

# Hui Tong Chua

## List of Publications by Year in descending order

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110  
papers

3,569  
citations

126708

33  
h-index

143772

57  
g-index

116  
all docs

116  
docs citations

116  
times ranked

2192  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental investigation of the silica gel-water adsorption isotherm characteristics. Applied Thermal Engineering, 2001, 21, 1631-1642.	3.0	289
2	Modeling the performance of two-bed, silica gel-water adsorption chillers. International Journal of Refrigeration, 1999, 22, 194-204.	1.8	232
3	Adsorption Characteristics of Silica Gel + Water Systems. Journal of Chemical & Engineering Data, 2002, 47, 1177-1181.	1.0	223
4	Waste heat driven dual-mode, multi-stage, multi-bed regenerative adsorption system. International Journal of Refrigeration, 2003, 26, 749-757.	1.8	210
5	Transient modeling of a two-bed silica gel-water adsorption chiller. International Journal of Heat and Mass Transfer, 2004, 47, 659-669.	2.5	162
6	The maximum temperature difference and polar characteristic of two-stage thermoelectric coolers. Cryogenics, 2002, 42, 273-278.	0.9	116
7	Improved thermodynamic property fields of LiBr-H <sub>2</sub> O solution. International Journal of Refrigeration, 2000, 23, 412-429.	1.8	112
8	Centrifugal chillers: Thermodynamic modelling and a diagnostic case study. International Journal of Refrigeration, 1995, 18, 253-257.	1.8	108
9	Multi-bed regenerative adsorption chiller-improving the utilization of waste heat and reducing the chilled water outlet temperature fluctuation. International Journal of Refrigeration, 2001, 24, 124-136.	1.8	100
10	Two bed silica gel-water adsorption chillers: An effectual lumped parameter model. International Journal of Refrigeration, 2007, 30, 1417-1426.	1.8	79
11	Experimental investigation of silica gel-water adsorption chillers with and without a passive heat recovery scheme. International Journal of Refrigeration, 2005, 28, 756-765.	1.8	77
12	A general model for studying effects of interface layers on thermoelectric devices performance. International Journal of Heat and Mass Transfer, 2002, 45, 5159-5170.	2.5	71
13	Low grade heat driven multi-effect distillation technology. International Journal of Heat and Mass Transfer, 2011, 54, 5497-5503.	2.5	66
14	A novel process for low grade heat driven desalination. Desalination, 2014, 351, 202-212.	4.0	58
15	Optimization of two-stage thermoelectric coolers with two design configurations. Energy Conversion and Management, 2002, 43, 2041-2052.	4.4	57
16	Optimizing chiller operation based on finite-time thermodynamics: universal modeling and experimental confirmation. International Journal of Refrigeration, 1997, 20, 191-200.	1.8	51
17	Microfluidic size selective growth of palladium nano-particles on carbon nano-onions. Chemical Communications, 2012, 48, 10102.	2.2	50
18	Techno-economic analysis of geothermal desalination using Hot Sedimentary Aquifers: A pre-feasibility study for Western Australia. Desalination, 2017, 404, 167-181.	4.0	50

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19	Experimental study of the fundamental properties of reciprocating chillers and their relation to thermodynamic modeling and chiller design. <i>International Journal of Heat and Mass Transfer</i> , 1996, 39, 2195-2204.	2.5	49
20	Thermodynamic modeling of an ammonia-water absorption chiller. <i>International Journal of Refrigeration</i> , 2002, 25, 896-906.	1.8	47
21	The electro-adsorption chiller: a miniaturized cooling cycle with applications to micro-electronics. <i>International Journal of Refrigeration</i> , 2002, 25, 1025-1033.	1.8	47
22	New MED based desalination process for low grade waste heat. <i>Desalination</i> , 2016, 395, 57-71.	4.0	46
23	Diagnostics and optimization of reciprocating chillers: theory and experiment. <i>Applied Thermal Engineering</i> , 1997, 17, 263-276.	3.0	45
24	Adsorption Measurements of Methane on Activated Carbon in the Temperature Range (281 to 343) K and Pressures to 1.2 MPa. <i>Journal of Chemical &amp; Engineering Data</i> , 2010, 55, 2700-2706.	1.0	44
25	Thermodynamic optimisation of multi effect distillation driven by sensible heat sources. <i>Desalination</i> , 2014, 336, 160-167.	4.0	43
26	Application of geothermal absorption air-conditioning system: A case study. <i>Applied Thermal Engineering</i> , 2013, 50, 71-80.	3.0	42
27	Thermo-economic analysis of two novel low grade sensible heat driven desalination processes. <i>Desalination</i> , 2015, 365, 316-328.	4.0	42
28	Entropy generation analysis of two-bed, silica gel-water, non-regenerative adsorption chillers. <i>Journal Physics D: Applied Physics</i> , 1998, 31, 1471-1477.	1.3	40
29	Thermodynamic perspective for the specific energy consumption of seawater desalination. <i>Desalination</i> , 2016, 386, 13-18.	4.0	40
30	A numerical study of the Hampson-type miniature Joule-Thomson cryocooler. <i>International Journal of Heat and Mass Transfer</i> , 2006, 49, 582-593.	2.5	39
31	Hydrogen storage in Pd-Ni doped defective carbon nanotubes through the formation of CH ( $x = 1, 2$ ). <i>Carbon</i> , 2010, 48, 3250-3255.	5.4	38
32	A comparative evaluation of two different heat-recovery schemes as applied to a two-bed adsorption chiller. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 433-443.	2.5	37
33	Boosted Multi-Effect Distillation for sensible low-grade heat sources: A comparison with feed pre-heating Multi-Effect Distillation. <i>Desalination</i> , 2015, 366, 32-46.	4.0	35
34	Thermo-economic analysis of low-grade heat driven multi-effect distillation based desalination processes. <i>Desalination</i> , 2018, 448, 36-48.	4.0	34
35	Shear flow assisted decoration of carbon nano-onions with platinum nanoparticles. <i>Chemical Communications</i> , 2013, 49, 5171.	2.2	32
36	Predicting isosteric heats for gas adsorption. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 473-482.	1.3	32

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37	Temperature-entropy formulation of thermoelectric thermodynamic cycles. <i>Physical Review E</i> , 2002, 65, 056111.	0.8	31
38	How varying condenser coolant flow rate affects chiller performance: thermodynamic modeling and experimental confirmation. <i>Applied Thermal Engineering</i> , 2000, 20, 1149-1159.	3.0	29
39	A general thermodynamic framework for understanding the behaviour of absorption chillers. <i>International Journal of Refrigeration</i> , 2000, 23, 491-507.	1.8	28
40	Thermodynamic analysis of absorption chillers: internal dissipation and process average temperature. <i>Applied Thermal Engineering</i> , 1998, 18, 671-682.	3.0	27
41	The direct decomposition of NO over the La <sub>2</sub> CuO <sub>4</sub> nanofiber catalyst. <i>Journal of Solid State Chemistry</i> , 2008, 181, 2804-2807.	1.4	26
42	Numerical simulation of a supercritical CO <sub>2</sub> geothermosiphon. <i>International Communications in Heat and Mass Transfer</i> , 2010, 37, 1447-1451.	2.9	24
43	Performance simulation of multi-bed silica gel-water adsorption chillers. <i>International Journal of Refrigeration</i> , 2015, 52, 32-41.	1.8	24
44	Entropy production analysis and experimental confirmation of absorption systems. <i>International Journal of Refrigeration</i> , 1997, 20, 179-190.	1.8	23
45	The role of internal dissipation and process average temperature in chiller performance and diagnostics. <i>Journal of Applied Physics</i> , 1998, 83, 1831-1836.	1.1	23
46	Time-dependent, irreversible entropy production and geodynamics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 285-300.	1.6	23
47	Thermodynamic Property Fields of an Adsorbate-Adsorbent System. <i>Langmuir</i> , 2003, 19, 2254-2259.	1.6	20
48	Optimization and thermodynamic understanding of conduction-cooled Peltier current leads. <i>Cryogenics</i> , 2002, 42, 141-145.	0.9	19
49	Application of the Boosted MED process for low-grade heat sources – A pilot plant. <i>Desalination</i> , 2015, 366, 47-58.	4.0	19
50	On the modeling of absorption chillers with external and internal irreversibilities. <i>Applied Thermal Engineering</i> , 1997, 17, 413-425.	3.0	17
51	High-yield synthesis of silicon carbide nanowires by solar and lamp ablation. <i>Nanotechnology</i> , 2013, 24, 335603.	1.3	17
52	Generating Hydrogen Gas from Methane with Carbon Captured as Pure Spheroidal Nanomaterials. <i>Chemistry - A European Journal</i> , 2011, 17, 9188-9192.	1.7	16
53	Thermal performance prediction of outdoor swimming pools. <i>Building and Environment</i> , 2019, 160, 106167.	3.0	16
54	Thermodynamic Modeling of Absorption Chiller and Comparison with Experiments. <i>Heat Transfer Engineering</i> , 1999, 20, 42-51.	1.2	15

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55	Predicting the Integral Heat of Adsorption for Gas Physisorption on Microporous and Mesoporous Adsorbents. <i>Journal of Physical Chemistry C</i> , 2014, 118, 8350-8358.	1.5	15
56	Low-grade waste heat driven desalination technology. <i>International Journal for Simulation and Multidisciplinary Design Optimization</i> , 2014, 5, A02.	0.6	15
57	Facile synthesis of electrochemically active Pt nanoparticle decorated carbon nano onions. <i>New Journal of Chemistry</i> , 2015, 39, 915-920.	1.4	15
58	Theoretical and experimental analysis of an absorption chiller. <i>International Journal of Refrigeration</i> , 1994, 17, 351-358.	1.8	14
59	Equipment Design and Control of Advanced Thermal-Processing Module in Lithography. <i>IEEE Transactions on Industrial Electronics</i> , 2010, 57, 1112-1119.	5.2	14
60	A novel flash boosted evaporation process for alumina refineries. <i>Applied Thermal Engineering</i> , 2016, 94, 375-384.	3.0	14
61	Carbon nanofibres from fructose using a light-driven high-temperature spinning disc processor. <i>Chemical Communications</i> , 2014, 50, 1478-1480.	2.2	13
62	Deep geothermal: The "Moon Landing" mission in the unconventional energy and minerals space. <i>Journal of Earth Science (Wuhan, China)</i> , 2015, 26, 2-10.	1.1	13
63	An industrial application of low-grade sensible waste heat driven seawater desalination: A case study. <i>Desalination</i> , 2019, 470, 114055.	4.0	13
64	Performance Evaluation of Centrifugal Chillers in an Air-Conditioning Plant with The Building Automation System (BAS). <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 1994, 208, 249-255.	0.8	12
65	General thermodynamic framework for understanding temperature-entropy diagram of batchwise operating thermodynamic cooling cycles. <i>Journal of Applied Physics</i> , 2001, 89, 5151-5158.	1.1	11
66	Growth of La <sub>2</sub> CuO <sub>4</sub> nanofibers under a mild condition by using single walled carbon nanotubes as templates. <i>Journal of Solid State Chemistry</i> , 2006, 179, 2036-2040.	1.4	11
67	A thermogravimetric analyzer for condensable gas adsorption under subatmospheric conditions. <i>Journal of Thermal Analysis and Calorimetry</i> , 2007, 90, 935-940.	2.0	11
68	The merits of plasmonic desalination. <i>Nature Photonics</i> , 2017, 11, 70-70.	15.6	11
69	Thermionic and tunneling cooling thermodynamics. <i>Applied Physics Letters</i> , 2004, 84, 3999-4001.	1.5	10
70	Light-driven high-temperature continuous-flow synthesis of TiO <sub>2</sub> nano-anatase. <i>Chemical Engineering Journal</i> , 2012, 211-212, 195-199.	6.6	10
71	Synthesis of few-layer graphene by lamp ablation. <i>Carbon</i> , 2015, 94, 349-351.	5.4	10
72	On minimizing the heat leak of current leads in cryogenic vacuum systems. <i>Cryogenics</i> , 2002, 42, 779-785.	0.9	8

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73	Methane desorption and adsorption measurements on activated carbon in 281–343 K and pressures to 1.2 MPa. <i>Journal of Thermal Analysis and Calorimetry</i> , 2012, 110, 1475-1485.	2.0	8
74	Introduction to Desalination. , 2017, , 1-17.		8
75	A comparison of ground and air source heat pump performance for domestic applications: A case study in Perth, Australia. <i>International Journal of Energy Research</i> , 2021, 45, 20686-20699.	2.2	8
76	Methane production test of the anaerobic sludge from rice parboiling industries with the addition of biodiesel glycerol from rice bran oil in Brazil. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 149, 111331.	8.2	8
77	Activated Carbon Based Supercapacitors with a Reduced Graphene Oxide Additive: Preparation and Properties. <i>Journal of Nanoscience and Nanotechnology</i> , 2020, 20, 4073-4083.	0.9	7
78	A new zero-liquid-discharge brine concentrator using a Cascaded Fluidised Bed Ice Slurry Generator. <i>Desalination</i> , 2021, 520, 115344.	4.0	7
79	A lamp thermoelectricity based integrated bake/chill system for photoresist processing. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 580-594.	2.5	6
80	Performance Study of a Four-Bed Silica Gel-Water Adsorption Chiller with the Passive Heat Recovery Scheme. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-10.	0.6	6
81	A novel low grade heat driven process to re-concentrate process liquor in alumina refineries. <i>Hydrometallurgy</i> , 2017, 170, 34-42.	1.8	5
82	Entropic Bounds for Multi-Scale and Multi-Physics Coupling in Earth Sciences. <i>Understanding Complex Systems</i> , 2014, , 323-335.	0.3	5
83	Simple thermodynamic diagrams for real refrigeration systems. <i>Journal of Applied Physics</i> , 1999, 85, 641-646.	1.1	4
84	Temperature–entropy diagram for an irreversible absorption refrigeration cycle. <i>Journal of Applied Physics</i> , 2000, 88, 446-452.	1.1	4
85	A two-stage cuboid-styled thermoelectric cooler with switched polarity. , 0, , .		4
86	Panorama of boron nitride nanostructures via lamp ablation. <i>Nano Research</i> , 2019, 12, 557-562.	5.8	4
87	Resolution analysis of atomic force microscopy using temporal phase modulation interferometry. <i>Optical Engineering</i> , 2004, 43, 75.	0.5	3
88	Equipment design and control of advanced thermal processing system in lithography. , 2007, , .		3
89	Experimental verification of a diagnostic model for reciprocating chillers. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 1997, 211, 259-265.	1.4	2
90	Integrated bake/chill system for across-wafer temperature uniformity control in photoresist processing. <i>Journal of Vacuum Science &amp; Technology B</i> , 2009, 27, 1211.	1.3	2

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91	A heater plate assisted bake/chill system for photoresist processing in photolithography. Applied Thermal Engineering, 2009, 29, 985-997.	3.0	2
92	Modeling and Real-Time Control of Multizone Thermal Processing System for Photoresist Processing. Industrial & Engineering Chemistry Research, 2013, 52, 4805-4814.	1.8	2
93	Low Grade Sensible Heat-Driven Distillation. , 2017, , 19-26.		2
94	Boosted Multi-Effect Distillation Pilot Plant. , 2017, , 27-41.		1
95	Resistance of Blended Cement Pastes to Leaching in Distilled Water at Ambient and Higher Temperatures. ACI Materials Journal, 2001, 98, .	0.3	1
96	Design of a scalable multiprocessor architecture and its simulation. Journal of Systems and Software, 2001, 58, 135-152.	3.3	0
97	NANOTIPS COLD-END CONTACT FOR MICROCOOLING SYSTEMS. International Journal of Nanoscience, 2005, 04, 701-707.	0.4	0
98	A thermoelectricity-lamp based integrated bake/chill system for photoresist processing. , 2005, , .		0
99	Fabrication nanotips array for thermoelectric collers using nercom process. , 0, , .		0
100	A lamp thermoelectricity based integrated bake/chill system for advanced photoresist processing. , 2006, , .		0
101	A heater plate assisted integrated bake/chill system for photoresist processing. , 2007, , .		0
102	In-situ real-time temperature control of baking systems in lithography. Proceedings of SPIE, 2008, , .	0.8	0
103	Methane Catalytic Cracking to Make CO <sub>2</sub> Free Hydrogen and Carbons (Nanotubes.) Tj ETQq1 1 0.784314 rgBT (Overlock	0.3	0
104	Geothermal air conditioning: typical applications using deep-warm and shallow-cool reservoirs for cooling in Perth, Western Australia. International Journal for Simulation and Multidisciplinary Design Optimization, 2014, 5, A10.	0.6	0
105	Mathematical Simulation. , 2017, , 43-80.		0
106	Application of Novel Low Grade Heat-Driven Distillation to Seawater Desalination. , 2017, , 105-124.		0
107	Pumping Power Analysis. , 2017, , 81-85.		0
108	Thermo-Economic Analysis. , 2017, , 93-104.		0

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109	Application of Novel Low Grade Heat-Driven Distillation in Alumina Refineries. , 2017, , 125-161.		0
110	Waste Heat Performance Ratio. , 2017, , 87-92.		0