

Hao-Chun Zhang

List of Publications by Year in descending order

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72
papers

878
citations

471509

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552781

26
g-index

72
all docs

72
docs citations

72
times ranked

601
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of entropy production theory to hydro-turbine hydraulic analysis. Science China Technological Sciences, 2013, 56, 1636-1643.	4.0	102
2	Entropy Generation Analysis and Performance Evaluation of Turbulent Forced Convective Heat Transfer to Nanofluids. Entropy, 2017, 19, 108.	2.2	49
3	Predicting and analyzing interaction of the thermal cloaking performance through response surface method. International Journal of Heat and Mass Transfer, 2017, 109, 746-754.	4.8	42
4	Numerical study on condensation heat transfer and pressure drop characteristics of ethane/propane mixture upward flow in a spiral pipe. International Journal of Heat and Mass Transfer, 2018, 121, 170-186.	4.8	41
5	Numerical study on the flow and heat transfer characteristics of forced convective condensation with propane in a spiral pipe. International Journal of Heat and Mass Transfer, 2018, 117, 1169-1187.	4.8	38
6	ESTIMATION OF RAY EFFECT AND FALSE SCATTERING IN APPROXIMATE SOLUTION METHOD FOR THERMAL RADIATIVE TRANSFER EQUATION. Numerical Heat Transfer; Part A: Applications, 2004, 46, 807-829.	2.1	32
7	Numerical investigation of the solar concentrating characteristics of 3D CPC and CPC-DC. Solar Energy, 2011, 85, 2833-2842.	6.1	29
8	Numerical study on condensation heat transfer and pressure drop characteristics of methane upward flow in a spiral pipe under sloshing condition. International Journal of Heat and Mass Transfer, 2019, 129, 310-325.	4.8	28
9	An expeditious methodology for estimating the exergy of woody biomass by means of heating values. Fuel, 2015, 159, 712-719.	6.4	26
10	The influence of structural parameters on heat transfer and pressure drop for hydrocarbon mixture refrigerant during condensation in enhanced spiral pipes. Applied Thermal Engineering, 2018, 140, 759-774.	6.0	26
11	Prediction of thermal conductivity of micro/nano porous dielectric materials: Theoretical model and impact factors. Energy, 2021, 233, 121140.	8.8	26
12	Hesitant Fuzzy Entropy-Based Opportunistic Clustering and Data Fusion Algorithm for Heterogeneous Wireless Sensor Networks. Sensors, 2020, 20, 913.	3.8	24
13	Creating illusion of discrete source array by simultaneously allocating thermal and DC fields with homogeneous media. Energy Conversion and Management, 2019, 187, 546-553.	9.2	23
14	Achieving arbitrarily polygonal thermal harvesting devices with homogeneous parameters through linear mapping function. Energy Conversion and Management, 2018, 165, 253-262.	9.2	22
15	Thermal conductivity of micro/nano-porous polymers: Prediction models and applications. Frontiers of Physics, 2022, 17, 1.	5.0	19
16	Two equations for estimating the exergy of woody biomass based on the exergy of ash. Energy, 2016, 106, 400-407.	8.8	18
17	The pressure drop and heat transfer characteristics of condensation flow with hydrocarbon mixtures in a spiral pipe under static and heaving conditions. International Journal of Refrigeration, 2019, 103, 16-31.	3.4	18
18	Dynamic control strategy for the participation of variable speed wind turbine generators in primary frequency regulation. Journal of Renewable and Sustainable Energy, 2019, 11, .	2.0	18

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19	Study on capacity of coffee grounds to be extracted oil, produce biodiesel and combust. Energy Procedia, 2018, 152, 1296-1301.	1.8	17
20	Evaluation analysis of correlations for predicting void fraction of condensation hydrocarbon refrigerant upward flow in a spiral pipe. Applied Thermal Engineering, 2018, 140, 716-732.	6.0	16
21	Improvements in primary frequency regulation of the grid-connected variable speed wind turbine. IET Renewable Power Generation, 2019, 13, 491-499.	3.1	15
22	Ray-Tracing/Nodal-Analyzing Model for Transient Thermal Behavior of a Scattering Medium with a Variable Refractive Index. Numerical Heat Transfer; Part A: Applications, 2006, 49, 607-634.	2.1	14
23	Control and design heat flux bending in thermal devices with transformation optics. Optics Express, 2017, 25, A419.	3.4	14
24	Road infrared target detection with "YOLO. IET Image Processing, 2022, 16, 92-101.	2.5	14
25	Entropy Assessment on Direct Contact Condensation of Subsonic Steam Jets in a Water Tank through Numerical Investigation. Entropy, 2016, 18, 21.	2.2	12
26	Forecast of thermal harvesting performance under multi-parameter interaction with response surface methodology. International Journal of Heat and Mass Transfer, 2017, 115, 682-693.	4.8	11
27	Optical spectra of composite silver-porous silicon (Ag-pSi) nanostructure based periodical lattice. Superlattices and Microstructures, 2018, 115, 168-176.	3.1	11
28	Exergy characteristics of woody biomass. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2016, 38, 2438-2446.	2.3	10
29	Investigating the Thermodynamic Performances of TO-Based Metamaterial Tunable Cells with an Entropy Generation Approach. Entropy, 2017, 19, 538.	2.2	10
30	Characteristics and optimization of heat pipe radiator for space nuclear propulsion spacecraft. Progress in Nuclear Energy, 2022, 150, 104307.	2.9	10
31	Thermodynamic analysis of shark skin texture surfaces for microchannel flow. Continuum Mechanics and Thermodynamics, 2016, 28, 1361-1371.	2.2	9
32	Limitation of optical properties through porous silicon photonic crystals influenced by porosity and lattice dynamic. Optical Materials, 2018, 75, 150-165.	3.6	9
33	A frequency response strategy for variable speed wind turbine based on a dynamic inertial response and tip-speed ratio control. Electrical Engineering, 2019, 101, 35-44.	2.0	8
34	Coordinated control of the conventional units, wind power, and battery energy storage system for effective support in the frequency regulation service. International Transactions on Electrical Energy Systems, 2019, 29, e2845.	1.9	8
35	Geometrical effects on the concentrated behavior of heat flux in metamaterials thermal harvesting devices. AIP Advances, 2017, 7, 105322.	1.3	7
36	Energy-Efficient Multi-Disjoint Path Opportunistic Node Connection Routing Protocol in Wireless Sensor Networks for Smart Grids. Sensors, 2019, 19, 3789.	3.8	7

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37	Realization and analysis of an Intelligent flux transfer regulator by allocating thermal and DC electric fields. International Journal of Heat and Mass Transfer, 2021, 179, 121677.	4.8	6
38	Arbitrarily shaped thermal cloaks with non-uniform profiles in homogeneous media configurations. Optics Express, 2018, 26, 25265.	3.4	5
39	Special Issue on Recent Advances in Fundamentals and Applications of Biomass Energy. Journal of Energy Resources Technology, Transactions of the ASME, 2018, 140, .	2.3	5
40	A TO-based intelligent thermal concentrator considering thermal protection. AIP Advances, 2020, 10, 105214.	1.3	5
41	Harvested Energy Scavenging and Transfer capabilities in Opportunistic Ring Routing. IEEE Access, 2021, 9, 75801-75825.	4.2	5
42	Performance prediction of nanoscale thermal cloak by molecular dynamics. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	5
43	Near-infrared optical characteristics of composite Ag-porous Si dielectric film for solar devices. Superlattices and Microstructures, 2018, 120, 31-39.	3.1	4
44	Angular dependence in light propagation through silver material based ultra-compact photonic crystal. Optical Materials, 2019, 91, 1-6.	3.6	4
45	Delay aware energy-efficient opportunistic node selection in restricted routing. Computer Networks, 2020, 181, 107536.	5.1	4
46	Environmental Response of 2D Thermal Cloak under Dynamic External Temperature Field. Entropy, 2020, 22, 461.	2.2	4
47	Numerical analysis on nanoscale thermal cloak in three-dimensional silicon film with circular cavities. Numerical Heat Transfer; Part A: Applications, 0, , 1-14.	2.1	4
48	The spectral radiative effect of Si/SiO ₂ substrate on monolayer aluminum porous microstructure. Thermal Science, 2018, 22, 629-638.	1.1	4
49	Design and Analysis of Low Emissivity Radiative Cooling Multilayer Films Based on Effective Medium Theory. ES Energy & Environments, 2019, , .	1.1	4
50	Exergy of Oat Straw. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2016, 38, 1574-1581.	2.3	3
51	Investigating Entropy Generation in a Thermal Cloak Corresponding Different Material Layer Number. Journal of Heat Transfer, 2017, 139, .	2.1	3
52	Directed Thermal Diffusions through Metamaterial Source Illusion with Homogeneous Natural Media. Materials, 2018, 11, 629.	2.9	3
53	Thermal Cloaking in Nanoscale Porous Silicon Structure by Molecular Dynamics. Energies, 2022, 15, 1827.	3.1	3
54	Numerical simulation of coupled radiation-convection heat transfer of high-temperature developing flow in tube. Heat Transfer - Asian Research, 2004, 33, 53-63.	2.8	2

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55	A fractal-skeleton model of high porosity macroporous aluminum and its heat transfer characterizes. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 141, 351-360.	3.6	2
56	Validation of accuracy and stability of numerical simulation for 2-D heat transfer system by an entropy production approach. <i>Thermal Science</i> , 2017, 21, 97-104.	1.1	2
57	Flow and heat transfer characteristics of nanofluids in sudden expansion structure based on SLA method. <i>Thermal Science</i> , 2019, 23, 1449-1455.	1.1	2
58	Characteristics and optimization of SCO ₂ Brayton cycle system for high power sodium-cooled fast reactor on Mars. <i>Thermal Science</i> , 2021, 25, 4659-4666.	1.1	2
59	Nanoscale Thermal Cloaking in Silicon Film: A Molecular Dynamic Study. <i>Materials</i> , 2022, 15, 935.	2.9	2
60	Performance investigation of nanoscale thermal cloak by the perforated silicon film. <i>Current Applied Physics</i> , 2022, 35, 38-44.	2.4	2
61	Entropy Generation Analysis of the Flow Boiling in Microgravity Field. <i>Entropy</i> , 2022, 24, 569.	2.2	2
62	Heat Transfer Characteristics of an Innovative Thermal Protection System Based on Photonic Crystals. <i>Heat Transfer Engineering</i> , 2014, 35, 583-588.	1.9	1
63	Numerical Analysis of Entropy Production during Hydrogen-Air Burner Combustion Process. <i>Thermal Engineering (English Translation of Teploenergetika)</i> , 2020, 67, 304-313.	0.9	1
64	The Equivalent Thermal Conductivity of the Micro/Nano Scaled Periodic Cubic Frame Silver and Its Thermal Radiation Mechanism Analysis. <i>Energies</i> , 2021, 14, 4158.	3.1	1
65	Remote sensing target detection in a harbor area based on an arbitrary-oriented convolutional neural network. <i>Journal of Applied Remote Sensing</i> , 2021, 15, .	1.3	1
66	Performance of meta-material thermal concentrator with sensu-shaped structure through entropy generation approach. <i>Thermal Science</i> , 2016, 20, 651-658.	1.1	1
67	Exergy characteristics of rice husks. <i>Thermal Science</i> , 2018, 22, 429-437.	1.1	1
68	Mechanism analysis of double-layer nanoscale thermal cloak by silicon film. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 634, 128022.	4.7	1
69	Study on Phonon Localization in Silicon Film by Molecular Dynamics. <i>Coatings</i> , 2022, 12, 422.	2.6	1
70	Compressing infrared spectrum of exhaust plume by wavelets. <i>Heat Transfer - Asian Research</i> , 2010, 39, 103-115.	2.8	0
71	Spatial discretization error in an artificial benchmark model of oblique laser incidence by finite volume approximation for radiative heat transfer. <i>Science Bulletin</i> , 2012, 57, 2046-2050.	1.7	0
72	Modeling and Analysis in Thermodynamics and Heat Transfer. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-1.	1.1	0