

# Josã© Joaquim da Costa

## List of Publications by Year in descending order

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Version: 2024-02-01

88  
papers

2,619  
citations

236925

25  
h-index

197818

49  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2198  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of passive PCM latent heat thermal energy storage systems towards buildings' energy efficiency. <i>Energy and Buildings</i> , 2013, 59, 82-103.	6.7	785
2	Multi-dimensional optimization of the incorporation of PCM-drywalls in lightweight steel-framed residential buildings in different climates. <i>Energy and Buildings</i> , 2014, 70, 411-421.	6.7	132
3	Review and future trends of solar adsorption refrigeration systems. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 39, 102-123.	16.4	121
4	Energy efficiency and thermal performance of lightweight steel-framed (LSF) construction: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 78, 194-209.	16.4	92
5	Laboratory and in-situ non-destructive methods to evaluate the thermal transmittance and behavior of walls, windows, and construction elements with innovative materials: A review. <i>Energy and Buildings</i> , 2019, 182, 88-110.	6.7	80
6	Test of several versions for the $k\epsilon$ type turbulence modelling of internal mixed convection flows. <i>International Journal of Heat and Mass Transfer</i> , 1999, 42, 4391-4409.	4.8	74
7	Energy savings by aerodynamic sealing with a downward-blowing plane air curtain – A numerical approach. <i>Energy and Buildings</i> , 2006, 38, 1182-1193.	6.7	69
8	On the behaviour of hygroscopic wheels: Part I – channel modelling. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 4812-4822.	4.8	53
9	CFD modelling of aerodynamic sealing by vertical and horizontal air curtains. <i>Energy and Buildings</i> , 2012, 52, 153-160.	6.7	51
10	Experimental evaluation of the heat transfer through small PCM-based thermal energy storage units for building applications. <i>Energy and Buildings</i> , 2016, 116, 18-34.	6.7	49
11	Thermal transmittance effect on energy consumption of Mediterranean buildings with different thermal mass. <i>Applied Energy</i> , 2019, 252, 113437.	10.1	46
12	Analysis of Simplifying Assumptions for the Numerical Modeling of the Heat and Mass Transfer in a Porous Desiccant Medium. <i>Numerical Heat Transfer; Part A: Applications</i> , 2006, 49, 851-872.	2.1	38
13	Indoor air quality audit implementation in a hotel building in Portugal. <i>Building and Environment</i> , 2011, 46, 1617-1623.	6.9	38
14	Effectiveness parameters for the prediction of the global performance of desiccant wheels – An assessment based on experimental data. <i>Renewable Energy</i> , 2012, 38, 181-187.	8.9	38
15	Assessment of an earth-air heat exchanger (EAHE) system for residential buildings in warm-summer Mediterranean climate. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 38, 100649.	2.7	36
16	Experimental study of the heat transfer through a vertical stack of rectangular cavities filled with phase change materials. <i>Applied Energy</i> , 2015, 142, 192-205.	10.1	35
17	Thermal transmittance of lightweight steel framed walls: Experimental versus numerical and analytical approaches. <i>Journal of Building Engineering</i> , 2019, 25, 100776.	3.4	33
18	Advances in standalone and hybrid earth-air heat exchanger (EAHE) systems for buildings: A review. <i>Energy and Buildings</i> , 2021, 253, 111532.	6.7	33

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19	On the validity of lumped capacitance approaches for the numerical prediction of heat and mass transfer in desiccant airflow systems. <i>International Journal of Thermal Sciences</i> , 2008, 47, 282-292.	4.9	32
20	An integrated energy performance-driven generative design methodology to foster modular lightweight steel framed dwellings in hot climates. <i>Energy for Sustainable Development</i> , 2018, 44, 21-36.	4.5	32
21	On the behaviour of hygroscopic wheels: Part II – rotor performance. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 4823-4832.	4.8	31
22	On the Temperature Distribution Inside a Tree Under Fire Conditions. <i>International Journal of Wildland Fire</i> , 1991, 1, 87.	2.4	30
23	Experimental and mathematical study of the discontinuous drying kinetics of pears. <i>Journal of Food Engineering</i> , 2014, 134, 30-36.	5.2	29
24	A new approach to the effectiveness method for the simulation of desiccant wheels with variable inlet states and airflows rates. <i>Applied Thermal Engineering</i> , 2013, 58, 670-678.	6.0	28
25	Study of three-stage intermittent drying of pears considering shrinkage and variable diffusion coefficient. <i>Journal of Food Engineering</i> , 2016, 180, 77-86.	5.2	27
26	Influence of the design parameters on the overall performance of a solar adsorption refrigerator. <i>Renewable Energy</i> , 2016, 86, 238-250.	8.9	24
27	The impact of thermal transmittance variation on building design in the Mediterranean region. <i>Applied Energy</i> , 2019, 239, 581-597.	10.1	24
28	Low-pressure-vaporization of free water – Characterization of the boiling regimes. <i>International Journal of Thermal Sciences</i> , 2014, 77, 19-26.	4.9	23
29	Modelling and performance analysis of an earth-to-air heat exchanger in a pilot installation. <i>Journal of Building Physics</i> , 2018, 42, 259-287.	2.4	23
30	Performance-based design of multi-story buildings for a sustainable urban environment: A case study. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109243.	16.4	23
31	Parametric study on the performance of an air curtain based on CFD simulations - New proposal for automatic operation. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2019, 193, 103951.	3.9	23
32	Fatigue Crack Growth in Maraging Steel Obtained by Selective Laser Melting. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4412.	2.5	22
33	Numerical study of the influence of the atmospheric pressure on the heat and mass transfer rates of desiccant wheels. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 1331-1339.	4.8	21
34	Numerical evaluation of a phase change material “shutter” using solar energy for winter nighttime indoor heating. <i>Journal of Building Physics</i> , 2014, 37, 367-394.	2.4	21
35	Turbulent airflow in a room with a two-jet heating-ventilation system – a numerical parametric study. <i>Energy and Buildings</i> , 2000, 32, 327-343.	6.7	20
36	Thermal assessment of sublimation cooling with dry-ice sprays. <i>International Journal of Heat and Mass Transfer</i> , 2018, 118, 518-526.	4.8	19

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37	Can movable PCM-filled TES units be used to improve the performance of PV panels? Overview and experimental case-study. <i>Energy and Buildings</i> , 2020, 210, 109743.	6.7	19
38	On the use of infrared thermography in studies with air curtain devices. <i>Energy and Buildings</i> , 2006, 38, 1194-1199.	6.7	18
39	A mathematical model describing the two stages of low-pressure-vaporization of free water. <i>Journal of Food Engineering</i> , 2012, 112, 274-281.	5.2	18
40	A thermal energy storage system provided with an adsorption module – Dynamic modeling and viability study. <i>Energy Conversion and Management</i> , 2016, 126, 548-560.	9.2	18
41	Exponential correlations to predict the dependence of effectiveness parameters of a desiccant wheel on the airflow rates and on the rotation speed. <i>Applied Thermal Engineering</i> , 2013, 51, 442-450.	6.0	17
42	A systematic indoor air quality audit approach for public buildings. <i>Environmental Monitoring and Assessment</i> , 2013, 185, 865-875.	2.7	17
43	Study of the aerodynamic sealing of a cold store – Experimental and numerical approaches. <i>Energy and Buildings</i> , 2012, 55, 779-789.	6.7	16
44	Modeling and parametric analysis of an adsorber unit for thermal energy storage. <i>Energy</i> , 2016, 102, 83-94.	8.8	16
45	Validity of pseudo-gas-side-controlled models to predict the behaviour of desiccant matrices. <i>International Journal of Thermal Sciences</i> , 2009, 48, 2171-2178.	4.9	14
46	On aerodynamic sealing for industrial applications. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 1991, 37, 255-268.	3.9	12
47	Assessment of the indoor environmental conditions of a baroque library in Portugal. <i>Energy Procedia</i> , 2017, 133, 257-267.	1.8	12
48	The potential impact of low thermal transmittance construction on the European design guidelines of residential buildings. <i>Energy and Buildings</i> , 2018, 178, 379-390.	6.7	12
49	Numerical Study of the Cyclic Behavior of a Desiccant Layer of a Hygroscopic Rotor. <i>Numerical Heat Transfer; Part A: Applications</i> , 2008, 53, 1037-1053.	2.1	11
50	Influence of the atmospheric pressure on the mass transfer rate of desiccant wheels. <i>International Journal of Refrigeration</i> , 2011, 34, 707-718.	3.4	11
51	Effect of non-zero mean stress bending-torsion fatigue on fracture surface parameters of 34CrNiMo6 steel notched bars. <i>Production Engineering Archives</i> , 2020, 26, 167-173.	2.4	11
52	Experimental study of the low-pressure-vaporization of water in different porous media. <i>International Journal of Heat and Mass Transfer</i> , 2013, 65, 561-571.	4.8	10
53	Interpolation procedures for the effectiveness method to account for the influence of the inlet airflow states on the desiccant wheels performance. <i>Energy and Buildings</i> , 2012, 55, 380-388.	6.7	9
54	Optimization of a thermal energy storage system provided with an adsorption module – A GenOpt application in a TRNSYS/MATLAB model. <i>Energy Conversion and Management</i> , 2018, 162, 90-97.	9.2	9

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55	The contribution of ventilation on the energy performance of small residential buildings in the Mediterranean region. <i>Energy</i> , 2020, 191, 116577.	8.8	9
56	Experimental analysis of the use of wet porous media for thermal protection against high intensity heat fluxes. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 11-19.	4.8	8
57	Comparative assessment of the linear driving force and pseudo-gas-side-controlled models for the prediction of mass transfer in desiccant matrices. <i>Energy</i> , 2014, 75, 603-612.	8.8	8
58	A Discussion of Mixed Integer Linear Programming Models of Thermostatic Loads in Demand Response. <i>Trends in Mathematics</i> , 2020, , 105-122.	0.1	8
59	Parametric study of the cyclic behaviour of a hygroscopic matrix in a desiccant airflow system. <i>Heat and Mass Transfer</i> , 2011, 47, 1101-1112.	2.1	6
60	Correlations for the mass transfer coefficient in desiccant matrices when using linear driving force and pseudo-gas-side-controlled models. <i>Energy</i> , 2014, 75, 613-623.	8.8	6
61	Physical and experimental calibration of a mathematical model of the low-pressure-vaporization of free water. <i>Journal of Food Engineering</i> , 2014, 138, 23-34.	5.2	5
62	Simplified model of finned-tube heat exchangers based on the effectiveness method and calibrated with manufacturer and experimental data. <i>Applied Thermal Engineering</i> , 2017, 111, 340-352.	6.0	5
63	Effect of temperature on the thermal conductivity of a granite with high heat production from Central Portugal. <i>Journal of Iberian Geology</i> , 2019, 45, 147-161.	1.3	5
64	Analysis of the air infiltration through the doorway of a refrigerated room using different approaches. <i>Applied Thermal Engineering</i> , 2019, 159, 113927.	6.0	5
65	Estudo comparativo entre uma e duas doses efetivas (DE95) de rocurÃ©nio para a intubaÃ©o traqueal. <i>Revista Brasileira De Anestesiologia</i> , 2008, 58, 202-209.	0.6	4
66	Elastic correction of fatigue crack growth laws. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2019, 42, 1052-1061.	3.4	4
67	Increasing the efficiency of high temperature furnaces through a topping cycle cogenerationâ€”a case study. <i>Energy Efficiency</i> , 2015, 8, 85-95.	2.8	3
68	Indoor climate assessment: A case study at a business incubation centre. <i>Sustainable Cities and Society</i> , 2016, 26, 466-475.	10.4	3
69	Simplified component model of heating and dry-cooling coils: Influence of altitude and of glycol concentration in the heat transfer fluid on the error prediction of the heat transfer rate. <i>Journal of Building Engineering</i> , 2016, 6, 39-53.	3.4	3
70	Prevention of Initial Depressive Disorders Among at-Risk Portuguese Adolescents. <i>Behavior Therapy</i> , 2019, 50, 743-754.	2.4	3
71	Daylighting simulation of a heritage building by comparing matrix methods and solar models. <i>Solar Energy</i> , 2021, 224, 685-696.	6.1	3
72	Influence of Altitude on the Behavior of Solid Desiccant Dehumidification System. , 2014, , 85-107.		3

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73	Mixed numericalâ€œexperimental method for generation of energyâ€œlife fatigue master curves. Material Design and Processing Communications, 2019, 1, e37.	0.9	2
74	Effect of atomizer geometry on particle formation in dry-ice sprays. International Journal of Multiphase Flow, 2020, 130, 103358.	3.4	2
75	Barriers on Establishing Passive Strategies in Office Spaces: A Case Study in a Historic University Building. Sustainability, 2021, 13, 4563.	3.2	2
76	The importance of long-term hygrothermal assessment of museum spaces: method and application in a permanent exhibition in a historical building. Conservar Patrimonio, 2019, 30, 91-105.	0.4	2
77	A new wind direction-driven heat convection model is needed in dynamic simulation: What, why, and how. Energy and Buildings, 2022, 256, 111716.	6.7	2
78	Development, calibration and validation of a mathematical model for the low-pressure-vaporization of the water in porous media. International Journal of Heat and Mass Transfer, 2014, 73, 574-585.	4.8	1
79	Numerical recipes for successfully modeling the phase transitions in thermal energy storage adsorption systems. Energy Storage, 2019, 1, e42.	4.3	1
80	Performance Analysis of a Solar DHW System with Adsorption Module Operating in Different World Locations. Applied Sciences (Switzerland), 2019, 9, 5480.	2.5	1
81	Impact of Advances on Computing and Communication Systems in Automotive Testing. , 0, , 703-718.		1
82	Heat and Mass Transfer in Matrices of Hygroscopic Wheels. Advanced Structured Materials, 2012, , 245-263.	0.5	1
83	Effectiveness Parameters for the Heat and Mass Transfer in a Desiccant Wheel. Defect and Diffusion Forum, 0, 312-315, 205-210.	0.4	0
84	Characterising the Differences between the Adsorption and Desorption Processes in a Desiccant Layer by Detailed Numerical Modelling. Defect and Diffusion Forum, 2012, 326-328, 690-695.	0.4	0
85	Accuracy of simplified heating coil models based on manufacturer catalogue data. Thermal Science and Engineering Progress, 2017, 3, 10-23.	2.7	0
86	On the stress state transition in notched cracked plates under tension loading. Material Design and Processing Communications, 2019, 1, e85.	0.9	0
87	Uso da lidocaÃna tÃ³pica a 4% para terapia ocupacional em pacientes com sÃndrome dolorosa complexa regional: relato de casos. Revista Dor, 2012, 13, 291-294.	0.1	0
88	Application of dry-ice for transient spray cooling. , 0, , .		0