Wang Fuqiang

List of Publications by Year
in descending order

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92 papers	4,446 citations	100601 38 h-index	124990 64 g-index
94 all docs	94 docs citations	94 times ranked	2266 citing authors

#	Article	IF	Citations
1	Numerical study on the thermal performance analysis of packed-bed latent heat thermal storage system with biomimetic vein hierarchical structure. International Journal of Green Energy, 2022, 19, 592-602.	2.1	8
2	Experimental and numerical study on flow characteristic and thermal performance of macro-capsules phase change material with biomimetic oval structure. Energy, 2022, 238, 121830.	4.5	49
3	Effects of foam structure on thermochemical characteristics of porous-filled solar reactor. Energy, 2022, 239, 122219.	4.5	26
4	Analysis of biomimetic hierarchical porous structure regulating radiation field to improve solar thermochemical performance based on minimum Gibbs free energy. International Journal of Hydrogen Energy, 2022, 47, 2832-2845.	3.8	26
5	A novel spectral beam splitting photovoltaic/thermal hybrid system based on semi-transparent solar cell with serrated groove structure for co-generation of electricity and high-grade thermal energy. Energy Conversion and Management, 2022, 252, 115049.	4.4	27
6	Radiative property investigation of dispersed particulate medium with the consideration of non-uniform particle size distribution and dependent scattering effects. International Journal of Heat and Mass Transfer, 2022, 186, 122488.	2.5	4
7	An energy-efficient glass using biomimetic structures with excellent energy saving features in both hot and cold weather. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 286, 108180.	1.1	11
8	Progress in radiative transfer in porous medium: A review from macro scale to pore scale with experimental test. Applied Thermal Engineering, 2022, 210, 118331.	3.0	14
9	Natural convection characteristics of honeycomb fin with different hole cells for battery phase-change material cooling systems. Journal of Energy Storage, 2022, 51, 104578.	3.9	17
10	A low-cost sustainable coating: Improving passive daytime radiative cooling performance using the spectral band complementarity method. Renewable Energy, 2022, 192, 606-616.	4.3	32
11	Biomimetically calabash-inspired phase change material capsule: Experimental and numerical analysis on thermal performance and flow characteristics. Journal of Energy Storage, 2022, 52, 104859.	3.9	14
12	Improving overall heat transfer performance of parabolic trough solar receiver by helically convex absorber tube. Applied Thermal Engineering, 2022, 213, 118690.	3.0	19
13	Experimental study on the alleviation of thermal runaway propagation from an overcharged lithium-ion battery module using different thermal insulation layers. Energy, 2022, 257, 124768.	4.5	30
14	Optical properties and cooling performance analyses of single-layer radiative cooling coating with mixture of TiO2 particles and SiO2 particles. Science China Technological Sciences, 2021, 64, 1017-1029.	2.0	39
15	Stability analysis of Tâ€“S fuzzy coupled oscillator systems influenced by stochastic disturbance. Neural Computing and Applications, 2021, 33, 2549-2560.	3.2	7
16	Thermochemical analysis of dry methane reforming hydrogen production in biomimetic venous hierarchical porous structure solar reactor for improving energy storage. International Journal of Hydrogen Energy, 2021, 46, 7733-7744.	3.8	41
17	Wrinkled surface microstructure for enhancing the infrared spectral performance of radiative cooling. Optics Express, 2021, 29, 11416.	1.7	24
18	Numerical analysis of the biomimetic leaf-type hierarchical porous structure to improve the energy storage efficiency of solar driven steam methane reforming. International Journal of Hydrogen Energy, 2021, 46, 17653-17665.	3.8	36

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19	Solar-driven thermochemical redox cycles of ZrO2 supported NiFe2O4 for CO2 reduction into chemical energy. Energy, 2021, 223, 120073.	4.5	24
20	Progress in full spectrum solar energy utilization by spectral beam splitting hybrid PV/T system. Renewable and Sustainable Energy Reviews, 2021, 141, 110785.	8.2	115
21	Numerical study on the thermal performance of packed-bed latent heat thermal energy storage system with biomimetic alveoli structure capsule. Science China Technological Sciences, 2021, 64, 1544-1554.	2.0	28
22	Biomimetic hierarchical structure for enhancing concentrated solar energy converting and utilizing efficiency. Optics Express, 2021, 29, 26669.	1.7	8
23	Thermal Performance Analysis of PCM Capsules Packed-Bed System with Biomimetic Leaf Hierarchical Porous Structure. Journal of Thermal Science, 2021, 30, 1559-1571.	0.9	21
24	Efficient radiative cooling coating with biomimetic human skin wrinkle structure. Nano Energy, 2021, 89, 106377.	8.2	170
25	Performance evaluation of a double-pipe heat exchanger with uniform and graded metal foams. Heat and Mass Transfer, 2020, 56, 291-302.	1.2	22
26	Experimental investigation of cost-effective ZnO nanofluid based spectral splitting CPV/T system. Energy, 2020, 194, 116913.	4.5	109
27	Experimental investigation of thermal performance enhancement of cavity receiver with bottom surface interior convex. Applied Thermal Engineering, 2020, 168, 114847.	3.0	13
28	Optical properties of paraffin suspension containing TiO2 nanoparticles. Optik, 2020, 208, 164082.	1.4	11
29	Effects of ordered hierarchically porous structure on methane reforming performance in solar foam reactor. Journal of CO2 Utilization, 2020, 37, 147-157.	3.3	30
30	Effects of non-uniform porosity on thermochemical performance of solar driven methane reforming. Energy, 2020, 191, 116575.	4.5	44
31	Reducing toxicity and enhancing broadband solar energy harvesting of ultra-thin perovskite solar cell via SiO2 nanophotonic structure. Optik, 2020, 223, 165624.	1.4	14
32	Thermal-chemical reaction characteristics of Ni/Al2O3 catalytic porous material filled solar reactor for dry reforming of methane process. Applied Thermal Engineering, 2020, 180, 115901.	3.0	19
33	Effect of radiation on the effective thermal conductivity of encapsulated capsules containing high-temperature phase change materials. Renewable Energy, 2020, 160, 676-685.	4.3	12
34	Plasmonic coupling-enhanced in situ photothermal nanoreactor with shape selective catalysis for C-C coupling reaction. Nano Research, 2020, 13, 2812-2818.	5.8	15
35	Low-cost radiative cooling blade coating with ultrahigh visible light transmittance and emission within an â€œatmospheric windowâ€• Solar Energy Materials and Solar Cells, 2020, 213, 110563.	3.0	59
36	Performance study on optical splitting film-based spectral splitting concentrated photovoltaic/thermal applications under concentrated solar irradiation. Solar Energy, 2020, 206, 84-91.	2.9	33

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37	Determining the effects of droplets attached to glass on light transmission by using Monte Carlo ray tracing method in target optical detection. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 245, 106856.	1.1	5
38	A Mie optimization model to determine optical properties of PCM based nanofluids for solar thermal applications of glazing window. Optik, 2020, 212, 164664.	1.4	20
39	Effects of multilayer porous ceramics on thermochemical energy conversion and storage efficiency in solar dry reforming of methane reactor. Applied Energy, 2020, 265, 114799.	5.1	37
40	Full-Spectrum Solar Energy Utilization and Enhanced Solar Energy Harvesting via Photon Anti-Reflection and Scattering Performance Using Nanophotonic Structure. ES Energy & Environments, 2020, , .	0.5	9
41	Influences of Optical Factors on the Performance of the Solar Furnace. Energies, 2019, 12, 3933.	1.6	2
42	Investigation on Optical Properties and Solar Energy Conversion Efficiency of Spectral Splitting PV/T system. Energy Procedia, 2019, 158, 15-20.	1.8	14
43	Conjugated heat transfer analysis of a foam filled double-pipe heat exchanger for high-temperature application. International Journal of Heat and Mass Transfer, 2019, 134, 1003-1013.	2.5	36
44	Effect of embedded polydisperse glass microspheres on radiative cooling of a coating. International Journal of Thermal Sciences, 2019, 140, 358-367.	2.6	62
45	Experimental investigation on spectral splitting of photovoltaic/thermal hybrid system with two-axis sun tracking based on SiO2/TiO2 interference thin film. Energy Conversion and Management, 2019, 188, 230-240.	4.4	59
46	Experimental investigation of optical properties of oily sewage with different pH environment. Optik, 2019, 183, 338-345.	1.4	5
47	Optical properties and transmittances of ZnO-containing nanofluids in spectral splitting photovoltaic/thermal systems. International Journal of Heat and Mass Transfer, 2019, 128, 668-678.	2.5	84
48	Combination of thermodynamic analysis and regression analysis for steam and dry methane reforming. International Journal of Hydrogen Energy, 2019, 44, 15795-15810.	3.8	16
49	Experimental investigation of thermal radiative properties of Al2O3-paraffin nanofluid. Solar Energy, 2019, 177, 420-426.	2.9	44
50	Radiative transfer analysis of semitransparent medium with particles having non-uniform size distribution by differential-integration method. International Journal of Heat and Mass Transfer, 2019, 130, 342-355.	2.5	17
51	COUPLED HEAT TRANSFER ANALYSES OF MOLTEN SALT WITH VARIATION OF THERMOPHYSICAL PROPERTIES. Heat Transfer Research, 2019, 50, 33-56.	0.9	2
52	Influence of glazed roof containing phase change material on indoor thermal environment and energy consumption. Applied Energy, 2018, 222, 343-350.	5.1	91
53	Thermochemical storage analysis of the dry reforming of methane in foam solar reactor. Energy Conversion and Management, 2018, 158, 489-498.	4.4	93
54	Thermal and chemical analysis of methane dry reforming in a volumetric reactor under highly concentrated solar radiation. Solar Energy, 2018, 162, 187-195.	2.9	41

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55	Thermochemical performance of solar driven CO2 reforming of methane in volumetric reactor with gradual foam structure. Energy, 2018, 151, 545-555.	4.5	54
56	Radiative, conductive and laminar convective coupled heat transfer analysis of molten salts based on finite element method. Applied Thermal Engineering, 2018, 131, 19-29.	3.0	23
57	Inversion of stellar spectral radiative properties based on multiple star catalogues. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 026-026.	1.9	3
58	Photon-absorption-based explanation of ultrasonic-assisted solar photochemical splitting of water to improve hydrogen production. International Journal of Hydrogen Energy, 2018, 43, 14439-14450.	3.8	18
59	Analysis of thermal transport and fluid flow in high-temperature porous media solar thermochemical reactor. Solar Energy, 2018, 173, 814-824.	2.9	26
60	Experimental study on the effects of light intensity on energy conversion efficiency of photo-thermo chemical synergetic catalytic water splitting. Thermal Science, 2018, 22, 709-718.	0.5	3
61	Heat transfer enhancement analysis of tube receiver for parabolic trough solar collector with pin fin arrays inserting. Solar Energy, 2017, 144, 185-202.	2.9	180
62	Radiative heat transfer in solar thermochemical particle reactor: A comprehensive review. Renewable and Sustainable Energy Reviews, 2017, 73, 935-949.	8.2	56
63	Analyzing the effects of reaction temperature on photo-thermo chemical synergetic catalytic water splitting under full-spectrum solar irradiation: An experimental and thermodynamic investigation. International Journal of Hydrogen Energy, 2017, 42, 12133-12142.	3.8	36
64	Optical constant measurements of solar thermochemical reaction catalysts and optical window. Optik, 2017, 131, 323-334.	1.4	6
65	Progress in concentrated solar power technology with parabolic trough collector system: A comprehensive review. Renewable and Sustainable Energy Reviews, 2017, 79, 1314-1328.	8.2	395
66	Investigation of optical properties and radiative transfer of sea water-based nanofluids for photocatalysis with different salt concentrations. International Journal of Hydrogen Energy, 2017, 42, 26626-26638.	3.8	16
67	Investigation of optical properties and radiative transfer of TiO2 nanofluids with the consideration of scattering effects. International Journal of Heat and Mass Transfer, 2017, 115, 1103-1112.	2.5	43
68	Energy storage efficiency analyses of CO2 reforming of methane in metal foam solar thermochemical reactor. Applied Thermal Engineering, 2017, 111, 1091-1100.	3.0	54
69	Transient thermal performance response characteristics of porous-medium receiver heated by multi-dish concentrator. International Communications in Heat and Mass Transfer, 2016, 75, 36-41.	2.9	28
70	A neurodynamic approach to convex optimization problems with general constraint. Neural Networks, 2016, 84, 113-124.	3.3	17
71	Heat transfer performance enhancement and thermal strain restrain of tube receiver for parabolic trough solar collector by using asymmetric outward convex corrugated tube. Energy, 2016, 114, 275-292.	4.5	166
72	Parabolic trough receiver with corrugated tube for improving heat transfer and thermal deformation characteristics. Applied Energy, 2016, 164, 411-424.	5.1	175

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73	Unsteady state thermochemical performance analyses of solar driven steam methane reforming in porous medium reactor. Solar Energy, 2015, 122, 1180-1192.	2.9	18
74	Effects of key factors on solar aided methane steam reforming in porous medium thermochemical reactor. Energy Conversion and Management, 2015, 103, 419-430.	4.4	41
75	Monte Carlo simulation of spectral reflectance and BRDF of the bubble layer in the upper ocean. Optics Express, 2015, 23, 24274.	1.7	48
76	Thermochemical performance analysis of solar driven CO2 methane reforming. Energy, 2015, 91, 645-654.	4.5	70
77	Effects of glass cover on heat flux distribution for tube receiver with parabolic trough collector system. Energy Conversion and Management, 2015, 90, 47-52.	4.4	102
78	PROPOSAL OF THE SHAPE LAYOUT OF TRAPEZOIDAL CAVITY RECEIVER TO IMPROVE THE OPTICAL EFFICIENCY. Heat Transfer Research, 2015, 46, 429-446.	0.9	3
79	Thermal and chemical reaction performance analyses of steam methane reforming in porous media solar thermochemical reactor. International Journal of Hydrogen Energy, 2014, 39, 718-730.	3.8	74
80	Thermal performance analysis of porous medium solar receiver with quartz window to minimize heat flux gradient. Solar Energy, 2014, 108, 348-359.	2.9	55
81	Thermal performance analyses of porous media solar receiver with different irradiative transfer models. International Journal of Heat and Mass Transfer, 2014, 78, 7-16.	2.5	85
82	Numerical analysis of hydrogen production via methane steam reforming in porous media solar thermochemical reactor using concentrated solar irradiation as heat source. Energy Conversion and Management, 2014, 87, 956-964.	4.4	79
83	Heat transfer analysis of porous media receiver with different transport and thermophysical models using mixture as feeding gas. Energy Conversion and Management, 2014, 83, 159-166.	4.4	98
84	Heat transfer analyses of porous media receiver with multi-dish collector by coupling MCRT and FVM method. Solar Energy, 2013, 93, 158-168.	2.9	78
85	Optical efficiency analysis of cylindrical cavity receiver with bottom surface convex. Solar Energy, 2013, 90, 195-204.	2.9	71
86	Researches on a new type of solar surface cladding reactor with concentration quartz window. Solar Energy, 2013, 94, 177-181.	2.9	29
87	Thermal performance analysis of porous media receiver with concentrated solar irradiation. International Journal of Heat and Mass Transfer, 2013, 62, 247-254.	2.5	179
88	Effects of material selection on the thermal stresses of tube receiver under concentrated solar irradiation. Materials & Design, 2012, 33, 284-291.	5.1	78
89	Radiative properties of a solar cavity receiver/reactor with quartz window. International Journal of Hydrogen Energy, 2011, 36, 12148-12158.	3.8	62
90	Thermal stress analysis of eccentric tube receiver using concentrated solar radiation. Solar Energy, 2010, 84, 1809-1815.	2.9	98

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91	Gas/particle flow characteristics of a centrally fuel rich swirl coal combustion burner. Fuel, 2008, 87, 2102-2110.	3.4	40
92	The influence of fuel bias in the primary air duct on the gas/particle flow characteristics near the swirl burner region. Fuel Processing Technology, 2008, 89, 958-965.	3.7	31