C Caliot

List of Publications by Year
in descending order

56 papers	1,707 citations	430874 18 h-index	276875 41 g-index
58 all docs	58 docs citations	58 times ranked	916 citing authors

#	Article	IF	Citations
1	System-level comparison of sodium and salt systems in support of the Gen3 liquids pathway. AIP Conference Proceedings, 2022, , .	0.4	3
2	Progress in heat transfer research for high-temperature solar thermal applications. Applied Thermal Engineering, 2021, 184, 116137.	6.0	67
3	Digital design and 3D printing of innovative SiC architectures for high temperature volumetric solar receivers. Solar Energy Materials and Solar Cells, 2021, 232, 111336.	6.2	15
4	Experimental and theoretical coupled approaches for the analysis of radiative transfer in photoreactors containing particulate media: Case study of TiO2 powders for photocatalytic reactions. Chemical Engineering Science, 2021, 243, 116733.	3.8	6
5	Verification of optical modelling of sunshape and surface slope error for concentrating solar power systems. Solar Energy, 2020, 195, 461-474.	6.1	44
6	Performance enhancement of cavity receivers with spillage skirts and secondary reflectors in concentrated solar dish and tower systems. Solar Energy, 2020, 208, 708-727.	6.1	13
7	The impact of oxidation on the optical properties of Siâ€“SiC materials. Ceramics International, 2020, 46, 28536-28545.	4.8	8
8	Hybrid optical method for characterizing a heliostat field in a concentrated solar power plant. AIP Conference Proceedings, 2020, , .	0.4	0
9	Monte-Carlo and sensitivity transport models for domain deformation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 251, 107022.	2.3	7
10	Computation of canting errors in heliostats by flux map fitting: experimental assessment. Optics Express, 2020, 28, 39868.	3.4	6
11	A modified numerical integration method to calculate the view factor between finite and infinite cylinders in arbitrary array. Annals of Nuclear Energy, 2020, 142, 107358.	1.8	3
12	Sun backward gazing method for measuring optomechanical errors of solar concentrators: experimental results. Applied Optics, 2020, 59, 9861.	1.8	0
13	Influence of the porosity of SiC on its optical properties and oxidation kinetics. AIP Conference Proceedings, 2019, , .	0.4	2
14	Numerical demonstration of the volumetric effect in a high specific surface absorber with Kelvin cells. AIP Conference Proceedings, 2019, , .	0.4	3
15	CFD numerical model for open volumetric receivers with graded porosity dense wire meshes and experimental validation. AIP Conference Proceedings, 2019, , .	0.4	0
16	Homogeneous equivalent model coupled with P1-approximation for dense wire meshes volumetric air receivers. Renewable Energy, 2019, 135, 908-919.	8.9	18
17	Calculation of the orientational linear and nonlinear correlation factors of polar liquids from the rotational Dean-Kawasaki equation. Journal of Chemical Physics, 2018, 148, 044504.	3.0	13
18	Numerical determination of the heat transfer coefficient for volumetric air receivers with wire meshes. Solar Energy, 2018, 162, 317-329.	6.1	21

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19	Sun backward gazing method with multiple cameras for characterizing solar concentrators. Solar Energy, 2018, 166, 103-114.	6.1	4
20	Addressing nonlinearities in Monte Carlo. Scientific Reports, 2018, 8, 13302.	3.3	16
21	Numerical identification of mirror shapes with the backward-gazing method using an actual solar profile. AIP Conference Proceedings, 2018, , .	0.4	3
22	Determination of heliostat canting errors via deterministic optimization. Solar Energy, 2017, 150, 136-146.	6.1	13
23	Numerical simulation of convective heat transfer for inline and stagger stacked plain-weave wire mesh screens and comparison with a local thermal non-equilibrium model. AIP Conference Proceedings, 2017, , .	0.4	8
24	Backward-gazing method for heliostats shape errors measurement and calibration. AIP Conference Proceedings, 2017, , .	0.4	4
25	The impact of the oxidation on the optical properties of TaC. Solar Energy Materials and Solar Cells, 2017, 171, 16-23.	6.2	15
26	Backward-gazing method for measuring solar concentrators shape errors. Applied Optics, 2017, 56, 2029.	2.1	9
27	Tracking and shape errors measurement of concentrating heliostats. , 2017, , .		2
28	Experimental study of ceramic foams used as high temperature volumetric solar absorber. Solar Energy, 2016, 136, 226-235.	6.1	81
29	Tuning the spectral emittance of Î±-SiC open-cell foams up to 1300 K with their macro porosity. AIP Advances, 2016, 6, 065226.	1.3	6
30	Influence of receiver surface spectral selectivity on the solar-to-electric efficiency of a solar tower power plant. Solar Energy, 2016, 130, 60-73.	6.1	17
31	Representative elementary volumes required to characterize the normal spectral emittance of silicon carbide foams used as volumetric solar absorbers. International Journal of Heat and Mass Transfer, 2016, 93, 118-129.	4.8	33
32	Backward-gazing method for measuring heliostat shape errors. , 2016, , .		2
33	Improvement of Radiative Performances of High Temperature Solar Particle Receivers Using Coated Particles and Mixtures. Journal of Solar Energy Engineering, Transactions of the ASME, 2015, 137, .	1.8	1
34	Validation of a Monte Carlo Integral Formulation Applied to Solar Facility Simulations and Use of Sensitivities. Journal of Solar Energy Engineering, Transactions of the ASME, 2015, 137, .	1.8	20
35	EVOLUTION OF THE HOMOGENIZED VOLUMETRIC RADIATIVE PROPERTIES OF A FAMILY OF Î±-SiC FOAMS WITH GROWING NOMINAL PORE DIAMETER. Journal of Porous Media, 2015, 18, 1031-1045.	1.9	10
36	The promise and challenge of solar volumetric absorbers. Solar Energy, 2014, 110, 463-481.	6.1	115

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37	Monte Carlo advances and concentrated solar applications. Solar Energy, 2014, 103, 653-681.	6.1	81
38	Optimization of the optical particle properties for a high temperature solar particle receiver. Solar Energy, 2014, 99, 299-311.	6.1	15
39	A hybrid transport-diffusion model for radiative transfer in absorbing and scattering media. Journal of Computational Physics, 2014, 275, 346-362.	3.8	22
40	Effect of directional dependency of wall reflectivity and incident concentrated solar flux on the efficiency of a cavity solar receiver. Solar Energy, 2014, 109, 153-164.	6.1	15
41	Parametric Study of Volumetric Absorber Performance. Energy Procedia, 2014, 49, 408-417.	1.8	23
42	Optimization of High Temperature SiC Volumetric Solar Absorber. Energy Procedia, 2014, 49, 478-487.	1.8	33
43	Identification of the Radiative Properties of Î±-SiC Foams Realistically Designed With a Numerical Generator. , 2014, , .		2
44	Pressurized Carbon Dioxide as Heat Transfer Fluid: In uence of Radiation on Turbulent Flow Characteristics in Pipe. AIMS Energy, 2014, 2, 172-182.	1.9	7
45	Integral formulation of null-collision Monte Carlo algorithms. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 125, 57-68.	2.3	70
46	Prediction of the radiative properties of reconstructed alpha-SiC foams used for concentrated solar applications. Materials Research Society Symposia Proceedings, 2013, 1545, 1.	0.1	5
47	SOLFAST, a Ray-Tracing Monte-Carlo software for solar concentrating facilities. Journal of Physics: Conference Series, 2012, 369, 012029.	0.4	26
48	Twoâ€dimensional model of methane thermal decomposition reactors with radiative heat transfer and carbon particle growth. AICHE Journal, 2012, 58, 2545-2556.	3.6	13
49	Heat transfer simulation in a thermochemical solar reactor based on a volumetric porous receiver. Applied Thermal Engineering, 2011, 31, 3377-3386.	6.0	101
50	Numerical simulation of convective heat transfer between air flow and ceramic foams to optimise volumetric solar air receiver performances. International Journal of Heat and Mass Transfer, 2011, 54, 1527-1537.	4.8	231
51	Coupled radiation and flow modeling in ceramic foam volumetric solar air receivers. Solar Energy, 2011, 85, 2374-2385.	6.1	229
52	Experimental and numerical studies of the pressure drop in ceramic foams for volumetric solar receiver applications. Applied Energy, 2010, 87, 504-513.	10.1	195
53	Effects of non-gray thermal radiation on the heating of a methane laminar flow at high temperature. Fuel, 2009, 88, 617-624.	6.4	14
54	Parametric study of radiative heat transfer in participating gasâ€"solid flows. International Journal of Thermal Sciences, 2008, 47, 1413-1421.	4.9	10

#	Article	IF	Citations
55	Assessment of the Single-Mixture Gas Assumption for the Correlated K-Distribution Fictitious Gas Method in H2Oâ€"CO2â€"CO Mixture at High Temperature. Journal of Heat Transfer, 2008, 130, .	2.1	1
56	Remote sensing of high temperature H2Oâ€"CO2â€"CO mixture with a correlated k-distribution fictitious gas method and the single-mixture gas assumption. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 304-315.	2.3	23