IvÃ¡n HernÃ¡ndez PÃ©rez

List of Publications by Year
in descending order

48 papers	1,055 citations	394421 19 h-index	434195 31 g-index
50 all docs	50 docs citations	50 times ranked	827 citing authors

#	Article	IF	Citations
1	Thermal performance of reflective materials applied to exterior building componentsâ€"A review. Energy and Buildings, 2014, 80, 81-105.	6.7	118
2	Numerical study of earth-to-air heat exchanger for three different climates. Energy and Buildings, 2014, 76, 238-248.	6.7	62
3	Experimental thermal evaluation of building roofs with conventional and reflective coatings. Energy and Buildings, 2018, 158, 569-579.	6.7	56
4	Numerical study of earth-to-air heat exchanger: The effect of thermal insulation. Energy and Buildings, 2014, 85, 356-361.	6.7	53
5	Thermal energy storage and losses in a room-Trombe wall system located in Mexico. Energy, 2016, 109, 512-524.	8.8	52
6	Test box experiment and simulations of a green-roof: Thermal and energy performance of a residential building standard for Mexico. Energy and Buildings, 2020, 209, 109709.	6.7	48
7	Ventilation potential of an absorber-partitioned air channel solar chimney for diurnal use under Mexican climate conditions. Applied Thermal Engineering, 2019, 149, 807-821.	6.0	43
8	Thermal evaluation of a Room coupled with a Double Glazing Window with/without a solar control film for Mexico. Applied Thermal Engineering, 2017, 110, 805-820.	6.0	42
9	Mathematical models of solar chimneys with a phase change material for ventilation of buildings: A review using global energy balance. Energy, 2019, 170, 683-708.	8.8	42
10	Solar chimneys with a phase change material for buildings: An overview using CFD and global energy balance. Energy and Buildings, 2019, 186, 384-404.	6.7	40
11	Thermal performance analysis of a roof with a PCM-layer under Mexican weather conditions. Renewable Energy, 2020, 149, 773-785.	8.9	40
12	Numerical study of the optimum width of 2a diurnal double air-channel solar chimney. Energy, 2018, 147, 403-417.	8.8	37
13	Effect of irrigation on the experimental thermal performance of a green roof in a semi-warm climate in Mexico. Energy and Buildings, 2017, 154, 232-243.	6.7	33
14	Thermal performance of a double pane window using glazing available on the Mexican market. Renewable Energy, 2015, 81, 785-794.	8.9	31
15	Pseudo transient numerical study of an earth-to-air heat exchanger for different climates of MÃ©xico. Energy and Buildings, 2015, 99, 273-283.	6.7	31
16	Experimental study of an earth to air heat exchanger (EAHE) for warm humid climatic conditions. Geothermics, 2020, 84, 101741.	3.4	31
17	Parametric analysis of the thermal behavior of a single-channel solar chimney. Solar Energy, 2020, 209, 602-617.	6.1	23
18	Thermal behavior of a phase change material in a building roof with and without reflective coating in a warm humid zone. Journal of Building Engineering, 2020, 32, 101648.	3.4	23

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19	Thermal performance of a double pane window with a solar control coating for warm climate of Mexico. Applied Thermal Engineering, 2016, 106, 257-265.	6.0	22
20	Computational fluid dynamics for thermal evaluation of a room with a double glazing window with a solar control film. Renewable Energy, 2016, 94, 237-250.	8.9	19
21	Thermal performance of a hollow block with/without insulating and reflective materials for roofing in Mexico. Applied Thermal Engineering, 2017, 123, 243-255.	6.0	18
22	Thermal Performance of a Concrete Cool Roof under Different Climatic Conditions of Mexico. Energy Procedia, 2014, 57, 1753-1762.	1.8	17
23	Multi-gene genetic programming for predicting the heat gain of flat naturally ventilated roof using data from outdoor environmental monitoring. Measurement: Journal of the International Measurement Confederation, 2019, 138, 106-117.	5.0	17
24	Thermal and Energy Evaluation of a Domestic Refrigerator under the Influence of the Thermal Load. Energies, 2019, 12, 400.	3.1	16
25	Thermal performance of a solar faÃ§ade system for building ventilation in the southeast of Mexico. Renewable Energy, 2020, 145, 294-307.	8.9	16
26	Coupling building energy simulation and computational fluid dynamics: An overview. Journal of Building Physics, 2020, 44, 137-180.	2.4	16
27	Computational fluid dynamics for modeling the turbulent natural convection in a double air-channel solar chimney system. International Journal of Modern Physics C, 2016, 27, 1650095.	1.7	11
28	Thermal potential of a geothermal earth-to-air heat exchanger in six climatic conditions of MÃ©xico. Mechanics and Industry, 2020, 21, 308.	1.3	11
29	Test box experiment to assess the impact of waterproofing materials on the energy gain of building roofs in Mexico. Energy, 2019, 186, 115847.	8.8	8
30	Influence of Traditional and Solar Reflective Coatings on the Heat Transfer of Building Roofs in Mexico. Applied Sciences (Switzerland), 2021, 11, 3263.	2.5	8
31	Unsteady-RANS simulation of conjugate heat transfer in a cavity with a vertical semitransparent wall. Computers and Fluids, 2015, 117, 183-195.	2.5	7
32	Experimental study of convective heat transfer in a ventilated rectangular cavity. Journal of Building Physics, 2018, 42, 388-415.	2.4	7
33	Assessment of Resource and Forecast Modeling of Wind Speed through An Evolutionary Programming Approach for the North of Tehuantepec Isthmus (Cuauhtemotzin, Mexico). Energies, 2018, 11, 3197.	3.1	6
34	Using Artificial Intelligence to Analyze the Thermal Behavior of Building Roofs. Journal of Energy Engineering - ASCE, 2020, 146, .	1.9	6
35	Empirical model of hygrothermal behavior of masonry wall under different climatic conditions using a hot box. Energy and Buildings, 2021, 249, 111209.	6.7	6
36	Annual thermal evaluation of a ventilated roof under warm weather conditions of Mexico. Energy, 2022, 246, 123412.	8.8	5

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37	Optical thickness effect on natural convection in a vertical channel containing a gray gas. International Journal of Heat and Mass Transfer, 2017, 107, 510-519.	4.8	4
38	Evaluation of the CPU time for solving the radiative transfer equation with high-order resolution schemes applying the normalized weighting-factor method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 208, 45-63.	2.3	4
39	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml203" display="inline" overflow="scroll" altimg="si3.gif"><mml:mi>X</mml:mi></mml:math>- factor: A modified relaxation factor to accelerate the convergence rate of the radiative transfer equation with high-order resolution schemes using the Normalized Weighting-Factor method. Computer Physics Communications, 2018, 231, 72-93.	7.5	4
40	Reflective Materials for Cost-Effective Energy-Efficient Retrofitting of Roofs. , 2017, , 119-139.		3
41	Computational Fluid Dynamics for Thermal Evaluation of Earth-to-Air Heat Exchanger for Different Climates of Mexico. , 2018, , 33-51.		3
42	Acceleration of the numerical solution for the radiative transfer equation using a modified relaxation factor. Engineering Computations, 2020, 37, 1823-1847.	1.4	3
43	Review on methodological and normative advances in assessment and estimation of wind energy. Energy and Environment, 2021, 32, 25-61.	4.6	3
44	Development of a solar calorimeter for the thermal evaluation of glazing samples. Journal of Building Physics, 2019, 42, 750-770.	2.4	2
45	Thermal evaluation of building roofs with conventional and reflective coatings. , 2021, , 247-273.		1
46	Numerical Study of the Distribution of Temperatures and Relative Humidity in a Ventilated Room Located in Warm Weather. CMES - Computer Modeling in Engineering and Sciences, 2020, 123, 571-602.	1.1	1
47	Numerical simulation of an instrument to determine the thermal conductivity of conductive solids. Mechanics and Industry, 2017, 18, 105.	1.3	0
48	Modeling the effect of roof coatings materials on the building thermal temperature variations based on an artificial intelligence. Journal of Physics: Conference Series, 2022, 2180, 012014.	0.4	0