

Pavel Charvat

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7933659/publications.pdf>

Version: 2024-02-01

33
papers

865
citations

933447

10
h-index

552781

26
g-index

33
all docs

33
docs citations

33
times ranked

1017
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of the effective heat capacity–temperature relationship and the phase change hysteresis in PCMs by means of an inverse heat transfer problem solved with metaheuristic methods. Applied Thermal Engineering, 2021, 197, 117392.	6.0	14
2	Dry cooling as a way toward minimisation of water consumption in the steel industry: A case study for continuous steel casting. Journal of Cleaner Production, 2020, 275, 123109.	9.3	9
3	An overview of mercury emissions in the energy industry - A step to mercury footprint assessment. Journal of Cleaner Production, 2020, 267, 122087.	9.3	43
4	Computer modelling and experimental investigation of phase change hysteresis of PCMs: The state-of-the-art review. Applied Energy, 2020, 263, 114572.	10.1	69
5	Feasibility of replacement of nuclear power with other energy sources in the Czech republic. Thermal Science, 2020, 24, 3543-3553.	1.1	2
6	Seasonal COP of an Air-to-Water Heat Pump when Using Predictive Control Preferring Power Production from Renewable Sources in the Czech Republic. Energies, 2019, 12, 3236.	3.1	4
7	Solar air collector with the solar absorber plate containing a PCM – Environmental chamber experiments and computer simulations. Renewable Energy, 2019, 143, 731-740.	8.9	44
8	Utilization of an Air-PCM Heat Exchanger in Passive Cooling of Buildings: A Simulation Study on the Energy Saving Potential in Different European Climates. Energies, 2019, 12, 1133.	3.1	5
9	An optimization study into thermally activated wall system with latent heat thermal energy storage. IOP Conference Series: Earth and Environmental Science, 2019, 238, 012016.	0.3	1
10	Thermally activated wall panels with microencapsulated PCM: comparison of 1D and 3D models. Journal of Building Performance Simulation, 2019, 12, 404-419.	2.0	9
11	Energy demand of liquefaction and regasification of natural gas and the potential of LNG for operative thermal energy storage. Renewable and Sustainable Energy Reviews, 2019, 99, 1-15.	16.4	100
12	PCM thermal energy storage in solar heating of ventilation air – Experimental and numerical investigations. Sustainable Cities and Society, 2018, 37, 104-115.	10.4	51
13	Comparison of the Energy Conversion Efficiency of a Solar Chimney and a Solar PV-Powered Fan for Ventilation Applications. Energies, 2018, 11, 912.	3.1	7
14	Front tracking in modelling of latent heat thermal energy storage: Assessment of accuracy and efficiency, benchmarking and GPU-based acceleration. Energy, 2018, 155, 297-311.	8.8	12
15	Melting front propagation in a paraffin-based phase change material: Lab-scale experiment and simulations. Thermal Science, 2018, 22, 2723-2732.	1.1	8
16	Visual monitoring of the melting front propagation in a paraffin-based PCM. EPJ Web of Conferences, 2017, 143, 02042.	0.3	6
17	Assessment of Basic Approaches to Numerical Modeling of Phase Change Problems – Accuracy, Efficiency, and Parallel Decomposition. Journal of Heat Transfer, 2017, 139, .	2.1	7
18	Robustness Analysis of Various Approaches to Modeling of the Phase Change Front Propagation. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
19	An accuracy analysis of the front tracking method and interface capturing methods for the solution of heat transfer problems with phase changes. Journal of Physics: Conference Series, 2016, 745, 032136.	0.4	2
20	A Validated TRNSYS Model of Thermally Activated Layer With Phase Change Material. , 2015, , .		1
21	Various Approaches to Numerical Discretization of Thermal Model With Phase Change. , 2015, , .		0
22	Review on using microencapsulated phase change materials (PCM) in building applications. Energy and Buildings, 2015, 106, 134-155.	6.7	309
23	Micro-encapsulated phase-change materials for latent-heat storage: thermal characteristics. Materiali in Tehnologije, 2015, 49, 813-816.	0.5	3
24	Experimental investigation of stabilization of flowing water temperature with a water-PCM heat exchanger. EPJ Web of Conferences, 2014, 67, 02046.	0.3	6
25	Parallel Heat Transfer Model of a Panel with Phase Change Material for Thermal Storage Applications Computed on Graphics Processing Units. Advanced Materials Research, 2014, 1077, 118-123.	0.3	1
26	Numerical and experimental investigation of a PCM-based thermal storage unit for solar air systems. Energy and Buildings, 2014, 68, 488-497.	6.7	108
27	Materials for Advanced Heat Storage in Buildings. Procedia Engineering, 2013, 57, 837-843.	1.2	26
28	Experimental investigations of the performance of a solar air collector with latent heat thermal storage integrated with the solar absorber. EPJ Web of Conferences, 2013, 45, 01127.	0.3	4
29	A solar air collector with integrated latent heat thermal storage. EPJ Web of Conferences, 2012, 25, 01028.	0.3	7
30	Mathematical Model of Multi-Layer Wall with Phase Change Material and its Use in Optimal Design. Advanced Materials Research, 0, 649, 295-298.	0.3	0
31	Latent Heat Storage Plaster: Lab-Scale Experiment and Simulation. Advanced Materials Research, 0, 1077, 124-128.	0.3	0
32	A PCM-water heat exchanger with polymeric hollow fibres for latent heat thermal energy storage: a parametric study of discharging stage. Journal of Theoretical and Applied Mechanics, 0, , 1285.	0.5	6
33	Two-stage stochastic programming approach to a PDE-constrained steel production problem with the moving interface. Kybernetika, 0, , 1047-1070.	0.0	0