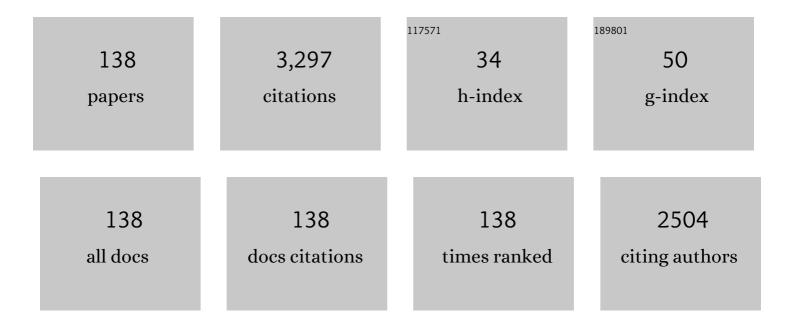
Teck Neng Wong

List of Publications by Year in descending order

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TECK NENC WONC

#	Article	IF	CITATIONS
1	Experimental Study of Flow Boiling and Condensation in Tubes with Pin-Fin and Metallic Foam Structures. Heat Transfer Engineering, 2022, 43, 991-1007.	1.2	2
2	Two-phase spray cooling for high ambient temperature data centers: Evaluation of system performance. Applied Energy, 2022, 305, 117816.	5.1	36
3	Experimental study on heat transfer enhancement using combined surface roughening and macro-structures in a confined double-nozzle spray cooling system. Applied Thermal Engineering, 2022, 202, 117850.	3.0	16
4	Tunable and Robust Nanostructuring for Multifunctional Metal Additively Manufactured Interfaces. Nano Letters, 2022, 22, 2650-2659.	4.5	10
5	Dynamics of alternating current electric field assisted Nonâ€Newtonian droplet formation with geometry confinement. Electrophoresis, 2022, , .	1.3	Ο
6	Comprehensive investigations on printability and thermal performance of cementitious material incorporated with PCM under various conditions. Energy Conversion and Management, 2022, 261, 115667.	4.4	9
7	Ultrascalable Surface Structuring Strategy of Metal Additively Manufactured Materials for Enhanced Condensation. Advanced Science, 2022, 9, .	5.6	8
8	Critical conditions for organic thread cutting under electric fields. Soft Matter, 2021, 17, 2913-2919.	1.2	2
9	Synchronized concrete and bonding agent deposition system for interlayer bond strength enhancement in 3D concrete printing. Automation in Construction, 2021, 123, 103546.	4.8	26
10	Effect of printing parameters on material distribution in spray-based 3D concrete printing (S-3DCP). Automation in Construction, 2021, 124, 103570.	4.8	27
11	Comparative study on the enhancement of spray cooling heat transfer using conventional and bio-surfactants. Applied Thermal Engineering, 2021, 194, 117047.	3.0	19
12	Non-monotonic dependence of induced-charge electro-osmosis on ion concentration. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 622, 126604.	2.3	3
13	Influence of air on heat transfer of a closed-loop spray cooling system. Experimental Thermal and Fluid Science, 2020, 111, 109903.	1.5	18
14	Laminar film condensation inside and outside vertical diverging/converging small channels: A theoretical study. International Journal of Heat and Mass Transfer, 2020, 149, 119193.	2.5	12
15	Convective filmwise condensation on the outer surface of a vertical tube: A theoretical analysis. International Journal of Heat and Mass Transfer, 2020, 161, 120266.	2.5	6
16	Study of MgO-activated slag as a cementless material for sustainable spray-based 3D printing. Journal of Cleaner Production, 2020, 258, 120671.	4.6	36
17	Enabling seamless investigation of fast and complex flow fields in microfluidics via metal lead halide perovskite based micro-particles. Applied Materials Today, 2020, 20, 100736.	2.3	0
18	Improving surface finish quality in extrusion-based 3D concrete printing using machine learning-based extrudate geometry control. Virtual and Physical Prototyping, 2020, 15, 178-193.	5.3	46

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19	Dynamics of droplet in flow-focusing microchannel under AC electric fields. International Journal of Multiphase Flow, 2020, 125, 103212.	1.6	9
20	Rotation nozzle and numerical simulation of mass distribution at corners in 3D cementitious material printing. Additive Manufacturing, 2020, 34, 101190.	1.7	9
21	Modelling and parameter optimization for filament deformation in 3D cementitious material printing using support vector machine. Composites Part B: Engineering, 2020, 193, 108018.	5.9	36
22	Recent advancement in induced-charge electrokinetic phenomena and their micro- and nano-fluidic applications. Advances in Colloid and Interface Science, 2020, 280, 102159.	7.0	21
23	Comparative economic, environmental and productivity assessment of a concrete bathroom unit fabricated through 3D printing and a precast approach. Journal of Cleaner Production, 2020, 261, 121245.	4.6	116
24	Net fluid flow and non-Newtonian effect in induced-charge electro-osmosis of polyelectrolyte solutions. Physical Review E, 2019, 100, 013105.	0.8	11
25	Numerical investigation on the heat transfer characteristics of liquid-liquid plug-train in microchannels. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107592.	1.8	1
26	Rapid Synthesis of Sulfur Nanodots by One-Step Hydrothermal Reaction for Luminescence-Based Applications. ACS Applied Nano Materials, 2019, 2, 6622-6628.	2.4	76
27	Electric Scissors for Precise Generation of Organic Droplets in Microfluidics: A Universal Approach that Goes beyond Surface Wettability. Journal of Physical Chemistry C, 2019, 123, 25643-25650.	1.5	11
28	Precise morphology control and fast merging of a complex multi-emulsion system: the effects of AC electric fields. Soft Matter, 2019, 15, 5614-5625.	1.2	10
29	Investigation of heat transfer in a microchannel with same heat capacity rate. Heat and Mass Transfer, 2019, 55, 899-909.	1.2	2
30	Slow viscous flow of two porous spherical particles translating along the axis of a cylinder. Journal of Fluid Mechanics, 2019, 861, 643-678.	1.4	4
31	Filmwise condensation of steam on sinusoidal pin fin arrays: Effects of fin height and fin pitch. International Journal of Heat and Mass Transfer, 2019, 130, 1004-1015.	2.5	19
32	Experimental and numerical investigation on a simple droplet coalescence design in microchannels. Heat and Mass Transfer, 2019, 55, 1553-1562.	1.2	3
33	Mixture Design Approach to optimize the rheological properties of the material used in 3D cementitious material printing. Construction and Building Materials, 2019, 198, 245-255.	3.2	102
34	Magnetic Nanorobots, Generating Vortexes Inside Nanoliter Droplets for Effective Mixing. Advanced Materials Technologies, 2018, 3, 1700312.	3.0	32
35	Absolute instability induced by Marangoni effect in thin liquid film flows on vertical cylindrical surfaces. Chemical Engineering Science, 2018, 177, 261-269.	1.9	26
36	The Effects of Oil Property and Inclination Angle on Oil–Water Core Annular Flow Through U-Bends. Heat Transfer Engineering, 2018, 39, 536-548.	1.2	8

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37	Simulation of non-Newtonian oil-water core annular flow through return bends. Heat and Mass Transfer, 2018, 54, 37-48.	1.2	10
38	Spray cooling enhancement studies using dielectric liquid. , 2018, , .		1
39	Towards Additive Manufacturing: Pumping Flow Rate with Time-Dependent Material Rheology in 3D Cementitious Material Printing. Materials Science Forum, 2018, 941, 2131-2136.	0.3	1
40	Induced-charge electro-osmosis in dielectric annuli. Applied Mathematics and Computation, 2018, 333, 133-144.	1.4	5
41	Condensation heat transfer and pressure drop characteristics of R-134a in horizontal smooth tubes and enhanced tubes fabricated by selective laser melting. International Journal of Heat and Mass Transfer, 2018, 126, 949-962.	2.5	23
42	Three-dimensional dynamics of thin liquid films on vertical cylinders with Marangoni effect. Physics of Fluids, 2017, 29, .	1.6	43
43	Convective heat transfer performance of airfoil heat sinks fabricated by selective laser melting. International Journal of Thermal Sciences, 2017, 114, 213-228.	2.6	69
44	Electrolyte effect in induced charge electroosmosis. Soft Matter, 2017, 13, 4864-4870.	1.2	22
45	A simple method for the formation of water-in-oil-in-water (W/O/W) double emulsions. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	16
46	Electrophoresis of a Cylinder in a Cylindrical Tube. Communications in Computational Physics, 2017, 22, 1101-1122.	0.7	1
47	Slow viscous flow around two particles in a cylinder. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	5
48	Numerical analysis of different fluted fins for condensation on a vertical tube. International Journal of Thermal Sciences, 2017, 122, 359-370.	2.6	19
49	Pressure drop, void fraction and wave behavior in two-phase non-Newtonian churn flow. Chemical Engineering Science, 2017, 174, 82-92.	1.9	6
50	Fast Dynamic Visualizations in Microfluidics Enabled by Fluorescent Carbon Nanodots. Small, 2017, 13, 1700869.	5.2	14
51	AC electric field controlled non-Newtonian filament thinning and droplet formation on the microscale. Lab on A Chip, 2017, 17, 2969-2981.	3.1	30
52	Self-trapped exciton emission from carbon dots investigated by polarization anisotropy of photoluminescence and photoexcitation. Nanoscale, 2017, 9, 12637-12646.	2.8	49
53	Chaotic micromixer utilizing electro-osmosis and induced charge electro-osmosis in eccentric annulus. Physics of Fluids, 2016, 28, .	1.6	32
54	Modelling on the dynamics of droplet impingement and bubble boiling in spray cooling. International Journal of Thermal Sciences, 2016, 104, 469-479.	2.6	15

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55	Fabrication of heat sinks by Selective Laser Melting for convective heat transfer applications. Virtual and Physical Prototyping, 2016, 11, 159-165.	5.3	56
56	Pair interactions between conducting and non-conducting cylinders under uniform electric field. Chemical Engineering Science, 2016, 142, 12-22.	1.9	10
57	Induced charge electrophoresis of a conducting cylinder in a nonconducting cylindrical pore and its micromotoring application. Physical Review Fluids, 2016, 1, .	1.0	13
58	10.1063/1.4952971.1., 2016, , .		0
59	Electric Field Enhances Mixing in Micro Circular Pipes. Procedia Engineering, 2015, 126, 39-43.	1.2	Ο
60	Falling liquid films on a slippery substrate with Marangoni effects. International Journal of Heat and Mass Transfer, 2015, 90, 689-701.	2.5	32
61	Pair interactions in induced charge electrophoresis of conducting cylinders. International Journal of Heat and Mass Transfer, 2015, 88, 674-683.	2.5	15
62	Electrohydrodynamic instability of miscible core–annular flows with electrical conductivity stratification. Journal of Fluid Mechanics, 2015, 764, 488-512.	1.4	4
63	Three dimensional features of convective heat transfer in droplet-based microchannel heat sinks. International Journal of Heat and Mass Transfer, 2015, 86, 455-464.	2.5	34
64	Acoustofluidic control of bubble size in microfluidic flow-focusing configuration. Lab on A Chip, 2015, 15, 996-999.	3.1	33
65	Low-frequency acoustic atomization with oscillatory flow around micropillars in a microfluidic device. Applied Physics Letters, 2014, 105, .	1.5	4
66	Electrohydrodynamic instability in an annular liquid layer with radial conductivity gradients. Physical Review E, 2014, 89, 033010.	0.8	7
67	Dynamics of liquid films on vertical fibres in a radial electric field. Journal of Fluid Mechanics, 2014, 752, 66-89.	1.4	19
68	Flow Bifurcation in Microchannel. , 2014, , 1-13.		0
69	Two immiscible layers of electro-osmotic driven flow with a layer of conducting non-Newtonian fluid. International Journal of Heat and Mass Transfer, 2014, 74, 368-375.	2.5	41
70	Non-Newtonian two-phase stratified flow with curved interface through horizontal and inclined pipes. International Journal of Heat and Mass Transfer, 2014, 74, 113-120.	2.5	10
71	Thermal effects on a pressure swirl nozzle in spray cooling. International Journal of Heat and Mass Transfer, 2014, 73, 130-140.	2.5	39
72	Multi-nozzle array spray cooling for large area high power devices in a closed loop system. International Journal of Heat and Mass Transfer, 2014, 78, 1177-1186.	2.5	41

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73	Droplet manipulation in a microfluidic chamber with acoustic radiation pressure and acoustic streaming. Soft Matter, 2014, 10, 8122-8132.	1.2	22
74	Asymmetric heat transfer in liquid–liquid segmented flow in microchannels. International Journal of Heat and Mass Transfer, 2014, 77, 385-394.	2.5	4
75	Numerical Simulation of Unidirectional Stratified Flow by Moving Particle Semi Implicit Method. Communications in Computational Physics, 2014, 15, 756-775.	0.7	0
76	Non-Newtonian Liquid-Gas Non-Uniform Stratified Flow With Interfacial Level Gradient Through Horizontal Tubes. Journal of Fluids Engineering, Transactions of the ASME, 2014, 136, .	0.8	1
77	Electrokinetic Two-Phase Flows. , 2014, , 1-12.		0
78	Large area impingement spray cooling from multiple normal and inclined spray nozzles. Heat and Mass Transfer, 2013, 49, 985-990.	1.2	16
79	Multi-nozzle spray cooling for high heat flux applications in a closed loop system. Applied Thermal Engineering, 2013, 54, 372-379.	3.0	62
80	Heat transfer in plug flow in cylindrical microcapillaries with constant surface heat flux. International Journal of Thermal Sciences, 2013, 64, 204-212.	2.6	24
81	A simple model for predicting the pressure drop and film thickness of non-Newtonian annular flows in horizontal pipes. Chemical Engineering Science, 2013, 102, 121-128.	1.9	11
82	Stability of a localized heated falling film with insoluble surfactants. International Journal of Heat and Mass Transfer, 2013, 67, 627-636.	2.5	8
83	Characterization of spray atomization and heat transfer of pressure swirl nozzles. International Journal of Thermal Sciences, 2013, 68, 94-102.	2.6	60
84	Study of heat transfer enhancement for structured surfaces in spray cooling. Applied Thermal Engineering, 2013, 59, 464-472.	3.0	89
85	Stability of two immiscible leaky-dielectric liquids subjected to a radial electric field in an annulus duct. Physics of Fluids, 2013, 25, .	1.6	8
86	Viscous liquid films on a porous vertical cylinder: Dynamics and stability. Physics of Fluids, 2013, 25, .	1.6	17
87	Temperature-induced droplet coalescence in microchannels. Biomicrofluidics, 2012, 6, 012811.	1.2	22
88	Instability of pressure driven viscous fluid streams in a microchannel under a normal electric field. International Journal of Heat and Mass Transfer, 2012, 55, 6994-7004.	2.5	9
89	An electrokinetically tunable optofluidic bi-concave lens. Lab on A Chip, 2012, 12, 3680.	3.1	14
90	Thin liquid film flow and heat transfer under spray impingement. Applied Thermal Engineering, 2012, 48. 342-348.	3.0	31

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91	Formation and breakup of compound pendant drops at the tip of a capillary and its effect on upstream velocity fluctuations. International Journal of Heat and Mass Transfer, 2012, 55, 1022-1029.	2.5	6
92	Heat transfer enhancement by recirculating flow within liquid plugs in microchannels. International Journal of Heat and Mass Transfer, 2012, 55, 1947-1956.	2.5	44
93	Numerical modeling of tunable optofluidics lens based on combined effect of hydrodynamics and electroosmosis. International Journal of Heat and Mass Transfer, 2012, 55, 2647-2655.	2.5	3
94	Analytical model of plug flow in microchannels. , 2011, , .		0
95	An analytical model for plug flow in microcapillaries with circular cross section. International Journal of Heat and Fluid Flow, 2011, 32, 1005-1013.	1.1	17
96	Numerical investigation of upstream pressure fluctuation during growth and breakup of pendant drops. Chemical Engineering Science, 2011, 66, 5293-5300.	1.9	13
97	Microfluidic switch based on combined effect of hydrodynamics and electroosmosis. Microfluidics and Nanofluidics, 2011, 10, 965-976.	1.0	13
98	A tunable optofluidic lens based on combined effect of hydrodynamics and electroosmosis. Microfluidics and Nanofluidics, 2011, 10, 1033-1043.	1.0	10
99	An investigation on the mechanism of droplet formation in a microfluidic T-junction. Microfluidics and Nanofluidics, 2011, 11, 1-10.	1.0	90
100	Experimental and numerical investigation of thermal chaotic mixing in a T-shaped microchannel. Heat and Mass Transfer, 2011, 47, 1331-1339.	1.2	8
101	Analysis of chaotic mixing in plugs moving in meandering microchannels. Physical Review E, 2011, 84, 066309.	0.8	25
102	Hydrodynamically mediated breakup of droplets in microchannels. Applied Physics Letters, 2011, 98, 054102.	1.5	19
103	Electrohydrodynamic and Shear-Stress Interfacial Instability of Two Streaming Viscous Liquid Inside a Microchannel for Normal Electric Fields. , 2011, , .		Ο
104	Reliable addition of reagents into microfluidic droplets. Microfluidics and Nanofluidics, 2010, 8, 409-416.	1.0	34
105	Experimental study of impingement spray cooling for high power devices. Applied Thermal Engineering, 2010, 30, 1225-1230.	3.0	69
106	Time-dependent model of mixed electroosmotic/pressure-driven three immiscible fluids in a rectangular microchannel. International Journal of Heat and Mass Transfer, 2010, 53, 772-785.	2.5	35
107	An analytical model for a liquid plug moving in curved microchannels. International Journal of Heat and Mass Transfer, 2010, 53, 1977-1985.	2.5	15
108	A simple method for evaluating and predicting chaotic advection in microfluidic slugs. Chemical Engineering Science, 2010, 65, 5382-5391.	1.9	19

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109	Thermal mixing of two miscible fluids in a T-shaped microchannel. Biomicrofluidics, 2010, 4, 44102.	1.2	55
110	Microfluidic on-chip fluorescence-activated interface control system. Biomicrofluidics, 2010, 4, 044109.	1.2	5
111	Thermally mediated control of liquid microdroplets at a bifurcation. Journal Physics D: Applied Physics, 2009, 42, 065503.	1.3	71
112	Microdroplet formation of water and nanofluids in heat-induced microfluidic T-junction. Microfluidics and Nanofluidics, 2009, 6, 253-259.	1.0	64
113	Electroosmotic control of width and position of liquid streams in hydrodynamic focusing. Microfluidics and Nanofluidics, 2009, 7, 489-497.	1.0	10
114	Analytical model of mixed electroosmotic/pressure driven three immiscible fluids in a rectangular microchannel. International Journal of Heat and Mass Transfer, 2009, 52, 4459-4469.	2.5	18
115	Sample Flow Switching Technique Based on Combined Effect of Hydrodynamic and Electroosmosis. , 2009, , .		0
116	Thermally controlled droplet formation in flow focusing geometry: formation regimes and effect of nanoparticle suspension. Journal Physics D: Applied Physics, 2008, 41, 165501.	1.3	69
117	Electro-osmotic control of the interface position of two-liquid flow through a microchannel. Journal of Micromechanics and Microengineering, 2007, 17, 358-366.	1.5	42
118	Thermally mediated droplet formation in microchannels. Applied Physics Letters, 2007, 91, .	1.5	98
119	Characterization of electroosmotic flow in rectangular microchannels. International Journal of Heat and Mass Transfer, 2007, 50, 3115-3121.	2.5	41
120	Optical measurement of flow field and concentration field inside a moving nanoliter droplet. Sensors and Actuators A: Physical, 2007, 133, 317-322.	2.0	31
121	Investigation of active interface control of pressure driven two-fluid flow in microchannels. Sensors and Actuators A: Physical, 2007, 133, 323-328.	2.0	7
122	Thermally mediated breakup of drops in microchannels. Applied Physics Letters, 2006, 89, 234101.	1.5	88
123	Theoretical investigation of two-fluid electroosmotic flow in microchannels. Journal of Physics: Conference Series, 2006, 34, 470-474.	0.3	3
124	Active control for droplet-based microfluidics. , 2006, 6416, 113.		2
125	Dynamic aspects of electroosmotic flow. Microfluidics and Nanofluidics, 2006, 2, 205-214.	1.0	11
126	A Silicon/glass-based microfluidic device for invetigation of Lagrangian velocity field in microdroplets. Journal of Physics: Conference Series, 2006, 34, 130-135.	0.3	3

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127	Geometrical optimization of bare tube heat exchangers for process industries. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2005, 219, 139-147.	1.4	0
128	Analytical effective length study of a flat plate heat pipe using point source approach. Applied Thermal Engineering, 2005, 25, 2272-2284.	3.0	20
129	Two-fluid electroosmotic flow in microchannels. Journal of Colloid and Interface Science, 2005, 284, 306-314.	5.0	103
130	Electroosmotic flow in irregular shape microchannels. International Journal of Engineering Science, 2005, 43, 1450-1463.	2.7	21
131	Transient two-liquid electroosmotic flow with electric charges at the interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 266, 117-128.	2.3	57
132	Assessments of Single-Phase Liquid Cooling Enhancement Techniques for Microelectronic Systems. , 2005, , 43.		1
133	Development of liquid cooling techniques for flip chip ball grid array packages with High Heat flux dissipations. IEEE Transactions on Components and Packaging Technologies, 2005, 28, 127-135.	1.4	50
134	Interface control of pressure-driven two-fluid flow in microchannels using electroosmosis. Journal of Micromechanics and Microengineering, 2005, 15, 2289-2297.	1.5	39
135	Dynamic aspects of electroosmotic flow in rectangular microchannels. International Journal of Engineering Science, 2004, 42, 1459-1481.	2.7	41
136	Study on refrigerant circuitry of condenser coils with exergy destruction analysis. Applied Thermal Engineering, 2000, 20, 559-577.	3.0	27
137	Thermal modeling and design of liquid cooled heat sinks assembled vvith flip chip ball grid array packages. , 0, , .		8
138	Tunable ultraviolet to deep blue light emission from sulfur nanodots fabricated by a controllable fission-aggregation strategy. Science China Materials, 0, , .	3.5	3