

# Paweł, Ocłoń,

## List of Publications by Year in descending order

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98  
papers

1,720  
citations

257101

24  
h-index

329751

37  
g-index

104  
all docs

104  
docs citations

104  
times ranked

1313  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dimensional optimization of a micro-channel heat sink using Jaya algorithm. <i>Applied Thermal Engineering</i> , 2016, 103, 572-582.	3.0	150
2	Numerical simulation of heat dissipation processes in underground power cable system situated in thermal backfill and buried in a multilayered soil. <i>Energy Conversion and Management</i> , 2015, 95, 352-370.	4.4	93
3	Renewable energy systems for building heating, cooling and electricity production with thermal energy storage. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 165, 112560.	8.2	70
4	Thermal contact resistance in plate fin-and-tube heat exchangers, determined by experimental data and CFD simulations. <i>International Journal of Thermal Sciences</i> , 2014, 84, 309-322.	2.6	60
5	Determination of heat transfer formulas for gas flow in fin-and-tube heat exchanger with oval tubes using CFD simulations. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 83, 1-11.	1.8	59
6	The performance analysis of a new thermal backfill material for underground power cable system. <i>Applied Thermal Engineering</i> , 2016, 108, 233-250.	3.0	57
7	Thermal performance optimization of the underground power cable system by using a modified Jaya algorithm. <i>International Journal of Thermal Sciences</i> , 2018, 123, 162-180.	2.6	57
8	Numerical analysis and parametric optimization on flow and heat transfer of a microchannel with longitudinal vortex generators. <i>International Journal of Thermal Sciences</i> , 2019, 141, 211-221.	2.6	51
9	Thermal analysis of underground power cable system. <i>Journal of Thermal Science</i> , 2017, 26, 465-471.	0.9	46
10	Simulation of fluid heating in combustion chamber waterwalls of boilers for supercritical steam parameters. <i>Energy</i> , 2015, 92, 117-127.	4.5	43
11	Comprehensive analysis of preparation strategies for phase change nanocomposites and nanofluids with brief overview of safety equipment. <i>Journal of Cleaner Production</i> , 2020, 274, 122963.	4.6	43
12	Numerical study of the effect of fouling on local heat transfer conditions in a high-temperature fin-and-tube heat exchanger. <i>Energy</i> , 2015, 92, 100-116.	4.5	41
13	Mathematical model of a supercritical power boiler for simulating rapid changes in boiler thermal loading. <i>Energy</i> , 2019, 175, 580-592.	4.5	41
14	Numerical study on the effect of inner tube fouling on the thermal performance of high-temperature fin-and-tube heat exchanger. <i>Progress in Computational Fluid Dynamics</i> , 2015, 15, 290.	0.1	40
15	Energy analysis of a thermal system composed by a heat pump coupled with a PVT solar collector. <i>Energy</i> , 2019, 174, 91-96.	4.5	38
16	Towards Efficient and Clean Process Integration: Utilisation of Renewable Resources and Energy-Saving Technologies. <i>Energies</i> , 2019, 12, 4092.	1.6	35
17	Modeling and experimental validation and thermal performance assessment of a sun-tracked and cooled PVT system under low solar irradiation. <i>Energy Conversion and Management</i> , 2020, 222, 113289.	4.4	35
18	Design Optimization of Heat Exchangers with Advanced Optimization Techniques: A Review. <i>Archives of Computational Methods in Engineering</i> , 2020, 27, 517-548.	6.0	31

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19	Optimizing of the underground power cable bedding using momentum-type particle swarm optimization method. <i>Energy</i> , 2015, 92, 230-239.	4.5	30
20	Low impact energy saving strategies for individual heating systems in a modern residential building: A case study in Rome. <i>Journal of Cleaner Production</i> , 2019, 214, 791-802.	4.6	30
21	An adaptive multi-team perturbation-guiding Jaya algorithm for optimization and its applications. <i>Engineering With Computers</i> , 2020, 36, 391-419.	3.5	30
22	Heat flux and temperature determination in a cylindrical element with the use of Finite Volume Finite Element Method. <i>International Journal of Thermal Sciences</i> , 2018, 127, 142-157.	2.6	27
23	Economic analysis of heat and electricity production in combined heat and power plant equipped with steam and water boilers and natural gas engines. <i>Energy Conversion and Management</i> , 2018, 176, 11-29.	4.4	25
24	Trombe Wall Utilization for Cold and Hot Climate Conditions. <i>Energies</i> , 2019, 12, 285.	1.6	24
25	Design optimization of a high-temperature fin-and-tube heat exchanger manifold – A case study. <i>Energy</i> , 2021, 215, 119059.	4.5	24
26	Fem-Based Thermal Analysis of Underground Power Cables Located in Backfills Made of Different Materials. <i>Strength of Materials</i> , 2015, 47, 770-780.	0.2	23
27	Effects of radiative exchange in an urban canyon on building surfaces – loads and temperatures. <i>Energy and Buildings</i> , 2017, 149, 260-271.	3.1	22
28	Model Predictive Control and energy optimisation in residential building with electric underfloor heating system. <i>Energy</i> , 2019, 182, 1028-1044.	4.5	22
29	Novel online simulation-ready models of conjugate heat transfer in combustion chamber waterwall tubes of supercritical power boilers. <i>Energy</i> , 2018, 148, 809-823.	4.5	20
30	CFD model and experimental verification of water turbine integrated with electrical generator. <i>Energy</i> , 2019, 185, 875-883.	4.5	20
31	Single- and Multi-Objective Design Optimization of Plate-Fin Heat Exchangers Using Jaya Algorithm. <i>Heat Transfer Engineering</i> , 2018, 39, 1201-1216.	1.2	19
32	3D numerical simulation of condensation and condensate behaviors on textured structures using lattice Boltzmann method. <i>International Journal of Heat and Mass Transfer</i> , 2020, 160, 120198.	2.5	18
33	Experimental Validation of a Heat Transfer Model in Underground Power Cable Systems. <i>Energies</i> , 2020, 13, 1747.	1.6	18
34	Multiobjective optimization of underground power cable systems. <i>Energy</i> , 2021, 215, 119089.	4.5	18
35	Natural convection in a differentially heated enclosure filled with low Prandtl number fluids with modified lattice Boltzmann method. <i>International Journal of Heat and Mass Transfer</i> , 2019, 143, 118562.	2.5	17
36	A Posteriori; Multiobjective Self-Adaptive Multipopulation Jaya Algorithm for Optimization of Thermal Devices and Cycles. <i>IEEE Access</i> , 2019, 7, 4113-4134.	2.6	17

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37	Computational and experimental investigation of the aerodynamics and aeroacoustics of a small wind turbine with quasi-3D optimization. <i>Energy Conversion and Management</i> , 2018, 177, 143-149.	4.4	16
38	A novel 1D/2D model for simulating conjugate heat transfer applied to flow boiling in tubes with external fins. <i>Heat and Mass Transfer</i> , 2015, 51, 553-566.	1.2	15
39	Investigation of the flow conditions in a high-performance heat exchanger. <i>Archives of Thermodynamics</i> , 2010, 31, 37-53.	1.0	15
40	Multi-objective optimization of thermo-acoustic devices using teaching-learning-based optimization algorithm. <i>Science and Technology for the Built Environment</i> , 2017, 23, 1244-1252.	0.8	13
41	Computational investigation of a lifted hydrogen flame with LES and FGM. <i>Energy</i> , 2019, 173, 1172-1181.	4.5	13
42	The effect of soil thermal conductivity and cable ampacity on the thermal performance and material costs of underground transmission line. <i>Energy</i> , 2021, 231, 120803.	4.5	13
43	Simplified numerical study of evaporation processes inside vertical tubes. <i>Journal of Thermal Science</i> , 2014, 23, 177-186.	0.9	12
44	Experimental and Numerical Investigation of Flow Distribution within the Heat Exchanger with Elliptical Tubes. <i>Procedia Engineering</i> , 2016, 157, 428-435.	1.2	12
45	Location of the waste incineration plant with particular emphasis on the environmental criteria. <i>Journal of Cleaner Production</i> , 2021, 303, 126887.	4.6	11
46	Optimal design of Stirling heat engine using an advanced optimization algorithm. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2016, 41, 1321-1331.	0.8	10
47	Study of the Effect of Fin-and-Tube Heat Exchanger Fouling on its Structural Performance. <i>Heat Transfer Engineering</i> , 2018, 39, 1139-1155.	1.2	10
48	Thermal and economic analysis of preinsulated and twin-pipe heat network operation. <i>Energy</i> , 2020, 193, 116619.	4.5	9
49	Analysis of an application possibility of geopolymer materials as thermal backfill for underground power cable system. <i>Clean Technologies and Environmental Policy</i> , 2021, 23, 869-878.	2.1	9
50	Effect of mutual radiative exchange between the surfaces of a street canyon on the building thermal energy demand. <i>Energy</i> , 2021, 226, 120346.	4.5	9
51	Experimental investigation about the adoption of high reflectance materials on the envelope cladding on a scaled street canyon. <i>Energy</i> , 2021, 230, 120801.	4.5	9
52	Municipal power plan optimisation accounting for environmental footprints. <i>Energy Conversion and Management</i> , 2022, 254, 115296.	4.4	9
53	Comparative study of conjugate gradient algorithms performance on the example of steady-state axisymmetric heat transfer problem. <i>Archives of Thermodynamics</i> , 2013, 34, 15-44.	1.0	8
54	Experimental and analytical evaluation of a gas-liquid energy storage (GLES) prototype. <i>Energy</i> , 2021, 224, 120061.	4.5	8

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55	A New Solar Assisted Heat Pump System with Underground Energy Storage: Modelling and Optimisation. <i>Energies</i> , 2021, 14, 5137.	1.6	8
56	Minimum environmental footprint charging of electric vehicles: A spatiotemporal scenario analysis. <i>Energy Conversion and Management</i> , 2022, 258, 115532.	4.4	8
57	Numerical determination of temperature distribution in heating network. <i>Energy</i> , 2019, 183, 880-891.	4.5	7
58	Sensitivity analysis of hybrid combined heat and power plant on fuel and CO2 emission allowances price change. <i>Energy Conversion and Management</i> , 2019, 196, 127-148.	4.4	7
59	Natural convection in differentially heated enclosures subjected to variable temperature boundaries. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 29, 4130-4141.	1.6	7
60	The analysis of gradient algorithm effectiveness - two dimensional heat transfer problem. <i>Archives of Thermodynamics</i> , 2010, 31, 37-50.	1.0	7
61	Evaluation and selection of energy technologies using an integrated graph theory and analytic hierarchy process methods. <i>Decision Science Letters</i> , 2016, , 327-348.	0.5	6
62	Economic analysis of heat production in existing medium size combined heat and power plant, with respect to the CO2 allowances purchasing cost. <i>Energy Conversion and Management</i> , 2018, 171, 110-125.	4.4	6
63	Experimental stand for investigation of fluid flow in heat exchangers with cross-flow arrangement. <i>E3S Web of Conferences</i> , 2017, 13, 02001.	0.2	5
64	The effect of soil and cable backfill thermal conductivity on the temperature distribution in underground cable system. <i>E3S Web of Conferences</i> , 2017, 13, 02004.	0.2	5
65	Energetical Analysis of Two Different Configurations of a Liquid-Gas Compressed Energy Storage. <i>Energies</i> , 2018, 11, 3405.	1.6	5
66	Numerical simulation of water evaporation inside vertical circular tubes. , 2013, , .		4
67	Monitoring of the Stress State in the Boiler Drum Using Finite Element Method. <i>Advanced Materials Research</i> , 2014, 875-877, 1176-1182.	0.3	4
68	Tilt optimization of a double-glazed air solar collector prototype. <i>MATEC Web of Conferences</i> , 2018, 240, 04006.	0.1	4
69	Investigation of flow non-uniformities in the cross-flow heat exchanger with elliptical tubes. <i>E3S Web of Conferences</i> , 2019, 108, 01009.	0.2	4
70	Numerical investigation of heat transfer from flow over square cylinder placed in a confined channel using Cu-water nanofluid. <i>Thermal Science</i> , 2019, 23, 1367-1380.	0.5	4
71	Numerical study of air convection in a rectangular enclosure with two isothermal blocks and oscillating bottom wall temperature. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2018, 28, 103-117.	1.6	3
72	Simulation of water turbine integrated with electrical generator. <i>MATEC Web of Conferences</i> , 2018, 240, 05002.	0.1	3

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73	Buoyancy assist adaptive charging and discharging thermal storage tank. <i>Energy Storage</i> , 2019, 1, e287.	2.3	3
74	Numerical investigation of semiempirical relations representing the local Nusselt number magnitude of a pin fin heat sink. <i>Heat Transfer - Asian Research</i> , 2019, 48, 1857-1888.	2.8	3
75	The Wind Test on Heat Loss from Three Coil Cavity Receiver for a Parabolic Dish Collector. <i>E3S Web of Conferences</i> , 2019, 128, 01006.	0.2	3
76	NUMERICAL INVESTIGATION OF CONJUGATE HEAT TRANSFER FROM LAMINAR WALL JET FLOW OVER A SHALLOW CAVITY. <i>Heat Transfer Research</i> , 2018, 49, 1151-1170.	0.9	3
77	Influence of the geometrical parameters of urban canyons on the convective heat transfer coefficient. <i>Thermal Science</i> , 2019, 23, 1211-1223.	0.5	3
78	Computer-Aided Determination of the Air-Side Heat Transfer Coefficient and Thermal Contact Resistance for a Fin-and-Tube Heat Exchanger. , 2015, , .		2
79	Transient Natural Convection in a Thermally Insulated Annular Cylinder Exposed to a High Temperature from the Inner Radius. <i>Energies</i> , 2020, 13, 1291.	1.6	2
80	Multi-objective Design Optimization of Shell-and-Tube Heat Exchanger Using Multi-objective SAMPJaya Algorithm. <i>Advances in Intelligent Systems and Computing</i> , 2020, , 831-838.	0.5	2
81	Contribution to encyclopedia of thermal stresses. <i>Journal of Thermal Science</i> , 2015, 24, 215-220.	0.9	1
82	Buoyancy-induced convection of water-based nanofluids from an enclosed heated cylinder. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2018, 28, 2734-2755.	1.6	1
83	Verification of applicability of the two-equation turbulence models for temperature distribution in transitional flow in an elliptical tube. <i>Thermal Science</i> , 2019, 23, 1113-1121.	0.5	1
84	Heat loss analysis of three coil cylindrical solar cavity receiver of parabolic dish for process heat. <i>Thermal Science</i> , 2019, 23, 1301-1310.	0.5	1
85	Multi-Function Device for Creep Testing at Elevated Temperature. <i>Advanced Materials Research</i> , 2014, 875-877, 462-466.	0.3	0
86	Numerical investigation of flow and heat transfer from a block placed in a cavity subject to different inlet conditions. <i>Progress in Computational Fluid Dynamics</i> , 2017, 17, 385.	0.1	0
87	Selected Papers from the 9th International Conference on Computational Heat and Mass Transfer (ICCHMT2016). <i>Heat Transfer Engineering</i> , 2018, 39, 1101-1102.	1.2	0
88	Effect of baffle shape in heat transfer for jet impingement on a solid block. <i>MATEC Web of Conferences</i> , 2018, 240, 01025.	0.1	0
89	Selected Papers from the XI International Conference on Computational Heat, Mass and Momentum Transfer (ICCHMT 2018). <i>Energies</i> , 2019, 12, 2259.	1.6	0
90	Buoyancy-Induced Convection in Water From a Pair of Horizontal Heated Cylinders Enclosed in a Square Cooled Cavity. <i>Heat Transfer Engineering</i> , 2021, 42, 205-214.	1.2	0

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91	Optimization of Underground Power Cable Systems. Lecture Notes in Energy, 2021, , 141-170.	0.2	0
92	Zero-Emission Building Heating System Using Thermal Energy Accumulation in the Ground. Lecture Notes in Energy, 2021, , 37-56.	0.2	0
93	Storage of Thermal Energy in the Ground. Lecture Notes in Energy, 2021, , 15-25.	0.2	0
94	Mathematical Modelling of the Resheat System. Lecture Notes in Energy, 2021, , 57-97.	0.2	0
95	Resheat System Optimization. Lecture Notes in Energy, 2021, , 99-106.	0.2	0
96	Solar-Assisted Heat Pumps. Lecture Notes in Energy, 2021, , 27-36.	0.2	0
97	Economic Analysis. Lecture Notes in Energy, 2021, , 131-136.	0.2	0
98	Investigation of forced convective heat transfer from a block located staggered cavity with parallel and anti-parallel wall motion. Thermal Science, 2019, 23, 1281-1288.	0.5	0