

Chi-Ming Lai

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91
papers

1,303
citations

20
h-index

33
g-index

97
ext. papers

1,494
ext. citations

3.8
avg, IF

4.99
L-index

#	Paper	IF	Citations
91	A study on the comprehensive indicator of indoor environment assessment for occupants' health in Taiwan. <i>Building and Environment</i> , 2002 , 37, 387-392	6.5	109
90	Solar faades: A review. <i>Building and Environment</i> , 2015 , 91, 152-165	6.5	82
89	Thermal and electrical performance of a BIPV integrated with a microencapsulated phase change material layer. <i>Energy and Buildings</i> , 2012 , 50, 331-338	7	68
88	Thermal and electrical performance of a water-surface floating PV integrated with a water-saturated MEPCM layer. <i>Energy Conversion and Management</i> , 2015 , 89, 862-872	10.6	62
87	Thermal performance of Al ₂ O ₃ /water nanofluid in a natural circulation loop with a mini-channel heat sink and heat source. <i>Energy Conversion and Management</i> , 2014 , 87, 848-858	10.6	57
86	Heat transfer and thermal storage behaviour of gypsum boards incorporating micro-encapsulated PCM. <i>Energy and Buildings</i> , 2010 , 42, 1259-1266	7	54
85	Thermal performance of an aluminum honeycomb wallboard incorporating microencapsulated PCM. <i>Energy and Buildings</i> , 2014 , 73, 37-47	7	50
84	The influence of an architectural design alternative (transoms) on indoor air environment in conventional kitchens in Taiwan. <i>Building and Environment</i> , 2000 , 35, 579-585	6.5	45
83	Energy-Saving Potential of Building Envelope Designs in Residential Houses in Taiwan. <i>Energies</i> , 2011 , 4, 2061-2076	3.1	42
82	Combination of radio frequency identification (RFID) and field verification tests of interior decorating materials. <i>Automation in Construction</i> , 2008 , 18, 16-23	9.6	34
81	Performance assessment of a BIPV integrated with a layer of water-saturated MEPCM. <i>Energy and Buildings</i> , 2013 , 67, 322-333	7	33
80	Experiments on the ventilation efficiency of turbine ventilators used for building and factory ventilation. <i>Energy and Buildings</i> , 2003 , 35, 927-932	7	33
79	Prototype development of the rooftop turbine ventilator powered by hybrid wind and photovoltaic energy. <i>Energy and Buildings</i> , 2006 , 38, 174-180	7	29
78	Development and preliminary evaluation of double roof prototypes incorporating RBS (radiant barrier system). <i>Energy and Buildings</i> , 2008 , 40, 140-147	7	28
77	Thermal and electrical performances of a water-surface floating PV integrated with double water-saturated MEPCM layers. <i>Applied Thermal Engineering</i> , 2016 , 94, 122-132	5.8	26
76	Optimal spacing for double-skin roofs. <i>Building and Environment</i> , 2008 , 43, 1749-1754	6.5	25
75	Numerical Investigation of the Thermal Management Performance of MEPCM Modules for PV Applications. <i>Energies</i> , 2013 , 6, 3922-3936	3.1	24

74	Experimental investigation of the daily thermal performance of a mPCM honeycomb wallboard. <i>Energy and Buildings</i> , 2018 , 159, 419-425	7	24
73	Experimental investigation and numerical simulation of a furnished office fire. <i>Building and Environment</i> , 2010 , 45, 2735-2742	6.5	23
72	Wind Tunnel Studies of a Pedestrian-Level Wind Environment in a Street Canyon between a High-Rise Building with a Podium and Low-Level Attached Houses. <i>Energies</i> , 2015 , 8, 10942-10957	3.1	20
71	Thermal performance of water-based suspensions of phase change nanocapsules in a natural circulation loop with a mini-channel heat sink and heat source. <i>Applied Thermal Engineering</i> , 2014 , 64, 376-384	5.8	20
70	The Influence of Horizontal Longitudinal Vibrations and the Condensation Section Temperature on the Heat Transfer Performance of a Heat Pipe. <i>Heat Transfer Engineering</i> , 2013 , 34, 45-53	1.7	19
69	How phase change materials affect thermal performance: hollow bricks. <i>Building Research and Information</i> , 2006 , 34, 118-130	4.3	19
68	Potential of Offshore Wind Energy and Extreme Wind Speed Forecasting on the West Coast of Taiwan. <i>Energies</i> , 2015 , 8, 1685-1700	3.1	18
67	Technical assessment of the use of a small-scale wind power system to meet the demand for electricity in a land aquafarm in Taiwan. <i>Renewable Energy</i> , 2006 , 31, 877-892	8.1	15
66	The Effects of Envelope Design Alternatives on the Energy Consumption of Residential Houses in Indonesia. <i>Energies</i> , 2015 , 8, 2788-2802	3.1	14
65	Application of a water-saturated MEPCM-PV for reducing winter chilling damage on aqua farms. <i>Solar Energy</i> , 2014 , 108, 135-145	6.8	13
64	Analysis of the thermal stress and warpage induced by soldering in monocrystalline silicon cells. <i>Applied Thermal Engineering</i> , 2013 , 55, 7-16	5.8	13
63	Acoustical environment evaluation of Joint Classrooms for elementary schools in Taiwan. <i>Building and Environment</i> , 2008 , 43, 1619-1632	6.5	13
62	Effect of annealing temperature on the quality of Al-doped ZnO thin films prepared by sol-gel method. <i>Journal of Sol-Gel Science and Technology</i> , 2012 , 61, 249-257	2.3	12
61	Experimental Investigations on the Thermal Performance of the Ventilated BIPV Wall. <i>Journal of Applied Sciences</i> , 2015 , 15, 613-618	0.3	12
60	Experimental and numerical studies on the thermal performance of ventilated BIPV curtain walls. <i>Indoor and Built Environment</i> , 2017 , 26, 1243-1256	1.8	11
59	Thermal and electrical performance of a PV module integrated with double layers of water-saturated MEPCM. <i>Applied Thermal Engineering</i> , 2017 , 123, 1120-1133	5.8	11
58	Potential assessment of an innovative hybrid ventilator for building ventilation. <i>Journal of Mechanical Science and Technology</i> , 2010 , 24, 2341-2345	1.6	11
57	Thermal performance of an innovative curtain-wall-integrated solar heater. <i>Energy and Buildings</i> , 2014 , 77, 416-424	7	9

56	Energy Saving Evaluation of the Ventilated BIPV Walls. <i>Energies</i> , 2011 , 4, 948-959	3.1	9
55	Effects of a Green Space Layout on the Outdoor Thermal Environment at the Neighborhood Level. <i>Energies</i> , 2012 , 5, 3723-3735	3.1	9
54	Heat Transfer and Energy Performance of a PVA Wall Tile Containing Macro-Encapsulated PCM. <i>Energies</i> , 2016 , 9, 652	3.1	9
53	The effects of geometric parameters on the thermal performance of a rectangular natural circulation loop containing PCM suspensions. <i>Numerical Heat Transfer; Part A: Applications</i> , 2016 , 70, 1313-1329	2.3	9
52	Determinations of the fire smoke layer height in a naturally ventilated room. <i>Fire Safety Journal</i> , 2013 , 58, 1-14	3.3	8
51	The effects of cracks on the thermal stress induced by soldering in monocrystalline silicon cells. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2014 , 228, 127-135	1.5	8
50	The thermal evaluation of the substrate mixed with microencapsulated phase change materials for MEMS packaging applications. <i>Microsystem Technologies</i> , 2011 , 17, 693-699	1.7	8
49	Thermal Performance of Microencapsulated Phase Change Material (mPCM) in Roof Modules during Daily Operation. <i>Energies</i> , 2018 , 11, 679	3.1	8
48	Development and thermal performance of a wall heat collection prototype. <i>Building and Environment</i> , 2012 , 57, 156-164	6.5	7
47	Influence of fire source locations on the actuation of wet-type sprinklers in an office fire. <i>Building and Environment</i> , 2010 , 45, 107-114	6.5	7
46	Experimental and Numerical Investigation of a Room Fire in a Wooden-Frame Historical Building. <i>International Journal of Architectural Heritage</i> , 2020 , 14, 106-118	2.1	7
45	Thermal Performance of a Vertical U-Shaped Thermosyphon Containing a Phase-Change Material Suspension Fluid. <i>Energies</i> , 2017 , 10, 974	3.1	6
44	Energy Efficiency and Ventilation Performance of Ventilated BIPV Walls. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2011 , 5, 479-486	4.5	6
43	Dynamic response of a thermally activated paraffin actuator. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 103, 894-899	4.9	6
42	Transient characteristics of thermal energy storage in an enclosure packed with MEPCM particles. <i>Applied Thermal Engineering</i> , 2015 , 88, 47-53	5.8	5
41	Experimental Investigations of Fire Spread and Flashover Time in Office Fires. <i>Journal of Fire Sciences</i> , 2010 , 28, 279-302	1.5	5
40	Influence of fire ignition locations on the actuation of smoke detectors and wet-type sprinklers in a furnished office. <i>Building and Environment</i> , 2010 , 45, 1448-1457	6.5	5
39	Evaluation of Thermal Comfort and Contamination Control for a Cleanroom. <i>Journal of Applied Sciences</i> , 2008 , 8, 1684-1691	0.3	5

38	Numerical Simulation of the Thermal Performance of a Dry Storage Cask for Spent Nuclear Fuel. <i>Energies</i> , 2018 , 11, 149	3.1	5
37	Experimental Observation of Natural Convection Heat Transfer Performance of a Rectangular Thermosyphon. <i>Energies</i> , 2019 , 12, 1702	3.1	4
36	Natural Ventilation Effectiveness of Awning Windows in Restrooms in K-12 Public Schools. <i>Energies</i> , 2019 , 12, 2414	3.1	4
35	Building Energy and Children: Theme-oriented and Experience-based Course Development and Educational Effects. <i>Journal of Asian Architecture and Building Engineering</i> , 2012 , 11, 185-192	1	4
34	Urban Design with the Wind: Pedestrian-Level Wind Field in the Street Canyons Downstream of Parallel High-Rise Buildings. <i>Energies</i> , 2020 , 13, 2827	3.1	3
33	Natural Ventilation Effectiveness of Round Wall-Mounted Vent Caps in Residential Kitchens. <i>Energies</i> , 2018 , 11, 1230	3.1	3
32	Spatial performance to locate city fire stations. <i>Proceedings of the Institution of Civil Engineers: Municipal Engineer</i> , 2012 , 165, 19-29	0.5	3
31	Experimental Investigations of Fire Spread from Movable to Fixed Fire Loads in Office Fires. <i>Journal of Fire Sciences</i> , 2010 , 28, 539-559	1.5	3
30	Novel heat dissipation design for light emitting diode applications. <i>Microsystem Technologies</i> , 2010 , 16, 519-526	1.7	3
29	Heat Transfer by Natural Convection in a Square Enclosure Containing PCM Suspensions. <i>Energies</i> , 2021 , 14, 2857	3.1	3
28	Heat removal and hybrid ventilation characteristics of a vertical dry storage cask for spent nuclear fuel. <i>Nuclear Engineering and Design</i> , 2021 , 378, 111183	1.8	3
27	Thermal Characterization of a Heat Management Module Containing Microencapsulated Phase Change Material. <i>Energies</i> , 2019 , 12, 2164	3.1	2
26	The influence of longitudinal vibrations on the heat transfer performance of inclined heat pipes. <i>Advances in Mechanical Engineering</i> , 2015 , 7, 168781401556894	1.2	2
25	Thermal and Electrical Performance of a PV Module Integrated With Microencapsulated Phase Change Material 2013 ,		2
24	Novel heat dissipation design incorporating heat pipes for DC combiner boxes of a PV system. <i>Solar Energy</i> , 2011 , 85, 2053-2060	6.8	2
23	How a Natural Ventilation Shaft Affects Smoke Layer Descent in Room Fires. <i>Journal of Asian Architecture and Building Engineering</i> , 2012 , 11, 199-204	1	2
22	Conjugate Heat Transfer Analysis of PCM Suspensions in a Circular Tube under External Cooling Convection: Wall Conduction Effects. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 2034	2.6	2
21	Natural convection heat transfer in PCM suspensions in a square enclosure with bottom heating and top cooling. <i>Thermal Science and Engineering Progress</i> , 2021 , 25, 101037	3.6	2

20	Transient Heat Transfer Between Two Horizontal Pipelines in a Heat Tracing Enclosure. <i>Energies</i> , 2019 , 12, 1440	3.1	1
19	Cooling effects on the heat transfer characteristics of a rectangular thermosyphon with PCM suspension fluid. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 157, 119955	4.9	1
18	The Influence of High-Rise Buildings on Pedestrian-Level Wind in Surrounding Street Canyons in an Urban Renewal Project. <i>Energies</i> , 2020 , 13, 2745	3.1	1
17	Numerical simulation of the heat transfer characteristics of a U-shaped thermosyphon containing a PCM suspension. <i>Applied Thermal Engineering</i> , 2016 , 108, 1076-1085	5.8	1
16	Energy saving and thermal comfort performance of air conditioners incorporating distributed environmental sensing by wireless sensor network. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2016 , 230, 158-167	1.5	1
15	Experimental Investigation of an Office Fire with a Partially Impaired Sprinkler System. <i>Fire Technology</i> , 2010 , 46, 611-627	3	1
14	Ventilation pattern and heat dissipation characteristics of a vertical dry storage cask for spent nuclear fuel: Wind tunnel experiments and CFD simulations. <i>Annals of Nuclear Energy</i> , 2021 , 160, 108364 ¹⁻⁷	1.7	1
13	Effects of the Wall Properties on the Cooling Efficiency in a Thermosyphon Containing PCM Suspensions. <i>Energies</i> , 2021 , 14, 572	3.1	1
12	Alternative Layouts for Air Distribution Improvement of a Computing Data Center. <i>Advanced Materials Research</i> , 2013 , 677, 282-285	0.5	0
11	Effects of the Design Parameters of Ridge Vents on Induced Buoyancy-Driven Ventilation. <i>Buildings</i> , 2022 , 12, 112	3.2	0
10	Performance Assessment of Ventilated BIPV Roofs Collocating With Outdoor and Indoor Openings. <i>Journal of Applied Sciences</i> , 2008 , 8, 3572-3582	0.3	0
9	Effects of Wall Properties on Temperature-Control Effectiveness of Heating Section in a Thermosyphon Containing PCM Suspensions. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 6211	2.6	0
8	Effects of the Aspect Ratio of a Rectangular Thermosyphon on Its Thermal Performance. <i>Energies</i> , 2019 , 12, 4014	3.1	0
7	Survey and Experimental Investigation of Movable Fire Loads in Japanese-Style Wooden Historical Buildings. <i>International Journal of Architectural Heritage</i> , 2020 , 14, 931-942	2.1	0
6	Effects of Shear Tabs and High-Strength Bolts in Seismic Performance of Steel Moment Connections. <i>Buildings</i> , 2021 , 11, 415	3.2	0
5	Thermal Performance of an Indoor Oblong LED Lighting Prototype Incorporating Heat Pipes. <i>Journal of Asian Architecture and Building Engineering</i> , 2009 , 8, 585-592	1	
4	Analysis of an Agricultural Transformation Prototype (ATP) for Raising Rural Area's Superiority in Taiwan. <i>International Journal of Rural Management</i> , 2008 , 4, 103-127	0.7	
3	Spatial Recognition Performance of RFID Tags Integrated With Interior Decorating Panels. <i>Journal of Applied Sciences</i> , 2014 , 14, 2871-2881	0.3	

- 2 Conjugate heat transfer analysis of PCM suspensions in a circular pipe subjected to external cooling convection: Parameter effects. *International Journal of Heat and Mass Transfer*, **2020**, 162, 120369 4.9
- 1 Oscillatory natural convection in a square enclosure containing a PCM suspension. *International Journal of Thermal Sciences*, **2022**, 179, 107600 4.1