Chi-Ming Lai

List of Publications by Year in Descending Order

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	Effects of the Design Parameters of Ridge Vents on Induced Buoyancy-Driven Ventilation. *Buildings*, **2022**, 12, 112	3.2	0
90	Oscillatory natural convection in a square enclosure containing a PCM suspension. *International Journal of Thermal Sciences*, **2022**, 179, 107600	4.1	
89	Heat Transfer by Natural Convection in a Square Enclosure Containing PCM Suspensions. *Energies*, **2021**, 14, 2857	3.1	3
88	Heat removal and hybrid ventilation characteristics of a vertical dry storage cask for spent nuclear fuel. *Nuclear Engineering and Design*, **2021**, 378, 111183	1.8	3
87	Ventilation pattern and heat dissipation characteristics of a vertical dry storage cask for spent nuclear fuel: Wind tunnel experiments and CFD simulations. *Annals of Nuclear Energy*, **2021**, 160, 108364	1.7	1
86	Effects of Shear Tabs and High-Strength Bolts in Seismic Performance of Steel Moment Connections. *Buildings*, **2021**, 11, 415	3.2	0
85	Natural convection heat transfer in PCM suspensions in a square enclosure with bottom heating and top cooling. *Thermal Science and Engineering Progress*, **2021**, 25, 101037	3.6	2
84	Effects of the Wall Properties on the Cooling Efficiency in a Thermosyphon Containing PCM Suspensions. *Energies*, **2021**, 14, 572	3.1	1
83	Cooling effects on the heat transfer characteristics of a rectangular thermosyphon with PCM suspension fluid. *International Journal of Heat and Mass Transfer*, **2020**, 157, 119955	4.9	1
82	Urban Design with the Wind: Pedestrian-Level Wind Field in the Street Canyons Downstream of Parallel High-Rise Buildings. *Energies*, **2020**, 13, 2827	3.1	3
81	The Influence of High-Rise Buildings on Pedestrian-Level Wind in Surrounding Street Canyons in an Urban Renewal Project. *Energies*, **2020**, 13, 2745	3.1	1
80	Effects of Wall Properties on Temperature-Control Effectiveness of Heating Section in a Thermosiphon Containing PCM Suspensions. *Applied Sciences (Switzerland)*, **2020**, 10, 6211	2.6	0
79	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	
78	Experimental and Numerical Investigation of a Room Fire in a Wooden-Frame Historical Building. *International Journal of Architectural Heritage*, **2020**, 14, 106-118	2.1	7
77	Survey and Experimental Investigation of Movable Fire Loads in Japanese-Style Wooden Historical Buildings. *International Journal of Architectural Heritage*, **2020**, 14, 931-942	2.1	0
76	Conjugate Heat Transfer Analysis of PCM Suspensions in a Circular Tube under External Cooling Convection: Wall Conduction Effects. *Applied Sciences (Switzerland)*, **2020**, 10, 2034	2.6	2
75	Transient Heat Transfer Between Two Horizontal Pipelines in a Heat Tracing Enclosure. *Energies*, **2019**, 12, 1440	3.1	1

74	Thermal Characterization of a Heat Management Module Containing Microencapsulated Phase Change Material. *Energies*, **2019**, 12, 2164	3.1	2
73	Experimental Observation of Natural Convection Heat Transfer Performance of a Rectangular Thermosyphon. *Energies*, **2019**, 12, 1702	3.1	4
72	Natural Ventilation Effectiveness of Awning Windows in Restrooms in K-12 Public Schools. *Energies*, **2019**, 12, 2414	3.1	4
71	Effects of the Aspect Ratio of a Rectangular Thermosyphon on Its Thermal Performance. *Energies*, **2019**, 12, 4014	3.1	0
70	Natural Ventilation Effectiveness of Round Wall-Mounted Vent Caps in Residential Kitchens. *Energies*, **2018**, 11, 1230	3.1	3
69	Experimental investigation of the daily thermal performance of a mPCM honeycomb wallboard. *Energy and Buildings*, **2018**, 159, 419-425	7	24
68	Thermal Performance of Microencapsulated Phase Change Material (mPCM) in Roof Modules during Daily Operation. *Energies*, **2018**, 11, 679	3.1	8
67	Numerical Simulation of the Thermal Performance of a Dry Storage Cask for Spent Nuclear Fuel. *Energies*, **2018**, 11, 149	3.1	5
66	Experimental and numerical studies on the thermal performance of ventilated BIPV curtain walls. *Indoor and Built Environment*, **2017**, 26, 1243-1256	1.8	11
65	Thermal and electrical performance of a PV module integrated with double layers of water-saturated MEPCM. *Applied Thermal Engineering*, **2017**, 123, 1120-1133	5.8	11
64	Thermal Performance of a Vertical U-Shaped Thermosyphon Containing a Phase-Change Material Suspension Fluid. *Energies*, **2017**, 10, 974	3.1	6
63	Numerical simulation of the heat transfer characteristics of a U-shaped thermosyphon containing a PCM suspension. *Applied Thermal Engineering*, **2016**, 108, 1076-1085	5.8	1
62	Thermal and electrical performances of a water-surface floating PV integrated with double water-saturated MEPCM layers. *Applied Thermal Engineering*, **2016**, 94, 122-132	5.8	26
61	Energy saving and thermal comfort performance of air conditioners incorporating distributed environmental sensing by wireless sensor network. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, **2016**, 230, 158-167	1.5	1
60	Heat Transfer and Energy Performance of a PVA Wall Tile Containing Macro-Encapsulated PCM. *Energies*, **2016**, 9, 652	3.1	9
59	The effects of geometric parameters on the thermal performance of a rectangular natural circulation loop containing PCM suspensions. *Numerical Heat Transfer; Part A: Applications*, **2016**, 70, 1313-1329	2.3	9
58	Dynamic response of a thermally activated paraffin actuator. *International Journal of Heat and Mass Transfer*, **2016**, 103, 894-899	4.9	6
57	The Effects of Envelope Design Alternatives on the Energy Consumption of Residential Houses in Indonesia. *Energies*, **2015**, 8, 2788-2802	3.1	14

56	Potential of Offshore Wind Energy and Extreme Wind Speed Forecasting on the West Coast of Taiwan. *Energies*, **2015**, 8, 1685-1700	3.1	18
55	Thermal and electrical performance of a water-surface floating PV integrated with a water-saturated MEPCM layer. *Energy Conversion and Management*, **2015**, 89, 862-872	10.6	62
54	Transient characteristics of thermal energy storage in an enclosure packed with MEPCM particles. *Applied Thermal Engineering*, **2015**, 88, 47-53	5.8	5
53	The influence of longitudinal vibrations on the heat transfer performance of inclined heat pipes. *Advances in Mechanical Engineering*, **2015**, 7, 168781401556894	1.2	2
52	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. *Energies*, **2015**, 8, 10942-10957	3.1	20
51	Solar fa□des: A review. *Building and Environment*, **2015**, 91, 152-165	6.5	82
50	Experimental Investigations on the Thermal Performance of the Ventilated BIPV Wall. *Journal of Applied Sciences*, **2015**, 15, 613-618	0.3	12
49	Thermal performance of an innovative curtain-wall-integrated solar heater. *Energy and Buildings*, **2014**, 77, 416-424	7	9
48	Thermal performance of an aluminum honeycomb wallboard incorporating microencapsulated PCM. *Energy and Buildings*, **2014**, 73, 37-47	7	50
47	Application of a water-saturated MEPCM-PV for reducing winter chilling damage on aqua farms. *Solar Energy*, **2014**, 108, 135-145	6.8	13
46	Thermal performance of Al 2 O 3 /water nanofluid in a natural circulation loop with a mini-channel heat sink and heat source. *Energy Conversion and Management*, **2014**, 87, 848-858	10.6	57
45	The effects of cracks on the thermal stress induced by soldering in monocrystalline silicon cells. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, **2014**, 228, 127-135	1.5	8
44	Thermal performance of water-based suspensions of phase change nanocapsules in a natural circulation loop with a mini-channel heat sink and heat source. *Applied Thermal Engineering*, **2014**, 64, 376-384	5.8	20
43	Spatial Recognition Performance of RFID Tags Integrated With Interior Decorating Panels. *Journal of Applied Sciences*, **2014**, 14, 2871-2881	0.3	
42	Performance assessment of a BIPV integrated with a layer of water-saturated MEPCM. *Energy and Buildings*, **2013**, 67, 322-333	7	33
41	Determinations of the fire smoke layer height in a naturally ventilated room. *Fire Safety Journal*, **2013**, 58, 1-14	3.3	8
40	Analysis of the thermal stress and warpage induced by soldering in monocrystalline silicon cells. *Applied Thermal Engineering*, **2013**, 55, 7-16	5.8	13
39	Alternative Layouts for Air Distribution Improvement of a Computing Data Center. *Advanced Materials Research*, **2013**, 677, 282-285	0.5	0

38	Numerical Investigation of the Thermal Management Performance of MEPCM Modules for PV Applications. *Energies*, **2013**, 6, 3922-3936	3.1	24
37	The Influence of Horizontal Longitudinal Vibrations and the Condensation Section Temperature on the Heat Transfer Performance of a Heat Pipe. *Heat Transfer Engineering*, **2013**, 34, 45-53	1.7	19
36	Thermal and Electrical Performance of a PV Module Integrated With Microencapsulated Phase Change Material **2013**,		2
35	Effect of annealing temperature on the quality of Al-doped ZnO thin films prepared by sol–gel method. *Journal of Sol-Gel Science and Technology*, **2012**, 61, 249-257	2.3	12
34	Spatial performance to locate city fire stations. *Proceedings of the Institution of Civil Engineers: Municipal Engineer*, **2012**, 165, 19-29	0.5	3
33	Development and thermal performance of a wall heat collection prototype. *Building and Environment*, **2012**, 57, 156-164	6.5	7
32	Thermal and electrical performance of a BIPV integrated with a microencapsulated phase change material layer. *Energy and Buildings*, **2012**, 50, 331-338	7	68
31	Effects of a Green Space Layout on the Outdoor Thermal Environment at the Neighborhood Level. *Energies*, **2012**, 5, 3723-3735	3.1	9
30	Building Energy and Children: Theme-oriented and Experience-based Course Development and Educational Effects. *Journal of Asian Architecture and Building Engineering*, **2012**, 11, 185-192	1	4
29	How a Natural Ventilation Shaft Affects Smoke Layer Descent in Room Fires. *Journal of Asian Architecture and Building Engineering*, **2012**, 11, 199-204	1	2
28	Energy Saving Evaluation of the Ventilated BIPV Walls. *Energies*, **2011**, 4, 948-959	3.1	9
27	The thermal evaluation of the substrate mixed with microencapsulated phase change materials for MEMS packaging applications. *Microsystem Technologies*, **2011**, 17, 693-699	1.7	8
26	Novel heat dissipation design incorporating heat pipes for DC combiner boxes of a PV system. *Solar Energy*, **2011**, 85, 2053-2060	6.8	2
25	Energy Efficiency and Ventilation Performance of Ventilated BIPV Walls. *Engineering Applications of Computational Fluid Mechanics*, **2011**, 5, 479-486	4.5	6
24	Energy-Saving Potential of Building Envelope Designs in Residential Houses in Taiwan. *Energies*, **2011**, 4, 2061-2076	3.1	42
23	Experimental Investigations of Fire Spread from Movable to Fixed Fire Loads in Office Fires. *Journal of Fire Sciences*, **2010**, 28, 539-559	1.5	3
22	Experimental Investigations of Fire Spread and Flashover Time in Office Fires. *Journal of Fire Sciences*, **2010**, 28, 279-302	1.5	5
21	Novel heat dissipation design for light emitting diode applications. *Microsystem Technologies*, **2010**, 16, 519-526	1.7	3

20	Potential assessment of an innovative hybrid ventilator for building ventilation. *Journal of Mechanical Science and Technology*, **2010**, 24, 2341-2345	1.6	11
19	Experimental Investigation of an Office Fire with a Partially Impaired Sprinkler System. *Fire Technology*, **2010**, 46, 611-627	3	1
18	Heat transfer and thermal storage behaviour of gypsum boards incorporating micro-encapsulated PCM. *Energy and Buildings*, **2010**, 42, 1259-1266	7	54
17	Influence of fire source locations on the actuation of wet-type sprinklers in an office fire. *Building and Environment*, **2010**, 45, 107-114	6.5	7
16	Influence of fire ignition locations on the actuation of smoke detectors and wet-type sprinklers in a furnished office. *Building and Environment*, **2010**, 45, 1448-1457	6.5	5
15	Experimental investigation and numerical simulation of a furnished office fire. *Building and Environment*, **2010**, 45, 2735-2742	6.5	23
14	Thermal Performance of an Indoor Oblong LED Lighting Prototype Incorporating Heat Pipes. *Journal of Asian Architecture and Building Engineering*, **2009**, 8, 585-592	1	
13	Analysis of an Agricultural Transformation Prototype (ATP) for Raising Rural Area's Superiority in Taiwan. *International Journal of Rural Management*, **2008**, 4, 103-127	0.7	
12	Acoustical environment evaluation of Joint Classrooms for elementary schools in Taiwan. *Building and Environment*, **2008**, 43, 1619-1632	6.5	13
11	Combination of radio frequency identification (RFID) and field verification tests of interior decorating materials. *Automation in Construction*, **2008**, 18, 16-23	9.6	34
10	Optimal spacing for double-skin roofs. *Building and Environment*, **2008**, 43, 1749-1754	6.5	25
9	Development and preliminary evaluation of double roof prototypes incorporating RBS (radiant barrier system). *Energy and Buildings*, **2008**, 40, 140-147	7	28
8	Evaluation of Thermal Comfort and Contamination Control for a Cleanroom. *Journal of Applied Sciences*, **2008**, 8, 1684-1691	0.3	5
7	Performance Assessment of Ventilated BIPV Roofs Collocating With Outdoor and Indoor Openings. *Journal of Applied Sciences*, **2008**, 8, 3572-3582	0.3	0
6	Technical assessment of the use of a small-scale wind power system to meet the demand for electricity in a land aquafarm in Taiwan. *Renewable Energy*, **2006**, 31, 877-892	8.1	15
5	How phase change materials affect thermal performance: hollow bricks. *Building Research and Information*, **2006**, 34, 118-130	4.3	19
4	Prototype development of the rooftop turbine ventilator powered by hybrid wind and photovoltaic energy. *Energy and Buildings*, **2006**, 38, 174-180	7	29
3	Experiments on the ventilation efficiency of turbine ventilators used for building and factory ventilation. *Energy and Buildings*, **2003**, 35, 927-932	7	33

2	A study on the comprehensive indicator of indoor environment assessment for occupants health in Taiwan. *Building and Environment*, **2002**, 37, 387-392	6.5	109
1	The influence of an architectural design alternative (transoms) on indoor air environment in conventional kitchens in Taiwan. *Building and Environment*, **2000**, 35, 579-585	6.5	45