Kim Ooi

List of Publications by Year
in descending order

85 papers	2,229 citations	218592 26 h-index	243529 44 g-index
86 all docs	86 docs citations	86 times ranked	1214 citing authors

#	Article	IF	Citations
1	Closed-loop pulsating heat pipe. Applied Thermal Engineering, 2001, 21, 1845-1862.	3.0	243
2	Experimental investigation of flow friction for liquid flow in microchannels. International Communications in Heat and Mass Transfer, 2000, 27, 1165-1176.	2.9	191
3	Two-fluid electroosmotic flow in microchannels. Journal of Colloid and Interface Science, 2005, 284, 306-314.	5.0	103
4	Optimisation of single and double layer counter flow microchannel heat sinks. Applied Thermal Engineering, 2002, 22, 1569-1585.	3.0	82
5	Predicting multiple combination of parameters for designing a porous fin subjected to a given temperature requirement. Energy Conversion and Management, 2013, 66, 211-219.	4.4	75
6	Design optimization of a rolling piston compressor for refrigerators. Applied Thermal Engineering, 2005, 25, 813-829.	3.0	60
7	A computer simulation of a rotary compressor for household refrigerators. Applied Thermal Engineering, 1997, 17, 65-78.	3.0	57
8	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
9	Analytical models for the computation and optimization of single and double glazing flat plate solar collectors with normal and small air gap spacing. Applied Energy, 2013, 104, 392-399.	5.1	57
10	Theoretical study of a novel refrigeration compressor â€“ Part I: Design of the revolving vane (RV) compressor and its frictional losses. International Journal of Refrigeration, 2009, 32, 1092-1102.	1.8	56
11	Frequency-dependent laminar electroosmotic flow in a closed-end rectangular microchannel. Journal of Colloid and Interface Science, 2004, 275, 679-698.	5.0	51
12	Convective heat transfer in a scroll compressor chamber: a 2-D simulation. International Journal of Thermal Sciences, 2004, 43, 677-688.	2.6	50
13	Heat transfer study of a hermetic refrigeration compressor. Applied Thermal Engineering, 2003, 23, 1931-1945.	3.0	47
14	Theoretical study of a novel refrigeration compressor- Part III: Leakage loss of the revolving vane (RV) compressor and a comparison with that of the rolling piston type. International Journal of Refrigeration, 2009, 32, 945-952.	1.8	44
15	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
16	Economic analysis of the application of expanders in medium scale air-conditioners with conventional refrigerants, R1234yf and CO2. International Journal of Refrigeration, 2013, 36, 1472-1482.	1.8	42
17	Dynamic aspects of electroosmotic flow in rectangular microchannels. International Journal of Engineering Science, 2004, 42, 1459-1481.	2.7	41
18	Characterization of electroosmotic flow in rectangular microchannels. International Journal of Heat and Mass Transfer, 2007, 50, 3115-3121.	2.5	41

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19	Theoretical study of a novel refrigeration compressor â€“ Part II: Performance of a rotating discharge valve in the revolving vane (RV) compressor. International Journal of Refrigeration, 2009, 32, 1103-1111.	1.8	41
20	Interface control of pressure-driven two-fluid flow in microchannels using electroosmosis. Journal of Micromechanics and Microengineering, 2005, 15, 2289-2297.	1.5	39
21	Adiabatic capillary tube expansion devices: A comparison of the homogeneous flow and the separated flow models. Applied Thermal Engineering, 1996, 16, 625-634.	3.0	37
22	Refrigerant flow in capillary tube: An assessment of the two-phase viscosity correlations on model prediction. International Communications in Heat and Mass Transfer, 1995, 22, 595-604.	2.9	34
23	Magnetic Nanorobots, Generating Vortexes Inside Nanoliter Droplets for Effective Mixing. Advanced Materials Technologies, 2018, 3, 1700312.	3.0	32
24	Numerical simulation of two-fluid electroosmotic flow in microchannels. International Journal of Heat and Mass Transfer, 2005, 48, 5103-5111.	2.5	31
25	Design analysis of the novel Revolving Vane expander in a transcritical carbon dioxide refrigeration system. International Journal of Refrigeration, 2010, 33, 675-685.	1.8	31
26	One dimensional model of an ejector with special attention to Fanno flow within the mixing chamber. Applied Thermal Engineering, 2014, 65, 226-235.	3.0	31
27	Experimental study of the Revolving Vane (RV) compressor. Applied Thermal Engineering, 2009, 29, 3235-3245.	3.0	29
28	Comprehensive evaluation of low-grade solar trigeneration system by photovoltaic-thermal collectors. Energy Conversion and Management, 2020, 215, 112895.	4.4	27
29	A study of multiple heat sources on a flat plate heat pipe using a point source approach. International Journal of Heat and Mass Transfer, 2000, 43, 3755-3764.	2.5	25
30	Developing electro-osmotic flow in closed-end micro-channels. International Journal of Engineering Science, 2005, 43, 1349-1362.	2.7	24
31	Heat transfer in compression chamber of a revolving vane (RV) compressor. Applied Thermal Engineering, 2011, 31, 1519-1526.	3.0	22
32	Experimental investigations of the revolving vane (RV-I) expander. Applied Thermal Engineering, 2013, 50, 393-400.	3.0	22
33	Electroosmotic flow in irregular shape microchannels. International Journal of Engineering Science, 2005, 43, 1450-1463.	2.7	21
34	Assessment of a rotary compressor performance operating at transcritical carbon dioxide cycles. Applied Thermal Engineering, 2008, 28, 1160-1167.	3.0	21
35	Nature-inspired Inverted Fish Scale microscale passages for enhanced heat transfer. International Journal of Thermal Sciences, 2016, 106, 18-31.	2.6	21
36	Analysis of the novel cross vane expander-compressor: Mathematical modelling and experimental study. Energy, 2018, 145, 626-637.	4.5	21

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37	Buckling strength optimization of laminated composite plates. Computers and Structures, 1993, 46, 77-82.	2.4	20
38	Analytical effective length study of a flat plate heat pipe using point source approach. Applied Thermal Engineering, 2005, 25, 2272-2284.	3.0	20
39	A numerical and experimental investigation on microscale heat transfer effect in the combined entry region in macro geometries. International Journal of Thermal Sciences, 2013, 68, 8-19.	2.6	20
40	Single-phase convective heat transfer performance of wavy microchannels in macro geometry. Applied Thermal Engineering, 2018, 141, 675-687.	3.0	20
41	Evaluation of capillary tube performance for CFC-12 and HFC-134A. International Communications in Heat and Mass Transfer, 1996, 23, 993-1001.	2.9	19
42	Journal bearings design for a novel revolving vane compressor. International Journal of Refrigeration, 2011, 34, 94-104.	1.8	18
43	Analytical study of the endface friction of the revolving vane mechanism. International Journal of Refrigeration, 2011, 34, 1276-1285.	1.8	18
44	Analysis of the revolving vane (RV-0) expander, Part 1: Experimental investigations. International Journal of Refrigeration, 2012, 35, 1734-1743.	1.8	16
45	Heat transfer enhancement through periodic flow area variations in microchannels. International Communications in Heat and Mass Transfer, 2020, 111, 104456.	2.9	16
46	Analysis of the Revolving Vane (RV-0) expander, part 2: Verifications of theoretical models. International Journal of Refrigeration, 2012, 35, 1744-1756.	1.8	15
47	A novel revolving vane compressor with a fixed-vane. International Journal of Refrigeration, 2011, 34, 1980-1988.	1.8	14
48	Thermal-hydraulic performance of a tapered microchannel. International Communications in Heat and Mass Transfer, 2018, 94, 53-60.	2.9	14
49	Study on the viscosity of the liquid flowing in microgeometry. Journal of Micromechanics and Microengineering, 1999, 9, 377-384.	1.5	13
50	Dynamic aspects of electroosmotic flow. Microfluidics and Nanofluidics, 2006, 2, 205-214.	1.0	11
51	Experimental study of fixed-vane revolving vane compressor. Applied Thermal Engineering, 2014, 62, 207-214.	3.0	11
52	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
53	Introduction to Coupled Vane compressor: Mathematical modelling with validation. International Journal of Refrigeration, 2020, 117, 23-32.	1.8	11
54	A Review on Sliding Vane and Rolling Piston Compressors. Machines, 2021, 9, 125.	1.2	11

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55	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
56	Comparison and performance analysis of the novel revolving vane expander design variants in low and medium pressure applications. Energy, 2014, 78, 747-757.	4.5	9
57	Dynamics of droplet in flow-focusing microchannel under AC electric fields. International Journal of Multiphase Flow, 2020, 125, 103212.	1.6	9
58	Simulation of a piezo-compressor. Applied Thermal Engineering, 2004, 24, 549-562.	3.0	8
59	Leakage study of a lubricant-free revolving vane compressor. International Journal of Refrigeration, 2021, 124, 122-133.	1.8	8
60	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
61	Numerical and In Vitro Investigations of Pressure Rise in a New Hydrodynamic Blood Bearing. Artificial Organs, 2007, 31, 434-440.	1.0	7
62	Investigation of effect of protrusion height on microscale heat transfer and fluid flow in macro geometries. Applied Thermal Engineering, 2017, 118, 244-255.	3.0	7
63	Performance analysis of a U-Vane compressor. Applied Thermal Engineering, 2020, 178, 115570.	3.0	7
64	Scale-inspired enhanced microscale heat transfer in macro geometry. International Journal of Heat and Mass Transfer, 2017, 113, 141-152.	2.5	6
65	Nature-inspired enhanced microscale heat transfer in macro geometry. , 2014, , .		3
66	Analysis of the novel multi-vane Revolving Vane compressor â€“ Theoretical modelling and experimental investigations. International Journal of Refrigeration, 2021, 131, 592-603.	1.8	3
67	Analysis of the novel multi-vane Revolving Vane compressor â€“ Investigation of vane chattering phenomenon through instantaneous working chamber pressure measurements. International Journal of Refrigeration, 2022, 134, 207-218.	1.8	3
68	Performance of a parallel-wire depth probe. International Communications in Heat and Mass Transfer, 1996, 23, 1003-1009.	2.9	2
69	A calibration technique for a parallel-wire depth probe with conductivity compensation. Experiments in Fluids, 1996, 20, 429-432.	1.1	2
70	Exergy Analysis of the Revolving Vane Compressed Air Engine. International Journal of Rotating Machinery, 2016, 2016, 1-8.	0.8	2
71	Computer-aided design of an artillery system. Computers and Structures, 1994, 53, 1023-1031.	2.4	1
72	Analysis of vane-spring structures. Computers and Structures, 1995, 57, 447-453.	2.4	1

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73	An optimisation study of a hydraulic breaking system. International Journal of Computer Applications in Technology, 2001, 14, 166.	0.3	1
74	Experimental investigation of the reciprocating ball pump (RBP). Medical Engineering and Physics, 2012, 34, 1101-1108.	0.8	1
75	Adsorption Characteristics of Modified MiL-101(Cr) for Gas (Mainly CH4) Storage Applications. , 2015, , .		1
76	Wavy-Channel for Microscale Heat Transfer in Macro Geometries. , 2017, , .		1
77	Thorny Durian-inspired enhanced microscale heat transfer in macro geometry. , 2017, , .		1
78	Investigation of electroosmotically induced pressure gradient in rectangular capillaries. International Journal of Engineering Science, 2019, 145, 103172.	2.7	1
79	Dynamic characteristics of rolling piston machines. , 2019, , 263-289.		1
80	Numerical investigation on the thermal-hydraulic performance of separated structure steam generator with different tube arrangements. Annals of Nuclear Energy, 2022, 171, 109034.	0.9	1
81	Liquidâ€“Liquid Stratified Flow in Microchannels. , 2008, , 1022-1031.		0
82	Microscale heat transfer in macro geometries. , 2012, , .		0
83	Torque Characteristics of the Revolving Vane Air Expander. Machines, 2020, 8, 58.	1.2	0
84	Electrokinetic Two-Phase Flows. , 2014, , 1-12.		0
85	Expansion Power Recovery in Refrigeration Systems. Advances in Mechatronics and Mechanical Engineering, 2015, , 720-751.	1.0	0