

Weicong Xu

List of Publications by Year in descending order

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130
papers

4,471
citations

126907

33
h-index

118850

62
g-index

131
all docs

131
docs citations

131
times ranked

3805
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of working fluid and expander selections for organic Rankine cycle. Renewable and Sustainable Energy Reviews, 2013, 24, 325-342.	16.4	1,061
2	A critical review of the models used to estimate solar radiation. Renewable and Sustainable Energy Reviews, 2017, 70, 314-329.	16.4	192
3	Ultrasensitive Detection of Exosomes by Target-Triggered Three-Dimensional DNA Walking Machine and Exonuclease III-Assisted Electrochemical Ratiometric Biosensing. Analytical Chemistry, 2019, 91, 14773-14779.	6.5	133
4	Hydrogenation of dimethyl oxalate to ethylene glycol on a Cu/SiO ₂ /cordierite monolithic catalyst: Enhanced internal mass transfer and stability. AIChE Journal, 2012, 58, 2798-2809.	3.6	125
5	Thermodynamic analysis of organic Rankine cycle using zeotropic mixtures. Applied Energy, 2014, 130, 748-756.	10.1	110
6	Valorization of waste polyethylene terephthalate plastic into N-doped microporous carbon for CO ₂ capture through a one-pot synthesis. Journal of Hazardous Materials, 2020, 399, 123010.	12.4	85
7	Analysis of a novel combined power and ejector-refrigeration cycle. Energy Conversion and Management, 2016, 108, 266-274.	9.2	79
8	Carbon pump: Fundamental theory and applications. Energy, 2017, 119, 1131-1143.	8.8	73
9	Role of TERRA in the Regulation of Telomere Length. International Journal of Biological Sciences, 2015, 11, 316-323.	6.4	70
10	The influence of composition shift on organic Rankine cycle (ORC) with zeotropic mixtures. Energy Conversion and Management, 2014, 83, 203-211.	9.2	64
11	A thermodynamic analysis of an auto-cascade heat pump cycle for heating application in cold regions. Energy and Buildings, 2014, 82, 621-631.	6.7	63
12	A comparative study on CO ₂ capture performance of vacuum-pressure swing adsorption and pressure-temperature swing adsorption based on carbon pump cycle. Energy, 2017, 137, 495-509.	8.8	63
13	Oroxyliside prevents dextran sulfate sodium-induced experimental colitis in mice by inhibiting NF- κ B pathway through PPAR γ activation. Biochemical Pharmacology, 2016, 106, 70-81.	4.4	59
14	Solar driven ORC-based CCHP: Comparative performance analysis between sequential and parallel system configurations. Applied Thermal Engineering, 2018, 131, 696-706.	6.0	59
15	Theoretical analysis of a combined power and ejector refrigeration cycle using zeotropic mixture. Applied Energy, 2015, 160, 912-919.	10.1	57
16	A comprehensive performance evaluation of temperature swing adsorption for post-combustion carbon dioxide capture. Renewable and Sustainable Energy Reviews, 2019, 114, 109285.	16.4	57
17	Mathematical modeling and numerical investigation of carbon capture by adsorption: Literature review and case study. Applied Energy, 2018, 221, 437-449.	10.1	56
18	Simultaneous working fluids design and cycle optimization for Organic Rankine cycle using group contribution model. Applied Energy, 2017, 202, 618-627.	10.1	54

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19	Thermodynamic research of adsorbent materials on energy efficiency of vacuum-pressure swing adsorption cycle for CO ₂ capture. <i>Applied Thermal Engineering</i> , 2018, 128, 818-829.	6.0	50
20	How to approach Carnot cycle via zeotropic working fluid: Research methodology and case study. <i>Energy</i> , 2018, 144, 576-586.	8.8	49
21	Thermodynamic performance comparison of Organic Rankine Cycle between zeotropic mixtures and pure fluids under open heat source. <i>Energy Conversion and Management</i> , 2018, 165, 720-737.	9.2	48
22	Evaluating the Safety of Potential Probiotic <i>Enterococcus durans</i> KLDS6.0930 Using Whole Genome Sequencing and Oral Toxicity Study. <i>Frontiers in Microbiology</i> , 2018, 9, 1943.	3.5	48
23	Application of machine learning into organic Rankine cycle for prediction and optimization of thermal and exergy efficiency. <i>Energy Conversion and Management</i> , 2020, 210, 112700.	9.2	47
24	A review on biomass-derived CO ₂ adsorption capture: Adsorbent, adsorber, adsorption, and advice. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111708.	16.4	47
25	Thermodynamic exploration of temperature vacuum swing adsorption for direct air capture of carbon dioxide in buildings. <i>Energy Conversion and Management</i> , 2019, 183, 418-426.	9.2	44
26	Screening for Potential Novel Probiotics With Dipeptidyl Peptidase IV-Inhibiting Activity for Type 2 Diabetes Attenuation in vitro and in vivo. <i>Frontiers in Microbiology</i> , 2019, 10, 2855.	3.5	41
27	Experimental investigation on heat loss of semi-spherical cavity receiver. <i>Energy Conversion and Management</i> , 2014, 87, 576-583.	9.2	40
28	Towards novel low temperature thermodynamic cycle: A critical review originated from organic Rankine cycle. <i>Applied Energy</i> , 2020, 270, 115186.	10.1	40
29	Hydrogenation of Dimethyl Oxalate Using Extruded Cu/SiO ₂ Catalysts: Mechanical Strength and Catalytic Performance. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 13935-13943.	3.7	39
30	Performance evaluation on solar box cooker with reflector tracking at optimal angle under Bahir Dar climate. <i>Solar Energy</i> , 2019, 180, 664-677.	6.1	39
31	Urolithin A ameliorates experimental autoimmune encephalomyelitis by targeting aryl hydrocarbon receptor. <i>EBioMedicine</i> , 2021, 64, 103227.	6.1	39
32	Is zeotropic working fluid a promising option for organic Rankine cycle: A quantitative evaluation based on literature data. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 148, 111267.	16.4	37
33	The overexpression and nuclear translocation of Trx-1 during hypoxia confers on HepG2 cells resistance to DDP, and GL-V9 reverses the resistance by suppressing the Trx-1/Ref-1 axis. <i>Free Radical Biology and Medicine</i> , 2015, 82, 29-41.	2.9	35
34	Novel experimental research on the compression process in organic Rankine cycle (ORC). <i>Energy Conversion and Management</i> , 2017, 137, 1-11.	9.2	35
35	Effect of Nanobubble Evolution on Hydrate Process: A Review. <i>Journal of Thermal Science</i> , 2019, 28, 948-961.	1.9	34
36	Oroxylin A inhibits invasion and migration through suppressing ERK/GSK-3 β signaling in snail-expressing non-small cell lung cancer cells. <i>Molecular Carcinogenesis</i> , 2016, 55, 2121-2134.	2.7	32

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37	Hierarchical porous NiCo ₂ O ₄ nanosheet arrays directly grown on carbon cloth with superior lithium storage performance. Dalton Transactions, 2017, 46, 4717-4723.	3.3	32
38	Expression and homology modeling of sterol 14 α -demethylase from <i>Penicillium digitatum</i> . FEMS Microbiology Letters, 2007, 277, 37-43.	1.8	31
39	Experimental study on two-phase separation performance of impacting T-junction. International Journal of Multiphase Flow, 2016, 83, 172-182.	3.4	31
40	Group contribution methods in thermodynamic cycles: Physical properties estimation of pure working fluids. Renewable and Sustainable Energy Reviews, 2017, 79, 984-1001.	16.4	31
41	<i>Bifidobacterium dentium</i> N8 with potential probiotic characteristics prevents LPS-induced intestinal barrier injury by alleviating the inflammatory response and regulating the tight junction in Caco-2 cell monolayers. Food and Function, 2021, 12, 7171-7184.	4.6	31
42	Experimental study and energy-efficiency evaluation of a 4-step pressure-vacuum swing adsorption (PVSA) for CO ₂ capture. Energy Conversion and Management, 2017, 151, 179-189.	9.2	30
43	Treadmill Exercise Prevents Decline in Spatial Learning and Memory in 3 \times Tg-AD Mice through Enhancement of Structural Synaptic Plasticity of the Hippocampus and Prefrontal Cortex. Cells, 2022, 11, 244.	4.1	30
44	Molecular dynamics study on transport properties of supercritical working fluids: Literature review and case study. Applied Energy, 2019, 250, 63-80.	10.1	29
45	Performance analysis of temperature swing adsorption for CO ₂ capture using thermodynamic properties of adsorbed phase. Applied Thermal Engineering, 2017, 123, 205-215.	6.0	28
46	LFG-500 Inhibits the Invasion of Cancer Cells via Down-Regulation of PI3K/AKT/NF- κ B Signaling Pathway. PLoS ONE, 2014, 9, e91332.	2.5	27
47	Experimental research on the influence of system parameters on the composition shift for zeotropic mixture (isobutane/pentane) in a system occurring phase change. Energy Conversion and Management, 2016, 113, 1-15.	9.2	27
48	Safety Assessment of Lactobacillus helveticus KLDS1.8701 Based on Whole Genome Sequencing and Oral Toxicity Studies. Toxins, 2017, 9, 301.	3.4	26
49	A limiting efficiency of subcritical Organic Rankine cycle under the constraint of working fluids. Energy, 2018, 143, 458-466.	8.8	26
50	State-of-art of branching T-junction: Experiments, modeling, developing prospects and applications. Experimental Thermal and Fluid Science, 2019, 109, 109895.	2.7	26
51	Super-stable non-woven fabric-based membrane as a high-efficiency oil/water separator in full pH range. RSC Advances, 2017, 7, 19764-19770.	3.6	25
52	Dynamic test and verification of model-guided ORC system. Energy Conversion and Management, 2019, 186, 349-367.	9.2	25
53	Trends in patents for solar thermal utilization in China. Renewable and Sustainable Energy Reviews, 2015, 52, 852-862.	16.4	24
54	A literature research on feasible application of mixed working fluid in flexible distributed energy system. Energy, 2017, 137, 377-390.	8.8	24

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55	How to quantitatively describe the role of the pure working fluids in subcritical organic Rankine cycle: A limitation on efficiency. Energy Conversion and Management, 2018, 172, 316-327.	9.2	24
56	Twist-angle-dependent thermal conduction in single-crystalline bilayer graphene. Applied Physics Letters, 2021, 118, .	3.3	24
57	Graphene-like nanocomposites anchored by Ni ₃ S ₂ slices for Li-ion storage. RSC Advances, 2016, 6, 48083-48088.	3.6	23
58	The feasibility of using vapor expander to recover the expansion work in two-stage heat pumps with a large temperature lift. International Journal of Refrigeration, 2015, 56, 15-27.	3.4	22
59	Performance analysis on novel thermodynamic cycle under the guidance of 3D construction method. Applied Energy, 2019, 250, 478-492.	10.1	22
60	A graphic analysis method of electrochemical systems for low-grade heat harvesting from a perspective of thermodynamic cycles. Energy, 2020, 191, 116547.	8.8	22
61	Transcritical carbon dioxide power cycle for waste heat recovery: A roadmap analysis from ideal cycle to real cycle with case implementation. Energy Conversion and Management, 2020, 226, 113578.	9.2	22
62	MoS ₂ @Ti ₃ C ₂ nanohybrid-based photoelectrochemical biosensor: A platform for ultrasensitive detection of cancer biomarker exosomal miRNA. Talanta, 2022, 238, 123077.	5.5	22
63	Theoretical and experimental investigations on the changing regularity of the extreme point of the temperature difference between zeotropic mixtures and heat transfer fluid. Energy, 2013, 55, 541-552.	8.8	21
64	Experimental study on the distribution of constituents of binary zeotropic mixtures in vertical impacting T-junction. International Journal of Heat and Mass Transfer, 2016, 97, 242-252.	4.8	21
65	E platinum, a newly synthesized platinum compound, induces apoptosis through ROS-triggered ER stress in gastric carcinoma cells. Molecular Carcinogenesis, 2017, 56, 218-231.	2.7	20
66	Understanding the effect of H ₂ O on CO ₂ adsorption capture: mechanism explanation, quantitative approach and application. Sustainable Energy and Fuels, 2020, 4, 5970-5986.	4.9	20
67	Intelligent collaborative attainment of structure configuration and fluid selection for the Organic Rankine cycle. Applied Energy, 2020, 264, 114743.	10.1	19
68	Optimization and multi-time scale modeling of pilot solar driven polygeneration system based on organic Rankine cycle. Applied Energy, 2018, 222, 396-409.	10.1	18
69	Entropy analysis on energy-consumption process and improvement method of temperature/vacuum swing adsorption (TVSA) cycle. Energy, 2019, 179, 876-889.	8.8	18
70	Evolution of bubbles in decomposition and replacement process of methane hydrate. Molecular Simulation, 2017, 43, 1061-1073.	2.0	17
71	A review of molecular simulation applied in vapor-liquid equilibria (VLE) estimation of thermodynamic cycles. Journal of Molecular Liquids, 2018, 264, 652-674.	4.9	17
72	State-of-art of impacting T-junction : Phase separation, constituent separation and applications. International Journal of Heat and Mass Transfer, 2020, 148, 119067.	4.8	17

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73	Review on Applications of Zeotropic Mixtures. Journal of Thermal Science, 2022, 31, 285-307.	1.9	17
74	Nitrogen Distribution and Potential Mobility in Sediments of Three Typical Shallow Urban Lakes in China. Environmental Engineering Science, 2009, 26, 1511-1521.	1.6	16
75	Ratiometric Fluorescent Biosensor Based on Forster Resonance Energy Transfer between Carbon Dots and Acridine Orange for miRNA Analysis. ACS Omega, 2021, 6, 34150-34159.	3.5	16
76	ADMM-Based Optimal Power Control for Cognitive Satellite Terrestrial Uplink Networks. IEEE Access, 2018, 6, 64757-64765.	4.2	15
77	Identification of key affecting parameters of zeotropic working fluid on subcritical organic Rankine cycle according limiting thermodynamic cycle. Energy Conversion and Management, 2019, 197, 111884.	9.2	15
78	Performance analysis of solar-assisted CO ₂ adsorption capture system based on dynamic simulation. Solar Energy, 2020, 209, 628-645.	6.1	13
79	Exploring a potential application of hydrate separation for composition adjustable combined cooling and power system. Applied Energy, 2020, 268, 115064.	10.1	13
80	An efficient edge-based bilateral filter for restoring real noisy image. IEEE Transactions on Consumer Electronics, 2011, 57, 682-686.	3.6	12
81	Evolution and expression analysis of the β -glucosidase (GLU) encoding gene subfamily in maize. Genes and Genomics, 2012, 34, 179-187.	1.4	12
82	New knowledge on the temperature-entropy saturation boundary slope of working fluids. Energy, 2017, 119, 211-217.	8.8	12
83	Analysis of pressure drop in T-junction and its effect on thermodynamic cycle efficiency. Applied Energy, 2018, 231, 468-480.	10.1	12
84	Understanding transport and separation of organic mixed working fluids in T-junction from multi-scale insights: Literature review and case study. International Journal of Heat and Mass Transfer, 2020, 154, 119702.	4.8	12
85	How to give a full play to the advantages of zeotropic working fluids in organic Rankine cycle (ORC). Energy Procedia, 2019, 158, 1591-1597.	1.8	11
86	Aerobic exercise regulates synaptic transmission and reactive oxygen species production in the paraventricular nucleus of spontaneously hypertensive rats. Brain Research, 2019, 1712, 82-92.	2.2	11
87	Identification, Characterization, and Antioxidant Potential of Bifidobacterium longum subsp. longum Strains Isolated From Feces of Healthy Infants. Frontiers in Microbiology, 2021, 12, 756519.	3.5	11
88	An Overview of 200 kW Solar Power Plant Based on Organic Rankine Cycle. Energy Procedia, 2016, 88, 356-362.	1.8	10
89	Application of the Thermodynamic Cycle to Assess the Energy Efficiency of Amine-Based Absorption of Carbon Capture. Energies, 2019, 12, 2504.	3.1	10
90	Understanding the 3D construction method of thermodynamic cycle: Insights from limiting performance of pure working fluid. Energy Conversion and Management, 2020, 224, 113364.	9.2	9

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91	A cycle research methodology for thermo-chemical engines: From ideal cycle to case study. Energy, 2021, 228, 120599.	8.8	9
92	Formation of β -iPP in isotactic polypropylene/ethylene-propylene rubber blends: Effects of preparation method, composition, and thermal condition. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1704-1712.	2.1	8
93	A new electrochemical method for simultaneous removal of Mn^{2+} and NH_4^+-N in wastewater with Cu plate as cathode. Ecotoxicology and Environmental Safety, 2020, 206, 111341.	6.0	8
94	Non-equilibrium thermodynamic analysis of adsorption carbon capture: Contributors, mechanisms and verification of entropy generation. Energy, 2020, 208, 118348.	8.8	8
95	Selection of bisphenol A α -single-chain antibodies from a non-immunized mouse library by ribosome display. Analytical Biochemistry, 2015, 488, 59-64.	2.4	7
96	Vapor-Liquid Equilibrium Prediction of Refrigerant Mixtures with Peng-Robinson Equation of State and Binary Interaction Parameters Calculated Through Group Contribution Model. International Journal of Thermophysics, 2020, 41, 1.	2.1	7
97	Separation of binary organic mixture in T-shaped carbon nanotube separator: Insights from molecular dynamics simulation. Journal of Molecular Liquids, 2020, 312, 113371.	4.9	7
98	Direct investigations of the electrical conductivity of normal and cancer breast cells by conductive atomic force microscopy. Ultramicroscopy, 2022, 237, 113531.	1.9	7
99	Progress and prospect of flow phenomena and simulation on two-phase separation in branching T-junctions: A review. Renewable and Sustainable Energy Reviews, 2022, 167, 112742.	16.4	7
100	Error analysis of ORC performance calculation based on the Helmholtz equation with different binary interaction parameters of mixture. Energy, 2019, 166, 414-425.	8.8	6
101	Prevalence and influencing factors of depression of caregivers in children with epilepsy in southwestern China: a cross-sectional study. Medicine (United States), 2021, 100, e23571.	1.0	6
102	From Good to Bad Ones: Making Spam Detection Easier. , 2008, , .		5
103	The role of filler network in nonlinear viscoelastic behavior of vapor grown carbon nanofiber filled polystyrene: A strain dependent rheological behavior and electrical conductivity study. Polymer Engineering and Science, 2012, 52, 643-648.	3.1	5
104	Entropy Analysis of Temperature Swing Adsorption for CO ₂ Capture Using the Computational Fluid Dynamics (CFD) Method. Entropy, 2019, 21, 285.	2.2	5
105	From 1 to N: A computer-aided case study of thermodynamic cycle construction based on thermodynamic process combination. Energy, 2020, 210, 118553.	8.8	5
106	Numerical simulation on constituent separation and mass transfer of binary zeotropic mixtures in a branching T-junction. International Journal of Refrigeration, 2022, 135, 198-207.	3.4	5
107	Synthesis of waste heat recovery using solar organic Rankine cycle in the separation of benzene/toluene/p-xylene process. Energy, 2022, 255, 124443.	8.8	5
108	Methodology for determining the design radiation for a PTC heating system based on non-guaranteed days. Solar Energy, 2018, 174, 97-107.	6.1	4

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109	Comparative analysis of thermodynamic theoretical models for energy consumption of CO ₂ capture. Journal of Zhejiang University: Science A, 2019, 20, 882-892.	2.4	4
110	How to express the adsorbed CO ₂ with the Gibbs's thermodynamic graphical method: A preliminary study. Energy, 2020, 193, 116753.	8.8	4
111	Distinct Effects of Milks From Various Animal Types on Infant Fecal Microbiota Through in vitro Fermentations. Frontiers in Microbiology, 2020, 11, 580931.	3.5	4
112	Thermodynamic carbon pump 2.0: Elucidating energy efficiency through the thermodynamic cycle. Energy, 2021, 215, 119155.	8.8	4
113	Simulation study on phase separation and pressure distribution of refrigerant in horizontal double T-junctions. International Journal of Refrigeration, 2021, 126, 88-98.	3.4	4
114	The flexible programming of thermodynamic cycles: Application of supercritical carbon dioxide Brayton cycles. Energy Conversion and Management, 2021, 245, 114624.	9.2	4
115	Diamond in the rough: Polishing waste polyethylene terephthalate into activated carbon for CO ₂ capture. Science of the Total Environment, 2022, 834, 155262.	8.0	4
116	Spontaneous Speech Emotion Recognition via Multiple Kernel Learning. , 2016, , .		3
117	Performance Analysis on a Power and Ejector-Refrigeration System and the Involved Ejector. Frontiers in Energy Research, 2019, 7, .	2.3	3
118	A high-throughput computational screening of potential adsorbents for a thermal compression CO ₂ Brayton cycle. Sustainable Energy and Fuels, 2021, 5, 1415-1428.	4.9	3
119	Nonlinear Dynamic Characteristics of Rod Fastening Rotor with Preload Relaxation. Energies, 2022, 15, 1052.	3.1	3
120	Inhibition of Notch1 increases paclitaxel sensitivity to human breast cancer. Chinese Medical Journal, 2014, 127, 442-7.	2.3	3
121	Energy dissipation evaluation of temperature swing adsorption (TSA) cycle based on thermodynamic entropy insights. Scientific Reports, 2019, 9, 16599.	3.3	2
122	The response surface optimization of α -mannanase produced by <i>Weissella cibaria</i> F1 and its potential in juice clarification. Preparative Biochemistry and Biotechnology, 2022, 52, 1151-1159.	1.9	2
123	Nonlinear Dynamic Characteristics of Multidisk Rod Fastening Rotor with Axial Unbalance Mass Distribution. Shock and Vibration, 2022, 2022, 1-14.	0.6	2
124	Molecular Simulation Studies on Vapor-Liquid Equilibria and Thermal Decomposition of Working Fluids – A Review. Energy Procedia, 2019, 158, 5263-5268.	1.8	1
125	Molecular dynamics investigation on the composition separation of binary organic mixture in a double-walled T-shaped carbon nanotube separator. Journal of Molecular Liquids, 2021, 321, 114498.	4.9	1
126	The Thermodynamics-Based Benchmarking Analysis on Energy Efficiency Performance of CO ₂ Capture Technology: Temperature Swing Adsorption as Case Study. Energy Technology, 2021, 9, 2170013.	3.8	1

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127	A preliminary approach to the 3D construction of thermodynamic cycle based on zeotropic working fluids. Chinese Science Bulletin, 2019, 64, 206-214.	0.7	1
128	Energy quality and energy grade: concepts, applications and prospects. , 2022, 1, .		1
129	Automatic recognition of speech emotion using Shuffled Frog Leaping Algorithm. , 2010, , .		0
130	Discussion on the Mechanism of Source Integration between Solar Energy and Biomass Energy with Similar Grades. Journal of Thermal Science, 2021, 30, 1607-1613.	1.9	0