat Exchangers Using Jaya Algorithm. Heat Transfer Engineering, 2018, 39, 1201-1216.	1.2	19
40	CFD analysis of steam superheater operation in steady and transient state. Energy, 2020, 199, 117423.	4.5	19
41	A Performance Evaluation of a Solar Air Heater Using Different Shaped Ribs Mounted on the Absorber Plateâ€"A Review. Energies, 2018, 11, 3104.	1.6	18
42	Tubular Type Heat Flux Meter for Monitoring Internal Scale Deposits in Large Steam Boilers. Heat Transfer Engineering, 2007, 28, 230-239.	1.2	16
43	Mathematical modelling of tube heat exchangers with complex flow arrangement. Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa, 2011, 32, 7-19.	0.7	16
44	Numerical and experimental study of a solid matrix Electric Thermal Storage unit dedicated to environmentally friendly residential heating system. Energy and Buildings, 2016, 130, 747-760.	3.1	15
45	Monitoring of transient thermal stresses in pressure components of steam boilers using an innovative technique for measuring the fluid temperature. Energy, 2019, 175, 139-150.	4.5	15
46	Determination of Transient Fluid Temperature and Thermal Stresses in Pressure Thick-Walled Elements Using a New Design Thermometer. Energies, 2019, 12, 222.	1.6	15
47	Numerical analysis and performance assessment of the Thermal Energy Storage unit aimed to be utilized in Smart Electric Thermal Storage (SETS). Energy, 2019, 173, 755-771.	4.5	15
48	Modeling of transient operation of steam superheater in CFB boiler. Energy, 2019, 182, 965-974.	4.5	13
49	New analytical-numerical method for modelling of tube cross-flow heat exchangers with complex flow systems. Energy, 2021, 228, 120633.	4.5	13
50	Optimum heating of thick-walled pressure components assuming a quasi-steady state of temperature distribution. Journal of Thermal Science, 2016, 25, 380-388.	0.9	12
51	Numerical modeling of transient heat transfer in heat storage unit with channel structure. Applied Thermal Engineering, 2019, 149, 841-853.	3.0	12
52	Transient response of a plate-fin-and-tube heat exchanger considering different heat transfer coefficients in individual tube rows. Energy, 2020, 195, 117023.	4.5	12
53	Control of the temperature in the hot liquid tank by using a digital PID controller considering the random errors of the thermometer indications. Energy, 2022, 239, 122771.	4.5	12
54	Steady-state and transient heat transfer through fins of complex geometry. Archives of Thermodynamics, 2014, 35, 117-133.	1.0	11

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55	Monitoring of transient 3D temperature distribution and thermal stress in pressure elements based on the wall temperature measurement. Journal of Thermal Stresses, 2019, 42, 698-724.	1.1	11
56	Slag Monitoring System for Combustion Chambers of Steam Boilers. Heat Transfer Engineering, 2009, 30, 903-911.	1.2	10
57	Mathematical modeling of heat storage unit for air heating of the building. Renewable Energy, 2019, 141, 988-1004.	4.3	10
58	Experimental Verification of an Analytical Mathematical Model of a Round or Oval Tube Two-Row Car Radiator. Energies, 2020, 13, 3399.	1.6	10
59	Direct and Inverse Heat Transfer Problems in Dynamics of Plate and Tube Heat Exchangers. , 2011, , .		9
60	Thermal stress monitoring in thick-walled pressure components based on the solutions of the inverse heat conduction problems. Journal of Thermal Stresses, 2018, 41, 1501-1524.	1.1	9
61	Numerical and experimental study on the thermal performance of the concrete accumulator for solar heating systems. Energy, 2019, 170, 967-977.	4.5	9
62	New technique of the local heat flux measurement in combustion chambers of steam boilers. Archives of Thermodynamics, 2011, 32, 103-116.	1.0	8
63	Optimum Heating of Boiler Evaporator. Heat Transfer Engineering, 2018, 39, 1217-1226.	1.2	8
64	Influence of the Thermometer Inertia on the Quality of Temperature Control in a Hot Liquid Tank Heated with Electric Energy. Energies, 2020, 13, 4039.	1.6	8
65	Optimum Heating of Thick Wall Pressure Components of Steam Boilers. , 2014, , .		7
66	Evaporator Heating with Optimum Fluid Temperature Changes. Procedia Engineering, 2016, 157, 29-37.	1.2	7
67	Allowable Rates of Fluid Temperature Variations and Thermal Stress Monitoring in Pressure Elements of Supercritical Boilers. Heat Transfer Engineering, 2019, 40, 1430-1441.	1.2	7
68	Increase the flexibility of steam boilers by optimisation of critical pressure component heating. Energy, 2022, 250, 123855.	4.5	7
69	Modeling of cooling of ceramic heat accumulator. Archives of Thermodynamics, 2013, 34, 161-173.	1.0	6
70	Thermal Calculations of Four-Row Plate-Fin and Tube Heat Exchanger Taking into Account Different Air-Side Correlations on Individual Rows of Tubes for Low Reynold Numbers. Energies, 2021, 14, 6978.	1.6	6
71	Improving flexibility characteristics of 200 MW unit. Archives of Thermodynamics, 2017, 38, 75-90.	1.0	5
72	A new software program for monitoring the energy distribution in a thermal waste treatment plant system. Renewable Energy, 2022, 184, 1055-1073.	4.3	5

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73	Calculating the Efficiency of Complex-Shaped Fins. Energies, 2021, 14, 577.	1.6	4
74	Optimisation of heating and cooling of pressure thick-walled components operating in the saturated steam area. Energy, 2021, 231, 120917.	4.5	4
75	Analytical-numerical method for calculating cross-flow tube heat exchangers considering temperature-dependent fluid heat capacities. International Journal of Heat and Mass Transfer, 2022, 183, 122202.	2.5	4
76	Modeling of Superheater Operation in a Steam Boiler. , 2014, , .		3
77	Numerical Modeling of Transient Operation of a Plate Fin and Tube Heat Exchanger at Transition Fluid Flow in Tubes. Procedia Engineering, 2016, 157, 163-170.	1.2	3
78	Semi-empirical heat transfer correlations for turbulent tube flow of liquid metals. International Journal of Numerical Methods for Heat and Fluid Flow, 2018, 28, 151-172.	1.6	3
79	Numerical modeling transient response of tubular cross flow heat exchanger. International Journal of Numerical Methods for Heat and Fluid Flow, 2018, 28, 81-91.	1.6	3
80	Numerical study of air convection in a rectangular enclosure with two isothermal blocks and oscillating bottom wall temperature. International Journal of Numerical Methods for Heat and Fluid Flow, 2018, 28, 103-117.	1.6	3
81	NUMERICAL INVESTIGATION OF CONJUGATE HEAT TRANSFER FROM LAMINAR WALL JET FLOW OVER A SHALLOW CAVITY. Heat Transfer Research, 2018, 49, 1151-1170.	0.9	3
82	Inverse heat transfer problem in digital temperature control in plate fin and tube heat exchangers. Archives of Thermodynamics, 2011, 32, 17-32.	1.0	2
83	Computer-Aided Determination of the Air-Side Heat Transfer Coefficient and Thermal Contact Resistance for a Fin-and-Tube Heat Exchanger. , 2015, , .		2
84	Numerical modeling of heat transfer in the fixed-matrix regenerator working in the Electric Thermal Storage heating system. MATEC Web of Conferences, 2018, 240, 01008.	0.1	2
85	Assessment of the Superheater Ash Fouling Using a Numerical Model of the Superheater. Heat Transfer Engineering, 2019, 40, 1419-1429.	1.2	2
86	Transient behavior of a plate-fin-and-tube heat exchanger taking into account different heat transfer coefficients on the individual tube rows. E3S Web of Conferences, 2019, 128, 04001.	0.2	2
87	New method for determining the optimum fluid temperature when heating pressure thick-walled components with openings. Energy, 2020, 200, 117527.	4.5	2
88	Fins of Rectangular and Hexagonal Geometry. , 2014, , 1658-1670.		2
89	Measurement of heat flux density and heat transfer coefficient. Archives of Thermodynamics, 2010, 31, 3-18.	1.0	2
90	Measurements of absorbed heat flux and water-side heat transfer coefficient in water wall tubes. Archives of Thermodynamics, 2011, 32, 77-88.	1.0	2

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91	Thermomechanical CSM analysis of a superheater tube in transient state. Archives of Thermodynamics, 2011, 32, 117-126.	1.0	1
92	Solving Inverse Heat Transfer Problems When Using CFD Modeling. , 0, , .		1
93	A Numerical Model of Steam Pipeline. Procedia Engineering, 2016, 157, 158-162.	1.2	1
94	Shortening start-up and an extension of the power unit load range. E3S Web of Conferences, 2017, 14, 01022.	0.2	1
95	Developed Turbulent Fluid Flow in Ducts with a Circular Cross-Section. Studies in Systems, Decision and Control, 2019, , 173-256.	0.8	1
96	Simulation of the operation of the car radiator with a laminar, transitional, and turbulent regime of liquid flow in the tubes. Thermal Science, 2019, 23, 1311-1321.	0.5	1
97	On-line monitoring of the fouling of the boiler heating surfaces. Thermal Science, 2019, 23, 1289-1300.	0.5	1
98	Determining Optimum Temperature Changes During Heating of Pressure Vessels With Holes. , 2013, , .		0
99	Thermal Performance and Stress Monitoring of Power Boiler. , 2016, , .		0
100	Heating of Components with Non-Uniform Circumferential Temperature Distribution Using the Quasiâ€“Steady State Theory. Procedia Engineering, 2016, 157, 38-43.	1.2	0
101	Mathematical modeling of unsteady response of plate and fin heat exchanger to sudden change in liquid flow rate. E3S Web of Conferences, 2017, 14, 01023.	0.2	0
102	Numerical investigation of flow and heat transfer from a block placed in a cavity subject to different inlet conditions. Progress in Computational Fluid Dynamics, 2017, 17, 385.	0.1	0
103	Selected Papers from the 9th International Conference on Computational Heat and Mass Transfer (ICCHMT2016). Heat Transfer Engineering, 2018, 39, 1101-1102.	1.2	0
104	Performance of Air-Cooled Heat Exchanger with Laminar, Transitional, and Turbulent Tube Flow. MATEC Web of Conferences, 2018, 240, 02012.	0.1	0
105	Theoretical modeling and experimental study of auxiliary concrete accumulator for solar heating systems. MATEC Web of Conferences, 2018, 240, 02009.	0.1	0
106	Pipeline heating and cooling. MATEC Web of Conferences, 2018, 240, 05031.	0.1	0
107	Transient heat transfer at fluid flow in a thick-walled pipeline. MATEC Web of Conferences, 2018, 240, 05032.	0.1	0
108	Mass, Momentum and Energy Conservation Equations. Studies in Systems, Decision and Control, 2019, , 9-46.	0.8	0

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109	Mathematical Modelling of Tube Cross-Flow Heat Exchangers Operating in Steady-State Conditions. Studies in Systems, Decision and Control, 2019, , 339-369.	0.8	0
110	Analogies Between the Heat and the Momentum Transfer. Studies in Systems, Decision and Control, 2019, , 157-171.	0.8	0
111	Mathematical Models of Heat Exchangers. Studies in Systems, Decision and Control, 2019, , 321-337.	0.8	0
112	The use of a solution of the inverse heat conduction problem to monitor thermal stresses. E3S Web of Conferences, 2019, 108, 01003.	0.2	0
113	New method for determining the optimum fluid temperature when heating pressure thick-walled components with openings. E3S Web of Conferences, 2019, 128, 01025.	0.2	0
114	Transient behavior of a plate-fin-and-tube heat exchanger taking into account different heat transfer coefficients on the individual tube rows. E3S Web of Conferences, 2019, 137, 01036.	0.2	0
115	The CFD Based Method for Determining Heat Transfer Correlations on Individual Rows of Plate-Fin and Tube Heat Exchangers. , 0, , .		0
116	Determination of Mean Heat Transfer Coefficients Using the Wilson Method. Studies in Systems, Decision and Control, 2019, , 485-496.	0.8	0
117	Turbulent Fluid Flow. Studies in Systems, Decision and Control, 2019, , 129-156.	0.8	0
118	Automatic Control of the Liquid Temperature at the Car Radiator Outlet. Studies in Systems, Decision and Control, 2019, , 543-551.	0.8	0
119	Determination of Correlations for the Heat Transfer Coefficient on the Air Side Assuming a Known Heat Transfer Coefficient on the Tube Inner Surface. Studies in Systems, Decision and Control, 2019, , 497-508.	0.8	0
120	Measurements of Basic Parameters in Experimental Testing of Heat Exchangers. Studies in Systems, Decision and Control, 2019, , 449-468.	0.8	0
121	Parallel Determination of Correlations for Heat Transfer Coefficients on the Air and Water Sides. Studies in Systems, Decision and Control, 2019, , 509-523.	0.8	0
122	Determination of the Local and the Mean Heat Transfer Coefficient on the Inner Surface of a Single Tube and Finding Experimental Correlations for the Nusselt Number Calculation. Studies in Systems, Decision and Control, 2019, , 469-484.	0.8	0
123	New calculation method for tube cross-flow heat exchangers. E3S Web of Conferences, 2021, 323, 00032.	0.2	0