

# Li Wang

## List of Publications by Year in descending order

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137  
papers

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citations

304743

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137  
docs citations

137  
times ranked

1810  
citing authors

#	ARTICLE	IF	CITATIONS
1	Technical-economic evaluation of an energy-integrated temperature swing adsorption process for compressed air drying. <i>Computers and Chemical Engineering</i> , 2022, 157, 107621.	3.8	3
2	Porous mullite-bonded SiC filters prepared by foaming-sol-gel-tape casting for high-efficiency hot flue gas filtration. <i>Separation and Purification Technology</i> , 2022, 295, 121338.	7.9	19
3	Size segregation of disk particle in two-dimensional chute. <i>European Physical Journal E</i> , 2022, 45, .	1.6	0
4	Corrosion of Iron Covered with Iron Oxide Film by Chlorine and Hydrogen Chloride Gases: A Molecular Dynamics Simulation Study Using the ReaxFF. <i>Energies</i> , 2022, 15, 4237.	3.1	1
5	Feasibility and performance analysis of a novel air separation unit with energy storage and air recovery. <i>Renewable Energy</i> , 2022, 195, 598-619.	8.9	10
6	Kinetics of Silicon Nitridation and the Formation Mechanism of $\hat{I}\pm/\hat{I}^2\text{-Si}_{3\text{N}_4}$ at Atmospheric Pressure and 1410 Å°C. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 10024-10033.	3.7	0
7	Water migration and diffusion mechanism in the wheat drying. <i>Drying Technology</i> , 2021, 39, 738-751.	3.1	12
8	A novel air separation unit with energy storage and generation and its energy efficiency and economy analysis. <i>Applied Energy</i> , 2021, 281, 115976.	10.1	27
9	Single mixed refrigerant LNG process: Investigation of improvement potential, operational optimization, and real potential for further improvements. <i>Journal of Cleaner Production</i> , 2021, 284, 125379.	9.3	23
10	Risk analysis of a dam rupture scenario on adjacent zones using ANSYS FLUENT: case study of SÃ©linguÃ© reservoir dam, Mali. <i>International Journal of Environmental Science and Technology</i> , 2021, 18, 965-978.	3.5	0
11	Prediction of Gas-Liquid Two-phase Flow Rates through a Vertical Pipe Based on Thermal Diffusion. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 2686-2697.	3.7	10
12	Single-structured hybrid gas-magnetic bearing and its rotordynamic performance. <i>Nonlinear Dynamics</i> , 2021, 104, 333-348.	5.2	5
13	Numerical Investigation into the Natural Convection of Cryogenic Supercritical Helium in a Spherical Enclosure. <i>Energies</i> , 2021, 14, 2584.	3.1	7
14	Temperature fluctuation on pipe wall induced by gas-liquid flow and its application in flow pattern identification. <i>Chemical Engineering Science</i> , 2021, 237, 116568.	3.8	7
15	Hybrid gas-magnetic bearings: An overview. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2021, 66, 313-338.	0.6	8
16	Research Progress of Cryogenic Materials for Storage and Transportation of Liquid Hydrogen. <i>Metals</i> , 2021, 11, 1101.	2.3	47
17	Destabilization of Immersed Dense Granular Material Submitted to Localized Fluidization: An Experimental and Numerical Study. <i>Journal of Spectroscopy</i> , 2021, 2021, 1-9.	1.3	0
18	Size segregation of binary particles in a moving granular bed filter for hot gas clean-up. <i>Powder Technology</i> , 2021, 387, 205-214.	4.2	8

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19	Effects of vibrations on tilted silo discharge. <i>Chemical Engineering Research and Design</i> , 2021, 171, 247-253.	5.6	1
20	Experimental study on filtration characteristics of a novel moving granular bed filter. <i>Separation and Purification Technology</i> , 2021, 267, 118624.	7.9	7
21	Experimental study on the size segregation of binary particles in a moving granular bed. <i>Powder Technology</i> , 2021, 388, 82-89.	4.2	4
22	Granular Stack Density's Influence on Homogeneous Fluidization Regime: Numerical Study Based on EDEM-CFD Coupling. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8696.	2.5	4
23	Experimental study on filtering mixed solid-liquid dust with a sliding granular bed filter. <i>Particuology</i> , 2021, 58, 16-25.	3.6	7
24	Particle size distribution in a granular bed filter. <i>Particuology</i> , 2021, 58, 108-117.	3.6	7
25	An improved ASU distillation process and DIM-LPB method for variable product ratio demand. <i>Separation and Purification Technology</i> , 2021, 277, 119499.	7.9	6
26	Weed colonization-based performance improvement opportunities in dual-mixed refrigerant natural gas liquefaction process. <i>Energy Science and Engineering</i> , 2021, 9, 297-312.	4.0	8
27	Energy Saving Benefit Analysis of the Compressor Short-Stop Adjustment Method Based on TGNET. <i>ACS Omega</i> , 2021, 6, 29921-29931.	3.5	2
28	Effects of friction on stress on a plate penetrating into granular media. <i>Physics of Fluids</i> , 2021, 33, .	4.0	1
29	Low-field nuclear magnetic resonance for the determination of water diffusion characteristics and activation energy of wheat drying. <i>Drying Technology</i> , 2020, 38, 917-927.	3.1	9
30	Quantitative control of the zero-bias-current electromagnetic bearings for lower power consumption. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2020, 62, 221-242.	0.6	6
31	Time to change the energy conservation direction of China's steel industry: From upgrading the technology level to increasing scrap ratio. <i>Science China Technological Sciences</i> , 2020, 63, 128-139.	4.0	6
32	Interaction of swing temperature and alternating airflow with vibration on drying uniformity in deep-bed wheat drying. <i>Drying Technology</i> , 2020, 38, 1749-1759.	3.1	7
33	Integrated biomethane liquefaction using exergy from the discharging end of a liquid air energy storage system. <i>Applied Energy</i> , 2020, 260, 114260.	10.1	42
34	A three-bed six-step TSA cycle with heat carrier gas recycling and its model-based performance assessment for gas drying. <i>Separation and Purification Technology</i> , 2020, 237, 116335.	7.9	8
35	Motion behaviour of ellipsoidal granular system under vertical vibration and airflow. <i>Soft Matter</i> , 2020, 16, 9559-9567.	2.7	8
36	Flow stratification characteristics of binary particles in a moving granular bed. <i>Powder Technology</i> , 2020, 374, 482-491.	4.2	9

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37	Thermal diffusion response to gas-liquid slug flow and its application in measurement. International Journal of Heat and Mass Transfer, 2020, 159, 120065.	4.8	16
38	Performance Enhancement of Nitrogen Dual Expander and Single Mixed Refrigerant LNG Processes Using Jaya Optimization Approach. Energies, 2020, 13, 3278.	3.1	12
39	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
40	Response of thermal diffusion to gas-liquid stratified/wave flow and its application in measurement. Chemical Engineering Science, 2020, 225, 115789.	3.8	7
41	Discharge of granular materials in a hemispherical bottom silo under vertical vibration. Powder Technology, 2020, 372, 128-135.	4.2	6
42	Convection behavior of ellipsoidal particles in a quasi-two-dimensional bed under vertical vibration. Powder Technology, 2020, 363, 575-583.	4.2	14
43	Experimental study on filtration performance of a sliding granular bed filter. Fuel, 2020, 268, 117374.	6.4	9
44	Novel Lime Calcination System for CO <sub>2</sub> Capture and Its Thermal-Mass Balance Analysis. ACS Omega, 2020, 5, 27413-27424.	3.5	5
45	Moisture conversion and migration in single-wheat kernel during isothermal drying process by LF-NMR. Drying Technology, 2019, 37, 803-812.	3.1	20
46	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
47	Experimental study on high concentration entrainment of ultrafine powder. Powder Technology, 2019, 344, 133-139.	4.2	7
48	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
49	Mechanisms of Powder Diameter and Thermal Diffusion on the Produced $\frac{1}{2}$ -Si <sub>3</sub> N <sub>4</sub> Proportion. Industrial & Engineering Chemistry Research, 2019, 58, 23005-23013.	3.7	3
50	Patterns of particle convection in a mono-size granular system under coupling vibration and airflow. Powder Technology, 2019, 342, 954-960.	4.2	13
51	Sealing pipe top enhancing transportation of particulate solids inside a vertically vibrating pipe. Powder Technology, 2019, 343, 383-391.	4.2	3
52	Resistance forces on an intruder penetrating partially fluidized granular media. Physical Review E, 2019, 99, 012903.	2.1	3
53	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
54	Vertical separation criterion of binary particles under external excitation. Powder Technology, 2019, 342, 404-408.	4.2	10

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55	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
56	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
57	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
58	Energy-Saving Potential of China's Steel Industry According to Its Development Plan. Energies, 2018, 11, 948.	3.1	8
59	Thermoelectric properties of lower concentration K-doped Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> ceramics. Chinese Physics B, 2018, 27, 057201.	1.4	12
60	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
61	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
62	Climbing motion of grains in vibrating tubes with different geometries. Advanced Powder Technology, 2017, 28, 356-362.	4.1	7
63	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
64	Effect of air on condensation in a non-vacuum gravity heat pipe. Applied Thermal Engineering, 2017, 114, 255-263.	6.0	13
65	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
66	Diversity and controllability of particle distribution under coupling vibration and airflow. Soft Matter, 2017, 13, 7034-7045.	2.7	9
67	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
68	Patterns of granular convection and separation in narrow vibration bed. EPJ Web of Conferences, 2017, 140, 03031.	0.3	0
69	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
70	Experimental study on drying characteristics of wheat by low-field nuclear magnetic resonance. Drying Technology, 2017, 35, 1258-1265.	3.1	24
71	Energy-dissipation correlated size separation of granular matter under coupling vibration and airflow. Powder Technology, 2017, 307, 84-89.	4.2	14
72	Moisture transformation and transport during the drying process for Radix Paeoniae Alba slices. Applied Thermal Engineering, 2017, 110, 25-31.	6.0	16

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73	Effect of environmental pressure enhanced by a booster on the load capacity of the aerodynamic gas bearing of a turbo expander. <i>Tribology International</i> , 2017, 105, 77-84.	5.9	24
74	Field synergy characteristics in condensation heat transfer with non-condensable gas over a horizontal tube. <i>AIP Advances</i> , 2017, 7, 055101.	1.3	3
75	Entrainment characteristics of fine particles under high speed airflow. <i>EPJ Web of Conferences</i> , 2017, 140, 09043.	0.3	0
76	Effects of vertical vibration on surface intruder loading in a multiple-size granular system. <i>EPJ Web of Conferences</i> , 2017, 140, 05006.	0.3	0
77	Bubble coalescence inhibition in volatile solutions at elevated temperatures. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 1413-1422.	1.7	1
78	Effect of non-condensable gas on the start-up of a gravity loop thermosyphon with gas-liquid separator. <i>Experimental Thermal and Fluid Science</i> , 2016, 72, 161-170.	2.7	15
79	Experimental research of descaling characteristics using circumfluence dilution and uniform-temperature perturbation in a vacuum furnace. <i>Applied Thermal Engineering</i> , 2016, 108, 847-856.	6.0	4
80	Granular core phenomenon induced by convection in a vertically vibrated cylindrical container. <i>Physical Review E</i> , 2016, 94, 032906.	2.1	11
81	Entrainment characteristics of fine particles in fluidized bed under preheating conditions. <i>Powder Technology</i> , 2016, 299, 150-155.	4.2	5
82	MILP-based optimization of oxygen distribution system in integrated steel mills. <i>Computers and Chemical Engineering</i> , 2016, 93, 175-184.	3.8	19
83	Segregation behavior of magnetic ions in continuous flowing solution under gradient magnetic field. <i>Chinese Physics B</i> , 2016, 25, 074704.	1.4	6
84	Effect of swing temperature and alternating airflow on drying uniformity in deep-bed wheat drying. <i>Applied Thermal Engineering</i> , 2016, 106, 774-783.	6.0	27
85	Effect of interphase mass transfer on the coalescence of two bubbles under constant approach velocity. <i>Canadian Journal of Chemical Engineering</i> , 2015, 93, 2266-2273.	1.7	2
86	Energy and Exergy Analysis of China's Distributed Combined Heating and Power with Heat-Pump Heating for Peak Shaving. <i>Journal of Energy Engineering - ASCE</i> , 2015, 141, 05014003.	1.9	3
87	Behaviors of spherical intruder in 3-D vertically vibrating granular system with vertical longitudinal air pressure wave. <i>Powder Technology</i> , 2015, 283, 266-285.	4.2	7
88	Exergy Analysis for Air Separation Process Under Off-Design Conditions. <i>Journal of Energy Resources Technology</i> , Transactions of the ASME, 2015, 137, .	2.3	5
89	Exergy and energy analysis of a load regulation method of CVO of air separation unit. <i>Applied Thermal Engineering</i> , 2015, 80, 413-423.	6.0	23
90	Review of vapor condensation heat and mass transfer in the presence of non-condensable gas. <i>Applied Thermal Engineering</i> , 2015, 89, 469-484.	6.0	181

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91	A new coal gas utilization mode in China's steel industry and its effect on power grid balancing and emission reduction. <i>Applied Energy</i> , 2015, 154, 644-650.	10.1	25
92	Form-stable LiNO <sub>3</sub> ·NaNO <sub>3</sub> ·KNO <sub>3</sub> ·Ca(NO <sub>3</sub> ) <sub>2</sub> /calcium silicate composite phase change material (PCM) for mid-low temperature thermal energy storage. <i>Energy Conversion and Management</i> , 2015, 106, 165-172.	9.2	63
93	Power-based energy grade study of China's on-grid distributed combined heating and power systems. <i>Applied Thermal Engineering</i> , 2015, 75, 177-184.	6.0	4
94	Energy and Exergy Analysis on China's Natural Gas Urban District Heating Systems for Replacing Coal: A Case Study of Beijing. <i>Distributed Generation and Alternative Energy Journal</i> , 2014, 29, 29-48.	0.8	1
95	Mode selection of China's urban heating and its potential for reducing energy consumption and CO <sub>2</sub> emission. <i>Energy Policy</i> , 2014, 67, 756-764.	8.8	23
96	Patterns of convective flow in a vertically vibrated granular bed. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 1303-1308.	2.1	37
97	Distribution of dissipated energy in a multi-size granular system under vertical vibration. <i>Powder Technology</i> , 2014, 260, 1-6.	4.2	7
98	Convecting particle diffusion in a binary particle system under vertical vibration. <i>Soft Matter</i> , 2014, 10, 4348-4359.	2.7	25
99	Lateral Migration of Grains in a Partitioned Container under Vertical Vibration. <i>Journal of the Physical Society of Japan</i> , 2014, 83, 014401.	1.6	0
100	Temperature fields across the BES III beam pipe. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 739, 21-25.	1.6	2
101	Effect of hoisting tube shape on particle climbing. <i>Powder Technology</i> , 2014, 259, 137-143.	4.2	14
102	Particle climbing along a vibrating tube: a vibrating tube that acts as a pump for lifting granular materials from a silo. <i>Soft Matter</i> , 2013, 9, 4762.	2.7	24
103	Comparative Study on the Performance of Adsorbent Bed Regenerated by the Clean and Used Purge Gas Heating. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 15912-15922.	3.7	9
104	Behaviour of a binary particle system under the effects of simultaneous vertical vibration and rotation. <i>Soft Matter</i> , 2013, 9, 5074.	2.7	9
105	Experimental Study on the Entrainment Characteristics of Ultrafine Powder in a Fluidized Bed with Vibrator and Agitator. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 1359-1364.	3.7	14
106	An investigation of forces on intruder in a granular material under vertical vibration. <i>Powder Technology</i> , 2013, 247, 14-18.	4.2	6
107	Crystallization behavior of amorphous silicon nitride added with silicon powder. <i>Materials Chemistry and Physics</i> , 2013, 141, 874-881.	4.0	10
108	Energy saving and emission reduction of China's urban district heating. <i>Energy Policy</i> , 2013, 55, 677-682.	8.8	49

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109	Kinetic study on the direct nitridation of silicon powders diluted with $\hat{\pm}$ -Si <sub>3</sub> N <sub>4</sub> at normal pressure. International Journal of Minerals, Metallurgy and Materials, 2013, 20, 493-498.	4.9	21
110	Numerical Analysis on the Performance of the Three-Bed Temperature Swing Adsorption Process for Air Purification. Industrial & Engineering Chemistry Research, 2013, 52, 885-898.	3.7	11
111	Particle climbing induced by reciprocating air flow. Applied Physics Letters, 2013, 102, 183507.	3.3	16
112	Separation patterns between Brazilian nut and reversed Brazilian nut of a binary granular system. Physical Review E, 2012, 85, 061302.	2.1	31
113	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
114	Rapid crystallization of amorphous silicon nitride powder accelerated by liquid Si. Ceramics International, 2012, 38, 5311-5314.	4.8	10
115	Size distribution in gas vibration bed and its application on grain drying. Powder Technology, 2012, 221, 192-198.	4.2	12
116	Contribution from Urban Heating to China's 2020 Goal of Emission Reduction. Environmental Science & Technology, 2011, 45, 4676-4681.	10.0	25
117	Rapid Crystallization Process of Amorphous Silicon Nitride. Journal of the American Ceramic Society, 2011, 94, 4169-4173.	3.8	19
118	Exergy Analysis and Experimental Study of a Vehicle-Mounted Heat Pump-Assisted Fluidization Drying System Driven by a Diesel Generator. Drying Technology, 2011, 29, 1313-1324.	3.1	12
119	Extended Langmuir equation for correlating multilayer adsorption equilibrium data. Separation and Purification Technology, 2010, 70, 367-371.	7.9	51
120	Coolant choice for the central beryllium pipe of the BESIII beam pipe. Chinese Physics C, 2010, 34, 1019-1024.	3.7	1
121	Effects of Gas Flow on Granular Size Separation. Physical Review Letters, 2010, 104, 188001.	7.8	21
122	Study on gradient magnetic fields of cascading magnets for oxygen enrichment. Journal Physics D: Applied Physics, 2009, 42, 185003.	2.8	0
123	Influence of longitudinal rise of coolant temperature on the thermal strain in a cylindrical laser rod. Optics Letters, 2009, 34, 187.	3.3	5
124	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
125	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
126	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



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127	A novel magnetic separation oxygen-enriched method and the influence of temperature and magnetic field on enrichment. <i>Journal of Thermal Science</i> , 2007, 16, 79-83.	1.9	4
128	Experimental investigation on possibility of oxygen enrichment by using gradient magnetic fields. <i>Frontiers of Chemical Engineering in China</i> , 2007, 1, 271-276.	0.6	0
129	Oxygen enrichment from air by using the interception effect of gradient magnetic field on oxygen molecules. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 362, 105-108.	2.1	17
130	Oxygen Separation from Atmospheric Air by Using Gradient Magnetic Field. <i>Japanese Journal of Applied Physics</i> , 2006, 45, L1039-L1041.	1.5	3
131	A beam test of a prototype of the BESIII drift chamber in magnetic field. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 557, 436-444.	1.6	11
132	Combustion of liquid petroleum gas in a fluidized bed furnace with a jetting-mixing distributor. <i>Powder Technology</i> , 2006, 170, 86-93.	4.2	6
133	Surface "particle" emulsion model of heat transfer between a fluidized bed and an immersed surface. <i>Powder Technology</i> , 2005, 149, 127-138.	4.2	15
134	Structure and characteristics of a backfire proof distributor. <i>Powder Technology</i> , 2004, 140, 17-20.	4.2	5
135	Effects of solid particle properties on heat transfer between high-temperature gas fluidized bed and immersed surface. <i>Applied Thermal Engineering</i> , 2004, 24, 2145-2156.	6.0	15
136	Experimental Study on Combustion Reaction between Silicon and Nitrogen in Transport Bed. <i>Advanced Materials Research</i> , 0, 860-863, 1374-1377.	0.3	0
137	Effect of Carbon Nanotubes Addition on the Thermoelectric Properties of Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> Ceramics. <i>Chinese Physics B</i> , 0, , .	1.4	3