Li Wang

List of Publications by Year
in descending order

137	2,164	304743	289244
papers	citations	22 h-index	40 g-index

137	137	137	1810
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review of energy use and energy-efficient technologies for the iron and steel industry. Renewable and Sustainable Energy Reviews, 2017, 70, 1022-1039.	16.4	210
2	Review of vapor condensation heat and mass transfer in the presence of non-condensable gas. Applied Thermal Engineering, 2015, 89, 469-484.	6.0	181
3	Enhancement of round trip efficiency of liquid air energy storage through effective utilization of heat of compression. Applied Energy, 2017, 206, 1632-1642.	10.1	171
4	Effect of Water Migration between Arabinoxylans and Gluten on Baking Quality of Whole Wheat Bread Detected by Magnetic Resonance Imaging (MRI). Journal of Agricultural and Food Chemistry, 2012, 60, 6507-6514.	5.2	131
5	Form-stable LiNO 3 â€“NaNO 3 â€“KNO 3 â€“Ca(NO 3) 2 /calcium silicate composite phase change material (PCM) for mid-low temperature thermal energy storage. Energy Conversion and Management, 2015, 106, 165-172.	9.2	63
6	Extended Langmuir equation for correlating multilayer adsorption equilibrium data. Separation and Purification Technology, 2010, 70, 367-371.	7.9	51
7	Energy saving and emission reduction of China's urban district heating. Energy Policy, 2013, 55, 677-682.	8.8	49
8	Research Progress of Cryogenic Materials for Storage and Transportation of Liquid Hydrogen. Metals, 2021, 11, 1101.	2.3	47
9	Integrated biomethane liquefaction using exergy from the discharging end of a liquid air energy storage system. Applied Energy, 2020, 260, 114260.	10.1	42
10	Patterns of convective flow in a vertically vibrated granular bed. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 1303-1308.	2.1	37
11	Heat transfer of composite phase change material modules containing a eutectic carbonate salt for medium and high temperature thermal energy storage applications. Applied Energy, 2019, 238, 1074-1083.	10.1	34
12	Separation patterns between Brazilian nut and reversed Brazilian nut of a binary granular system. Physical Review E, 2012, 85, 061302.	2.1	31
13	Effect of swing temperature and alternating airflow on drying uniformity in deep-bed wheat drying. Applied Thermal Engineering, 2016, 106, 774-783.	6.0	27
14	A novel air separation unit with energy storage and generation and its energy efficiency and economy analysis. Applied Energy, 2021, 281, 115976.	10.1	27
15	Contribution from Urban Heating to Chinaâ€™s 2020 Goal of Emission Reduction. Environmental Science & Technology, 2011, 45, 4676-4681.	10.0	25
16	Convecting particle diffusion in a binary particle system under vertical vibration. Soft Matter, 2014, 10, 4348-4359.	2.7	25
17	A new coal gas utilization mode in Chinaâ€™s steel industry and its effect on power grid balancing and emission reduction. Applied Energy, 2015, 154, 644-650.	10.1	25
18	Particle climbing along a vibrating tube: a vibrating tube that acts as a pump for lifting granular materials from a silo. Soft Matter, 2013, 9, 4762.	2.7	24

#	Article	IF	Citations
19	Experimental study on drying characteristics of wheat by low-field nuclear magnetic resonance. Drying Technology, 2017, 35, 1258-1265.	3.1	24
20	Effect of environmental pressure enhanced by a booster on the load capacity of the aerodynamic gas bearing of a turbo expander. Tribology International, 2017, 105, 77-84.	5.9	24
21	Mode selection of China's urban heating and its potential for reducing energy consumption and CO2 emission. Energy Policy, 2014, 67, 756-764.	8.8	23
22	Exergy and energy analysis of a load regulation method of CVO of air separation unit. Applied Thermal Engineering, 2015, 80, 413-423.	6.0	23
23	Single mixed refrigerant LNG process: Investigation of improvement potential, operational optimization, and real potential for further improvements. Journal of Cleaner Production, 2021, 284, 125379.	9.3	23
24	Effects of Gas Flow on Granular Size Separation. Physical Review Letters, 2010, 104, 188001.	7.8	21
25	Kinetic study on the direct nitridation of silicon powders diluted with Î±-Si3N4 at normal pressure. International Journal of Minerals, Metallurgy and Materials, 2013, 20, 493-498.	4.9	21
26	Study on oxygen enrichment from air by application of the gradient magnetic field. Journal of Magnetism and Magnetic Materials, 2008, 320, 171-181.	2.3	20
27	Moisture conversion and migration in single-wheat kernel during isothermal drying process by LF-NMR. Drying Technology, 2019, 37, 803-812.	3.1	20
28	Rapid Crystallization Process of Amorphous Silicon Nitride. Journal of the American Ceramic Society, 2011, 94, 4169-4173.	3.8	19
29	MILP-based optimization of oxygen distribution system in integrated steel mills. Computers and Chemical Engineering, 2016, 93, 175-184.	3.8	19
30	Porous mullite-bonded SiC filters prepared by foaming-sol-gel-tape casting for high-efficiency hot flue gas filtration. Separation and Purification Technology, 2022, 295, 121338.	7.9	19
31	Oxygen enrichment from air by using the interception effect of gradient magnetic field on oxygen molecules. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 362, 105-108.	2.1	17
32	Particle climbing induced by reciprocating air flow. Applied Physics Letters, 2013, 102, 183507.	3.3	16
33	Moisture transformation and transport during the drying process for Radix Paeoniae Alba slices. Applied Thermal Engineering, 2017, 110, 25-31.	6.0	16
34	Thermal diffusion response to gasâ€“liquid slug flow and its application in measurement. International Journal of Heat and Mass Transfer, 2020, 159, 120065.	4.8	16
35	Effects of solid particle properties on heat transfer between high-temperature gas fluidized bed and immersed surface. Applied Thermal Engineering, 2004, 24, 2145-2156.	6.0	15
36	Surfaceâ€“particleâ€“emulsion model of heat transfer between a fluidized bed and an immersed surface. Powder Technology, 2005, 149, 127-138.	4.2	15

#	Article	IF	Citations
37	Effect of non-condensable gas on the start-up of a gravity loop thermosyphon with gasâ€“liquid separator. Experimental Thermal and Fluid Science, 2016, 72, 161-170.	2.7	15
38	Experimental Study on the Entrainment Characteristics of Ultrafine Powder in a Fluidized Bed with Vibrator and Agitator. Industrial & Engineering Chemistry Research, 2013, 52, 1359-1364.	3.7	14
39	Effect of hoisting tube shape on particle climbing. Powder Technology, 2014, 259, 137-143.	4.2	14
40	Energy-dissipation correlated size separation of granular matter under coupling vibration and airflow. Powder Technology, 2017, 307, 84-89.	4.2	14
41	Convection behavior of ellipsoidal particles in a quasi-two-dimensional bed under vertical vibration. Powder Technology, 2020, 363, 575-583.	4.2	14
42	Beam test of a full-length prototype of the BESIII drift chamber with the readout electronics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 571, 612-621.	1.6	13
43	Effect of air on condensation in a non-vacuum gravity heat pipe. Applied Thermal Engineering, 2017, 114, 255-263.	6.0	13
44	Patterns of particle convection in a mono-size granular system under coupling vibration and airflow. Powder Technology, 2019, 342, 954-960.	4.2	13
45	Exergy Analysis and Experimental Study of a Vehicle-Mounted Heat Pumpâ€“Assisted Fluidization Drying System Driven by a Diesel Generator. Drying Technology, 2011, 29, 1313-1324.	3.1	12
46	Size distribution in gas vibration bed and its application on grain drying. Powder Technology, 2012, 221, 192-198.	4.2	12
47	Thermoelectric properties of lower concentration K-doped Ca ₃ Co ₄ O ₉ ceramics. Chinese Physics B, 2018, 27, 057201.	1.4	12
48	Performance Enhancement of Nitrogen Dual Expander and Single Mixed Refrigerant LNG Processes Using Jaya Optimization Approach. Energies, 2020, 13, 3278.	3.1	12
49	Water migration and diffusion mechanism in the wheat drying. Drying Technology, 2021, 39, 738-751.	3.1	12
50	A beam test of a prototype of the BESIII drift chamber in magnetic field. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 557, 436-444.	1.6	11
51	Numerical Analysis on the Performance of the Three-Bed Temperature Swing Adsorption Process for Air Prepurification. Industrial & Engineering Chemistry Research, 2013, 52, 885-898.	3.7	11
52	Granular core phenomenon induced by convection in a vertically vibrated cylindrical container. Physical Review E, 2016, 94, 032906.	2.1	11
53	Optimal Shut-Down Policy for Air Separation Units in Integrated Steel Enterprises during a Blast Furnace Blow-Down. Industrial & Engineering Chemistry Research, 2017, 56, 2140-2149.	3.7	11
54	Rapid crystallization of amorphous silicon nitride powder accelerated by liquid Si. Ceramics International, 2012, 38, 5311-5314.	4.8	10

#	Article	IF	Citations
55	Crystallization behavior of amorphous silicon nitride added withÂsilicon powder. Materials Chemistry and Physics, 2013, 141, 874-881.	4.0	10
56	Vertical separation criterion of binary particles under external excitation. Powder Technology, 2019, 342, 404-408.	4.2	10
57	Prediction of Gasâ€“Liquid Two-phase Flow Rates through a Vertical Pipe Based on Thermal Diffusion. Industrial & Engineering Chemistry Research, 2021, 60, 2686-2697.	3.7	10
58	Feasibility and performance analysis of a novel air separation unit with energy storage and air recovery. Renewable Energy, 2022, 195, 598-619.	8.9	10
59	Comparative Study on the Performance of Adsorbent Bed Regenerated by the Clean and Used Purge Gas Heating. Industrial & Engineering Chemistry Research, 2013, 52, 15912-15922.	3.7	9
60	Behaviour of a binary particle system under the effects of simultaneous vertical vibration and rotation. Soft Matter, 2013, 9, 5074.	2.7	9
61	Diversity and controllability of particle distribution under coupling vibration and airflow. Soft Matter, 2017, 13, 7034-7045.	2.7	9
62	Experimental study of air accumulation in vapor condensation across horizontal tube. International Journal of Heat and Mass Transfer, 2017, 111, 860-870.	4.8	9
63	Waste heat recovery method for the air pre-purification system of an air separation unit. Applied Thermal Engineering, 2018, 143, 123-129.	6.0	9
64	Low-field nuclear magnetic resonance for the determination of water diffusion characteristics and activation energy of wheat drying. Drying Technology, 2020, 38, 917-927.	3.1	9
65	Flow stratification characteristics of binary particles in a moving granular bed. Powder Technology, 2020, 374, 482-491.	4.2	9
66	Experimental study on filtration performance of a sliding granular bed filter. Fuel, 2020, 268, 117374.	6.4	9
67	Energy-Saving Potential of Chinaâ€™s Steel Industry According to Its Development Plan. Energies, 2018, 11, 948.	3.1	8
68	A three-bed six-step TSA cycle with heat carrier gas recycling and its model-based performance assessment for gas drying. Separation and Purification Technology, 2020, 237, 116335.	7.9	8
69	Motion behaviour of ellipsoidal granular system under vertical vibration and airflow. Soft Matter, 2020, 16, 9559-9567.	2.7	8
70	Hybrid gas-magnetic bearings: An overview. International Journal of Applied Electromagnetics and Mechanics, 2021, 66, 313-338.	0.6	8
71	Size segregation of binary particles in a moving granular bed filter for hot gas clean-up. Powder Technology, 2021, 387, 205-214.	4.2	8
72	Weed colonizationâ€based performance improvement opportunities in dualâ€mixed refrigerant natural gas liquefaction process. Energy Science and Engineering, 2021, 9, 297-312.	4.0	8

#	Article	IF	Citations
73	Distribution of dissipated energy in a multi-size granular system under vertical vibration. Powder Technology, 2014, 260, 1-6.	4.2	7
74	Behaviors of spherical intruder in 3-D vertically vibrating granular system with vertical longitudinal air pressure wave. Powder Technology, 2015, 283, 266-285.	4.2	7
75	Climbing motion of grains in vibrating tubes with different geometries. Advanced Powder Technology, 2017, 28, 356-362.	4.1	7
76	Experimental study on high concentration entrainment of ultrafine powder. Powder Technology, 2019, 344, 133-139.	4.2	7
77	Experiment study on heat transfer characteristics of dusty gas flowing through a granular bed with buried tubes. Applied Thermal Engineering, 2019, 146, 396-404.	6.0	7
78	Interaction of swing temperature and alternating airflow with vibration on drying uniformity in deep-bed wheat drying. Drying Technology, 2020, 38, 1749-1759.	3.1	7
79	Response of thermal diffusion to gasâ€“liquid stratified/wave flow and its application in measurement. Chemical Engineering Science, 2020, 225, 115789.	3.8	7
80	Numerical Investigation into the Natural Convection of Cryogenic Supercritical Helium in a Spherical Enclosure. Energies, 2021, 14, 2584.	3.1	7
81	Temperature fluctuation on pipe wall induced by gasâ€“liquid flow and its application in flow pattern identification. Chemical Engineering Science, 2021, 237, 116568.	3.8	7
82	Experimental study on filtration characteristics of a novel moving granular bed filter. Separation and Purification Technology, 2021, 267, 118624.	7.9	7
83	Experimental study on filtering mixed solidâ€“liquid dust with a sliding granular bed filter. Particuology, 2021, 58, 16-25.	3.6	7
84	Particle size distribution in a granular bed filter. Particuology, 2021, 58, 108-117.	3.6	7
85	Combustion of liquid petroleum gas in a fluidized bed furnace with a jetting-mixing distributor. Powder Technology, 2006, 170, 86-93.	4.2	6
86	An investigation of forces on intruder in a granular material under vertical vibration. Powder Technology, 2013, 247, 14-18.	4.2	6
87	Segregation behavior of magnetic ions in continuous flowing solution under gradient magnetic field. Chinese Physics B, 2016, 25, 074704.	1.4	6
88	Effects of vibration parameters and pipe insertion depth on the motion of particles induced by vertical vibration. Powder Technology, 2018, 333, 421-428.	4.2	6
89	Quantitative control of the zero-bias-current electromagnetic bearings for lower power consumption. International Journal of Applied Electromagnetics and Mechanics, 2020, 62, 221-242.	0.6	6
90	Time to change the energy conservation direction of Chinaâ€™s steel industry: From upgrading the technology level to increasing scrap ratio. Science China Technological Sciences, 2020, 63, 128-139.	4.0	6

#	Article	IF	Citations
91	Discharge of granular materials in a hemispherical bottom silo under vertical vibration. Powder Technology, 2020, 372, 128-135.	4.2	6
92	An improved ASU distillation process and DIM-LPB method for variable product ratio demand. Separation and Purification Technology, 2021, 277, 119499.	7.9	6
93	Structure and characteristics of a backfire proof distributor. Powder Technology, 2004, 140, 17-20.	4.2	5
94	Influence of longitudinal rise of coolant temperature on the thermal strain in a cylindrical laser rod. Optics Letters, 2009, 34, 187.	3.3	5
95	Exergy Analysis for Air Separation Process Under Off-Design Conditions. Journal of Energy Resources Technology, Transactions of the ASME, 2015, 137, .	2.3	5
96	Entrainment characteristics of fine particles in fluidized bed under preheating conditions. Powder Technology, 2016, 299, 150-155.	4.2	5
97	Parametric analysis of thermal-pulse regeneration of activated alumina in temperature swing adsorption process used for gas dehydration. Applied Thermal Engineering, 2018, 141, 762-774.	6.0	5
98	Single-structured hybrid gas-magnetic bearing and its rotordynamic performance. Nonlinear Dynamics, 2021, 104, 333-348.	5.2	5
99	Novel Lime Calcination System for CO₂ Capture and Its Thermalâ€“Mass Balance Analysis. ACS Omega, 2020, 5, 27413-27424.	3.5	5
100	A novel magnetic separation oxygen-enriched method and the influence of temperature and magnetic field on enrichment. Journal of Thermal Science, 2007, 16, 79-83.	1.9	4
101	Power-based energy grade study of China's on-grid distributed combined heating and power systems. Applied Thermal Engineering, 2015, 75, 177-184.	6.0	4
102	Experimental research of descaling characteristics using circumfluence dilution and uniform-temperature perturbation in a vacuum furnace. Applied Thermal Engineering, 2016, 108, 847-856.	6.0	4
103	Experimental study on the size segregation of binary particles in a moving granular bed. Powder Technology, 2021, 388, 82-89.	4.2	4
104	Granular Stack Densityâ€™s Influence on Homogeneous Fluidization Regime: Numerical Study Based on EDEM-CFD Coupling. Applied Sciences (Switzerland), 2021, 11, 8696.	2.5	4
105	Oxygen Separation from Atmospheric Air by Using Gradient Magnetic Field. Japanese Journal of Applied Physics, 2006, 45, L1039-L1041.	1.5	3
106	Energy and Exergy Analysis of Chinaâ€™s Distributed Combined Heating and Power with Heat-Pump Heating for Peak Shaving. Journal of Energy Engineering - ASCE, 2015, 141, 05014003.	1.9	3
107	Determination of characteristic desorption temperature by thermal-pulse regeneration: A case study of water-activated alumina system. International Journal of Heat and Mass Transfer, 2017, 111, 602-607.	4.8	3
108	Field synergy characteristics in condensation heat transfer with non-condensable gas over a horizontal tube. AIP Advances, 2017, 7, 055101.	1.3	3

#	Article	IF	Citations
109	Mechanisms of Powder Diameter and Thermal Diffusion on the Produced Î±/Î²-Si₃N₄ Proportion. Industrial & Engineering Chemistry Research, 2019, 58, 23005-23013.	3.7	3
110	Sealing pipe top enhancing transportation of particulate solids inside a vertically vibrating pipe. Powder Technology, 2019, 343, 383-391.	4.2	3
111	Resistance forces on an intruder penetrating partially fluidized granular media. Physical Review E, 2019, 99, 012903.	2.1	3
112	Technical-economic evaluation of an energy-integrated temperature swing adsorption process for compressed air drying. Computers and Chemical Engineering, 2022, 157, 107621.	3.8	3
113	Effect of Carbon Nanotubes Addition on the Thermoelectric Properties of Ca3Co4O9 Ceramics. Chinese Physics B, 0, , .	1.4	3
114	Temperature fields across the BES III beam pipe. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 739, 21-25.	1.6	2
115	Effect of interphase mass transfer on the coalescence of two bubbles under constant approach velocity. Canadian Journal of Chemical Engineering, 2015, 93, 2266-2273.	1.7	2
116	Performance Simulation and Benefit Analysis of Ammonia Absorption Cooling and Heating Dual-Supply System Based on Off-Peak Electricity Heat Storage. Energies, 2019, 12, 2298.	3.1	2
117	Energy Saving Benefit Analysis of the Compressor Short-Stop Adjustment Method Based on TGNET. ACS Omega, 2021, 6, 29921-29931.	3.5	2
118	Modeling of heat transfer between a high-temperature fluidized bed and an immersed surface by a surface-particle-emulsion model. Chemical Engineering Science, 2007, 62, 503-512.	3.8	1
119	Coolant choice for the central beryllium pipe of the BESIII beam pipe. Chinese Physics C, 2010, 34, 1019-1024.	3.7	1
120	Energy and Exergy Analysis on China's Natural Gas Urban District Heating Systems for Replacing Coal: A Case Study of Beijing. Distributed Generation and Alternative Energy Journal, 2014, 29, 29-48.	0.8	1
121	Bubble coalescence inhibition in volatile solutions at elevated temperatures. Canadian Journal of Chemical Engineering, 2016, 94, 1413-1422.	1.7	1
122	Effects of vibrations on tilted silo discharge. Chemical Engineering Research and Design, 2021, 171, 247-253.	5.6	1
123	Effects of friction on stress on a plate penetrating into granular media. Physics of Fluids, 2021, 33, .	4.0	1
124	Corrosion of Iron Covered with Iron Oxide Film by Chlorine and Hydrogen Chloride Gases: A Molecular Dynamics Simulation Study Using the ReaxFF. Energies, 2022, 15, 4237.	3.1	1
125	Experimental investigation on possibility of oxygen enrichment by using gradient magnetic fields. Frontiers of Chemical Engineering in China, 2007, 1, 271-276.	0.6	0
126	Study on gradient magnetic fields of cascading magnets for oxygen enrichment. Journal Physics D: Applied Physics, 2009, 42, 185003.	2.8	0

#	Article	IF	Citations
127	Experimental Study on Combustion Reaction between Silicon and Nitrogen in Transport Bed. Advanced Materials Research, 0, 860-863, 1374-1377.	0.3	0
128	Lateral Migration of Grains in a Partitioned Container under Vertical Vibration. Journal of the Physical Society of Japan, 2014, 83, 014401.	1.6	0
129	Effects of the moment of inertia on the energy dissipation and convection motion of particles in a horizontally vibrated monolayer. Chinese Journal of Physics, 2017, 55, 1713-1722.	3.9	0
130	Patterns of granular convection and separation in narrow vibration bed. EPJ Web of Conferences, 2017, 140, 03031.	0.3	0
131	Entrainment characteristics of fine particles under high speed airflow. EPJ Web of Conferences, 2017, 140, 09043.	0.3	0
132	Effects of vertical vibration on surface intruder loading in a multiple-size granular system. EPJ Web of Conferences, 2017, 140, 05006.	0.3	0
133	Heat Transfer Characteristics of High-Temperature Dusty Flue Gas from Industrial Furnaces in a Granular Bed with Buried Tubes. Energies, 2020, 13, 3589.	3.1	0
134	Risk analysis of a dam rupture scenario on adjacent zones using ANSYS FLUENT: case study of SÃ©linguÃ© reservoir dam, Mali. International Journal of Environmental Science and Technology, 2021, 18, 965-978.	3.5	0
135	Destabilization of Immersed Dense Granular Material Submitted to Localized Fluidization: An Experimental and Numerical Study. Journal of Spectroscopy, 2021, 2021, 1-9.	1.3	0
136	Size segregation of disk particle in two-dimensional chute. European Physical Journal E, 2022, 45, .	1.6	0
137	Kinetics of Silicon Nitridation and the Formation Mechanism of Î±/Î²-Si₃N₄ at Atmospheric Pressure and 1410 Â°C. Industrial & Engineering Chemistry Research, 2022, 61, 10024-10033.	3.7	0