

Yunhua Gan

List of Publications by Year in descending order

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69
papers

2,392
citations

218381

26
h-index

205818

48
g-index

70
all docs

70
docs citations

70
times ranked

1119
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation on the thermal performance of a battery thermal management system using heat pipe under different ambient temperatures. <i>Energy Conversion and Management</i> , 2018, 155, 1-9.	4.4	251
2	Microscale heat transfer enhancement using thermal boundary layer redeveloping concept. <i>International Journal of Heat and Mass Transfer</i> , 2005, 48, 1662-1674.	2.5	184
3	Sensitivity analysis of factors influencing a heat pipe-based thermal management system for a battery module with cylindrical cells. <i>Applied Thermal Engineering</i> , 2019, 151, 475-485.	3.0	145
4	Development of thermal equivalent circuit model of heat pipe-based thermal management system for a battery module with cylindrical cells. <i>Applied Thermal Engineering</i> , 2020, 164, 114523.	3.0	121
5	Numerical simulations of interrupted and conventional microchannel heat sinks. <i>International Journal of Heat and Mass Transfer</i> , 2008, 51, 5906-5917.	2.5	111
6	A novel ultra-thin flattened heat pipe with biporous spiral woven mesh wick for cooling electronic devices. <i>Energy Conversion and Management</i> , 2019, 180, 769-783.	4.4	107
7	Static and dynamic flow instability of a parallel microchannel heat sink at high heat fluxes. <i>Energy Conversion and Management</i> , 2005, 46, 313-334.	4.4	101
8	Thermal and electrochemical performance of a serially connected battery module using a heat pipe-based thermal management system under different coolant temperatures. <i>Energy</i> , 2019, 189, 116233.	4.5	84
9	Transient flow pattern based microscale boiling heat transfer mechanisms. <i>Journal of Micromechanics and Microengineering</i> , 2005, 15, 1344-1361.	1.5	82
10	A numerical study on the performance of a thermal management system for a battery pack with cylindrical cells based on heat pipes. <i>Applied Thermal Engineering</i> , 2020, 179, 115740.	3.0	82
11	Structure optimization of a heat pipe-cooling battery thermal management system based on fuzzy grey relational analysis. <i>International Journal of Heat and Mass Transfer</i> , 2022, 182, 121924.	2.5	64
12	Microscale boiling heat transfer in a micro-timescale at high heat fluxes. <i>Journal of Micromechanics and Microengineering</i> , 2005, 15, 362-376.	1.5	55
13	Experimental study on the electrospray and combustion characteristics of biodiesel-ethanol blends in a meso-scale combustor. <i>Energy</i> , 2019, 179, 843-849.	4.5	54
14	Experimental analysis of thin vapor chamber with composite wick structure under different cooling conditions. <i>Applied Thermal Engineering</i> , 2019, 156, 471-484.	3.0	51
15	Ultra-thin flattened heat pipe with a novel band-shape spiral woven mesh wick for cooling smartphones. <i>International Journal of Heat and Mass Transfer</i> , 2020, 146, 118792.	2.5	48
16	Performance simulation of a heat pipe and refrigerant-based lithium-ion battery thermal management system coupled with electric vehicle air-conditioning. <i>Applied Thermal Engineering</i> , 2021, 191, 116878.	3.0	48
17	Numerical analysis of capacity fading for a LiFePO ₄ battery under different current rates and ambient temperatures. <i>International Journal of Heat and Mass Transfer</i> , 2021, 165, 120615.	2.5	46
18	Effect of initial temperature on electrochemical and thermal characteristics of a lithium-ion battery during charging process. <i>Applied Thermal Engineering</i> , 2020, 177, 115500.	3.0	44

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19	The electro-spraying characteristics of ethanol for application in a small-scale combustor under combined electric field. <i>Applied Thermal Engineering</i> , 2015, 87, 595-604.	3.0	43
20	Effect of alternating electric fields on the behaviour of small-scale laminar diffusion flames. <i>Applied Thermal Engineering</i> , 2015, 89, 306-315.	3.0	42
21	Experimental study on electro-spraying and combustion characteristics in meso-scale combustors. <i>Energy Conversion and Management</i> , 2017, 131, 10-17.	4.4	42
22	Effect of the passage area ratio of liquid to vapor on an ultra-thin flattened heat pipe. <i>Applied Thermal Engineering</i> , 2019, 162, 114215.	3.0	38
23	Investigation of the effect of DC electric field on a small ethanol diffusion flame. <i>Fuel</i> , 2017, 188, 621-627.	3.4	35
24	Electro-spraying and catalytic combustion characteristics of ethanol in meso-scale combustors with steel and platinum meshes. <i>Energy Conversion and Management</i> , 2018, 164, 410-416.	4.4	30
25	Effect of viscosity ratio on the dynamic response of droplet deformation under a steady electric field. <i>Physics of Fluids</i> , 2020, 32, .	1.6	30
26	Thermal Electrochemical simulation of electrochemical characteristics and temperature difference for a battery module under two-stage fast charging. <i>Journal of Energy Storage</i> , 2020, 29, 101307.	3.9	29
27	An experimental investigation on the electrospray characteristics in a meso-scale system at different modes. <i>Experimental Thermal and Fluid Science</i> , 2019, 106, 130-137.	1.5	27
28	An improved model for prediction of the cone-jet formation in electrospray with the effect of space charge. <i>Journal of Aerosol Science</i> , 2020, 139, 105463.	1.8	26
29	Effect of a ring electrode on the cone-jet characteristics of ethanol in small-scale electro-spraying combustors. <i>Journal of Aerosol Science</i> , 2016, 98, 15-29.	1.8	24
30	Multilayer electrochemical-thermal coupled modeling of unbalanced discharging in a serially connected lithium-ion battery module. <i>Energy</i> , 2020, 209, 118429.	4.5	24
31	Effects of electric field intensity and frequency of AC electric field on the small-scale ethanol diffusion flame behaviors. <i>Applied Thermal Engineering</i> , 2017, 115, 1330-1336.	3.0	23
32	Thermal performance of a meso-scale combustor with electrospray technique using liquid ethanol as fuel. <i>Applied Thermal Engineering</i> , 2018, 128, 274-281.	3.0	23
33	A review on the technology development and fundamental research of electrospray combustion of liquid fuel at small-scale. <i>Fuel Processing Technology</i> , 2022, 234, 107342.	3.7	23
34	A comparative study on droplet characteristics and specific charge of ethanol in two small-scale electrospray systems. <i>Scientific Reports</i> , 2019, 9, 18791.	1.6	22
35	An experimental study of two-phase pressure drop of acetone in triangular silicon micro-channels. <i>Applied Thermal Engineering</i> , 2015, 80, 76-86.	3.0	20
36	Investigation on premixed methane/air combustion characteristics in heat recirculation micro combustor with separating cylinder. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 153, 107987.	1.8	20

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37	An improved reaction mechanism for predicting the charged species in ethanol-air flame. <i>Fuel</i> , 2018, 228, 74-80.	3.4	16
38	Effects of direct-current electric fields on flame shape and combustion characteristics of ethanol in small scale. <i>Advances in Mechanical Engineering</i> , 2016, 8, 168781401562484.	0.8	15
39	Evaporation and combustion characteristics of an ethanol fuel droplet in a DC electric field. <i>Journal of the Energy Institute</i> , 2021, 98, 216-222.	2.7	15
40	A Comparative Study on Free Jet and Confined Jet Diffusion Flames of Liquid Ethanol From Small Nozzles. <i>Combustion Science and Technology</i> , 2014, 186, 120-138.	1.2	14
41	The atomization current and droplet size of ethanol in two different small-scale electro-spraying systems. <i>Journal of Electrostatics</i> , 2017, 87, 228-235.	1.0	13
42	Are the available boiling heat transfer coefficients suitable for silicon microchannel heat sinks?. <i>Microfluidics and Nanofluidics</i> , 2008, 4, 575-587.	1.0	12
43	Numerical study for influence of ozone on the combustion of biodiesel surrogates in a homogeneous charge compression ignition engine. <i>Fuel Processing Technology</i> , 2022, 225, 107039.	3.7	12
44	Structure, Growth Process, and Growth Mechanism of Perovskite in High-Titanium-Bearing Blast Furnace Slag. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 1751-1759.	1.0	11
45	UNSTEADY FLOW PHENOMENON IN A HEATED MICROCHANNEL AT HIGH HEAT FLUXES. <i>Experimental Heat Transfer</i> , 2004, 17, 299-319.	2.3	10
46	Numerical analysis on heat transfer characteristics of a multi-vapor channel vapor chamber with novel ultra-thin composite wick. <i>Case Studies in Thermal Engineering</i> , 2021, 26, 101035.	2.8	10
47	Experimental and Numerical Simulation Study of the Microscale Laminar Flow Diffusion Combustion of Liquid Ethanol. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 8021-8027.	1.8	9
48	Oscillating flow behavior of a natural circulation loop using minichannels at atmospheric pressure. <i>Applied Thermal Engineering</i> , 2004, 24, 2665-2677.	3.0	7
49	Numerical analysis on the heat/mass transfer to a deformed droplet under a steady electric field. <i>International Journal of Heat and Mass Transfer</i> , 2022, 188, 122617.	2.5	7
50	Chemical kinetic modeling study of methyl esters oxidation: Improvement on the prediction of early CO ₂ formation. <i>Fuel</i> , 2020, 279, 118383.	3.4	6
51	Study on the electrical response of small ethanol-air diffusion flame under the uniform electric field. <i>International Journal of Energy Research</i> , 2020, 44, 11872-11882.	2.2	5
52	Uniform Mems Chip Temperatures in the Nucleate Boiling Heat Transfer Region by Selecting Suitable, Medium Boiling Number Range. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2007, 11, 273-300.	1.4	4
53	Experimental Study on the Diffusion Flame Using Liquid Ethanol as Fuel in Mini-Scale. , 2008, , .		4
54	Experimental study on the small-scale diffusion flame of ethanol and the wall temperature field. <i>Heat Transfer - Asian Research</i> , 2009, 39, 87-96.	2.8	4

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55	Electric field and spraying characteristics of electrospray using concave ground electrode. Journal of Electrostatics, 2022, 115, 103662.	1.0	4
56	Experimental Study on the Diffusion Flame from Small Ceramic Tube. , 2010, , .		3
57	An Experimental Investigation of Flow Characteristics for Laminar Flow in Silicon Microchannels. , 2007, , 1011-1015.		3
58	Experimental Investigation on Fouling Performance of Corrugated Tubes. Journal of Enhanced Heat Transfer, 2004, 11, 417-422.	0.5	3
59	Experimental study on the characteristics of ethanol evaporation and its diffusion flame under the effect of DC field. Heat Transfer - Asian Research, 2009, 39, 77-86.	2.8	2
60	Experimental Study of Small Diffusion Flame Under Strong Electric Field. , 2008, , .		1
61	Energy Conservation Study on the Industrial Boiler and Steam Kettle System. , 2011, , .		1
62	The cost of electric power generation in Guangdong Province. Energy Sources, Part B: Economics, Planning and Policy, 2016, 11, 1014-1019.	1.8	1
63	Effect of Axial Heat Conduction on Heat Transfer in Triangular Silicon Microchannels. , 2008, , .		1
64	Bubble Dynamics and Boiling Heat Transfer in Microsystems. , 2008, , .		0
65	Characteristics of Small Diffusion Flames in a Confined Space. , 2009, , .		0
66	Investigation on the Characteristics of the Mixed Bed Materials in a CFB Boiler. , 2010, , .		0
67	Cone-jet Characteristics of Ethanol by Electrospraying Using Double Electrodes. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2016, 52, 158.	0.7	0
68	Electro-spraying and Combustion of Ethanol in a Micro-scale Combustor under Combined Electric Field. , 2016, , 181-187.		0
69	Experimental Study on Electro-Spraying of Ethanol Based on PDA Measurement. Minerals, Metals and Materials Series, 2017, , 87-92.	0.3	0