

Xin-xiang Pan

List of Publications by Year in descending order

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107
papers

2,649
citations

236925

25
h-index

223800

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108
all docs

108
docs citations

108
times ranked

2096
citing authors

#	ARTICLE	IF	CITATIONS
1	A Soft and Robust Spring Based Triboelectric Nanogenerator for Harvesting Arbitrary Directional Vibration Energy and Self-Powered Vibration Sensing. <i>Advanced Energy Materials</i> , 2018, 8, 1702432.	19.5	186
2	A highly-sensitive wave sensor based on liquid-solid interfacing triboelectric nanogenerator for smart marine equipment. <i>Nano Energy</i> , 2019, 57, 574-580.	16.0	147
3	Dual-Tube Helmholtz Resonator-Based Triboelectric Nanogenerator for Highly Efficient Harvesting of Acoustic Energy. <i>Advanced Energy Materials</i> , 2019, 9, 1902824.	19.5	121
4	High Power Density Tower-like Triboelectric Nanogenerator for Harvesting Arbitrary Directional Water Wave Energy. <i>ACS Nano</i> , 2019, 13, 1932-1939.	14.6	116
5	Self-Powered Distributed Water Level Sensors Based on Liquid-Solid Triboelectric Nanogenerators for Ship Draft Detecting. <i>Advanced Functional Materials</i> , 2019, 29, 1900327.	14.9	115
6	A novel humidity resisting and wind direction adapting flag-type triboelectric nanogenerator for wind energy harvesting and speed sensing. <i>Nano Energy</i> , 2020, 78, 105279.	16.0	115
7	Methods for counting particles in microfluidic applications. <i>Microfluidics and Nanofluidics</i> , 2009, 7, 739.	2.2	111
8	Hybrid finite-time trajectory tracking control of a quadrotor. <i>ISA Transactions</i> , 2019, 90, 278-286.	5.7	101
9	Yaw-Guided Trajectory Tracking Control of an Asymmetric Underactuated Surface Vehicle. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 3502-3513.	11.3	99
10	Removal of NO _x and SO ₂ from simulated ship emissions using wet scrubbing based on seawater electrolysis technology. <i>Chemical Engineering Journal</i> , 2018, 331, 8-15.	12.7	73
11	Full-State Regulation Control of Asymmetric Underactuated Surface Vehicles. <i>IEEE Transactions on Industrial Electronics</i> , 2019, 66, 8741-8750.	7.9	66
12	Sandwich-like triboelectric nanogenerators integrated self-powered buoy for navigation safety. <i>Nano Energy</i> , 2021, 84, 105920.	16.0	60
13	Numerical investigation on the influence of mixing chamber length on steam ejector performance. <i>Applied Thermal Engineering</i> , 2020, 174, 115204.	6.0	52
14	A Label-Free Microfluidic Biosensor for Activity Detection of Single Microalgae Cells Based on Chlorophyll Fluorescence. <i>Sensors</i> , 2013, 13, 16075-16089.	3.8	42
15	New Experimental Results of NO Removal from Simulated Flue Gas by Wet Scrubbing Using NaClO Solution. <i>Energy & Fuels</i> , 2017, 31, 3047-3054.	5.1	42
16	Counting bacteria on a microfluidic chip. <i>Analytica Chimica Acta</i> , 2010, 681, 82-86.	5.4	41
17	Experimental investigation on low-temperature thermal energy driven steam ejector refrigeration system for cooling application. <i>Applied Thermal Engineering</i> , 2017, 123, 167-176.	6.0	37
18	Nitrogen oxide removal using seawater electrolysis in an undivided cell for ocean-going vessels. <i>RSC Advances</i> , 2016, 6, 114623-114631.	3.6	32

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19	Nanoparticle detection by microfluidic Resistive Pulse Sensor with a submicron sensing gate and dual detecting channels-two stage differential amplifier. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 930-936.	7.8	30
20	Experimental study on cascade utilization of ship's waste heat based on TEG combined cycle. <i>International Journal of Energy Research</i> , 2021, 45, 4184-4196.	4.5	29
21	DC dielectrophoresis separation of marine algae and particles in a microfluidic chip. <i>Science China Chemistry</i> , 2012, 55, 524-530.	8.2	27
22	Capacitive detection of living microalgae in a microfluidic chip. <i>Sensors and Actuators B: Chemical</i> , 2014, 194, 164-172.	7.8	27
23	Electrophoretic mobility of oil droplets in electrolyte and surfactant solutions. <i>Electrophoresis</i> , 2015, 36, 2489-2497.	2.4	26
24	Detection of size spectrum of microalgae cells in an integrated underwater microfluidic device. <i>Journal of Experimental Marine Biology and Ecology</i> , 2015, 473, 129-137.	1.5	26
25	Insight into the promoting effect of support pretreatment with sulfate acid on selective catalytic reduction performance of $\text{CeO}_2/\text{ZrO}_2$ catalysts. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2718-2729.	9.4	26
26	Nitrogen Oxide Removal from Simulated Flue Gas by UV-Irradiated Sodium Chlorite Solution in a Bench-Scale Scrubbing Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 3671-3678.	3.7	23
27	Fluorescence-enhanced microfluidic sensor for highly sensitive in-situ detection of copper ions in lubricating oil. <i>Materials and Design</i> , 2020, 191, 108693.	7.0	23
28	Pr-modified MnO catalysts for selective reduction of NO with NH_3 at low temperature. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 125, 132-140.	5.3	23
29	Simultaneous Removal of NO and SO_2 from Exhaust Gas by Cyclic Scrubbing and Online Supplementing pH-Buffered NaClO_2 Solution. <i>Energy & Fuels</i> , 2019, 33, 6591-6599.	5.1	22
30	A Self-Powered and Low Pressure Loss Gas Flowmeter Based on Fluid-Elastic Flutter Driven Triboelectric Nanogenerator. <i>Sensors</i> , 2020, 20, 729.	3.8	22
31	Focusing particles by induced charge electrokinetic flow in a microchannel. <i>Electrophoresis</i> , 2016, 37, 666-675.	2.4	21
32	Effect of Structural Parameters on Mass Transfer Characteristics in the Gas Diffusion Layer of Proton Exchange Membrane Fuel Cells Using the Lattice Boltzmann Method. <i>Energy & Fuels</i> , 2021, 35, 2654-2664.	5.1	21
33	Automatic particle detection and sorting in an electrokinetic microfluidic chip. <i>Electrophoresis</i> , 2013, 34, 684-690.	2.4	20
34	Kinetics of Nitric Oxide Absorption from Simulated Flue Gas by a Wet UV/Chlorine Advanced Oxidation Process. <i>Energy & Fuels</i> , 2017, 31, 7263-7271.	5.1	19
35	High-throughput and sensitive particle counting by a novel microfluidic differential resistive pulse sensor with multidetecting channels and a common reference channel. <i>Electrophoresis</i> , 2015, 36, 495-501.	2.4	18
36	An investigation on NO removal by wet scrubbing using NaClO_2 seawater solution. <i>SpringerPlus</i> , 2016, 5, 751.	1.2	18

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37	Experimental Investigation of the Steam Ejector in a Single-Effect Thermal Vapor Compression Desalination System Driven by a Low-Temperature Heat Source. <i>Energies</i> , 2018, 11, 2282.	3.1	17
38	Ultra-high efficient hydrodynamic cavitation enhanced oxidation of nitric oxide with chlorine dioxide. <i>Chemical Engineering Journal</i> , 2019, 373, 767-779.	12.7	17
39	Multichannel Inductive Sensor Based on Phase Division Multiplexing for Wear Debris Detection. <i>Micromachines</i> , 2019, 10, 246.	2.9	17
40	A Review on the Catalytic Decomposition of NO by Perovskite-Type Oxides. <i>Catalysts</i> , 2021, 11, 622.	3.5	16
41	An induction current method for determining the critical micelle concentration and the polarity of surfactants. <i>Colloid and Polymer Science</i> , 2015, 293, 1525-1534.	2.1	15
42	Size-based cell sorting with a resistive pulse sensor and an electromagnetic pump in a microfluidic chip. <i>Electrophoresis</i> , 2015, 36, 398-404.	2.4	15
43	Surface-conduction enhanced dielectrophoretic-like particle migration in electric-field driven fluid flow through a straight rectangular microchannel. <i>Physics of Fluids</i> , 2017, 29, .	4.0	15
44	Nitrogen oxide removal from simulated flue gas by UV-irradiated electrolyzed seawater: Efficiency optimization and pH-dependent mechanisms. <i>Chemical Engineering Journal</i> , 2018, 354, 653-662.	12.7	15
45	Performance modelling of seawater electrolysis in an undivided cell: Effects of current density and seawater salinity. <i>Chemical Engineering Research and Design</i> , 2019, 143, 79-89.	5.6	15
46	Effects of ferric and manganese precursors on catalytic activity of Fe-Mn/TiO ₂ catalysts for selective reduction of NO with ammonia at low temperature. <i>Environmental Science and Pollution Research</i> , 2020, 27, 40870-40881.	5.3	15
47	Polymer effects on viscoelastic fluid flows in a planar constriction microchannel. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2021, 290, 104508.	2.4	15
48	Insulator-based dielectrophoretic focusing and trapping of particles in non-Newtonian fluids. <i>Electrophoresis</i> , 2021, 42, 2154-2161.	2.4	15
49	Multifractal Analysis of Frictional Vibration in the Running-In Process. <i>Tribology Transactions</i> , 2013, 56, 284-289.	2.0	14
50	Novel Electrokinetic Microfluidic Detector for Evaluating Effectiveness of Microalgae Disinfection in Ship Ballast Water. <i>International Journal of Molecular Sciences</i> , 2015, 16, 25560-25575.	4.1	14
51	Electrokinetic motion of a spherical micro particle at an oil-water interface in microchannel. <i>Electrophoresis</i> , 2018, 39, 807-815.	2.4	14
52	Improving Sensitivity of a Micro Inductive Sensor for Wear Debris Detection with Magnetic Powder Surrounded. <i>Micromachines</i> , 2019, 10, 440.	2.9	14
53	Design and study of a combining energy harvesting system based on thermoelectric and flapping triboelectric nanogenerator. <i>International Journal of Green Energy</i> , 2021, 18, 1302-1308.	3.8	14
54	Hydrogen production by ethanol steam reforming over Ni-doped La _{Ni} xCo _{1-x} O ₃ perovskites prepared by EDTA-citric acid sol-gel method. <i>Journal of Sol-Gel Science and Technology</i> , 2021, 99, 420-429.	2.4	14

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55	Enhancement effects of Er modification on comprehensive performance of FeMn/TiO ₂ catalysts for selective reduction of NO with NH ₃ at low temperature. Journal of Environmental Chemical Engineering, 2021, 9, 105653.	6.7	14
56	Improving particle detection sensitivity of a microfluidic resistive pulse sensor by a novel electrokinetic flow focusing method. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	13
57	Electrokinetic motion of a submerged oil droplet near an air-water interface. Chemical Engineering Science, 2018, 192, 264-272.	3.8	13
58	A Novel Method for Simultaneous Removal of NO and SO ₂ from Marine Exhaust Gas via In-Site Combination of Ozone Oxidation and Wet Scrubbing Absorption. Journal of Marine Science and Engineering, 2020, 8, 943.	2.6	13
59	A Novel Multichannel Inductive Wear Debris Sensor Based on Time Division Multiplexing. IEEE Sensors Journal, 2021, 21, 11131-11139.	4.7	13
60	Fluorescence enhanced microfluidic sensor with CsPbI ₃ probe for lubricant copper ions on-site rapid detection based on SiO ₂ inverse opal photonic crystals. Journal of Luminescence, 2021, 238, 118276.	3.1	13
61	A flexible thermoelectric film based on Bi ₂ Te ₃ for wearable applications. Functional Materials Letters, 2022, 15, .	1.2	13
62	Mechanistic insight into the promoting effect of partial substitution of Mn by Ce on N ₂ selectivity of MnTiO catalyst for NH ₃ -SCR of NO. Journal of the Taiwan Institute of Chemical Engineers, 2022, 133, 104269.	5.3	13
63	ALGAE DETECTION AND SHIP'S BALLAST WATER ANALYSIS BY A MICROFLUIDIC LAB-ON-CHIP DEVICE. Instrumentation Science and Technology, 2012, 40, 305-315.	1.8	12
64	An Array of Flag-Type Triboelectric Nanogenerators for Harvesting Wind Energy. Nanomaterials, 2022, 12, 721.	4.1	12
65	An induced current method for measuring zeta potential of electrolyte solution-air interface. Journal of Colloid and Interface Science, 2014, 416, 101-104.	9.4	11
66	A novel method for measuring zeta potentials of solid-liquid interfaces. Analytica Chimica Acta, 2015, 853, 689-695.	5.4	11
67	Detection of activity of single microalgae cells in a new microfluidic cell capturing chip. Measurement Science and Technology, 2016, 27, 125701.	2.6	11
68	Numerical Investigation of Miniature Ejector Refrigeration System Embedded with a Capillary Pump Loop. Micromachines, 2017, 8, 235.	2.9	11
69	Observation and experimental investigation on cavitation effect of friction pair surface texture. Lubrication Science, 2020, 32, 404-414.	2.1	11
70	Microalgae separation by inertia-enhanced pinched flow fractionation. Electrophoresis, 2021, 42, 2223-2229.	2.4	11
71	Substrate degradation, biodiesel production, and microbial community of two electro-fermentation systems on treating oleaginous microalgae Nannochloropsis sp. Bioresource Technology, 2021, 329, 124932.	9.6	11
72	Flow of Non-Newtonian Fluids in a Single-Cavity Microchannel. Micromachines, 2021, 12, 836.	2.9	11

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73	Fe and Mn mixed oxide catalysts supported on Sn-modified TiO ₂ for the selective catalytic reduction of NO with NH ₃ at low temperature. <i>New Journal of Chemistry</i> , 2022, 46, 1621-1636.	2.8	11
74	A new hand-held microfluidic cytometer for evaluating irradiation damage by analysis of the damaged cells distribution. <i>Scientific Reports</i> , 2016, 6, 23165.	3.3	10
75	UV-Enhanced NaClO Oxidation of Nitric Oxide from Simulated Flue Gas. <i>Journal of Chemistry</i> , 2016, 2016, 1-8.	1.9	9
76	A Robust and Wearable Triboelectric Tactile Patch as Intelligent Human-Machine Interface. <i>Materials</i> , 2021, 14, 6366.	2.9	9
77	NO _x Removal from Simulated Marine Exhaust Gas by Wet Scrubbing Using NaClO Solution. <i>Journal of Chemistry</i> , 2017, 2017, 1-10.	1.9	8
78	Electrokinetic Motion of an Oil Droplet Attached to a Water-Air Interface from Below. <i>Journal of Physical Chemistry B</i> , 2018, 122, 1738-1746.	2.6	8
79	Detection of viability of micro-algae cells by optofluidic hologram pattern. <i>Biomicrofluidics</i> , 2018, 12, 024111.	2.4	8
80	A Changeable Lab-on-a-Chip Detector for Marine Nonindigenous Microorganisms in Ship's Ballast Water. <i>Micromachines</i> , 2018, 9, 20.	2.9	8
81	Revisit of wall-induced lateral migration in particle electrophoresis through a straight rectangular microchannel: Effects of particle zeta potential. <i>Electrophoresis</i> , 2019, 40, 955-960.	2.4	8
82	Translational velocity of a charged oil droplet close to a horizontal solid surface under an applied electric field. <i>International Journal of Heat and Mass Transfer</i> , 2019, 132, 322-330.	4.8	8
83	NO _x Removal from Flue Gas Using an Ozone Advanced Oxidation Process with Injection of Low Concentration of Ethanol: Performance and Mechanism. <i>Energy & Fuels</i> , 2020, 34, 2080-2088.	5.1	8
84	Insight into the Promoting Role of Er Modification on SO ₂ Resistance for NH ₃ -SCR at Low Temperature over FeMn/TiO ₂ Catalysts. <i>Catalysts</i> , 2021, 11, 618.	3.5	8
85	A New Treatment Strategy for Inactivating Algae in Ballast Water Based on Multi-Trial Injections of Chlorine. <i>International Journal of Molecular Sciences</i> , 2015, 16, 13158-13171.	4.1	7
86	Automatic and Selective Single Cell Manipulation in a Pressure-Driven Microfluidic Lab-On-Chip Device. <i>Micromachines</i> , 2017, 8, 172.	2.9	7
87	The Effects of Position on the Wear Debris Detection with Planar Inductor. <i>Sensors</i> , 2019, 19, 4961.	3.8	7
88	UV enhanced denitrification using chlorine from seawater electrolysis for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 16836-16846.	7.1	7
89	Dual-Emission Fluorescence Probe Based on CdTe Quantum Dots and Rhodamine B for Visual Detection of Mercury and Its Logic Gate Behavior. <i>Micromachines</i> , 2021, 12, 713.	2.9	7
90	A Self-Powered and Efficient Triboelectric Dehydrator for Separating Water-in-Oil Emulsions with Ultrahigh Moisture Content. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	7

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91	Effect of induced surface charge of metal particles on particle sizing by resistive pulse sensing technique. Journal of Colloid and Interface Science, 2014, 423, 20-24.	9.4	6
92	An investigation of mass transfer-reaction kinetics of NO absorption by wet scrubbing using an electrolyzed seawater solution. RSC Advances, 2017, 7, 18821-18829.	3.6	5
93	NO Removal from Simulated Flue Gas with a NaClO ₂ Mist Generated Using the Ultrasonic Atomization Method. Energies, 2018, 11, 1043.	3.1	5
94	An investigation on the promoting effect of Pr modification on SO ₂ resistance over MnO _x catalysts for selective reduction of NO with NH ₃ . Environmental Science and Pollution Research, 2022, 29, 17295-17308.	5.3	4
95	Quantitative viability detection for a single microalgae cell by two-level photoexcitation. Analyst, The, 2020, 145, 3931-3938.	3.5	3
96	A Wave Peak Frequency Tracking Method Based on Two-Stage Recursive Extended Least Squares Identification Algorithm. IEEE Access, 2021, 9, 86514-86522.	4.2	3
97	Experimental Investigation of a Miniature Ejector Using Water as Working Fluid. Journal of Thermal Science and Engineering Applications, 2020, 12, .	1.5	3
98	The Design of Position Estimator for PMSM by Using Diagonal Recurrent Neural Network. , 2007, , .		2
99	A reactive power optimization solution with max power margin for shipboard power system based on CPSO. , 2009, , .		2
100	Experimental Study of O ₂ -Enriched CO ₂ Production by BaCo _{0.8} B _{0.2} O ₃ (B=Ce, Al, Fe, Cu) Perovskites Sorbent for Marine Exhaust CO ₂ Capture Application. Journal of Marine Science and Engineering, 2021, 9, 661.	2.6	2
101	Research on Cavitation Characteristics of Two-Throat Nozzle Submerged Jet. Applied Sciences (Switzerland), 2022, 12, 536.	2.5	2
102	A Novel Method for Detecting Ferromagnetic Wear Debris with High Flow Velocity. Sensors, 2022, 22, 4912.	3.8	2
103	The analysis of the key performances of ControlNet. , 2008, , .		0
104	The analysis of stability of networked control systems based on industrial switched ethernet. , 2008, , .		0
105	Load flow calculation of integrated shipboard power system based on Particle Swarm Optimization algorithm. , 2009, , .		0
106	Anharmonic Effect of $\langle i \rangle N \langle i \rangle$ Propyl Peroxy Dissociation. Journal of the Chinese Chemical Society, 2016, 63, 1038-1050.	1.4	0
107	Numerical Simulation of Gas/Oil Co-Combustion Process and Thermal NO _x Formation in a Retrofitted Oil-Burning Boiler. , 2010, , .		0